

**The Kid with the Sideways Cap:
Teachers as ‘Attractors of Change’ and ‘Changers of Attractors’***

Stuart Shanker

Distinguished Research Professor of Philosophy and Psychology
Director, The Milton and Ethel Harris Research Initiative
York University

I have chosen a technical term from dynamic systems theory for the subtitle of this paper in order to draw attention to one of the critical aspects of *teaching* that is seldom recognized, let alone discussed. The term ‘attractors’ is used to refer to the manner in which a particular pattern becomes highly stable. The basic idea here is that the more a pattern is repeated the more it facilitates its own recurrence. For example, various factors shape the direction in which a heavy rainfall flows down a mountainside. Over time a channel gets carved out that makes it ever more likely that water will follow the same path. Of course, it is always possible to change this pattern, e.g., by building a dam or a weir. But the point here isn’t that attractors can’t be changed; only that the more entrenched a pattern becomes the more effort required to change it.

The attractor construct has particular value for educational thinking as it directs our attention to how certain behaviors become highly entrenched as a result of multiple influences in a system and how difficult it is to change these behaviors without addressing these micro-elements. Traditionally, the study of ‘at-risk’ children has focused on macro issues like socio-economic status, parental education, or parental age. But the concept of attractors directs our attention at the entire system, ranging from the lowest level of biological factors that affect the child’s temperament, to her ability to regulate her emotions, to have sustained attention, to co-regulate with others, and to adopt learning strategies based on her awareness of her strengths and weaknesses in the preceding four levels (see Shanker in press).

We tend to think of teaching solely in terms of imparting knowledge; but, of course, you can’t impart knowledge to a mind that is closed. A very large part of teaching, as

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every teacher knows, is getting a mind to open up. But how does one accomplish this feat when a child has trouble staying regulated because she is easily distracted; or is highly anxious; or has trouble sequencing her ideas; or controlling her impulses?

Our attention is fixed these days – for good reason – on getting to young minds early, so that the child arrives in school ready to learn. But what about the child who, for whatever reason, arrives in school with muted curiosity or a limited ability to pay attention: how can a teacher change this attractor, which will so significantly constrain that child's future learning experiences? This is a question that cuts right across the social gradient: that applies to all children, and not just a targeted population.

An interesting answer to this question came from one of our former students, who had trained in DIR and gone on to become a primary school teacher.

The Developmental Individualized Relationship-Based (DIR) Model is a framework that helps clinicians, parents and teachers develop an intervention program tailored to the unique challenges and strengths of children with Autism Spectrum Disorders and other developmental challenges (Greenspan & Wieder 2008). According to DIR it is critical that clinicians, parents, and teachers follow the child's natural emotional interests and at the same time challenge the child towards greater mastery of his social, emotional and intellectual capacities. The immediate goals are to encourage the child's initiative and purposeful behavior, deepen his engagement, enhance his capacity to initiate joint attention, and develop his communicative capacities, always following the child's lead.

The teacher in question came in one day to talk about an epiphany she had as a result of working with T., the 'kid with the sideways cap':

The first day of classes T. slouched into the room. He was wearing baggy pants two sizes too large and just barely hanging onto his hips; a baseball cap that was askew; and he had on a black T-shirt with a picture of Ice T on it, looking foreboding wearing dark sunglasses, holding up his index and middle fingers in a menacing gesture, against a background of bullet holes splattered with blood. T. sprawled across his desk in a behavior clearly meant to communicate that he was only there under duress. I started talking about the lead-up to the First World War, thinking that here was surely something that a kid interested in gun culture would find riveting. But it was easy to see that T. didn't take in a word that I was saying. He was only 9 years old and yet already the light of learning that one hopes to see in a child's eyes was fully extinguished.

She wondered what had led up to this state, and more to the point, what she could do to change it. The more we learn about early child development the more we begin to understand that there is never a simple answer to such questions. And this

was certainly the case with T.; for his background wasn't at all what one might expect. His parents were both successful professionals, they lived in a nice neighbourhood, and far from neglecting him they were deeply concerned about his future. They had tried to engage him in all sorts of activities, starting with sports and then moving to art and music. But either he refused completely to participate, or else he would try once or twice and then refuse to go back.

It turns out that the problems with T. had started from day one. It was difficult for him to fall asleep when he was a baby; he had problems feeding; had trouble learning how to walk; was difficult to toilet-train; and found it hard to make friends. At the playground he would throw sand on the other kids, and at birthday parties would become so over-excited that parents never invited him back. On one of his few playdates he bit the other child quite hard on the back, sending mother and child scurrying for safety.

