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Mind of 'change'-Thinking: Exploring Henri Bergson, Time, Antifragility, and Life-Long Learning in Libraries

Jesse A. Lambertson

University of Chicago, lambertson@uchicago.edu

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Author.

Jesse A Lambertson
Metadata / Digital Resources Librarian
D'Angelo Law Library (UChicago)
lambertson@uchicago.edu

Title.

Mind of 'change'-Thinking: Exploring Henri Bergson, Time, Antifragility, and Life-Long Learning in Libraries

Abstract.

Explores change in libraries from the point-of-view of a lifelong learner situated in space/time. Change itself occurs over time as debated in physics from Einstein until recently with Barbour and Smolin. Bergson's 'dureé' performs work in understanding time as well as frames a context to understand time as change-of-state. Uses 'the mind' in place of the change scenario itself in order to promote a view by which a mind can self-critique and engage change. Explores 'now' in time and consciousness as defined by a 'model of mind' with an eye towards finding motivations for embracing hard change using anti-fragility (Taleb) for a staff person and the library as an institution. Using the antifragile as the key pin, this article explores lifelong learning as a motivation for change in libraries and point-of-view of a person's mind in that change. The style is quite subjective to reflect that point.

Introduction.

Changes in libraries or rumors of change are almost everywhere we look, at every library conference attended – and has been so for decades. If it were otherwise...

On this topic, the literature has explored the managerial, top-down, general, and staff-wide adaptation to changes. Some of these resources are: Cathryn Gallagher's, *Managing change in libraries and information services* (2000), Samuel Olu Adeyoyin's, 'Management of Change in the 21st Century Libraries and Information Centres' (2012) from the journal, *Library Philosophy and Practice*, and Peter Düren's, *Leadership in Academic and Public Libraries* (2013). The topic should be considered institutionally. Unfortunately, such analysis is incomplete because it does not adequately exhibit what we each know: 1. Each staff person and librarian is an individual, and, 2. Each person will adapt to

these changes in different ways and with different levels of ‘success.’ This article will present on the notion of ‘models-of-mind,’ or at least touch on consciousness, time, and how one learner might adapt to a change scenario in libraries. To that end, I will explore a little of the work of Henri Bergson and some relevant metaphors and attempt to evoke a perception from within a mind.@ [see in-text comments after the conclusion]

Now to define the signs we will see along the way: In order to accomplish the task described in the above paragraph, I want to unfurl some of Henri Bergson’s thinking about time as it relates to human experience, pit this thinking in the middle of a multi-decade debate within the physical sciences on the subject of time, put ‘myself’ into the middle of an imagined change scenario (referring to actual situations in my library experience), examine a bit of the current thinking on consciousness, and tie it together with some analysis of how a human might affect or adapt to a change in mind and how one might best prepare for ongoing changes in libraries. The effect of time in the interpretation will be discussed throughout as will the relationship to how one can think about the mind changing over time. A few references to popular writing will be required to properly lay out the matrix and provide the appropriate metaphors to set apart the notions discussed. I believe this requires a multidisciplinary approach. The style of the essay will require some creativity on my part and, I hope, also, the reader’s. For the essay will bring together various notions and exhibit the ideas expressed from beginning to end – over time. [There are some notes at the end of the article’s body, denoted by symbols throughout the text, that were originally produced as footnotes but have been reformatted]

Point(s) of View.

Two novels I can think of examine time itself from this very specific perspective. They both proffer, in their respective modes and with a myriad of other techniques, this idea that life is experienced from a point of view (POV). This is not POV as it relates to opinion or personal conviction, although that is part of it. This is POV in the sense that, no matter what is believed, felt, experienced, or considered, etc, it always is from that person’s perspective. The two novels I am

thinking of are, *The Fall*, by Albert Camus, and, *Finnegan's Wake*, by James Joyce. They each restrict their style and technique to POV as expressed in or ONLY in language. The result is that neither contextualizes its explorations in a defined time nor space -- the Fall from a POV and Finnegan's Wake, ironically, removing character all together – thereby forcing a specific point of view. But each uses time as a vehicle to unfold language and knowledge, for the narrator and for the audience. In addition, the long and complex strings of expression put together by each narrator allows time to occur before 'it' can itself reveal context or meaning to itself or to the audience.

