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Context to the nugget conversation

Tom speaks about the challenges we face in the unlearning process whenever we have spent a lot of time learning something. He speaks about a rocket scientist in Huntsville Alabama, who constructed a cycle with different movements to prove the point about how difficult it is to balance the cycle.

Transcription

Deepak Jayaraman (DJ): You know, in the book you also talk about the work of Rob Gray, who directs the Perception and Action lab at Arizona State University and you talk about this notion of unlearning and you speak about action slips, you know, things that we sort of do by default especially in a high-pressure environment. I was curious about, you know, in your pursuit towards learning these five new skills, what have you learnt about unlearning? You know, you spoke about adults having that cognitive component about like you spoke about language, kids just speak while we sort of try to look at how it fits in with the paradigms, we have etc. So, what have you learnt about unlearning effectively, especially when we are learning something new?

Tom Vanderbilt (Tom): Yeah, it is a great question and first of all, unlearning is a strange word, it is not something that is completely agreed upon in the scientific world or the literature and whether it even whether unlearning is something distinct from simply learning a new thing is sort of a... I mean, semantically it makes sense but whether it is an actually different process I think is not known. But it makes me think of an experiment I did and which I didn't mention too much in the book but as I mentioned I was a keen cyclist so I had heard about a guy who's a rocket scientist in Huntsville, Alabama and he had this... I was doing this little experiment with a backwards bicycle and what I mean by that is that when you turn the handle bars left the bike actually steers to the right. This is something that has been used at various carnivals and in countries like England or America and usually the person will offer you five dollars or something if you can do it correctly, if you can succeed at riding this thing. So, people, the punters go up and say yeah, I can do that and of course then they lose their money. So, but to me it was just a fascinating example of this unlearning because I had had many years of knowing how to ride a bike that was burned into my brain, I could ride no-handed, I could ride doing something else, I didn't have to think about it at all. So, I was under the mistaken impression that that would give me a leg up in trying to learn this variation on a bicycle, what if the opposite was actually true, it was probably harder for me to learn that new thing because I had so much of this previous program running on my desktop that it was actually impossible for me to do more than simply sit on the bike. The moment I tried to move just a little bit my whole internal sense of balance was thrown off and I was basically falling. And we did this on the grass because he actually knew that this would happen. So, one of the points he made is that his children were actually able to learn it faster than he was not necessarily because they are amazing geniuses, but because they have had less experience at riding a traditional bicycle. So, they have less

to unlearn so you know at the end of the day I don't really know that there's anything that different about unlearning in that you sort of have to do it the hard way. I mean, he... that my rocket scientist friend learned to ride, it took him about six months, which is probably longer than it takes to learn to ride an actual bicycle so but, you know, he just little daily bouts of practice and there was sort of no secret beyond that. So, I think but to your point there were moments teachers would give me particular tricks to sort of help me pass things that were, get past things that were sort of habits in the way that I, for example, when I was trying to sing I would have trouble with a certain high note and as the high note was approaching they sent a signal to my brain that oh my god, there's this high note coming, I started to panic, my body tensed up, I would sort of raise my neck like a giraffe to try to reach this high sound; all of those things were tremendously counterproductive towards producing that note. So, my teacher would have me do this little sort of, just a kind of a corrective motion to as the high note was approaching to bend my knees and dip slightly down and that just sort of for whatever reason it worked, it maybe I stopped thinking about the high note, I concentrated again instead on sort of dipping going down and counter-intuitively that actually made it easier to produce those high notes. So, whether that was a form of unlearning I am not sure, but sometimes it is just a matter of disrupting a habit that you have and those habits can be very hard to disrupt. But there are there are ways but sometimes it just involves many months of practice.

DJ: Hmmm-hmm.

Tom: You know, I don't know if you drove while you were... you are on the left side anyway but a person going from a country that has right hand side drive to left hand side drive it is same idea that there is...