Mom tried taking him to organized activities for toddlers, but he could never join in. For example, she took him to a playgroup that had a musician playing folk songs, but he spent the entire time wandering around the room playing with things he wasn't supposed to touch. When mom was asked what she thought the problem was she answered that he was always restless, that he constantly needed to move about and feel things. He was also a little clumsy, which perhaps was the reason why he didn't like all the sports they had tried. And mom thought that there might have been something about the music itself that he didn't like: maybe the sound of the guitar, or the singer's voice.

In daycare T's behavior became increasingly problematic. Mom and Dad had enrolled him in an expensive facility with nice grounds. But T. was soon resisting entering the premises. One day the head of the daycare reported that T. had been so non-compliant the day before that he would not be allowed to stay unless he saw someone to work on his behavior. The problem was that he refused to come back inside after playing outside and became quite angry when he was forced to do so.

Full of despair themselves, Mom and Dad took T. to a therapist who reported that the strongest emotion that she detected in T. wasn't anger but shame. In Mom's words, at this point they "resigned themselves to the fact that he was a difficult child."

The early years of primary school were a struggle for T. It was hard to learn the alphabet; he could never follow the stories; it was hard for him to stay on task but, paradoxically, once he did become engaged in a problem it was very difficult for him to stop; and it remained as hard as ever for him to make friends. All the years of being chastised were beginning to take their toll. By the time he reached grade 3 T. wasn't just subdued, but, as his teacher put it, he had become totally unresponsive.

What makes this particular case so interesting was the manner in which T.'s teacher decided to work with him. After watching him carefully for a couple of weeks, she

arranged for someone to come in after school to work on his motor skills. Rather than have him attempt sports that he found too difficult, the OT introduced him to an “obstacle course” she had set up in the gym, with tables he had to climb on top of and chairs he had to crawl under; a plastic tunnel he had to wriggle his way through; a mat for doing somersaults; a rope he had to climb; and a trampoline at the end which he had to bounce across to reach the finish line.

Initially T. resisted but by the time he reached the trampoline he was starting to be a 9 year-old again, begging for another turn. To make the game more interesting his OT started introducing all sorts of new challenges, and not just physical ones. The first was a game of Simon Says, where if he made a mistake he had to go back to the start of the course. When he started to get bored with this she switched to playing musical notes. If she played a C+ he had to stand perfectly still and when she played F he had to crouch. Soon she was adding all the different notes of the scale, each calling for a different movement, and if he got one wrong he had to go back to the beginning of the obstacle course.

The point, of course, was to work on his auditory processing, motor control, sensory craving, and impulse control, all at the same time. And there were subtle indications that it was working: the morning slouch was starting to go and he was even starting to smile a little when he came into class; he was starting to listen more; and one day in PE he jumped up to join in a game of dodgeball. The other kids could sense that something was changing as well, and a few were asking him to come join them in playtime during recess.

That is not to say that T. had suddenly turned from a failing into an A student. On the contrary, he was still having trouble paying attention, especially in math and science class. And he could come up with a million reasons why he couldn’t work on his reading books. The point is rather that there were signs that T.’s trajectory was beginning to shift, that the attractor was starting to budge.

Naturally enough, his teacher couldn’t wait to share her excitement with Mom and Dad and to plan with them how to build on this momentum. The opportunity came at a Parent-Teacher night. She had prepared careful notes on the roots of T.’s attentional problems, which, she had come to believe, lay in his poorly developed bodily control, possibly as a result of poor muscle tone and hyposensitivity to touch and vestibular stimuli. That is, T. had a lot of trouble orienting to sensory input and feeling how the different parts of his body had to work together when he moved. She also suspected that he was under-reactive to auditory stimuli, which might have explained part of the attraction to Ice T, and over-reactive to the presence of other children.

The key had been to introduce him, in such a way as did not over-tax his abilities, to physical activities that he could do alone, that would not only help him feel and control his body moving through space, but would also help him develop his sequencing abilities. Most important of all was her conclusion that the reason why T.

wasn't listening in class wasn't at all because he was a 'difficult child': it was because he couldn't retain all the information she was trying to impart and that, when he got lost, he tuned out. As the first therapist had noted, his swagger and truculence were strategies to protect himself from the shame he was feeling, perhaps because he didn't want the other kids to find out that he couldn't follow the lesson, or perhaps because he was worried that the important adults in his life (his teacher and parents) would be angry with him for failing to understand.