The 'conceit,' as we might say, in each work is an analogue to how a library person chooses to go through serious change in work routines – determined by significant logistical alterations or a major technology adoption by the library. Nicholson Baker writes, "All large thoughts are reluctant" (1997, 12). In this case, the 'thought' is the change the person must choose to embrace one's self. This thought process is internal, is largely hidden from anyone outside the localized POV, and, as, Baker also writes, is itself made up of tiny thoughts (aka, smaller disruptions to tasks, workflows, and expectations combined) (1997, 15). Henri Bergson, on this issue of change and time, writes, using an image of melting sugar, "...one is obliged to wait until the sugar melts. This necessity for waiting is a significant fact" (1968, 21). Bergson is suggesting there is a duration to every event, and in fact, positively, implies there is an end to every event. In the context of major change at a library, one must be fully aware, maybe even find relief in the truth that, this 'event' will end at some point.

> I want to point out intentionally that a human POV exists and takes place in time, over time, and, actually, changes over time – which we will next explore.

Time. 1.

If we take the 'sugar' analogy a little further, we can visualize that sugar is comprised of smaller crystals – each of which must dissolve before the entire amount of sugar has transformed from grain to melt. Sugar crystals become the physical representation of what Nicholson Baker meant by 'tiny thoughts' that make up larger thoughts. Combined with the crystal transformation of sugar into

something else, the remapping of the sugar to a new context, if you will, is the recognition that time itself is 'observed' via seeing the sugar disappear, one crystal at a time. In this 'scene,' we can shed some light on the basic debate of time that has dominated physics for some decades and use this tension to transition our exploration of the learner and something akin to a model of the mind. The debate I am referring to is a multi-decade dialogue within physical sciences on 'time,' what it is, how we define it, etc.

In Julian Barbour's 1968 book, *The End of Time*, he lays out his argument against time. He writes, "...I now believe that time does not exist at all, and that motion itself is pure illusion" (4).

Specifically, he writes this, which is just much more specific...

"The direction of time's direction is in the 'snapshots' ...Many other phenomena define a direction. Coffee cools down unless we put it in the microwave. Cups shatter when we drop them; shards never reassemble themselves and leap back onto the tables as a whole cup. All these phenomena, like memories, define a direction in time, and they all point the same way. Time has an arrow" (19).

Barbour writes that if the universe is represented by a box, and that everything that is the universe is in that box, time does not exist in the box. This argument comes about in part because time has been 'spatialized.' We can glance to Albert Einstein and space-time to remind ourselves that we are aware of this concept. This is the same thing. The universe has been spatialized. Time itself is removed as a thing because everything that there is is one thing or another thing. Barbour's point of view states that time is not a thing because it occupies no space. In that space, however, when he writes about time, Barbour says that one cannot talk about time as immaterial 'stuff,' but can only talk about it as a series of snapshots of current states – one after another – and compare. The act of comparing the states is where we come up with change (an analysis in which time is not technically part, in Barbour's view). Bergson himself acknowledges this as a starting point in his work. He writes, "If movement is a series of positions and change a series of states, time is made up of distinct parts immediately adjacent to one another" (1968, 17). This quote from Bergson would suggest he adopts the position that time does not exist and that there are only snapshots of states for whatever is being observed or experienced.

Bergson also writes, “But we have so much trouble in distinguishing between an evolution and an unfurling, between the radically new and the rearrangement of the pre-existing, in fact, between creation and simple choice, that this distinction cannot be clarified in too many directions at once” (1968, 21). Bergson was making a fine clarification, and time-critique was an aspect of his books from the 1960s. He was, however, not the only ‘word-based’ thinker, i.e., ‘philosopher,’ writing about time and physics overlapping with human considerations.

For instance, Milič Čapek writes, in 1961...

“The spatial symbolism leads us to forget the essential difference between juxtaposition and succession and to reduce the differences between the past, present, and the future to simple differences of position: ‘past’ events are symbolized by the position lying to the left of the point representing the ‘present,’ while ‘future’ events lie to the right...” (162).

Nicholson Baker, in 1997, also adds something about time as an experience beyond just ‘snapshots’ of status. His thoughts complement Bergson’s comments on the topic of changes of mind.

