Cognitive Control Therapy with Children and Adolescents

Therapy with the Body Ego-Tempo Regulation Cognitive Control

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Table of Contents

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The cognitive control of body ego-tempo regulation concerns the manner in which a person uses images/symbols to represent the body and regulate its motility. As formulated by both psychoanalytic and Piagetian theory, the ego (cognition) is first a body ego. The body provides information and behavior modes by which the child formulates experiences, becomes a vehicle that carries meaning in the process of symbolic functioning, and contributes to a sense of self, all of which form the first layer of cognitive structuring.

Two programs, *Who is Me? Where is Me?* and *Moving Fast and Slow,* described in this chapter are designed to restructure and rehabilitate this cognitive mechanism so that it functions efficiently when body information is perceived and experienced as it is, as well as when this information is transformed by symbols and fantasies within the process of symbolic functioning and pretending. If a child's diagnostic evaluation indicates a need for therapy in body ego-tempo regulation, it is often effective to include parts of both programs in each session, moving to the steps of each program as defined by the child's progress and needs.

Sometimes extremely hyperactive children experience difficulty working with *Who Is Me? Where Is Me?* probably because the program requires the child to focus attention on kinesthetic sensations. In these cases, the first sessions are devoted to the program *Moving Fast and Slow.* When the child demonstrates some capacity to regulate different motor tempos, the program *Who Is Me? Where Is Me?* is introduced. Both programs are guided by common goals: to train the child to direct attention at and register body sensations and movements and to cultivate increasingly differentiated images and symbols that represent these perceptions and movements. At first glance, the therapist who has not conducted this form of treatment may not appreciate the importance of repeatedly and patiently directing the child's attention to some aspect of body sensation. Remember that the child who requires therapy with this mechanism has not yet differentiated clear body boundaries and a sense of body self. The child is also inefficient in registering information provided by the body, resulting in the diffuse body ego with which he/she engages experiences.

PROGRAM 1A: WHO IS ME? WHERE IS ME?

Purpose: To develop the child's capacity to perceive and describe body sensations; to develop the child's capacity to use body gestures as symbolic vehicles which organize and formulate aspects of external reality and his/her personal world; to develop the child's appreciation of how gestures are

understood by others.

Materials: Chairs; tables; magazine pictures of individuals, adults, children, animals depicting or engaged in various activities and conveying various emotions; pipe cleaners; and other materials as noted.

Introduction and General Procedure

The program consists of seven main steps summarized in Table 5.1. With the first three the child is asked to engage the entire body, then large parts of the body, then small parts of the body, and then the body in relation to objects, all involving both static and dynamic positions. Beginning with Step 4, the child is introduced to therapeutic activities that cultivate the body as a source of meaning and as a vehicle for expressing meaning in the process of symbolic functioning. To facilitate discussing these steps, terms used are defined here (further elaborated by Barten, 1979), along with related considerations.

Expressive gestures consist of movements of the hands, face, and postures of the whole body that express feelings and intentions. Inactive gestures consist of movements that represent actions upon objects or actions performed with objects (e.g., pretending to catch a fish or comb one's hair). Instrumental gestures are movements intended to regulate or change the behavior of others or to direct someone to do something (e.g., a child raises

his arms to indicate that he wants to be picked up). When first asking the child to perform some gesture, the therapist relies upon images conveyed by the child in earlier steps, or suggests the child "be some animal" since children readily image animals. If the child has exceptional difficulty performing expressive and inactive gestures, the therapist invites the child to prescribe various activities, emotions, and meanings and then performs gestures to convey them. The therapist should draw from knowledge of the child's unique situation and history when suggesting possible representations to be enacted.

Table 5.1. Steps in Therapy with Body Ego: Who Is Me? Where Is Me?

Step 1.	Child perceives and describes the body in static positions	
	Part A	Entire body (e.g., standing; sitting; lying)
	Part B	Large body parts (e.g., arms extended; legs apart)
	Part C	Small body parts (e.g., finger extended; eyes shut)
	Part D	Child and therapist evaluate responses
Step 2.	Child perceives and describes the body in dynamic positions	
	Part A	Entire body (e.g., crawling; leaning)
	Part B	Large body parts (e.g., flexing arms; tilting head side to side)
	Part	Small body parts (e.g., blinking eyes; tapping toes)

C

Part D: Child and therapist evaluate responses

Step 3. Child perceives and describes the body in static and dynamic relations to other objects

Part A: Entire body (e.g., wear various clothing; walk toward, around, through tangible and intangible stimuli)

Part B: Large body parts (e.g., move arm toward, around, through tangible and intangible stimuli)

Part C: Small body parts (e.g., place finger against cheek, in oil, in water)

Part D: Child and therapist evaluate responses

Step 4. Child performs expressive and inactive gestures, conveying conventional and unconventional meanings with body and body parts

Part A: Child gestures meanings requested verbally by therapist; therapists gestures meanings requested verbally by child (e.g., be an angry tiger; be a scared mouse, be a monster; be a boom)

Part B: Child gestures meanings requested nonverbally by therapist using concrete/abstract stimuli (e.g., dolls; pipe cleaner figures; penciled lines);

Therapist gestures meanings requested by child using same method

Part C: Child gestures meanings requested by therapist using pantomime;

Therapist gestures meanings requested by child using the same method

Part D: Child and therapist evaluate responses

Step 5. Repeat Step 4. Child performs expressive and enactive gestures conveying meanings in relation to other objects (e.g., catch this fish—a wooden stick; be a wolf fighting this sheep—a rubber figure; be this—a zigzag line—going toward and around this—a circle)

Step 6. Child performs multiple expressive and enactive gestures to develop multiple referents and vehicles