DJ: No, I had this, I had this issue when I was, when I first came to the U.S., I remember we were out, we were going out for a team lunch when I was at McKinsey and I remember I telling them let's take my car and I got into my car with three colleagues and suddenly my sort of the India... I started having a conversation with them as I took the car out and I think my Indian driving instincts came in and for a good 10 seconds I was on the wrong side of the road and my colleagues sort of were nudging me, you know, pointing to me pointing fingers and I wasn't really getting at, I wasn't really getting it and then one of them had to forcibly, the guy sitting next to me forcibly took the wheel and moved me back to the lane. That is when I realized that oops so yeah it was...

Tom: Yeah, and this sort of this goes back to what you talked about earlier about it is good when learning a motor skill to not think about it and this is a case with unlearning that actually is beneficial to think about it because you need to override that existing behavior that is lurking within your body and actually pay some conscious attention whereas... and then I would estimate over time that it gradually became instinctual although like Rob Gray says there could be these actions slips in a moment where you are distracted or panicked you might revert to that old behavior and, you know, luckily you had colleagues with you in the car that...

Reflections from Deepak Jayaraman

DJ: To understand the point Tom makes, all you need to do is go to YouTube and type "The Backwards brain bicycle". The video belongs to a Channel – Smarter Everyday. I would really urge you to pause and do this now. It is a pretty cool video and profound at many levels. I repeat, you just need to search for The backwards brain bicycle. It has the link the point Tom makes about how somethings are deeply ingrained in us and it is so hard for us to unlearn.

I have encountered this several times in my life. Let me talk about a couple of instances.

1) This is in the context of my desire to learn Touch Typing. I must have been 3 or 4 years into my work and I used to have this deep admiration for people who could type without looking at the keyboard. Especially when it shows up in movies. Like the scene where Tom Cruise is figuring out what is Job 3:14 in Mission Impossible. I quickly figured a couple of websites that taught touch typing and I started spending 30 mins a day taking lessons. But I didn't make any progress whatsoever despite doing this for a few months. Then one of my colleagues gave me a piece of advice. They said, while you are learning for 30 mins, the remaining 10 hours of the day, you are reverting to your old behaviour. Unless you really change that, you will not make any gains. That was profound insight. But I resisted because that would mean I would slow down tremendously and it would have an impact on my deliverables. But at some stage I decided to take the plunge and said, that I will only type the proper way whether I am in class or not. And that really reduced my speed 10x initially but within a couple of weeks my speed had skyrocketed with the touch typing technique, much faster than the clumsy technique I had earlier. It showed me how ingrained some of these things are and unless we really go all out, it is hard to root out some of these habits.

2) The second context in which it showed up in my life was in the context of my learning the guitar. Back in 2001, when I had first moved into Mumbai, I wanted to learn an instrument and given I was learning from Ground Zero, I said let me pick the first guitar teacher I find and sign up. So, I signed for a guy who was into Dandiya music but I didn't care. I was starting from Sa Re Ga Ma, the equivalent of Do Re Mi. I must have learnt with him for 3-4 years but then I spent a long time goofing around in YouTube learning chords through the net and playing somewhat OK. About 4 years back, I wanted to resume my Guitar and signed up with a teacher. He asked me to show what I could play and I was quite proud of the number of songs whose chords I knew. But he looked at my leg and noticed that I wasn't tapping as I was playing and I was missing the beat in quite a few places. The first thing he said was we need to get your feet tapping and your playing to coordinate with the foot tapping. I thought this would be something simple, a bit like the cycle experiment that Tom speaks about. But this process took several months, as a matter of fact it is still ongoing as sometimes, my old habits relapse. It taught me, how some of these things get ingrained and unlearning something is often more painful than learning afresh and requires a lot of dedicated effort.

I have realized that for a lot of things where we are trying to move the needle, unless we are willing to embrace the valley of discomfort where our performance often takes a nose-dive in the short-term, we end up staying in a suboptimal place.

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End of nugget transcription

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About Deepak Jayaraman

Deepak seeks to unlock the human potential of senior executive's / leadership teams by working with them as an Executive Coach / Sounding Board / Transition Advisor. You can know more about his work [here](#).

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