Baker writes...

“Changes of mind should be distinguished from decisions, for decisions seem to reside partly in the present, while changes of mind imply habits of thought, a slow settling-out of truth, a partially felt, dense past...I don’t decide to befriend someone, and it is the same way with a conviction: I slowly come to enjoy its company, to respect its counsel, to depend on it for reassurance; I find myself ignoring its weaknesses or excesses – and if the friendship later ends, it is probably owing not to a sudden rift, but to a barnacled-over of nearly insignificant complaints” (6).

Later in the same essay, Baker also acknowledges this very helpful self-observation that can assist us as we work our way through the multitude of fragments inherent in definitions and acceptance of mind-changes during a time of change. Baker writes, “...I want each sequential change of mind in its true, knotted, clotted, vinyl multifariousness, with all of the colorful streamers of intelligence still taped on and flapping in the wind” (9).

Both of the Baker quotes speak, in their own way, to the complexity of going through a complex change – but also to the notion that one can attempt significant observation of mental processes and reactions while going through that change. That comment is fairly obvious. The less obvious, slightly

more technical version, is that if those ‘colorful streamers’ and ‘knotted, clotted, vinyl multifariousness’ attributes of mind-changes are observable, then it is a logical next step that we can also discuss aspects of consciousness and a model-of-mind. This kind of observation is only possible if there is significant agency in the person. I intend to return to this topic, but first I want to loop back to the Bergson comments above in order to fold the ideas together properly. When that loop has been completed, we will jump back to ‘consciousness’ and models-of-mind.

I believe Bergson’s quote about the trouble distinguishing an ‘evolution’ from an ‘unfurling’ is important because it truly speaks to the agency of the individual to engage in the experiences and options at hand – in time. Bergson’s words suggest that while there is much ambiguity about how to interpret any one significant change or event [in this case, in a library], much can be left up to the individual to choose interpretation through time. Bergson says as much in *The Creative Mind* when he writes, “We are always retroactively judging things and then believing that judgment to have always been so” (23). In order, we are often rewriting the ‘truth’ of the past in our own heads and then denying whatever was accepted as the judgment before. More importantly, however, for this segment of the essay is the notion that if Baker’s ‘large thoughts,’ as a signifier for any significant change, are made up of smaller thoughts, analogous to Bergson’s watching the sugar melt, and that we can retroactively judge our reactions to whatever from the past we have judged again – if all that has some truth to it, we can also suggest that the snapshot metaphor is incomplete because it means there is something of the NOW and something akin to duration for any challenging experience such as major change in a library.

Linguistically, that notion (and fact) of how we use language, opens the door for us to bring up the multi-decade debate over time in the physics community, which I mentioned earlier. And it is in language that we must have this conversation since it is life that is lived and with words that we describe time, both to ourselves and to others when communicate on the subject. Paula Marchesini writes, “In conclusion, Bergson shows that the tendency to spatialize closes down possibilities for thinking, while the intuition of duration opens up new avenues” (145). Bergson “opens up new

avenues” in this way: if we allow ourselves to ponder duration of any large event, we shed the metaphor of space-time and begin to embrace something different. I even feel Baker’s use of the phrase, “colorful streamers of intelligence” and “knots” is part of this agency-oriented approach to living through changes in time. And this is about language. Even Barbour’s *End of Time* is a long book written in language. This aspect of the human-focused consideration of living through time is essential to encouraging thinking that emphasizes human agency in libraries and their technology changes.

I state this even though that language itself has limits.

Suzanne Guerlac writes...

“Thinking in time, Bergson writes, will always be incommensurable with language, which crushes duration through its very iterative structure. We repeat the same word to name a variety of things at different moments, when, in actuality, nothing ever occurs in exactly the same way twice. Bergson is a philosopher of intuition in that he undertakes to grasp what discursive thought and mathematical symbols edit out: the productive force of time as it happens and the complexity of the real” (2006, 2).