	Part A	Child conveys multiple meanings using the same gesture and conveys one meaning using multiple gestures
	Part B	Child and therapist evaluate responses
Step 7.	Child performs expressive and enactive gestures shifting rapidly on command from one meaning to another and from one vehicle to another	
	Part A	Vary stimuli used to convey meanings (e.g., dolls; pictures; pipe cleaner figures; pencil lines; verbal commands)
	Part B	Child and therapist evaluate responses
Step 8.	Child performs a series of random expressive and enactive gestures using multiple referents and vehicles	
	Part A	Child imitates therapist and labels referent if possible
	Part B	Therapist imitates child and labels referent if possible
	Part C	Child and therapist evaluate responses

Most children easily perform the body positions and movements required. Remember that the goal is not to teach the child, for example, how to step over a book but to give the child *the experience* of stepping over a book many times while articulating the body sensations that accompany the activity and eventually the images and symbols the child constructs and ties to them. Occasionally a child is unable to perform a particular posture or movement required by a task. Here time should be taken to help the child achieve the response before the child is asked to use the posture as a symbol conveying some meaning.

The instructions given below for each step are intended only as illustrations. The language and demonstrations used by the therapist should suit the child's developmental status and style. This treatment program requires the therapist to be physically active and somewhat of a dramatist, demonstrating body postures, guiding and joining the child in performing some gesture. Therapists whose style may not fit these requirements should examine whether they are equipped to present the tasks adequately.

Introducing the Child to the Program

The Outer-Oriented Child. Verbal introductions to the program should be kept to a few remarks since words may not be particularly effective or meaningful for a child who requires this program. Say, "Johnny we are going to play a game called *Who is Me? Where is Me?"* The therapist stands at attention and asks the child to assume the same position. The therapist directs the child's attention to sensations experienced by the total body. For example, "Johnny, what do you notice when you are like this?" The child may respond, "I notice tight." The therapist replies, "That's good. Show me where it's tight." This request illustrates the main focus of treatment at this time: to direct attention at particular perceptions of the body and locate the sources of these perceptions. At this moment, and in future sessions, the therapist asks the child to continue directing attention and connect the sensation "tight" to perceptions of the legs or stomach, and so on.

If the child does not respond the therapist demonstrates, pushing the weight of her body against her feet, noting that she feels heavy at the feet, or by passing her hand along the back of her legs. The therapist might comment, "You see, we are going to learn how and what we notice with our bodies." Without further comment the therapist assumes the next body posture. For the child who makes few or no comments, an understanding of the activity and purpose of the program is conveyed best if the therapist waits for the child to share a perception and at that time confirms this is what the treatment is about.

During the first sessions, if the child uses a verbal symbol to convey a body perception, the therapist reserves it for later work. For example, while moving his hands and fingers (Step 2, Part C), one child described that his hands felt like “worms.” The goal of the first three steps, then, involves both bringing the child's attention to body perceptions and helping the child build a vocabulary that describes them.

The Inner-Oriented Child. Introducing the child who is excessively withdrawn and physically inhibited requires special consideration. As discussed in Chapter 4, the therapist begins with the last steps of the program, which invite and permit fantasy, and therefore are fitted with the child's pathological cognitive orientation. Then gradually the therapist moves toward Step 1, which requires perceptions of the body without the

participation of fantasy. To introduce the program, the first session is nondirective, and the child is given the freedom to move about the room and engage material. The therapist carefully observes the child, notes particular unique postures or gestures the child displays, and then imitates them while the child guesses what the therapist is pretending to be. For example, one child moved about the playroom swinging his body back and forth with short, choppy steps somewhat like the stereotyped sailor's gait. When the child was looking, the therapist imitated this gait and said, "Johnny, look at the way I am walking. What am I? Pretend I am something or somebody." Whether or not the child responded, the child was asked to make up somebody or something else and the therapist will "try to be that." After the therapist gestured what the child prescribed, the child was asked, "How did I do? Did I do it okay with the way I moved?"

Then the therapist said, "Now, Johnny you do something like I do." For example, the therapist rubbed his ear, "Do that and try to guess what I am saying and thinking." After the child performed and responded, the therapist labeled the gesture (e.g., "Doing what I was saying, I am trying to figure something out"). This general procedure is followed during the first sessions. The therapist waits for other opportunities to imitate one of the child's gestures, which the child is asked to label, and the child is asked to imitate and label one of the therapist's gestures. In this nonverbal way, the therapist introduces and structures the content and purpose of the program for the

child (i.e., attending to body gestures and postures as a means of communication).

Specific Instructions

The sequence of Steps 1 through 8 is followed for the outer-oriented child. The reverse sequence is followed for the inner-oriented child as discussed below.

Steps 1 through 3. These steps focus on producing and copying perceptions of the body progressively from perceptions of the body in static positions, to dynamic positions, and then in relation to other objects or stimuli. Within each of these steps, another progression is followed from the child experiencing and perceiving the entire body, then large parts of the body, and then small body parts.

The therapist initially demonstrates various positions the child is asked to assume, being inventive while remaining sensitive to those positions the child finds difficult because of age, physical make-up, and agility. While assuming each position, the child is guided, bit by bit, to perceive various sensations from the body and to label and describe them whenever possible.

If postures are selected that are grossly mismatched with the child's development stage, the treatment fails to provide the child with experiences

necessary to form the base for developing the body as a symbolic vehicle. For example, the therapist could ask a 10-year-old to produce and describe the following position: The left leg is flexed, the right knee is on the floor, the right arm is extended upward, the left arm straight ahead, and the head is lowered. This body experience would probably not suit a 5-year-old, or a 10-year-old with major dysfunctions in body ego.

The therapist should be especially artful in conducting Step 3 because body postures and gestures in relation to other objects eventually become vehicles of meaning in symbolic functioning, representing feelings (e.g., crouching in fear) and actions performed without objects (e.g., pretending to catch a fish). The more articulate a child's body experiences in relation to other stimuli, the more equipped the child is to learn to use the body effectively as a symbolic vehicle.

