The power of a growth mindset: why certain habits of mind matter in clinical improvement – transcript

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Lara Carim: This podcast is a recording of a presentation by Professor Bill Lucas on 'The power of a growth mindset: why certain habits of mind matter in clinical improvement'. The presentation was part of a session sponsored by a RCVS-Knowledge at the SPVS-VMG Focus on Leadership and Management Virtual Summit on 1 December 2020. Bill Lucas is Director of the Centre for Real-World Learning and Professor of Learning at the University of Winchester.

Bill Lucas: So it's a real pleasure to be with you. And just a very quick introduction that contextualises my contribution. I'm a professor of learning. I'm interested in how people learn and how people change. For the last decade, I've been working very closely with the Health Foundation and latterly with the new Institute for Healthcare Improvement in Cambridge, THIS.Institute, and I'm going to be sharing three aspects of that work with you and try to find some connection with your work.

And the three aspects are to argue with you that there are certain habits of mind, which really help when you're trying to improve anything. And there's this sort of super power, which I'll describe as a growth mindset, not my phrase, it's Carol Dweck's phrase. And secondly, I'm going to offer you a model developed with educationalists, with researchers, with clinicians in the health service, in the hopes that it might resonate with you and your work.

And then I'm going to just pull back out of that and invite you to consider, if you like this kind of approach, how might you train others to do this? What might the leadership implications be for you? If you like to tweet, that's absolutely fine by all means, screenshots. I'm @Lucaslearn or use the other very many functions that exist in this excellent system. And just to say, I'm delighted to be supported in this by RCVS Knowledge, the charity partner of the Royal College of Veterinary Services (sic).

I want to start, and this may seem slightly weird, with a lawn mower. In fact, a story of a lawn mower that took place just 50 minutes ago in this household. This time of year, many of you may also be similarly aware that your lawn mower needs servicing. I took mine to be serviced 10 days ago. It arrived back on Friday. When I tried to use it, it didn't work, or didn't work very well.

And so I rang them this morning and said, I'm terribly sorry, but it's not working. And within seconds I had empathy. Then I had thoughtful questions. Then I had excellent communication. And then somebody saying, well, come around now, pick it up. But I'm so sorry you've had this disappointment. I sensed in that call, not just good customer service, but a whole mindset about wanting to do not just our best, but to improve the quality of what this particular company was doing. And I was, as I think anybody would have been, very impressed.

Now, I'm, I don't know enough about what you do, you veterinarians, but I am a keen user of your services, with two dogs and a lot of chickens running around our house. That's last year, obviously I'm not yet quite into Christmas. And I'm particularly interested to see the way that you're moving towards quality improvement and two strong conclusions from this recent report, and high levels of agreement that quality improvement might improve the quality of your care.

And in doing that, you'd be following a rich tradition of thought. Historically lots of this kind of thinking started with aviation, and the aviation industry has an extraordinary rate of success, but didn't at one time. We need to go back a little bit beyond this if we want to see the origins of quality improvement.

Well of course ever since human beings got together they've probably tried to do things better, from the early hunts when we were evolving pre-civilisation, right through to, well in the middle of the last century, generally attributed to W Edwards Deming and his work, first of all in Japan and then in America, and to a statistician Walter Shewhart, who with Deming began to see that the essence of improving quality, in whatever service you work, is understanding variation, and understanding whether it's just the variation that occurs because we're all different, or whether it's the variation that can be overcome.

And now, so if I took you to West London NHS Trust, they will be badging a lot of what they do with this phrase, Quality Improvement, a phrase that was made widely known by Don Berwick at the Institute of Healthcare Improvement in Boston, and has now slipped into popular parlance. And I'm hoping it will land (that isn't my black lab, although it might be), and it will land with you as something that makes sense at whatever scale you're operating, whether you're in a very small practice or a much larger one. The two other fathers of this movement, Paul Batalden and Frank Davidoff have talked about how, in a healthcare setting, this is something that is about culture shift. This is not that improvement is one person's job, but it needs to be endemic, ubiquitous in all parts of the system.