The lesson here is an important one on the subtle biological causes that can often result in poor self-regulation (see Shanker in press). As Stanley Greenspan explains in his newest book, *I never met a Child Who Couldn't Learn* (Greenspan & Greenspan 2010), the better a teacher can identify and work on the *root* causes of a child's processing challenges, the better he will be able to regulate his behavior and pay attention. This certainly seemed to be the case with T.

For a child who was so susceptible to being ashamed of his weaknesses, the worst thing this teacher could have done would have been to embarrass him still further for his poor behavior in class, or to have set up challenges for him that he would not be able to meet a high percentage of the time.¹ But what really stands out about this case is how it illustrates another absolutely critical aspect of what it means to be a *changer of attractors*.

Before the teacher had a chance to share with the parents her excitement about T's progress the mom blurted out: "T. is a real handful, isn't he!" And the more enthusiastic the teacher became about how T. was doing, the more his parents seemed to discount what she was saying. At first she wondered if perhaps they thought she was just being nice about their 'problem child'. Maybe, after years of getting report cards saying that T. "wasn't meeting expectations" they weren't capable of absorbing positive news about their son. Only afterwards did she realize that there might have been a simpler explanation: maybe the T. that she saw in her class was not at all the same child as the T. that Mom and Dad still saw at home!

And here was where she had the epiphany that she wanted to share with me. We talk about a holistic approach to education, whereby we mean that we have to work on the whole child: his emotional, prosocial, and even physical as much as his cognitive and communicative development. But dynamic systems theory sheds another important light on the meaning of 'holistic'. For it tells us that there are any number of factors involved in behavior patterns, and to change an attractor, especially a deeply entrenched one, means looking at all the major factors in a system.

The problem was, *not paying attention* had become an attractor for T. quite early on, and that doesn't just refer to how T. would respond to novel situations, but how his parents, his teachers, and even his peers would respond to his responses. Through their looks and gestures and the whole panoply of affect signals that parents use, Mom and Dad conveyed that they expected to be disappointed in T. Just telling them

about T.'s potential for change wasn't nearly powerful enough to dislodge them from their own *patterned behaviors* (see King 2002 on this important concept). They had to *feel* his potential for change, had to experience the T. whose mind was starting to open up in class.

It thus struck this teacher that not only did she have work on T.'s temperament and the trouble he was having regulating his negative emotions, but also, she had to somehow influence how his parents engaged with him around learning. For in order for T. to become firmly established on the new trajectory that she was starting to glimpse, there had to be a 'dose effect': i.e., it was critical that his parents could be a part of and help consolidate and build on the changes that were starting to emerge in class.

The problem here, however, as the teacher explained to me with a twinkle in her eyes, was that the change that she wanted to promote in T.'s parents was not the sort of thing that is likely to happen from reading *The First Idea*! Mom and Dad had to experience for themselves the changes that T. was going through, and the kinds of subtle differences in their own behaviors that would assist him in this transition. That is, she had to *model*, not lecture Mom and Dad about the kinds of changes in their interactions with him that would help T. cope with the challenges he was confronted with in school.

Her first opportunity arose when T. had to prepare a speech for speech night. She asked Mom if she could stay after class to help, which she gladly agreed to do. But when they sat down together Mom immediately started to prompt T. about what to write, at which point he got up from the table and walked over to the windows. A look of frustration mixed with anger and embarrassment flashed across Mom's face but, before she could say anything, the teacher got up as well and joined T. at the window. As the two of them stood there, staring at a tree around 20' away, the teacher wondered if, far from being an aimless disruption, T. was telling her with his behavior what he wanted to talk about; for he was staring intently at a mourning dove perched in the tree. When she asked him if he'd like to talk about birds in his speech Mom became quite animated as well and joined the two of them at the window, telling the teacher how much T. loved birds and how many different kinds of birds he could identify by sight and even by call.

As she talked about this T. seemed to swell up with pride and then, quite suddenly, he went back to the table, sat down, picked up the pencil, and began to say aloud and write his speech, which was all about birds. With no prompting he filled up an entire page, talking about the different birds that lived in his backyard, what they looked like, and how they behaved. When he finished Mom interjected, "Why don't you tell them all about the robin that built a nest on the deck outside your bedroom last spring." T. added almost exactly that line, but when Mom suggested that he tell them about the baby chicks as well T. shook his head, indicating that the speech was done. He then proceeded to read back the entire speech aloud, and, pleased with the

result, went off to find one of his friends. And this was the child having trouble reading and writing.