The child begins with experiences close to the body, (e.g., puts on a heavy wool shawl, then a light cotton shawl, then a plastic shawl, perceiving and articulating body sensations experienced with each). Then the child experiences the body in relation to tangible objects distal from the body by walking toward, around, and onto a wooden box. Then the child experiences the body in relation to intangible stimuli such as walking toward, around, and through music coming from a cassette player. Then the child moves toward, around, and through imaginary stimuli (e.g., an imaginary, narrow column of

smoke and an imaginary, wide cloud of smoke).

The same progression is followed with small parts of the body. For example perceiving and articulating each experience, the child places a finger on her cheek, forearm, foot. Next she places her finger in honey, water, oil, finger-paints, and then passes it around and through music coming from a cassette player, and finally she positions it in relation to imagined columns of smoke varying in size.

With each part of each step, the therapist incorporates the four principles (see Chapter 3) that define graded experiences (i.e., complexity; delay; physical-mental actions; and evaluating responses in terms of standards). The therapist emphasizes one or another principle in any particular task, but attempts to orchestrate all four when shifting the therapeutic experience to a higher grade than the previous one.

To illustrate, consider how each of these principles might be followed in Step 1, Part A. In terms of simple versus complex, experiencing the body standing is simpler than experiencing the body in the crouched position. In terms of delay, the child could be asked to assume the static position of sitting, in slower and slower motion. With the principle of physical- mental activity, the child initially assumes the body posture prescribed and is not encouraged to describe the perception (physical activity). Gradually the child

is required to describe and label the posture (mental activity). As the child describes and labels postures, the therapist begins to emphasize evaluating the perceptions and descriptions. For example, while assuming a crouched position the child says at one time “hiding behind a bush," and at another, "getting ready to race." To evaluate the crouched position in terms of the descriptions offered, the therapist imitates the positions and engages the child in comparing the position called "hiding" with that called "starting a race," and asks the child to compare his positions with those assumed by the therapist. In this way the child is trained to evaluate the degree to which various aspects of body language fit what they are intended to communicate. At more advanced levels, the child not only begins to learn that somebody positions and parts are relevant and some irrelevant for a particular gesture, he/she also becomes aware of the possibilities for limitations of the body for constructing gestures. At this point, Step 4 is phased in.

Step 4. These techniques focus primarily on the body participating in the process of symbolic functioning. With each part, the goal is to help the child use the body and its parts as vehicles carrying circumscribed meanings. In general, the therapist describes or conveys a meaning, which the child is asked to portray with body gestures, and the child is invited to describe a meaning, which the therapist conveys with body gestures.

In addition to using the four standard guidelines to construct graded

tasks, the tasks administered within each part of Step 4, and from one part to the next are varied according to whether the meaning to be gestured is presented with stimuli that are verbal or nonverbal and concrete or abstract. With Part A the meaning to be gestured, whether an activity, a state, or a feeling is presented verbally (e.g., with younger children: Be a tiger; Show me how a tiger acts; Be a mouse; Be a mad elephant; Be a happy squirrel). Older children can make use of humans as well (e.g.,

Be a guy sleeping in a park; Be a guy on a motorcycle). With Part B the meaning to be gestured is presented nonverbally by manipulating material (e.g., the therapist moves a toy lion to convey prowling, or a toy giraffe to convey eating and says, “Be this; show me what it's doing"). The shift from verbal to nonverbal stimuli to be gestured attempts to bring the child's experiences closer to the nonverbal stimuli which infants first symbolize with body movements (e.g., an infant opens its mouth to symbolize a match box opening).

Within Parts A and B, the tasks shift progressively from requiring the child to gesture conventional meanings to requiring the child to gesture more personal, unusual meanings. For example, with Part A the child is asked, “Show me a horse walking"; later, “Show me a space creature walking"; and still later the child is asked to be, for example, a "Zip," and a "Boom." Here nonsense words are used to encourage the child to develop the capacity to

use the body to gesture highly personal meanings.

The same progression is accomplished in Part B by shifting the stimulus used to convey the meaning to be gestured from doll figures of familiar animals and persons, to pictures of animals and persons, to pipe cleaners shaped by the therapist in the form of more familiar animals and persons in various postures, then "nonsense shapes," and then pencil lines drawn on a sheet of paper, first forming simple drawings of animals and persons, then "nonsense" lines, such as to which the child is to assign meaning conveyed by gestures.

By systematically varying the stimuli that present the meaning the child is to gesture, from verbal to nonverbal, and from concrete to abstract, the child learns to convey meaning with the body when the meaning is concrete and conventional, requiring particular ingredients, as well as when the meaning is more unusual and abstract, requiring no particular ingredients and permitting the child to make use of highly personal gestures.

The tasks of Part C provide the child with experience which further cultivates an action base for the body as a vehicle expressing meaning. The therapist pantomimes some activity and/or affect and the child imitates it and notes what is going on. Examples are: directing traffic; chasing a butterfly; watering a plant; waving goodbye with sadness. The child is also invited to

pantomime some event, and the therapist imitates it and notes what is going on.

During the latter stages of this step, the therapist becomes more active, helping the child evaluate whether and how the child's gestures, and those of the therapist, communicate and what changes might improve the gestures as vehicles to convey the meaning in question. When more abstract stimuli are used, the process of evaluating is frequently facilitated by having the child carefully examine the stimulus with touch perception (e.g., trace his fingers over the contours of a rubber animal, of pipe cleaners the therapist sculpted, or along penciled lines drawn on a sheet of paper). Including these touch perceptions helps some children construct more clear images which are then gestured more efficiently.

Last, with outer-oriented children it is best to start training in symbolic functioning by presenting verbally the meaning to be gestured (Part A) and then physically and nonverbally. With inner-oriented children, the therapist would begin with pantomimes (Step C) and gradually require more explicit gestures in response to verbally described meanings.