And I'll come back to that when I get to the end of this talk. I want to start by introducing you to an idea, the idea of habits of mind. And before I do that, I just want to go back a fraction to say that if you're already persuaded that quality improvement might be a good thing, then you may already be familiar with various techniques like run charts to visualise variation, like process maps, to see what happens from the moment that somebody calls you and an animal is safely picked up, driver diagrams and audit and feedback and cause and effect diagrams, and even a Pareto chart showing the frequency of events - all of those tools you may already be coming across are terrific, but I think that they're not enough. I think the more fundamental shift here is in our mindset, and that's what I want to try and persuade you in this talk. And I've got about 30 minutes to do that.

Let's go back to a psychologist Lauren Resnick, writing predominantly about education and introducing this idea of habits of mind. So being smart, she says, is the habit of persistently trying to understand things to make them work better. And being smart is working to figure things out to varying strategies until a workable solution is found. In other words, being smart is the sum of one's habits of mind. And I think that's a helpful, it's almost a proxy for being a good improver. It depends on the kind of habits of mind that you have now, whatever discipline you come from, and many vets will have come predominantly from a scientific background. It's perfectly possible to think about a discipline like science as having certain habits of mind. So for example, scientists tend to be open-minded and appropriately sceptical, keen to see the rational arguments, objective, curious, and so forth. And that's equally possible, and I think it would be a nice thought experiment for you to think about what the habits of mind might be for a good improving veterinarian.

In other parts of my research life I've looked at this from the perspective of an engineer and, with the Royal Academy of Engineering, have developed a set of habits of mind for engineers. And you'll see, there are six of them: systems thinking, adapting, problem-finding creative problem-solving, visualising and improving - all around a central core that what engineers do, is try and make things that work and make things work better. Now, just hang onto that thought, because although you're not engineers, I think there actually are quite a lot of similarities between what you do and what engineers do.

One problem of course, is that not everybody wants to improve. The classic anti-improver is, I guess, Homer Simpson, who kind of thinks that there's only so much I can do and my brain is already full. And I joke because many of our hard-working colleagues will be in that sort of space. I don't believe that

anybody comes to work to do a bad job, but nevertheless, they do come to work with all sorts of other things going on in their lives. And there is a tendency that says, well, maybe this improvement thing is a fad or it'll go away. Or it's just something that I suppose I better go along with. And that needn't be the case. There is really, really good evidence from so many different walks of leadership and management life. Here are just four examples. I'm going to talk about, very briefly, two of them: Malcolm Gladwell, *Outliers*, and Carol Dweck, *Mindset*.

And I'm going to suggest to you that there is a particular way of viewing the world that is likely to make improvement come more conducively to us. Let me start with somebody who I think has made a very significant contribution here, and it's Carol Dweck, and it's her notion of a growth mindset. I don't know if you've come across this before, but let me talk you through it. Now Carol Dweck's work is founded on schools and education initially, but I think it expands very well to the professions. And she says, well, she says three things actually. The first thing she says is that, do you know what, when you look at people, there are two kinds of person: somebody who's what she calls a fixed mindset person, and somebody that she calls a growth mindset person, who thinks of themselves as having an expandable ability.

Now, if you look at that list of characteristics on the left there, and it is an interesting experiment here, just to think about your colleagues here, or indeed yourself, then you're the kind of person who sees making a mistake as a badge of failure, and is very keen to hide that from others around them, in their team, who's constantly proving what they know what they can do, or how good they are, is unlikely to push themselves, so enjoys safe learning can actually be effort averse, is deeply competitive because wants to be seen as the best - and funnily enough, or maybe not funnily enough - often ends up with a rather inaccurate sense of who they really are.

