

Words of Action

Men and words reciprocally educate each other.

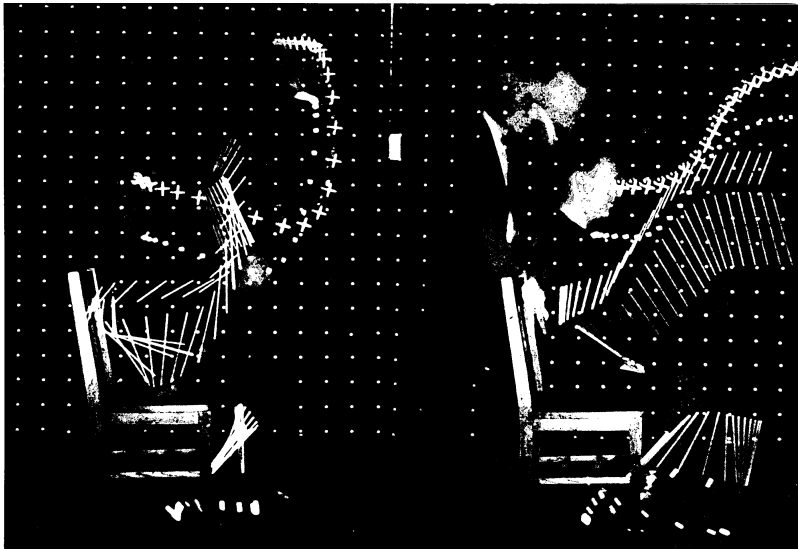
Peirce

When an *AT* lesson is successful a pupil who was mal-coordinated evolves an improved physical coordination (W. Barlow,1973). The pupil appears taller, more balanced.

After a few minutes into a lesson I grow. The floor recedes—but there is no fear—I am comfortable—floating but firm. There is no stretch, no effort—just a release, a natural, enjoyable up rising.

(Ben's *AT* Journal, 11/13/95)

There is less muscle effort (Jones, 1976; Garlick, 1990). Movement is smoother, more efficient (Brown, 1986; Jones, 1976; Garlick, 1990; C. Stevens, 1995). Voice production (Jones, op.cit.) and respiration (Austin and Ausubel, 1992) improve.

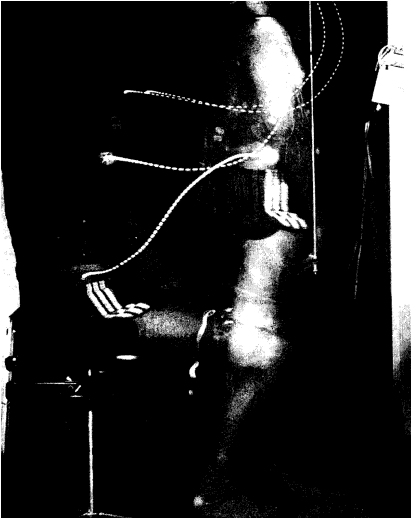


Sit-To-Stand Movement Unguided and Guided During *AT* Lesson

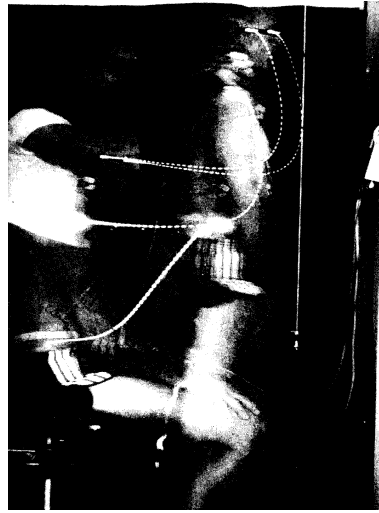
Jones' photometric data (white dots on black background) show guided movement to be smoother, more efficient, quicker. Reprinted from *Body Awareness in Action* by Frank Pierce Jones (1976). Courtesy of Alexander Technique Archives, Inc.