Step 5. The techniques of Step 4 are repeated but the meanings to be gestured now involve the body in relation to other objects. The following are examples of usual and unusual meanings a child is asked to gesture: show me

how you catch this fish (the fish is a stick placed on the table); be a wolf fighting this sheep (a sheep doll is placed on the table); be a sponge in water (a beaker of water is placed on the table); show me how you can be a cold germ in somebody's lungs (the space under a table and chairs is defined as lungs). The following are examples of tasks that use literal and more abstract stimuli to convey the meaning to be gestured: two dolls embracing; pictures of animals fighting; pipe cleaners shaped to form a tennis player hitting a ball with a racquet; pipe cleaners shaped in various angles and contours but not conveying any obvious figure or activity; a straight line drawn toward a circle and then curving around it.

Step 6. This step is designed to cultivate the child's ability to construct a single gesture that could serve as the vehicle for several meanings and to construct multiple gestures that could convey a single meaning. The child is guided in appraising these gestures in order to learn whether and how multiple vehicles are understood by others.

Initially ask the child to use the same gesture to convey two meanings (e.g., "Use your body in one way that shows somebody who is strong, and somebody who is mad; Use your body in one way to show somebody who is throwing a fish line, and somebody who is swinging a tennis racquet"). Gradually the number of meanings is increased to three and then four (e.g., "Use your body in one way that shows somebody kicking a ball, kicking a tin

can, and kicking a door"). And dissimilar meanings are gradually combined (e.g., "Use your body in one way to show somebody kicking a tin can and somebody kicking a feather"). Here the motion would have to result in a degree of vigor that would honor the requirements of both the meaning of kicking a feather and the meaning of kicking a can. As another example, "Use your body in one way to show me somebody cheering at a game and somebody who is crying because the team is losing." Here the facial expressions and body movements would have to blend the requirements of both cheering and being sad. The same procedure is followed to guide the child in cultivating different gestures to convey the same meaning (e.g., "Use your body in two ways to show me somebody who is mad; use two different ways to show somebody mad").

To help the child learn how to cultivate multiple vehicles, the therapist should demonstrate as often as indicated. For example, the therapist clenches his fist, then bares his teeth, then glares, each time asking the child for the meaning of the gesture. Demonstrations such as these facilitate discussions with the child of how different gestures can be vehicles for the same meaning.

As with the previous steps, the meanings to be enacted are usual and unusual ones, and make use of literal and less literal stimuli. For example, the therapist places two pictures on the table, one depicting a person walking through a park, and another an animal stalking. The child is asked to produce

a single body gesture conveying both meanings.

Step 7. Ask the child to perform a series of gestures on command, rapidly shifting from one meaning to another (e.g., "I'm going to mention different things and I want you to be each one. Show me with your body. Ready? Be a sleepy tiger. Now be a mad monkey. Now be a kid at a birthday party. Now be a kid watching a falling star."). The therapist attempts to describe meanings that require gestures which use small body parts as well as the total body. With an alternate technique, the therapist performs a series of gestures and asks the child to describe what they mean, and "What's going on." Again, with some children it is helpful if the therapist initially demonstrates, performing a series of gestures in response to various meanings expressed by the child.

Stimuli used to convey the meanings are varied from verbal labels, to doll figures, to pictures of animals and persons, to a series of pipe cleaners forming various shapes, to a series of penciled lines. For example, if a series of pictures are used, the child begins by gesturing what is represented by the first picture; then the picture is removed without notice and the second picture is presented; the child gestures the meaning portrayed, and so on.

Step 8. With this step the therapist and child take turns performing a continuous series of random body movements attempting to convey various

meanings. Child and therapist imitate the gestures of each other and guess the meaning the other is conveying.

Sequence of Steps for lnner-Oriented Child. The therapist follows a reverse course for the inner-oriented child beginning with Step 8 with modification and concluding with Step 1. The first task the therapist has is to enter the child's fantasy world through the cognitive process unique to body ego-tempo regulation. As noted in the introduction to this chapter, to accomplish this the therapist observes the child's unique gestures during the first sessions, selects one that consists of vivid features, and demonstrates it to the child who is asked to guess, “What am I being?" The child is also asked to imitate some gesture of the therapist and to guess, “What am I trying to say?"

To illustrate, when the therapist clenched his fist against his stomach imitating the child, the child noted, “It means you're shot in the stomach." And when the therapist imitated another child's gesture (rubbing the palm of his hand over the back of his head and neck) the child noted it means, “You're pushing a spider off your head." These examples illustrate that the inner-oriented child frequently assigns highly personal meanings to gestures. Moreover, these meanings are quite fluid, as might be expected, changing from time to time. And the gestures used do not accommodate to reality requirements and to whether or not they are understood. At the start of

treatment the therapist accepts the meaning the child offers for various gestures and the particular gestures a child uses to convey a meaning. As a working relationship is established, the therapist gradually phases in Step 7. Here the child is required for the first time to perform particular gestures as vehicles for particular meanings, to develop the capacity to shift from one meaning to another and from one vehicle to another, and to begin evaluating whether and how gestures communicate. The therapist continues through the steps in reverse order until the child engages Step 1, perceiving and describing static positions of the body without the participation of images and fantasies.

PROGRAM IB: MOVING FAST AND SLOW

Purpose: To provide the child with experiences in differentiating and regulating body tempos in large and small spaces; to develop the child's capacity to use body tempos as symbolic vehicles; to develop the child's appreciation of how these tempos are understood by others as representations.

Materials: Metronome; cassette player and recordings of various tempos; paper; masking tape; pencils; crayons; animal and human doll figures; various toy vehicles; mazes; wooden cubes; stop watch.