T.'s mom later remarked that she had lost count of how many times she had been told that T.'s big problem was that he wouldn't apply himself. But that was hardly what had happened here. Rather, the lesson learned from this little vignette was that by choosing a topic that he found interesting, and one where he could take the lead, T. was able to overcome the anxiety that made it so difficult for him to sequence and express his thoughts. Moreover, Mom enjoyed the experience every bit as much as T. did, which she conveyed with broad smiles and encouraging vocalizations. But imagine what would have happened if T. had been instructed to write 300 words on some topic that he couldn't relate to and Mom's job had been to police his efforts.

This latter thought opens up an intriguing idea as to how we might view that most unpopular of practices, homework. It is so common these days to read about the importance of involving parents in the education of their children, but it is difficult to know how to proceed with children in grades K – 6. Clearly the last thing we want to do is to hold parents responsible for ensuring that their children progress through an overly ambitious curriculum. But perhaps homework provides us with a very different way of having parents involved in their child's education, where the focus is much more firmly placed on process rather than content.

That is, perhaps there is an analogy here with the use of DIR for children with developmental disorders. The key to DIR is that parents are the primary agents of their child's development. The role of therapists is to help parents master skills that are grounded in the insights that arise from therapy sessions, so that the child is constantly experiencing the benefits of DIR at home and not just in the few hours that he might spend with a therapy team. For this process to be effective, however, parents have to enjoy the experience every bit as much as their children (see Mostrangelo 2010).

It is important to stress that the goal of DIR is to work on a child's core functional/emotional capacities rather than trying to teach him specific information. Chief amongst these capacities is self-regulation: the ability to stay calmly focused and alert when presented with novel and challenging information. The problem that we see in children like T. isn't that they have a very narrow window for being calmly focused and alert, and that their mode of keeping themselves regulated is one that severely constrains their opportunities for learning. That is, shutting down one's mind is indeed a method of coping with a stressful situation, but it is a mode that blocks the possibility of learning. But rather than punishing him for 'noncompliant behavior', T.s' teacher sought to work on the underlying biological factors that made it difficult for him to stay calmly focused and alert when confronted with new information.

If homework were designed with the same goal in mind, it might mean rethinking what we are trying to accomplish and how to set about this. The point here is to get away from the sort of narrow concern with grades and focus instead on the sorts of activities that can bolster the roots and trunk of a child's learning tree. That is, rather than asking parents to oversee their children's lessons *in magister locus*, parents would serve as important elements in their child's growing ability to pay attention or to absorb certain kinds of information that they find taxing.

T.'s teacher stumbled on an interesting insight into what sorts of exercises this might involve when his Mom reported one day that his homework was always better, and he even ate and slept better, on the nights when he had done his 'obstacle course'. The next night T.'s 'homework' was 15 minutes of yoga with his Mom, who was a Yoga fanatic. This was so successful that twice a week T.'s after-school assignment was to attend a parent-child yoga clinic, whose benefits for children with the kinds of problems T. was demonstrating in the classroom have now been established see {Sines 2009} Harrison et al 2004; Fogel 2009).

When I complimented the teacher on the wonderful work she had done with T. and his family she responded: "Oh no, they were the ones who did all the work; I just showed them a different path." And who better to perform this role as a 'changer of attractors' than a teacher? But, of course, such an outcome is only possible if the teacher has been fully trained in child development and is given the opportunity to allow learning opportunities to emerge naturally.

I asked her if there was a moment at which she felt the corner had been turned and she responded, immediately: "Absolutely. It was the day T. came into class with his baseball cap on straight." The more I thought about this the more I wondered if T. hadn't found the perfect metaphor to show the world what he was feeling; for he was the one who was askew, the one who always felt uncomfortable. There was something so poignant about his choice of a 1970s gang symbol from the Chicago Projects whose meaning he could only dimly understand. And yet way he wore his hat was so full of meaning. He wanted the world to know how unhappy he was, how much he wanted help. Fortunately his cry was heard, and as his hat told us, he was now headed in an entirely new direction.

¹ According to Greenspan, the optimal 'success rate' is 70% of the time (Greenspan & Greenspan in press).

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