

*Educational Activity:*

*Living in Fast Forward: Addiction and  
Attention-Deficit/Hyperactivity Disorder*

**INTRO**

In recent years, there's been something of a quiet revolution in treating addiction. It's becoming clearer that success in recovery beyond mere abstinence involves learning and practicing the skills of sustaining attention, self-pacing, repetitive and sequential behavior, placing a delay on reaction, and declining to react physically, to learn how to "put on the brakes."

Hello, everyone, and welcome to our podcast! We're coming to you from our studio at the Council on Alcoholism and Drug Abuse of Northwest Louisiana! I'm Kent Dean, CADA's Director of Clinical Development. Today, we're discussing the copresenting disorders of addiction and attention-deficit/hyperactivity disorder and their kin; what they are, how they interact with one another, and how they can be treated. You'll be able to earn one contact hour of continuing education by completing the post-test after you listen to the program. We'll give you instructions on how to do that at the end of the show.



The fear of having somehow damaged one's brain is a common one in early addiction recovery. Even compulsive gamblers who have never abused alcohol or other drugs wonder aloud about their apparent lack of mental focus and disorganization. **While "brain damage" in the traditional sense is unusual, there are real functional problems that become apparent only after abstinence in addiction begins.** These deficits, which "ride along" in people with addiction, involve the abilities to pre-envison, plan, order and carry out tasks.

The exercises, or games, alluded to later have been used with actual inpatients and outpatients. The response has generally been very favorable, as long as the participants understand two points:

First, note that there is no intention to make light of these deficits, and, second, That practice brings enhanced skill

**Research consensus describes addiction as a chronic neurological disorder**, which both involves and worsens specific deficits, including problems in cognition, motivation, and insight; behavioral disinhibition; attention deficits; emotional instability; impulsiveness; aggressiveness; depression; anhedonia; and persistent movement disorders.



**Executive functions are those abilities of attention and concentration that allow us to perform and complete tasks and then shift attention to new tasks.** Here is a passage from the American Society of Addiction Medicine's Long Definition of Addiction. We're struck by the impression that, if this passage isn't describing true attention-deficit disorder, it's coming very close to delineating a disorder that, as yet, hasn't been named: "In addiction there is a significant impairment in executive functioning, which manifests in problems with perception, learning, impulse control, compulsivity, and judgment. **People with addiction often manifest a lower readiness to change their dysfunctional behaviors despite mounting concerns expressed by significant others in their lives; and display an apparent lack of appreciation of the magnitude of cumulative problems and complications.**" The authors continue, "The still-developing frontal lobes of adolescents may both compound these deficits in executive functioning and predispose youngsters to engage in 'high risk' behaviors, including engaging in alcohol or other drug use. The profound drive or craving to use substances or engage in apparently rewarding behaviors, which is seen in many patients with addiction, underscores the compulsive or avolitional aspect of the disease. This is the connection with 'powerlessness' over addiction and 'unmanageability' of life, as is described in Step 1 of 12 Step programs."

**In their paper, "Attention to action: willed and automatic control of behavior," Donald A. Norman and Tim Shallice have outlined specific executive functions:**

**Those that involve planning or decision making**

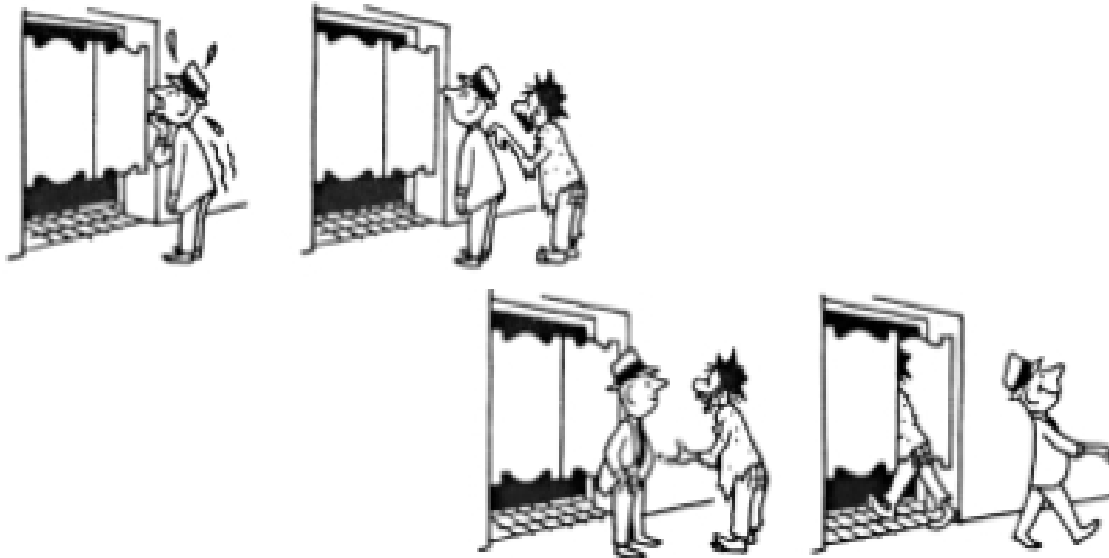
**Those that involve error correction and troubleshooting**