Language’s iterative structure is what we use when we retroactively judge different situations and experiences over time (Bergson’s comment earlier). Guerlac is saying even though that might be the case, language itself has limits. Albert Einstein [the physicist most popularly associated with space-time] would agree, especially as it relates to talking about time. Lee Smolin argues that if we reject time as real, as Barbour would have us do, then we sacrifice something powerful that makes us human. Smolin, making reference to Einstein’s comments about limits of science and the ‘now,’ writes, “Do we agree ... that the present moment has no place in science, or do we follow the instinct of the greatest scientific intuition of the 20th century and try to find a way to a new science in which Einstein’s ‘painful resignation’ [of the uniqueness of ‘now’] will not be necessary?” (2013, 92). Instinct is certainly a possible permutation of ‘intuition.’ But it strongly points to two elements. The first is that language has its limits. OK, that may be true, but it is what we have. So, therefore, the second element is useful here: that there is much possibility open to us each as we run into the intersection with the

now and the 'past.' And since language is necessary, we will use it as we progress through time amidst some huge change scenario or another to tell ourselves and others about 'what's happening.'

Lee Smolin is a recent author who takes the alternative stance to time than does Julian Barbour and helps frame our understanding of the multi-decade debate I mentioned earlier. We have seen that Henri Bergson has formed a cleft in our thinking of space-time, and Einstein himself had 'painful resignation' when thinking about scientifically describing the now. With the scientific and the philosophic platform having revealed us the limits of language on time and space-time, we should be free, as Smolin suggests, to create a new science and new language to talk about time, but we should never reject time itself. He writes, "Time is the most pervasive aspect of our everyday experience. Everything we think, feel, or do reminds us of its existence. We perceive the world as a flow of moments that make up our life" (2013, xi). I mean, his book is titled, *Time Reborn*. Smolin writes that time is real, or at least experienced, and should be not excluded as a 'thing.' Henri Bergson offers a similar point of view. Each of us experiences time in our own point of view. Smolin writes that if we reject time, "...we live in alienation from what we most value" (2013, xiii). In the chapter, "Thinking in Time," Smolin writes, "We have a capacity for imagining situations that are not implied by the data we have. Our imagination lets us anticipate dangers before they're imminent, which means we can plan to meet them" (2013, 252). Whatever is meant by "imagining," (I feel we could antagonize this word a bit if we wanted to), we are left with the notion that time itself offers much 'space' for creativity if we don't fully implement the space-time metaphor.

If time is reborn, and we have increased potential for creativity if we implement this metaphor, we also increase the likelihood of improved reliance and respect for human agency through time -- since each person must creatively choose how to interact with each change scenario, over time, and, ideally, know that they are interacting with a scenario through time. For this is where one of the truest modes of lifelong learning occurs along the path of change. Each of us is living in some context. Smolin writes, "We thrive on the boundary between opportunity and danger and live with the

knowledge that we can't control everything..." (2013, 253). Sure, things could go wrong, but if we embrace our human agency in big change scenarios, we are actually embracing freedom as an aspect of that creativity. This freedom is most truly understood and utilized if we are aware that we are in a scenario, a context, that much of what is happening is beyond any one person's control, that there are myriad of modes of interpretation to any one 'event,' and that this specific self-awareness is essential to learning.

But we will not be able to make the most of this freedom unless we put forth some workable language on consciousness and models-of-mind. John Sellars, quoting Epictetus, writes, "Of things, some are up to us, and some are not up to us. Up to us are opinion, impulse, desire, aversion and, in a word, all our actions. Not up to us are our body, possessions, reputations, offices and, in a word, all that are not our actions" (Ench. 1.1)." (2006, 17). All of these features mentioned are wrapped up in significant-change scenarios in which we are forced to choose, analyze, and act in accordance to the goals of the stated change. But they are also part of how one might think of consciousness and develop a model-of-mind. Michael S. Gazzinga, referring to Aristotle, writes, "Most important, and reflecting the revolution in human thinking, the 'knowledge' of these powers arrived at not by sheer introspection or mental meanderings, but by observing how one connects with the surrounding world" (2018, 16). Gazzinga means to say, one must always be aware of the context in which he is working and that the mind is always picking and choosing, saying 'yes' or 'no' to various options in front of it. These choosings happen over time.

One must, acknowledge, however, that these choosings are not the same as the change itself. Nicholson Baker suggests these are two different things. He writes, "Changes of mind should be distinguished from decisions, for decisions seem to reside partly in the present, while changes of mind imply habits of thought, a slow settling-out of truth, a partially felt, dense past... a barnacled-over of nearly insignificant complaints" (1997, 6).