Figure 4-1

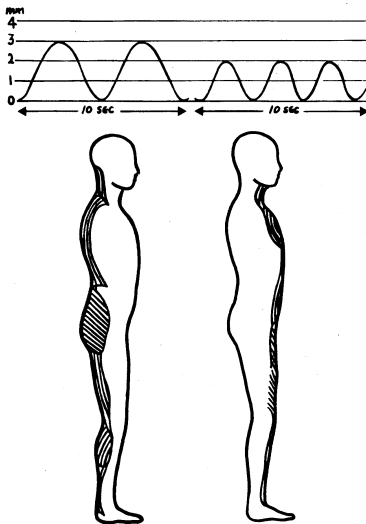
(A)



(B)



(C)



(D)

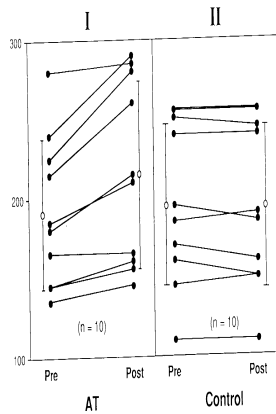


Figure 4-2

In (A) & (B), as in Jones (Figure 4-1), C. Stevens' photometric data show smoother, more efficient sit-to-stand movement trajectory in AT guided subjects (B). In (C), Garlick's AT-trained subject (left) engages back extensor muscles, taking 3ml air/2 breaths/10 seconds; untrained subject (right) relies on front flexor muscles, taking 2ml air/3 breaths/10s. In (D), Austin/Ausubel's (1992) spirometric tests show statistically significant (up to $p < .0005$) increased respiratory capacity after 20 AT lessons.

But the difficulty of wording kinesthesia makes it hard for an *AT* pupil to describe his improved coordinations to himself or even to know whether they happen. The pupil may notice feeling different. Something’s changed. But he has no *left* explanation.

Semiotics Explain *AT* Learning

The prelingual semiotic signs alpha through epsilon (α - ϵ) suggest an articulation of inner experience, a way to describe *back* experience in *left* terms.

Preconscious Stages in an *AT* Lesson

Stage	Action	Stage	Characteristic
			Read from bottom.
epsilon	subjective dialogue	ϵ	Ben feels “lighter,” “freer.” “I grow,” “the floor recedes.”
delta	manifestation	δ	Ed notices change in Ben’s muscle tone.
gamma	sensation	γ	Ben has a sensation of change.
beta	innate reaction	β	Ben’s first moment leads to a response, a muscle release.
alpha	first stimulus	α	Ed places hand on Ben’s back, a simple first moment.

Table 4–1

Stage α (alpha) is any moment of first experience, any moment of body state. Moments of *firstness* are continuous. Each moment an *AT* teacher places a hand on the back of a pupil’s head, there is an input to the pupil’s head, neck and back, a new alpha (α). There is a power of intervention. The hand arouses new *firstness*. This millisecond neural moment activates a neural group, but does not form a conscious image. It happens too fast. Experience remains *indeterminate*.

Stage β (beta) is the automatic response to any alpha moment. The sensation of the teacher’s hand has effect. There is a transaction with the pupil’s body. Muscles release, balance shifts. Something changes, but is not recognized. Experience becomes

possibility.

Stage γ (gamma) is the emerging feeling evoked by the alpha (α) stimulus and the beta (β) reaction. The transaction with the pupil's body modifies neural processes that affect his body image. Although the transformation of body image is vague and wordless—difficult to bring to consciousness—a recognition emerges. Experience becomes *sensation*.

Stage δ (delta) is a noticeable response—a more elongated, less contracted neck. The pupil may not consciously sense it, but an observer can detect it. Stage delta (δ) is the most objective of the nameless reactions.¹ Experience becomes palpable *manifestation*.

Stage ϵ (epsilon) is the internal language the pupil uses to make sense of experience.² The pupil has a new experience of balance, defines himself as the subject of the process and says to himself “I feel lighter, taller, balanced.” Experience becomes *subjectivity*.

Forgetting and Rediscovering Innate Grace

Standing is a great event for children. Learning to stand requires motor maturation and months of trial and error. We watch. Imitate. Stand. Fall. Watch some more. Sense. Explore. Stand again and fall again. Eventually we learn to deploy the muscles that stand. As standing is repeated, we evolve a toddler's grace. The complexities of our standing experience become woven into a *right* joy, represented by the *left* verb “to stand” (which as toddlers we hear and understand but cannot say). Once we master the art of standing, we glide ahead to life's other challenges. We contain standing in a word and no longer attend to its myriad muscle sensations and movements.³ We proceed on automatic pilot. We stand on *left* initiation of an acquired *back* habit.