Introduction and General Procedure

This program extends the preceding one, emphasizing body tempos as symbolic vehicles. Gesturing is now integrated within total body movements which the child performs. The program consists of seven steps, outlined in Table 5.2. With the first two the child performs various tempos in unrestricted and restricted space with the aid of a pacer, such as the clicking of a metronome. Step 3 develops body tempos as symbolic vehicles, each tempo now connected to a particular image. The steps that follow gradually elaborate the development of tempo regulation within the process of symbolic functioning. Tempos, and their associated images, are experienced in relation to objects. Then multiple tempos are developed as vehicles for a single meaning and a single tempo as the vehicle for many meanings. The capacity to shift flexibly among tempos and their referents is addressed in the last steps.

Table 5.2. Steps in Therapy with Tempo Regulation: Moving Fast and Slow

Step 1.	Child moves the body and substitutes for the body at regular, slow, and fast tempos through *unrestricted space*	
	Part A	Entire body through macro-space
	Part B	Hand and arm move an object through medium space
	Part C	Hand and arm move a pencil through micro-space
	Part D	Shifting from one tempo to another while repeating Parts A-C
	Part E	Child and therapist evaluate tempos in terms of standards
	Parts A-D	Use external cadence as guide and then remove
Step	Child moves the body and substitutes for the body at regular, slow, and fast	

2.	tempos through *restricted* space
	Repeat Parts A-E of Step 1 with defined pathways that are gradually more complex
Step 3.	Child constructs images as referents for specific tempos (vehicles) performed in restricted and unrestricted space. Multiple fast and slow tempos are differentiated
	Repeat Parts A-E of Step 1 requiring child to cultivate multiple fast and slow tempos within each dimension of space and to connect a specific image to each tempo
	Child shifts from one tempo to another on command in response to images therapist calls out
Step 4.	Child performs tempos in relation to stationary and moving objects experienced as they are or construed as something else
	Repeat Parts A-E of Step 1 (e.g., walk over to get this—a cookie; now this—a toy snake; pretend this—a wooden cube—is a hamburger, walk over to get it)
Step 5.	Child performs multiple tempos to represent a single meaning (referent) and experiences multiple meanings conveyed by one tempo (vehicle)
	Repeat Parts A-E (e.g., walk your fast way and pretend you are going to math class, then to the cafeteria, then to meet a friend)
Step 6.	Child performs a series of different tempos in large and small space shifting rapidly from one to another vehicle and from one to another referent while experiencing a relatively elaborate fantasy
Step 7.	Child performs a series of random tempos and therapist guesses who/what is involved and the meanings conveyed; Therapist performs a series of random tempos and child guesses who/what is involved and the meanings conveyed

To provide graded tasks with each step, the child is asked to move his total body through space, then move some object across a table, and then a pencil across a sheet of paper, at first through unrestricted and then through restricted space. In addition the child is required initially to produce only one slow or one fast tempo while walking through a large space, and a single

image as the referent for each, and later to produce several slow and fast tempos and a more differentiated image for each.

With each step, child and therapist join in evaluating tempos first in terms of external standards (e.g., the click of a metronome; measured time), then in terms of whether and how a tempo fits some conventional meaning that is easily understood by others or some personal meaning that is less universally understood.

The seven steps are followed as listed in Table 5.2 when the program is administered to an outer-oriented child. In this sequence, the child begins experiencing body tempos without the participation of images and fantasies against which the child's cognition is defended. After the child establishes clearly differentiated tempos and observes, evaluates, and appreciates these behavioral achievements, the child is usually more receptive to connecting images to these stable body movements.

With an inner-oriented child, the reverse sequence is followed. Beginning with Step 7, the therapist attempts to find entry into the child's personal world through the cognitive process of tempo regulation. As the child observes the therapist imitate the child's tempos, and as the child imitates tempos performed by the therapist, an alliance is gradually established from which the therapist proceeds to the other steps. First the

therapist helps the child develop the capacity to shift rapidly from one tempo to another as vehicles of meaning and to evaluate these tempos in terms of the meaning the child intends to convey. In this way the child includes the therapist more and more into her fantasy world, and the therapist at the same time edges the child closer to acknowledging the requirements of reality. When Step 1 is reached, the inner-oriented child develops the capacity to engage in tempo regulation without the interference of personal fantasies and in response to stimuli in the environment. With this achievement, the child can construct tempos that flexibly represent both personal metaphors and more conventional symbols, a tool which serves managing hyperactivity and, when indicated, the process of non-directed verbal/play therapy.

When working with an outer- or inner-oriented child, the image the child initially offers as the referent for a tempo should be accepted even if the image appears inappropriate to the therapist. Since these children lack an appreciation of the fit between a referent and the tempo which carries its meaning, it is not surprising that the first images offered are ill-fitted even when the child constructs a conventional symbol. For example, hyperactive children will frequently construct the image of a horse as the referent for moving slowly, and then offer a cat for moving fast, without distinguishing between them.

The therapist demonstrates tempos as often as is indicated, providing

the child with models to imitate, and offers images as possible referents. The therapist also teaches the child whether or not the suggested image fits the tempo in question. In terms of the space requirements, the distance available should be at least 15 feet, but preferably larger. Some children require that aspects of this program be administered outdoors, in a gymnasium, or in a very large room.

The need for therapy in tempo regulation has been observed in both inner- and outer-oriented children. A child habitually lost in fantasy can be quite hyperactive and so can a child who avoids fantasy and who is stimulus-bound. Both types of children lack appreciation and awareness of the various speeds with which they move their bodies, both lack the capacity to tie tempos, as vehicles, to referents, and both are not oriented to whether or not others understand their movements. When an elaborate set of tempos are differentiated, each tied to an elaborate set of referents, the child's movements are now under cognitive control, hyperactivity diminishes, and the body movements become part of the process which makes available symbolic functioning for learning and adaptation.