While we separate the decision from changes of mind, this is where one realizes that our mind has changed, that we have either adopted a changed point-of-view on a subject or have learned something new about a process or thing (these two notions might actually be two sides of the same coin but I will not go into that specifically here). Changes of mind have some duration – they have some aspect of time to them – even though we may not be able to state how much ‘time’ occurred or ‘when’ it was that our mind was changed. At first glance, this scenario reveals something akin to a ‘snapshot’ (ala Barbour, mentioned above) of mental state, wherein the mind has changed and suggests there is no time but only some measure of difference between the previous ‘snapshot’ and the ‘current’ one. The word, ‘current,’ is itself a troublesome swirl of ideas because, once again, it implies the ‘now’ (which has not gone away and will in fact return further down this article). ‘Current’ is defined in Oxford English Dictionary as, “That which runs or flows, a stream; spec. a portion of a body of water, or of air, etc. moving in a definite direction” and “5. *figurative*. The course of time or of events; the main course.” This definition of ‘current’ falls in line with Barbour’s consideration of time and its direction. But steeped in ‘current’ is the ‘now’ (or is it the opposite?).

‘Now’ is defined in Oxford English Dictionary as, “At the present time or moment,” and “In the time directly following on the present moment; immediately, at once.” I personally believe that ‘at the present time’ is useless in our thinking here because it’s just as abstract as ‘now.’ The use of ‘moment’ implies a snapshot again because a moment seems like an ex-tractable ‘thing’ from that ‘flow’ mentioned in the definition of ‘current.’ This second definition of ‘now’ is intellectually challenging because it’s aggressively hard to nail down. In order to define, it would need, ironically, to recede into the past so we can consider it from all the necessary angles. But this is not possible because it is always the ‘now.’ From a purely definition position, one can get a... ‘snapshot’ of why the ‘now’ was so troubling to a physicist/cosmologist such as Albert Einstein, as mentioned above. Yet, the ‘now’ is not simply a monograph-level discussion between Julian Barbour and Lee Smolin.

> The ‘now’ fits within a long debate of time itself – which we have just surveyed in order to move to a complex analysis of ‘now’ under the guise of the 4th Dimension as time to see just how complicated is time and ‘now.’

Time. 2. Now.

This issue of the ‘now’ busts open the conversation about ‘snapshots’ and duration by exploring the 4th dimension. These references are quite recent, but the conversation has been going on since at least the early 1960s in physics and cosmology (Čapek, 1961). Richard A. Muller and Shaun Maguire suggest that ‘now’ is actually new time being created at the end of time (2016).

Sorli, Kaufman, and Fiscaletti in a 2018 article, quoting something two of them had written before, about time and its measurement write...

“Moreover, by taking into account that the existence of duration of physical events requires that the observer make a measurement, one can speculate that there are two ways to understand time:

- Time measured with clocks is a numerical order of change that has only a mathematical existence;
 - Duration of a given material change requires that the observer makes a measurement.
- These two ways to understand time indicate that in physics we have two kinds of time:
1. Fundamental time, which is the numerical order of change and exists independent of the observer.
 2. Emergent time, which is the duration of material change and originates from the observer’s measurement” (25).

One could take issue with the author’s interpretation that there are numbers distinct from our application of numbers without the addition of some ‘time-counting’ technology such as a finely tuned, accurate clock of some kind. But the other point is very important to our thinking on this subject here – that of duration – the concept Bergson referred to as ‘durée’ (Barnard, 2011). One might say the duration is the length of time counted with a clock, the time as measured. But this misses the other point – that of duration itself. This is where Bergson is attempting to write. He was a strict materialist in his worldview in this thinking. G. William Barnard describes Bergson’s thinking this way: “Bergson’s solution to the hard problem is a uniquely configured version of panpsychism—the view that experience/mind/consciousness (in some shape or form) is basic to the physical universe—or in other