Contrast that with a set of characteristics that go with the growth mindset. These are improvers. They're people who want to stretch. They see mistakes as something that clever people make, or people trying to do their best make, and providing they learn from them, they see them as being useful. They're very keen to push themselves to the end of their comfort zone. They're resilient. And they're often keen to...They're the kind of vet who would be on the phone to somebody else saying, I've just seen this. Have you ever come across anything like this? And they end up with a very accurate self-image. The growth mindset, I think, is a kind of super mindset, a super power. Now, if Carol Dweck had simply just lined us up and said, There are two kinds of people - that would have been interesting, but not that helpful.

The, the worrying thing that you might have in the back of your mind is that, well, what if I'm a fixed mindset person and I can't do anything about it? Well, luckily, Carol Dweck was able to show that that's not the case. You're not either born fixed or born growth mindset. And she located the mechanism by which you become less fixed and more growth mindset oriented. And it is the way that you give and receive feedback. So think back to your school days for a second. Think back to a moment when you were receiving an assignment back or an essay, if your teacher said to you [I'm going to imagine the teacher talking to me]: Well done Lucas, an A grade - what am I hearing? Well, I might have a flutter of pride, hope or pleasure, but I'm really not hearing any feedback at all that is helping me to know in what way it was an A grade.

Contrast that with: Well done Lucas, I really liked the way you...and then the sentence continues with some specific tools or techniques or processes that I used and possibly things that I did that I...where I was showing something that I'd learned in my last lesson. Oh, and by the way, you've got an A grade. This feedback is like good feedback in organisations: it's specific, it's actionable, and it's qualitative. It helps me to know what I might do better as a consequence. And if I constantly hear that, I begin to get the sense that my destiny is in my control, and that if I practise and I work hard and I do things differently, I'm likely to get better. So that was the second thing that Carol Dweck showed us: the mechanism by which we do this.

The third thing that she showed us in a school sense, is that by the way, it's not those who constantly show us how good they are, with the fixed mindset, even if they are the A grades, who do well or better in public examinations and in life, as it happens. It's the people who are set on improvement who do better in life and do better in exams. And I hypothesise that the same is probably true in your service. It's certainly true in many others.

Now, one other idea, the idea of an outlier. This is really helpful, and this is at the heart of improvement. The understanding that we'll all sit on a series of bar charts or a process chart or a map or a description of what's OK through to what's absolutely outstanding. And if you've not read Malcolm Gladwell's book *Outliers*, it's a great read. And one of the things he's arguing throughout is that we can learn a lot from the outliers, from those who are significantly better than us, and we can learn a lot by understanding what it is they're doing. In a research methodology that's often referred to as positive deviance. So I'd be saying to you, if you're really set on improvement, who's the best that, you know in your practice, who's the best that you know in your county, who's the best that you know in your specialism - because they're the kind of people you want to hang out with.

By the way, Quality Improvement isn't just something that works because you give it a badge of quality improvement or QI, as it's increasingly called. Here's a very well-known couple of researchers, Mary Dixon-Woods and Graham Martin (Mary leads the new centre in Cambridge) arguing in the Hospital Journal that not all QI leads to improvement. So just simply using a tool doesn't necessarily mean that you're improving. So just a caveat that this is not a quick fix or a quick remedy. This requires serious change, cultural change. And often as with everything in life, leadership.

So if there is one kind of super habit, the growth mindset, what might it look like to be an improver? What kind of habits of mind, and indeed action might you demonstrate? Well, I want to share with you the model that I've developed with the Health Foundation, and see if it lands with you, see if it speaks to you. So here - and you can see I like circular models (I like them, by the way, because they don't have a hierarchy) - and just as with the work I've done on engineering, I'm trying to unpack a concept in a way that begins to make sense and can be communicated - because what we're talking about here is not just a set of beliefs, but the leadership capability of bringing others along with us.

Let us just imagine that this is a clock face for a second. And let me walk you around the model and see if it resonates with you in your working life. So improvers, I would like to suggest, have a set of five core habits, each one of which breaks down to more recognisably practical activities. So improvers, if we're starting at 12 o'clock and working round as if it were a conventional clock face, know that although they may see what needs to be done, just telling others to do it won't necessarily work. So they need to read the rooms. They need to understand and empathise with those around them and what others might see as barriers or possibilities. And then they need to be facilitative; not telling, but engaging with and persuading and creating contexts in which others can learn something. They need to be comfortable with conflict, because quite often they might be saying something that is taking the group, the organisation, the individual away from their current position.