Introducing the Program to the Child

The Outer-Oriented Child. Say, "Jimmy, we're going to play a game called *Moving Fast and Slow.* Watch me." The therapist walks across the room at a

regular tempo. "I'm walking in my regular way. Now you try it. Walk in your regular way." When the child has performed, the therapist says, "That's fine. Now I am going to walk slower than my regular way. Watch me again." The therapist demonstrates. "Now you try it." After the child performs, say, "That's fine. Now I am going to walk fast, faster than my regular way. Watch me." The therapist demonstrates. "Now you try it."

Typically the child who requires this program shows little or no difference between "usual," "slow," and "fast" tempos. The therapist does not tell the child about this quality of the performance. Rather, as described below, the therapist introduces a pacemaker, such as a metronome, to cultivate a behavioral difference among tempos.

The lnner-Oriented Child. The therapist observes the child's tempos during the first session or two. At the appropriate time, displaying a tempo typical for the child, the therapist says, "Mary, watch me; watch how I move. What am I when I move this way?" Almost always the child reports an image/fantasy (e.g., "You're a ghost," or "You're a green man"). Then say, “Right, now you move like the ghost (green man)." After the child has performed, say, “Now you take a turn. Walk and be something else, and I'll try to guess what you are." In this way child and therapist join in displaying body tempos and expressing what they represent. In the beginning the tempos and images are only noted by the therapist. Gradually the therapist engages the

child in evaluating them (e.g., “What makes that a ghost walk?" and “What is special about the ghost walk that is different from the green man walk?"). As the child and therapist share perceptions and an understanding of different tempos and their associated images, the therapist moves to Step 6.

Specific Instructions

Step 1. The goal is to cultivate behaviorally different tempos performed through unrestricted space: first the child moves through large space, then moves an object over the space of a table top, and then moves a pencil over a sheet of paper.

In Part A ask the child to move from one wall to another, “In your regular way." The child may take an indirect route or move very rapidly, almost running. At this point no mention is made of this behavior. Next ask the child to move from one wall to another “slow" and then “fast." After the child performs, say, “We can keep track of what's regular, slow, and fast if we write down how much time it takes." Engage the child in constructing a record sheet on which times will be recorded. Ask the child again to walk across the room in regular, slow, and fast trials; use a stopwatch to measure the time taken; and invite the child to write the number down. If the child cannot write numbers, the therapist could write down the number and note whether the time taken is greater or less than other trials. The therapist can

also count aloud at one second intervals to give the child a sense of the amount of time that has elapsed for each trial.

After the child performs several regular, slow, and fast trials, the trials are compared. Frequently the times are very similar or overlap. After helping the child gain some understanding that the tempos are similar, point out there are ways “to help us learn how to move at different speeds." The therapist introduces an external signal, such as the clicking of a metronome, and asks the child to take a step with each signal. In addition to a metronome, recorded music, taps on a toy drum, hand claps and other such devices are useful.

Say, “Let's try to get these walks to be different by using this." The therapist shows the child how the metronome clicks at different settings. "If you take a step each time there is a click it will help you move at only one speed." Using the metronome or some other device, ask the child again to walk across the room at various tempos. With each trial, focus the child's attention on the body sensations experienced when performing various tempos and on the differences in the pace of each. It is sometimes helpful during this phase if the therapist walks alongside the child to demonstrate.

When performing the task, some children show unique body postures and movements which seem to be the first attempt to translate the meanings

of slow, regular, and fast into behavioral terms. For example, some children walk, stop, remain still, walk again, stop, showing difficulty maintaining a continuous forward motion. Other children maintain a forward motion but hunch their bodies and stoop over. Other show peculiar gaits such as a camel walk or short, jerky steps. These postures and mannerisms are gradually brought to the child's attention during Steps 3 and 4 when the child engages in imaging. If a device has been used to provide cadence, these cues are gradually omitted. Ask the child "to think the clicks in your mind and walk to them." Children severely dysfunctional in tempo regulation may require from ten to twenty sessions before they have differentiated three stable tempos while walking across the room *without the aid of an external cadence.*

In Parts B and C the same procedures are followed. Ask the child "to walk a doll from one end of the table to the other at regular, slow, and fast tempos." Again the therapist demonstrates, and the child works on differentiating three stable tempos in medium space without the assistance of an external cadence. When this is achieved the approach is repeated again until the child differentiates behaviorally three stable tempos while moving a pencil across a sheet of paper.

In Part D after three tempos have been differentiated in each modality and space, the child is asked to shift from one tempo to another on command in each modality and space. Say, for example, "Now we'll play the game in a

different way. While you are walking across the room shift gears. When I say 'regular,' move in your regular way. When I say, 'fast,' move in your fast way. When I say 'slow,' move in your slow way. Shift from one to another when I name that speed." As the child walks the therapist calls for different tempos in a random sequence.

Throughout each of these parts, the therapist joins the child in evaluating the tempos produced.

Step 2. Follow the same approach used in Step 1 and help the child achieve regular, slow, and fast tempos while moving through defined and limited space. With Part A chairs, books, wooden blocks, masking tape, and other material, can be used to define the space through which the child moves. Initially a wide pathway (e.g., 5 feet) is defined by large material (e.g., blocks) and gradually narrowed and defined more subtly (e.g., a thin strip of tape). The pathway should also be changed gradually from linear to C-shaped, to S-shaped, and then to more complex shapes. The length and complexity of the path is determined by the stage and needs of the child. To administer each trial, the therapist varies the tempo the child is requested to perform, the complexity of the pathway the child is asked to navigate, and the magnitude of the space through which the child moves.

Wooden blocks and tape can also be used to define pathways on a table

top over which the child moves a doll or toy car at different tempos. For trials involving micro-space, sheets of paper with mazes of varying complexity are ideal.

Step 3. With this step the child is introduced to body tempos as vehicles for carrying meaning. In general the child constructs a stable image for each tempo performed in each modality and space. In the last part of this step, images are used as commands to give the child experiences shifting from one tempo to another.