**Situations where responses are not well-rehearsed or contain novel sequences of actions**

**Dangerous or technically difficult situations**

**Situations that require the overcoming of a strong habitual response or resisting temptation.**

In the abstract to their paper, Norman and Shallice write: “The major theme of the paper is that the primary role of attention is in the control of action. The basic idea is that human action sequences can run themselves off, efficiently, smoothly, without any need for deliberate attention. However, when modifications in a plan must be made, *or when it is desired that some novel alternative action sequence be followed, or when it is desired to prevent some habitual act from occurring* [italics mine], then it is necessary for deliberate attentional intervention into the process.”\*



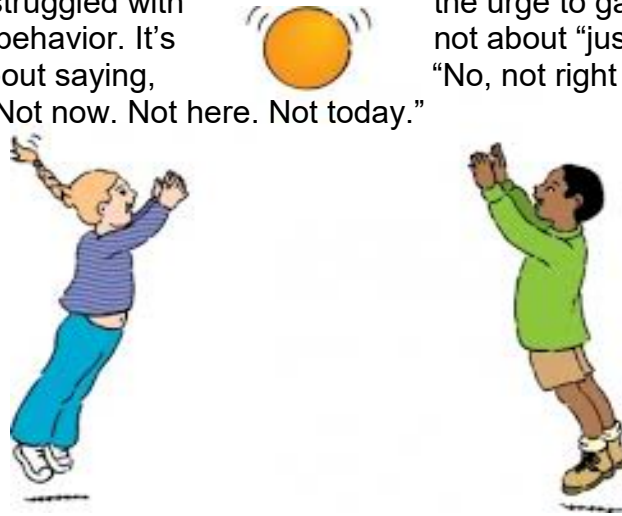
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In other words, the challenges that accompany doing something new or even something that is not well-rehearsed (such as declining the action of drinking, using or gambling, for instance) rather than resorting to “going through the motions,” require that attention be paid to the new task, lest the person find himself reverting to old, previously practiced behavior. As the saying goes, “If you do what you always did, you’ll get what you always got.”

**Understanding is important, but *doing* is everything!** An early illustration of this truth is found in the Twelve Steps of Alcoholics Anonymous, all of which describe *doing* something. (Interestingly enough, a verb, an action word, is the first significant word in each of the Twelve Steps, and they’re described in the A.A. Big Book Chapter called “How It Works.”) We know that specific areas of the brain respond to various types of repetition. As these brain areas become more practiced at the skill they’re being taught, the skill becomes more automatic. If practice is lacking, the skill deteriorates.

A.A. also advocates for doing what is necessary to stay in the reality of recovery rather than lapsing into the fantasy of being able to take that first—or next—drink with impunity, without spiraling headlong into yet another alcohol-fueled catastrophe. **Meditation (or what we might refer to nowadays as mindfulness) is the perfect antidote to impulsive behavior and bollixed-up emotions.** The overarching task is to stay grounded in reality; in the here and now.

Exercises (“games”) have been designed that enhance specific functions of the brain typically *under*-practiced in active addiction and in early recovery. It turns out that one of the most important of these brain skills involves declining to do something, “putting on the brakes.” *Remember: declining to do something is a complete action in itself*, an action which is *different from not* doing something because you haven’t considered doing it. The importance of this skill is obvious to anyone who has struggled with addictive behavior. It’s not about “just saying no;” it’s more accurate to say it’s about saying, “No, not right now. Not this second. Not this moment. Not now. Not here. Not today.”



One of the so-called “games” involves offering someone a small ball. The sequence goes like this. John and I are within reaching distance of one another. I say to him, “Hi, John.” He responds, “Hi, Kent.” Notice that John and I are now engaged in paying attention to one another. Once that attention has been established, that connection made, I say, “John, please take this ball.” I show him the ball, but I don’t reach out to him to offer it just yet.” John says, “Ok.” Only then do I offer him the ball. He has been instructed to count silently to ten before reaching for the ball and taking it. Once he has reached the count of ten, he reaches over to me and takes the ball. Sounds pretty easy, in fact elementary, doesn’t it? The reality is that addicts have special difficulty doing this, because the parts of the brain that enable someone to decline to act on an invitation are, shall we say, “rusty” at best. The impulse is to take the ball immediately, and declining to do so takes special effort and has to be a specific and much-practiced, single-minded goal for the person to be able to carry it out effectively and reliably.