Back kinesthetic and *right* sensory learning continue, but in an evolution unknown to *left* cognition. New patterns overlay old. Access to innate ability recedes. Alive, responsive motor learning fades. As time passes, habitual patterns—learned unconsciously—become less adaptive. Coordination declines. Bad posture emerges. When we stand slumped, we think we stand correctly. We can neither accurately sense, nor usefully describe, how we stand. We raise our chins, tilt our heads back, compress our necks, hunch our backs—but we have no idea what we are doing. We have no language that connects us to our standing experience. Whenever we think “to stand,” we set our habitual slump in motion.

Preconscious Stages in Learning to Stand

Stage	Action	Stage	Characteristic
epsilon	subjective dialogue	ϵ	We form an image "I am standing," "I can do it" and "I can stand at will."
delta	manifestation	δ	Months of trial and error develop palpable strength and motor skill to actually stand.
gamma	sensation	γ	The child senses moving, kinesthesia forms.
beta	innate reaction	β	Innate reflexes respond, one muscle stretches, another shortens.
alpha	first stimulus	α	Native vitality impels a child to explore.

Read from bottom.

Table 4-2

Because the secret of *back* kinesthesia is so well kept from *left*, we fumble when we attempt an adult *left* grasp of the kinesthesia of a toddler. When it is time to stand, a name, learned by its act, triggers an unconscious habitual response. We superimpose over innate coordination the complex motor pattern that we have learned. The established idea overrides concurrent kinesthesia. Postural reflexes that enable graceful standing are preempted by a learned pattern, now unconscious and automatic, and so, non-adaptive and irremedial.

The aim of *AT* education is to redirect *left* attention to *back* process. In an *AT* lesson, when a teacher asks a pupil to stand, he directs the pupil to "not give consent to standing as you know it." Although a teacher manually guides standing to proceed outside the well-worn habitual grove, the influence of unconscious habitual posture remains. Habits feel familiar, the pupil experiences this new, better organized, less effortful manner of standing as somehow wrong.

When an *AT* pupil commits to not doing habit, it arouses attention to

actions habitually overlooked. Kinesthesia reawakens. As *AT* lessons continue and the pupil accumulates experiences of non-habitual use, a new experiential basis evolves. *AT* repetitions arouse awareness of process, of the way that standing can be continuously rediscovered in every moment.

Directing a New and Improved Use

It is the development of *left* words—to identify experience to ourselves, to confirm and share with others, to objectify, and predict—that enables the *back* lesson to become *left* remembered. Without this *left* conceptualization, the new kinesthesia is overwhelmed by familiar habits. Without a new story that connects new experience and observations to a general understanding, the *AT* lesson remains mysterious. Without a story, whatever is learned (in *back* action), no matter how it feels (to *right* sensation) remains unthinkable, unheard of, vague and ambiguous (in *left* cognition).

When an *AT* teacher notices the palpable signs of a pupil pulling his head back-and-down, compressing his neck and chest, he directs the pupil to: “Let your neck be free.” “Let your head go forward and up.” “Let your back lengthen and widen.” The directions interrupt automatic responses and define the intention of the teacher’s manual communication. Discontinuity between the teacher’s guidance and the pupil’s preconceived idea of what he is supposed to do brings the pupil’s attention to how he habitually responds.

Bypassing habitual responses to *left* ideas is fundamental to changing habitual acts. Even thinking “sitting down” initiates habitual tensing. But directing a pupil “to not sit down” at the moment of an idea to sit, can circumvent long standing habits. Returning attention repeatedly to kinesthetic process accumulates kinesthetic competence in the way that music training enhances nascent audition and art training enhances spontaneous visualization.

Surprise

It is vital to not sit down when one intends to sit and to not stand up when one intends to stand. To stand, I relax, renounce standing, sit back in my mind (though my weight may be sliding over my knees). Of a sudden, I am standing. What a nice surprise!⁴ And its got to be a surprise, or it wasn’t *AT*.

To sit, I relax my stand, think of something funny, look out and

around, enjoy the room. Though my weight may be sliding over my knees and my knees may be going over my feet and my butt may be sliding back, of a sudden, I am sitting.