They also, I suggest, need to be resilient. They need to be able to hold fast to...retain their sense of optimism, to take appropriate risks, and to put up with the fact, to tolerate the fact that not always do we know in any kind of caregiving, whether it's for human beings or for animals, do we absolutely know it's the right answer. They need to be creative too, not just in generating ideas, but in critical thinking; knowing which ideas the evidence suggests are good ideas, and creativity is normally a team sport. So they need to know how to get the best out of others. They need to be systems thinkers. We'll come onto that finally. Able to make connections - so it's not just fix this problem here, but see it as a bigger system, and consequently accept the fact that systems may need to change. And most profoundly, and most importantly, they need to be learners; not just problem-finders, but also solution-makers, constantly reflective.

In fact, the kind of learner who after a day, a hard day, maybe staying on because you were dealing with an owner or an animal in some distress, still at that moment saying, you know what, I wonder if we should have done it that way rather than this way, or let's just take a moment. Shall we just stop and reflect to see what we were thinking about when we chose to take that decision rather than this decision? If you're interested in that, the habits of an improver can be Googled and downloaded free from the Health Foundation. If you wanted a shorter version of it, there's an open access, very short four-pager that I wrote for the BMJ Quality & Safety journal, which might be of interest to you. Again, it's open access if you're interested.

This model is now commended and widely used - here's the Chief Medical Officer in Scotland - as a model for clinicians in Scotland. It's used widely in training as a reflection tool. Just think how you might use it, for example. So if you were thinking about your practice, your team, you might be saying as a team, Which of these habits do we have? Who's particularly strong in influencing? Who's particularly strong in coming up with good ideas and being creative? And of course, no one individual has all of these things - they would be a paragon and possibly quite hard to be with! But the team, the practice probably needs to have these. It's also used here in Ireland, Southern Ireland, again, as a model for professional development and for leadership development across the country.

Now, why do we need to even think about these things? Well I want to make an argument now which says the reason that habits are important is precisely because of the phrase 'habit change'. And that habit change is hard. If you think about the most obvious thing pre-pandemic, although it's become even more important during the pandemic, the thing that we all knew that in hospitals we had to sort out, was the fact that not all caregivers and clinicians were regularly sanitising their hands. Now, you know, we've known for quite a long time, haven't we, the scientific knowledge has been there about germs and about infection control. We also have the skills, do we not, to know how to use gel or to wash our hands appropriately. The question then becomes not whether we have the knowledge or the skill, but whether or not we are actually disposed to put those, that knowledge and that skill, into action.

And here, I think it helps to understand the nature of habit, the nature of what I like to think of as a disposition. Here's some work I've been doing in Australia, where I was doing quite a lot of work with the school system. And this may be a useful model to you. So when we're thinking about improvement, there will inevitably be some knowledge - that knowledge might be the knowledge of a new tool - and some skill, how you might use that skill. So how would you, how would you use a driver diagram or a process map in your practice? Those would be important things, that kind of baseline knowledge and skill, but then the next stage is not just whether you know what and know how, but whether you're actually able to do that in the context, in a busy practice.

And then, and here's where I'm going, the most important thing, obviously, is not just whether you can do it, but whether you choose to do it and whether you choose to do it routinely. Now we're entering something which is much closer to culture, isn't it. Now in my next slide, I do have a picture of a naked woman. So I need to give you that warning so that you can look away. If you do not wish to see her, here goes, look away now if you don't want to see her. At this window, there is a naked woman. Can you see her? I wonder if you can, many people can. In fact, of course, there is no woman at the window. There is a pot plant sitting on a shelf and the pot plant's fronds look a bit like a woman's hand. There's a curtain, there's a cat, there's a wine glass and there's some underwear.