Say, "Jimmy, let's pretend to be something while moving. Watch me. I'm being a turtle walking slow." The therapist walks across the room. "Now you walk slow and be something. What are you?" This approach is followed to help the child construct a *specific* image as the referent for each regular, slow, and fast tempo.

Once this is achieved, ask the child to cultivate several images each connected to a particular slow tempo, as well as several images each connected to a particular fast tempo. For example, if the child connects the image of a turtle to the slow tempo, the therapist says, "Now walk like something else that is slower than a turtle." The child may display a "snail walk." When the child stabilizes the "snail tempo," as slower than the "turtle tempo," ask the child to be something that is faster than a turtle but slower

than a horse (i.e., the child's image for the regular tempo). In a similar manner the child is asked to differentiate three fast tempos each connected with a specific image. To facilitate this process, the therapist may need to offer images and perform associated tempos, or introduce a metronome, music, and other forms of cadence. Again record time for each tempo and give the child feedback. The work continues in this manner using unrestricted and then defined space until the younger child reliably displays at least two slow and two fast tempos, each connected with a specific image and the older child three or four of each type.

When working with space defined by a table top, the process of connecting images with different slow and fast tempos can be facilitated by giving the child several types of vehicles or doll figures to move. In this way the child develops a slow tempo while pushing a vehicle such as a jeep and an even slower tempo while pushing a vehicle such as a tractor.

To conduct this step within the space provided by a sheet of paper, a line-drawing technique is used. Say, "Johnny, watch this line I'm drawing with the pencil. Figure out what the pencil is by the way it's moving." At a normal speed, the therapist draws a line similar to one of those illustrated in Part A of Figure 5.1. After the child responds and provides an image for that movement and that line, the therapist draws another line at another tempo. The therapist asks the child to draw a line, and the therapist tries to guess what

the moving pencil represents. To cultivate different images to the same tempo and one image to different tempos the same line can be drawn at different tempos and different images assigned to it. (See Figure 5.1, Part A for examples.)

After the child has developed at least two slow and fast tempos in large, medium, and small space, and each tempo has been associated with a specific image, the child then executes a series of tempos, shifting from one to another on command. The therapist uses the images the child has constructed to indicate the tempos to be performed. Say, "While you're walking on the path, be the animal I name, and change the way you move each time I name a different animal. Ready, be a turtle . . . a snail . . . a zebra . . . worm . . . rocket, etc."

Step 4. Here the child is provided experiences regulating tempos and then- associated images in relation to static and moving objects.

In Part A the therapist could say, "Now I want you to do one of your walks getting that book from the shelf." After the child performs the therapist asks, "Which walk was it?" The therapist then locates other items, which vary in valence (i.e., a cookie, a wooden block, a toy snake). Say, "Do one of your walks to get this cookie." In this way the child is introduced to the notion that movements are regulated differently in relation to various objects. As the

child progresses, the objects to which tempos are related could shift to imaginary things. For example, a wooden cutout could be labeled a hamburger, a 50-cent piece, and a sponge used to clean a table, a technique which embeds tempo regulation deeper within symbolic functioning and pretending.

The therapist also moves various objects across the room to give the child experience regulating tempos in relation to things moving at various tempos. For example, move a toy fire engine quickly, a toy truck slowly, and a wagon even more slowly across the child's path while the child pretends she is walking across the street. Also, a toy horse could be walking or galloping down the road. When moving objects are introduced, the child is given some destination or task. For example, "Let's pretend you want to cross the street to go to that store (a bookcase), and this horse is galloping down the street. Do one of your walks." With each scenario the child is asked to share the image conveyed by the particular walk performed.

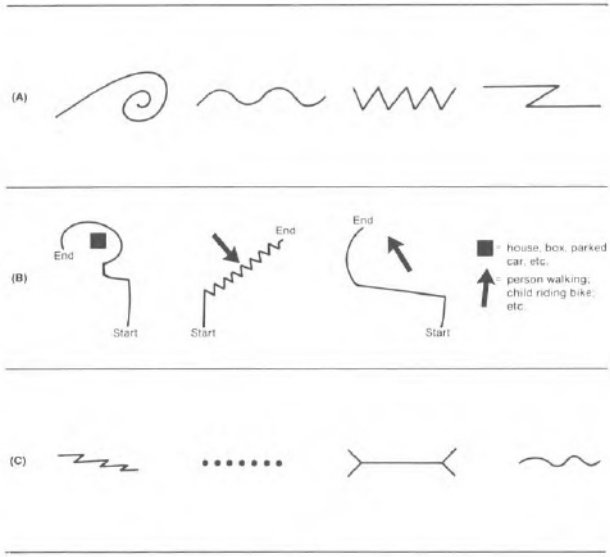

FIGURE 5.1. Samples for Line Drawing Technique

The various tempos performed by the child and the associated images offered are evaluated and compared with tempos the child showed previously as vehicles for those same images. For example, the child may say that his regular “horse" tempo was used to pick up the homework "from a teacher's desk," when the time the child took during the task was considerably slower than the horse walk at previous times.

With Part B various cars, doll figures, toy buildings, and furniture are located on a table to construct various scenarios and the child moves a vehicle, a person, or an animal figure in relation to either stationary or moving objects as the therapist prescribes. Again the tempos are timed and evaluated.

In Part C, the therapist makes use of the same pencil drawing technique using designs illustrated in Part B of Figure 5.1. For example, the therapist draws the square of the first figure, calls it a house, and then says, "Watch how the pencil moves toward the house. Figure out who or what moves that way." The therapist moves the pencil at a particular tempo following the course shown. The child determines who or what is moving. In a similar way the therapist can designate an arrow as a moving object (e.g., a car, a man walking, a child on a bicycle), and the child determines what the pencil is as it moves along the pathway in relation to this imaginary moving object (the second and third drawings in Part B of Figure 5.1). To stimulate imaging

further with this technique, the therapist could use crayons to construct lines of different colors and thicknesses. Last the child is encouraged to draw similar designs and the therapist imagines what is moving.