As for my piano, it plays itself—an “it” which is *right* and not *left*. *Left* may overhear and wonder “What’s going on?” But *left* does not know how to play or listen. To *left* listen is to criticize, to become self-conscious, to crumple into that defensive, pretentious, affected posture which is my humiliating relation to society, my social self, and definitely not that *right* playful, wonderful singing side of me.

It is the same with dancing. When I am in *AT* balance, I can give myself to the rhythm. I can let the music play in me, let myself go. To that kind of dancing, Claire follows easily. But should I think up some *left* intention, plan some certain step, all is lost. Claire loses contact because the “it” in “me” has stopped dancing.

(Ben’s *AT* Journal, 11/13/95)

Habit and Word Interpretation

Ordinary interpretations of terms often miss their *AT* meaning. “Head forward and up” (to direct a forward head rotation) is meant to facilitate a neutral head position and undo habitual neck muscle contracting that produce an habitual slumping neck and a backwards tilting head. But this is opposite to most pupils’ habitual understanding. When the teacher says “head forward and up,” most pupils jut out their chins and rotate their heads backward, exaggerating their habitual head retracting.

[P]hrases [used] in the teaching...cannot be defended as being ...accurate. The [meaning of the] details...vary with each slight stage of progress. (Alexander, *CCCI*:71)

The teacher defines terms in lesson context. But, because their meanings are entwined in ongoing experience, in each slight stage of progress, they do not communicate beyond the lesson.⁵ Indeed, many teachers believe that description without demonstration cannot communicate the process.

Although description can help pupils understand their experience, word interpretations can also reinforce bad habits. A pupil’s “conception of...words is all important...The construction which the learner...places upon what he hears...determines...his actions.” (Alexander, *CCCI*:44) “Such terms as ‘postures,’ ‘mental states,’

‘psychological complexes,’ ‘body mechanics,’ ‘subconscious’ or any of the thousand and one labelled concepts” are misleading oversimplifications that filter and distort experience and “have like barnacles, become attached to the complicated idea we have of ourselves.” (*UCL*:xxxvi) Habitual meanings “mold the conduct of a person into conformity [with] that to which [the concept] is itself molded.” (Peirce, cited in Potter, 1996:89) A pupil’s understanding of balance influences how that pupil will allow a new balance experience.⁶

A Science of Living Kinesthesia

The traditional lexicons of medicine, anatomy and physiology reduce the subjective experience of living kinesthesia to static objectifications of muscle and bone function. These objectifications have a positive purpose. Precise descriptions are intentionally fixed and necessarily static.⁷ To understand we abstract.

Alexander’s “psycho-physical organism,” a “self in use,” which “functions” and which “reacts” are abstractions. The problem traditional science language poses for speaking *AT* is that few constructs articulate experience of our bodies—or the role that ongoing interpretation plays in shaping experience and producing health. Each term in kinesiology and physiology establishes and isolates a distinct element of a large body of knowledge. The element connects not to our immediate experience or any actual event but to a general idea, far from the moment.⁸ Live *right* and *back* experience are lost by abstracted *left* language.

Another barrier to connecting a language that teachers process with language that conveys content is that it is hard to imagine the dimensional calculus implied in the higher level languages. Science and medicine require expert knowledge of the quantifiable measures and their dynamic relations.⁹ To tell a pupil about *load*, *tensile* and *compression*, or to describe variations on an interval continuum of bone, joint, muscle, tendon, ligament, spinal disc motion, is inordinately complex and, usually, does not advance experiential learning.

The Opportunity in Imprecise Language

An *AT* lesson is personal and introspective. *AT* idiom is contextual and functional. Instead of a precise posture, an *AT* teacher encourages “freedom” “length” and “width,” terms which gain their meaning for the pupil from the pupil’s changing body image and kinesthesia. *AT* verbal directions are necessarily imprecise. *AT* lessons encourage broad

right awareness of *back* process instead of narrowing focus to a “particular bit or piece.” (W. Carrington, 1994:34) The evolving communication between pupil and teacher, where meaning changes with each slight change of progress, creates energy for learning (and heightens awareness of the experience/language relationship).

Each pupil's moment to moment interpretation and implementation of *AT* words influences the quality of his *back* action. Initially, the words are so limited by habit that they yield mere glimmers of understanding. As kinesthetic awareness and motor functioning improve, however, the words evolve deeper meaning. These new, personal meanings are the pupil's current *AT* understanding and, in turn, they shape his future learning.