There is in fact, no woman at that window, but whenever I've used this image (and it comes from a book that Guy Claxton and I wrote for the BBC quite a while back), I find that most people can see the woman. And if I now see, if I now tell you or remind you that there is no woman at that window, and if we were in the pleasurable situation of being all in the same room together I could see your faces, I would be, I bet that most of you will still see the woman at the window, despite the fact that you are rational scientists to a woman and to a man, many of you. Well of course there is no woman at the window, but

this illustrates the fact that the human mind quickly gets set on the way it sees things. So habit change requires us to help people to 'unsee' things, to see the world in a different way.

There's a very nice saying that George Bernard Shaw has that in a sense, in an ironic sense, we all need unreasonable people, the grumps around us, so that we can have some kind of grit in the oyster, to persuade people that they need to change. And from a psychological perspective, a reminder that change is not an external phenomenon. It's us inside ourselves coming to terms with something that's happening within us. So if you're suggesting to a colleague that she or he might change their practice, then superficially, that may seem to be an external thing. It's very often wrapped up with how they're seeing the world inside. There's a nice formula here, which you, as leaders might like to hang onto, because in all organisations, there will be people who resist change. They're the capital R, R for Resistance.

David Gleicher's formula is a bit mathematical, but a bit common-sensical. And his formula is about how we overcome the resistance in an organisation. And his formula goes like this. We need to understand our dissatisfaction and their dissatisfaction with the status quo. The V is for Vision - we need to be able to say why we want to do something differently. And the F is for first steps. So if you're trying to make anybody change or help anybody change or persuade anybody to change, it helps if you can say, Look, if we want to improve our service or our care, then I think we've all agreed that we're not quite happy with the way we do X. And what we imagine is the V coming up is a different world in which we do it like this. So a practical, first step is Let's all use this tool or this process so that we can overcome our in-built resistance to change.

In fact, if change is just left as an abstract, as a kind of miracle, in fact, people talk about Yeah, yeah, we're doing this already aren't we, then that normally means that they're not. And they're normally meaning that they're not being precise enough or explicit enough about what the nature of the improvement process is. So here's part of the knowledge and part of the skill that we need. One of the things that I found with health caregiving, and I wonder whether it's the same with animal caregiving, is that it helps if we have a theory of change. So I've adapted the theory of change that we came up with at the Health Foundation. And I wonder if this works for you. So that if we are clearly able to articulate the kind of habits which improvers have, and the knowledge and skills, then it's much better to think as leaders about the kind of learning that they might need and the methods that might be most helpful so that we build improvement capability, and so that all of our teams embrace an ethic of learning, and, well you can read the rest of it. And that's I guess my underpinning argument to you.

And I want to move, shift now into this final part of my talk, onto the learning that's needed to make this happen. Remember air travel? In the days of air travel, we'd have a safety video, wouldn't we? That said essentially, if we hit turbulence, a facemask will drop down, an oxygen mask rather, and I'd like you to put it on yourself before you put it on your child. Often as an adult it seems a rather strange thing, but a helpful idea, a kind of proper selfishness that to make others safe, we have to look after ourselves. And I think that's why I come back to the habits of an improver - to make the animals in our care safe and to make their owners feel happier and more comfortable and confident about the way we deal with this, I think these kinds of habits become really, really important.

And my call to you is, or my question to you is, what might that look like for you? What would it look like if everything you did was set on learning in your practice, or everything you did was set on thinking about how you could be more facilitative and bring all of your colleagues on board to the way that you want to work. Might a habits of mind perspective help us to think more about the kind of learning that we offer people? Because I think the danger of QI and Quality Improvement, much as I am a big fan of it, is that it can simply mean that we add more stuff into the professional development that we offer our staff. And that's fine, but I think that it's at least as much about mindset as it is about stuff.