Here’s what got me thinking along these lines some years ago. I used to teach at a K-12 school. As I was leaving the campus at the end of a school day, I walked past the gymnasium, as I always did, to get to the parking lot. The doors to the gym were open, and as I approached the gym, I could hear a lot of shuffling and laughing. Curious as to what was happening, I looked inside and saw the varsity basketball team in a practice session. What was fascinating to me was that there wasn’t a basketball in sight. The team was running single-file up and down the gym in a more or less straight line as fast as possible. Interestingly enough, they were all running backwards! As you might expect, many of them were falling down on the heavily-padded gym floor, laughing as they lost balance and fell. I thought to myself, “Why in the world would the basketball team be doing something so bizarre? What could running up and down the gym backwards possibly have to do with practicing playing basketball?”



Immediately, of course, it dawned on me why the coach would have the team doing that. When you're playing a real basketball game, you have to do a lot of running more-or-less backwards, and you have to do it without falling down and without fouling the player next to you. The coach was running them through their paces doing a movement isolated from playing basketball as a whole. He was giving them a tool they could use during a real game, and he introduced it to them and practiced it with them in its simplest form. No dribbling, no throwing, just the single act of running backwards. Taken out of context, it didn't seem to make a lot of sense. Put in the context of a real game, it made all the sense in the world!

Going back to my description of the ball-passing game a moment ago, the real-world utility of that game and its skill set become apparent as John, who happens to be an alcoholic in early recovery, is with friends one evening. One of them—presumably not knowing that John is an alcoholic in early recovery—suggests they all go bar-hopping. John has recent memories of getting drunk and initially enjoying the experience and then also coming to regret having gotten drunk when he had an auto accident and smashed up the family car. The invitation to go bar-hopping incites within him both an anticipation of the pleasure of getting drunk and the dread of what he fears may happen—again—when he does so. ***Both the anticipation of drinking and the dread of the likely consequences affect the reward centers, making it especially difficult for an addict to think straight.*** Since John can't summon the attentional focus to take himself out of the immediate situation and, perhaps, call his sponsor to discuss the craving and get support, he has yet another relapse.

If, on the other hand, John has systematically cultivated the knack of installing a period of time between the invitation to go bar-hopping and what he does next, he can fall back on that now-practiced response of waiting until his head clears a bit and then getting support from his sponsor, to keep him grounded in reality. This time, in the face of the invitation from his friends, John is able to perform what may seem like a miraculous feat: *he does nothing. For a period long enough to allow him to come back to himself and reorient to reality, he simply stays still and does nothing.*

***Again, the overarching task is to stay grounded in reality as a guide for what should be the next move, when the time is right to make it. For now, however, do nothing. Just be.***



**Harm reduction strategies and activities stem from the desirability of adopting and sustaining practices that mitigate risk and minimize the frequency and severity of harm to our patients (as in a relapse).** As important as theory is in psychiatric disease management, its utility is realized only in the doing of behaviors that promote abstinence and recovery. **Patients can benefit from contingency planning and from intelligent management of time. Scheduling their day is one very empowering way of helping them stay mentally focused.**



The logic of time management in recovery and in relapse-prevention planning goes like this:

There is only one of me.

Since there is only one of me, I have only one brain.

Since I have only one brain, I can pay attention only to one thing at a time.

Since I have only one brain, I can think only one thought at a time.

Since I can think only one thought at a time, I will experience only one emotion at a time.

Since I have only one brain, I can do only one task at a time.

Since there is only one of me, I can be in only one place at a time.

Since it's always today, I can live in only one day at a time.

**Therefore: I ask myself the question: "Right here, right now, am I where I'm supposed to be, doing what I'm supposed to be doing?"** As long as the answer is "Yes," I can't relapse. If the answer is "No," I reserve the right for the rest of my life to stop and re-set my day as many times a day as necessary to get and stay on track.

## OUTRO

That's our podcast for today. If you'd like one hour of CE credit for just \$5.00, you can go to the School's website, [cadaschool.com](http://cadaschool.com), click on "online courses," and just follow the instructions. Once you pass the post-test, which includes evaluation questions, you'll be able to download and print your certificate of completion. Be sure and stay in touch on Facebook! See you next time!

\*Norman DA and Shallice T: Attention to action: willed and automatic control of behavior. In M Gazzaniga (ed.): *Cognitive Neuroscience: A Reader*. Blackwell, 2000