A teacher nourishes an expanding sense of how the *system* flows as subjective process. Prelingual experience leads to insights that eventually become personal conceptions—like “freedom,” “length” and “width.” A teacher and pupil assume they share feelings of “length” and “width.” But their presumptions remain beyond their ability to substantiate.

Vagueness...is no more to be done away with in the world of logic than friction in mechanics.” (Peirce, *PWP*:297)

Vagueness, by arousing doubt, is a source of energy. Vagueness feeds the abductive process, stimulates alertness to other signs that can confirm a presumption. “We may reasonably hope that physiologists will some day find some means of comparing the qualities of one person's feelings with those of another, so that it would not be fair to insist upon their present incomparability as an inevitable source of misunderstanding. But wherever...continuous variation subsists, absolute precision is impossible.” (ibid)

As long as observation of another person's inner experience of length is beyond our capacity, “our mode...remains that of somewhat primitive man [even] though we develop degrees of self [conscious] control [presumed] unknown to that man.” (ibid:296) Because a feeling in one person cannot be compared precisely with that in another, communication of feeling is not only vague but forever incomplete.

What is experientially real in the *AT* pupil parallels in reverse what is objectively real to science. Our bodies are physiologically similar. We share experiential gestalts. From this common ground emerges a shared language of subjectivity and the objective signs from which we construct theories that explain our perceptions. (Johnson, 1992:62) While a technical language is visual and extrinsic rather than sensory and intrinsic, the origins of each abstraction are in bodily experience. (ibid:80-100)

Constructing an AT Semiotics

Subjective Experience			
1.	α	Origin	An AT teacher's hand makes contact with a pupil, imparting an experience, activating neural groups.
2.	β	Reaction	α experience stirs neural reflections, muscle sensory cell reactions, endorphin, blood and lymph flow.
3.	γ	Sensation	The pupil forms a preconscious sense of α and β experience, which affects body image, sense of balance.
4.	δ	Manifestation	Palpable responses emerge that are signs of underlying α , β , γ processes—changes in muscle function affecting posture, breathing, emotion.
5.	ϵ	Subjectivity	The pupil begins an internal dialogue about the experience of α , β , γ , δ —subsequently translated by E through A.
Objective Representations			
6.	E	Expression	Teacher and pupil notice α , β , γ , δ , ϵ —and talk about them.
7.	D	Distinction	Teacher and pupil distinguish item(s) in the flow of events: patterns of muscle tensing, muscle conditions, respiration, tone of voice, eye movement, thought.
8.	C	Comparison	Teacher and pupil compare what is happening: posit causal links, evaluate sensations before and after intervention.
9.	B	Measurement	Accumulated data from many AT lessons is built into a yardstick to measure standards of “good use” and baseline scale(s) of respiratory/postural function.

Semiotics connects the physical and psychical, the subjective and objective, the conscious and preconscious—by articulating the sign for each stage of experiential understanding while also identifying the

Deconstructing an AT Habit

10.	A	The pupil brings an habitual balance gestalt to the lesson.
9.	B	The gestalt contains measurable patterns of muscle misuse.
8.	C	The teacher's intervention provides a new kinesthetic experience, producing comparisons of before and after balancing.
7.	D	The teacher distinguishes some aspect of the pupil's habitual use: balance, anticipatory tensing, respiration, tone of voice, eye movement, thought pattern.
6.	E	The teacher uses AT words to clarify intention, asks the pupil "to not respond habitually," "Let the neck be free neck."
5.	ϵ	The pupil has inner words to explain their experience to themselves.
4.	δ	The conversation produces motor reorganization, palpable reactions,
3.	γ	which evolves a vague, new sense of balance, a renewed kinesthesia.
2.	β	This initiates new cellular reactions, returning overactive muscle spindles to resting state,
1.	α	which allows a new organization of balance and a different experience of the moment.