Step 5. With gains made in constructing images conveyed by tempos, and in relating tempos to stationary and moving objects, the child is prepared to develop further the ability to perform multiple tempos as vehicles of a single image and to use one tempo to convey several images. If the child has not had therapy in body ego (the preceding program) integrating aspects of Step 4 of the program *Who Is Me? Where Is Me?* may be of benefit to the child at this phase of treatment.

In Part A with each task ask the child to imagine a particular situation and to enact various tempos within the imagined situation. To illustrate cultivating multiple tempos as vehicles for a single referent the child pretends that he is walking to the principal's office. First he walks at a fast tempo with hands clenched to his side, then at a slow tempo with his head bowed, and then at a regular tempo with a glare in his eye. To illustrate cultivating several referents for the same tempo, the child walks fast and pretends he is walking from one classroom to another in school, then pretends he is going to get a snack from the refrigerator, and then pretends he is meeting a friend.

Part B is conducted along the same lines as Part A. Objects are placed on

a table to create a fantasized scene, and the child moves an object at one tempo, imagining several different referents. For example, the child moves an object, imaged as a girl on a bike, across an intersection, first on her way to school, then to a store, and then to a friend's house. Fantasized scenes are also set up in which the child moves some object at different tempos, each time imagining the same referent and experiencing different intentions (e.g., a boy is cutting the grass on a Saturday morning: "I have to get this done" [regular tempo]; "I hate to do this" [slow tempo]; "I want to meet my friend" [fast tempo]).

For Part C the line-drawing technique described above is used to train the child to construct multiple tempos for the same referent and a single tempo for several referents. For example, with the first drawing in Part B of Figure 5.1 the therapist suggests that the square is a box on the sidewalk and draws a line approaching it, first at a slow tempo, then another line at a very slow tempo, noting that the pencil represents a boy. With each trial, the therapist asks the child what the boy is thinking and feeling and what could be in the box. Then the child is invited to draw lines at various tempos in relation to some imagined object, stationary or moving, and to describe what is going on. To illustrate training the child to construct multiple referents for a single tempo, the therapist draws a single line moving slowly, which in the first trial represents a boy approaching a homework assignment, and in the next trial, an ant crawling across the sidewalk toward a crumb.

Step 6. The child performs different tempos in succession, shifting from one to another on command in response to elaborated referents. The major difference between this step and Step 3 is that now the child performs tempos, as representations, within a relatively elaborate fantasy initially directed by the therapist. For example, say, "Let's pretend this corner of the room is the principal's office; this is his chair, and here's the principal (a doll); this corner is the cafeteria, and here are sandwiches and desserts (wooden cutouts); this corner is the classroom, and these are math worksheets. Now stand here at the front door of the school and walk to each place, being the person I ask you to be. Ready? Be a girl who is going to the principal's office to get an award (the child performs). Now be a girl who has a stomach ache and is going to the cafeteria (child performs). Now, be a girl who loves math and is going to pick up a math worksheet (child performs)." The tempos a child performs within each imaginary episode are compared and evaluated.

Step 7. With this final step the activity resembles charades. The child forms a succession of different tempos, and the therapist guesses who is involved and what is going on. The therapist performs a succession of tempos and the child guesses. While inactive and depictive gestures are an integral part of the response, the child is encouraged to make major use of moving the total body or parts of the body across large and small spaces.

Concluding Remarks and a Note about Resistance

Once the inner- and outer-oriented child develops the capacity to use the body ego-tempo regulation process flexibly, responding to the requirements of information as it is and as it is imagined, the child has a mechanism to master hyperactivity, to learn and adapt, and also, when indicated, to serve the process of non-directed play/verbal therapy.

The transition from Step 3 to Step 4 for the outer-oriented child frequently provokes major resistance since the child must image the very activity cognition has avoided or has gained little practice in performing. Similarly, the transition from Step 4 to Step 3 for the inner-oriented child frequently provokes resistance since the child must begin excluding the participation of fantasies, the very activity cognition has used habitually to avoid the demands of reality. To handle these episodes of resistance, the therapist follows the model of negotiation discussed in Chapter 4.

In addition to these transitions as sources of resistance, brief periods of intense regression can punctuate therapy in body ego-tempo regulation because the tasks encourage the child to focus attention on his/her body and on the therapist's body, and because the therapist is physically active demonstrating body positions and sometimes making body contact with the child. The resistance observed frequently takes the form of sudden, intense diffuse hyperactivity or explicit aggressive or sexual behaviors directed at the therapist. Examples: One child suddenly kicked the therapist in the leg;

another, in a state of diffuse silliness, pressed her body against the therapist and tried to kiss him; another vigorously scratched the skin on her arm, resulting in some bleeding; another began to lick the palms of her hands.

These body gestures and movements are not yet connected to sufficiently elaborated and understood referents. Therefore, verbal interpretations are not used initially to manage them. Rather, in negotiating one of the issues, as discussed in Chapter 4, the therapist attempts to integrate the particular aggressive and/or sexual behavior within the content of the treatment program. For example, the child who began to scratch her arms was asked to scratch various objects in different ways, and the therapist tried to guess who was scratching and what was being scratched. Similarly, the therapist scratched the table top, a sheet of paper, the window pane, his head, etc., asking the child to guess what it means and what is going on. The child who pressed her body against the therapist was asked to press against the wall, a pillow, a chair, and the therapist, and with each experience to notice and compare the perceptions and feelings. Then, following the step being administered, these perceptions were labeled, alternative body gestures were constructed to convey the meaning, and so on.

These anecdotes illustrate that one goal in managing these episodes of regression is to provide the child with cognitive control over the meaning being conveyed by the body posture and movements involved and to develop

alternative ways of conveying the same meanings.

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