So our goal, I think, is to make improvement normal rather than to make it a project or to make it a tool. So I want to close, I want to end with the idea that there are...a pedagogy is just a word, meaning teaching and learning methods. So the idea that there are certain kind of symbolically important, structurally important ways of learning that can help us here. Because what we're talking about here, isn't as simple as, Well, we just need to teach them some new knowledge, some new skill. What we're talking about is what Aristotle calls kind of practical wisdom and situational awareness - that hunch that we get that, in this context with this situation, this might be the best thing, the best way of proceeding. Of course, that's expertise, isn't it? It's what David Perkins calls sensitivity to occasion. So we hit a certain context and something prompts us to act in a certain way that is likely to be one that will produce a better result.

In a medical sense, the general sense is that the current learning and teaching methods aren't up to it, the current training methods aren't up to it. They're too much about content transmission, didactic, and they're too far removed from the reality of, in this case, being health caregivers, but in your case, looking after animals. And I wonder if the same is true for you. So the idea here is of there being certain teaching and learning methods that would be really good for helping you and your colleagues become better at this, if that's indeed where you'd like to go.

Let me take you back to the engineering model I gave you way back. Engineers have an engineering design process, and that's the kind of archetype of what they do. And if you were thinking about the habits of mind, if you were trying to develop engineers to become better systems thinkers, better adapters, and so forth, then these are the kind of adult learning methods you might be using with them.

So if you wanted to help them to become better visualisers, then you'd be using modelling and mental rehearsal and infographics, and so forth. Now, when we're thinking about Quality Improvement, I think the model that we may well have is of our practice, of our busy practice, and how we can think about that. And from the health example, we concluded that the best way of doing it would be to provide sustained opportunities within your context. So in number one there, you might say, Well, one of the ways which we could build improvement capability would be to give opportunities within the day job for these kinds of things to be learned and practised, to have coached assignments, to gather together as a team, maybe to find mentors who are further down the line here who might help us.

And the core of this, I suspect in veterinary services, as well as in health, is this iterative process of improvement: plan, do, study and act. So my question to you would be, within a veterinary context, what might the learning methods be for you to develop improvers in your practices? How might you, and this is a conversation piece because I don't know enough about your context, if you like these habits of mind, how might you develop them? In a broader sense, just to pull back out in terms of leadership, I think we're really talking about creating every practice as a learning organisation. Peter Senge said that people who are in a learning organisation continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured.

In a healthcare system, Don Berwick, the founder of much to do with improvement, said the NHS should continually reduce patient harm by embracing wholeheartedly an ethic of learning. Take out the word 'patient' and...or keep the word 'patient', but focus on all the animals you care for, and I think the same could be held to be the case. So by systems thinking, he means not just fix the individual problem, but think about the whole system. By personal mastery, he means encouraging individuals who see learning as their job. By mental models, he means having common assumptions, if you like, a theory of change that says, If we do that, then that's likely to happen. Having a shared vision means recognising that a lot of this is about communication. And team learning, well, that's kind of obvious really isn't it, it speaks for itself - recognising that dialogue and Carol Dweck's giving and receiving feedback is at the heart of what we need to do.

By the way, I have written rather a lot of books, and if you're watching this as a parent, I'm very keen that we start all this kind of thing much earlier on in the education system. Here am I with my colleague and friend Guy Claxton, imagining - some of you may have seen the film Educating Rita - imagining that Rita has a granddaughter. And she goes to a school near you, and as well as becoming a great mathematician and scientist and geographer, she is also learning these, if you like, desirable habits, life habits, improvement habits.

Ultimately I think this is not a fad. This is not something separate or new or distinct or different. This is common sense, but it's an elegant interweaving - a bit like the sculptor Andy Goldsworthy has here - of improvement common sense into the life, the busy life of being a vet and all the knowledge and skill that that requires. And so I commend that image to you.

It's been great to have been supported by RCVS Knowledge - lots of ways in which you can find out more about the kinds of things I've been talking about. If you're interested in anything I've said, then there are my contact details. Thanks so much for listening. I'm going to stop sharing my screen and see if there's anything we'd like to talk more about, thank you.

You can find out more about Quality Improvement, and free resources to help you embed Quality Improvement techniques in your practice, at rcvsknowledge.org/quality-improvement