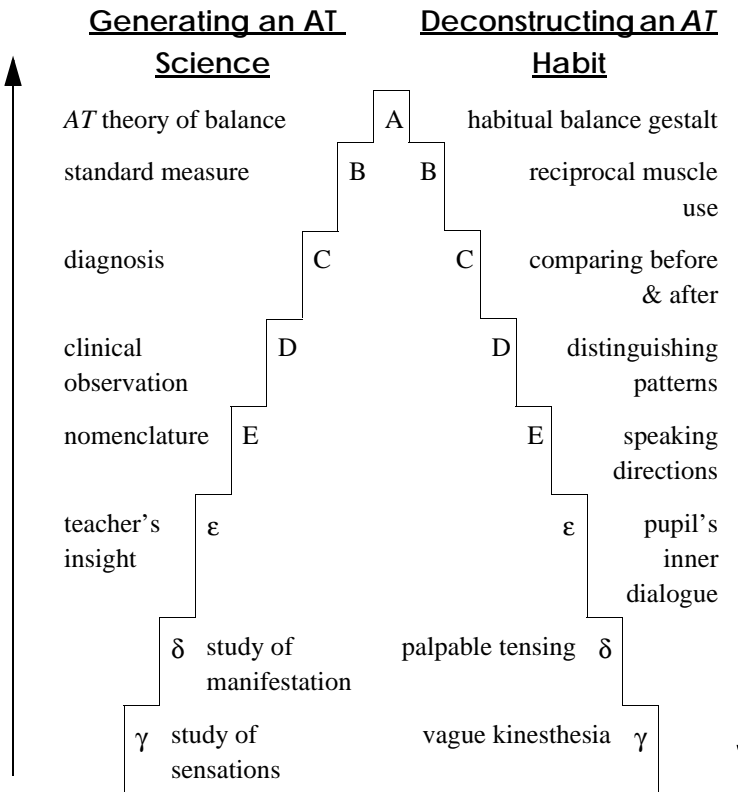
objective criteria that define each stage. Semiotics travels up the steps of knowledge, from raw, undifferentiated experience to sophisticated science. It also travels down the same steps, enabling us to deconstruct our knowledge and behavior into its components. (Merrell, 1995:91-119)

Deconstructing Habits By Inhibition and Re-Direction

When a pupil has the maladapted habit of "stressing" his lumbar L5-S1 disc by slumping his back, he will do so every time his buttocks touch a chair. This is how the pupil knows "to sit." He initiates his habitual pattern unconsciously whenever he thinks "to sit." Any other pattern feels wrong. Direct attempts to change habitual patterns are unsuccessful because they are based on misleading habitual sensory feedback.

The pupil is invited to re-organize his movements into coordinated wholes. His attention is shifted away from results and toward the means of sitting. The pupil participates through a *left* process called “giving directions,” but only indirectly. The directions (“neck free, head forward and up, back lengthening and widening”) are decisively to be not done in the usual sense of doing. Every direction is buffered by an “inhibition.”

To Balance—Up and Down the Semiotic Staircase¹⁰

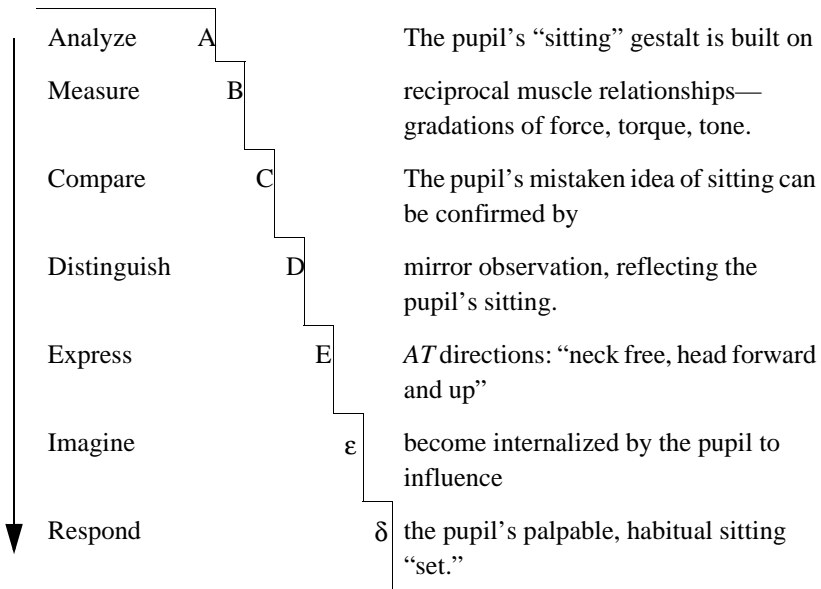


On receiving [verbal] directions...[the pupil] must not attempt to carry them out...on the contrary, he must inhibit the desire to do so in the case of each and every order which is given to him...The direction[s]...are based...on the principle of ceasing to work in blind pursuit of an ‘end’ and of attending instead to ‘meanswhereby’ [by which] the ‘end’ can be attained. (Alexander, *CCCI*:63)

Repetition of sitting engenders expectation of a particular sitting

experience. “Sitting” becomes a neural code that triggers the *back* muscle functioning we subjectively expect to experience. Once encoded, habitual muscular organization resists change. Saying “no” to the impulse to sit—inhibiting—is Alexander's indirect means of not-doing the habitual response to the word, of undoing the restrictive cerebellar encoding, of enabling alternative coordinations. The pupil’s habitual way of sitting looses force. A new way of sitting spontaneously emerges. At this point, however, the pupil’s habitual expectation of sitting experience can interfere. The new sitting feels wrong and unnatural. Fortunately, this mis-interpretation is easily proven wrong. Looking in a mirror reveals how deceptive habitual self sensing can be.

Deconstructing a Habitual “Sitting” Gestalt



Learning requires the pupil’s conscious participation. Giving directions help clarify intentions. Directions are metaphorical, attitudinal. “Conscious control” by directing is a means for attracting *left* words, the pupil’s acts of imagination, to participate in *back* kinesthesia and muscle tone.

Evolving Intuition

AT language intends to adapt and readapt continuously to an experience that is changing and an understanding that is evolving. The evolution of our organism, inexorably guided by how we apprehend our world, goes on in every living moment. Our oldest brains, *under* and *back*, govern biological regulation. Our intuitive brain, *right*, comes later. Only our most recent brain is associated with *left* reasoning.

[A]lthough ages of evolution and dedicated neural systems may confer some independence to each of these reasoning/decision making ‘modules,’...they are all interdependent.” (Damasio, 1994:191)

The greatest impediment to new and better language is not the difficulty of finding a word to describe experience, but our civilized abhorrence of intuition and kinesthesia. Results oriented education abjures fallibility. Objective language protects self awareness from sensuality and mortality. Whenever *right* subjectivity breaks through, as it invariably does, *left* repudiates it as erroneous and reprehensible. This *left* distrust denies *right* a legitimate language. But it is only by language that we recognize, remember, communicate and think.

There is no escape from instinct. Denial of intuition follows from a necessary misunderstanding between reason and imagination. To keep itself clear, *left* deductive reasoning must presume *right* abductive imagination to be corrupt and savage. The purpose and power of *left* reasoning is to abstract, focus and fix. But *left* needs *right* resources—for *right* imagination knows what *left* so carefully overlooks. Imagination of reason’s elisions encompasses what reason will soon need.¹¹ But reason cannot capitulate to imagination, lest madness ensue.

Back cerebellar experience, however, can reconnect and reintegrate reason and imagination. To expedite this reintegration, we must language *back*. The *AT* challenge is to develop successful *back* talk.

Right Imagery, Left Learning

Imagery is the language of *right* and the language of dreams. Our internal images tell us the stories that affect our every thought and action. A *right* image is a personal icon that calls forth a specific bodily response. Our *back* reaction reveals what the image means. Every image tells a story.

The *image* is the beginning of awareness, a primitive *right* firstness.

We think, plan and adjust with a visually served *right* storehouse of evolving imagery. *Right*'s firstness is built on its evolution from the *under* system which evolved before the *back* (musculo-skeletal) system. Worm feelers are the evolutionary antecedents of *right* eyes. Emotions underlie and oversee visual imagery.

AT pupils benefit from anatomical images. Images help glimpse, point to, speak about and so influence process. Pupils more easily see their kinesthetic experience of *back* learning. Sight is more definitive than kinesthesia, easier to word.¹² Seeing in color, shape and motion is *right* learning. Objective, predictable anatomical pictures of skeletal organization and muscle function help pupils remember their kinesthetic experience. This brings *left* into the process. Conception in word and measured pattern is *left* learning. Looking at the body, and seeing it function through *right* imagination, is the beginning of *left* identification of unconscious, but palpable, maladapted anticipatory patterns of habitual use. This identification makes habits objective, repeatable on demand—and, thus, changeable.