words, the philosophical position that matter itself is associated on the most basic level with mind,” and, “For Bergson, every moment [‘now?’] of lived experience is an inextricable fusion of matter and memory. (Bergson eventually resolves this interactive functional dualism into an ontological nondualism when he argues that both matter and memory are, in the end, nothing but different “rhythms” of *durée*.) [inserted brackets mine]” That is, each human is a being in time and this experience takes place in time and over some time (*durée* #). On the surface Bergson’s thinking may have been considered a tad mystic, or metaphysical, although I don’t think he would have described it that way. What can be attached to this paragraph on duration/time for Bergson, is, however one’s worldview is constructed or believed, Bergson clearly had already attached a metaphysic, or non-materialistic-assumption to his supposed materialistic view of human experience over time. Metaphysical or not, one must still work with ‘now’ during the duration of going through some significant change in a library. It is back to the current considerations of ‘now’ we now turn.

In the above referenced article by Sorli, Kaufman, and Fiscaletti, they list two definitions of time in physics, “1. Fundamental time, which is the numerical order of change and exists independent of the observer. 2. Emergent time, which is the duration of material change and originates from the observer’s measurement” (2018, 25). The first one is ‘objective’ reality of time, one assumes, even though it is described as numeric – which is a type of language. The second is the measured change (note the materialistic assumption in time). Could time not also be time of the heart or mind – something that emanates from our existence as human creatures, not necessarily from our existence as creatures generally? I make this distinction because that second definition of time in physics is wholly connected to physical states (not unlike the snapshot analogy used by Julian Barbour). The observer observes the duration of physical change. This language implies a separation between the physical thing and the observer. Well, what if, and herein we open a conundrum, the ‘thing’ being observed is the mind of the observer itself? And how might this conundrum complicate the question when one

thinks of duration as an aspect of learning and adapting to challenging scenarios of change and workflow organization on the job in a library? More on this soon.

Now, we will turn to the 4D framework of time as described by H. Minkowski and analyzed by Sorli, Kaufman, and Fiscaletti. They write, “In the Minkowski manifold, the formula for the 4th dimension of space-time is as follows: $X_4 = ict$ (1), Namely the fourth dimension is the product of the imaginary number i , light speed c , and time t .” (2018, 23-24). The important item of note, besides the fact that ‘ c ’ as a constant conflicts with the fact that light changes its speed depending on its context and the force of gravity or present, and that ‘ i ’ is an imaginary number, is that although this might go far in physics and mathematics to define a timeless space, it conflicts with a major presupposition of Bergsonian thinking – that duration is tied to matter, which must then by definition be radically tied to space. Remember, much of this thinking is about how to deal with the ‘now,’ respecting other aspects of Einstein’s theory, and separating time from space. Even Kurt Gödel, in 1949, said, “In any universe described by the theory of relativity, time cannot exist” (Yourgrau, 2006). Either way, it is clear that there is still a major discussion of time as it relates to space/matter and snapshots as promoted by Barbour and something of a transcendent view of time as a real ‘thing’ promoted by Smolin – and, that, after all these decades post-Einstein-statements about the “‘painful resignation’ [of the uniqueness of ‘now’]” (Smolin 2013, 92). The human must still live and experience and make decisions. A time-less reality makes for a human-as-only-a-physical-object conception of the human condition and does not respect either that eternity itself has been written into the human heart and that hope is central to humans, potentially, becoming what they might become. \$

When human beings are in the middle of a significant learning scenario involving total system and workflow change, specifically a system, or ILS, migration – which affects every aspect of daily routines wherein one must work around all new routines and procedures – but also must learn a new system and associated technologies. It is in this context that I want to click forward to the next step. One might wonder why I have spent so much time writing on this discussion of time, ‘now,’ and related

concepts. Besides being very interesting in itself, the main reason is this: As one considers the passing of time, *durée*, lived ‘experience,’ and the modeling of ‘snapshots’ of learning or knowledge states, one must also recognize that one lives in the ‘now’ and that whatever other ‘changes of state’ regarding knowledge, or preparedness for the institutional change at-hand, occur, one must become aware of the possibility of hope and that, yes, the ‘future’ starts now.

The next step, without getting into the weeds on what it is to ‘visualize’ a model-of-mind, is to explore this issue of time and the thinking over time as it relates to a thinker (learner) who must observe what he or she is learning over time. Sorli, Kaufman, and Fiscoletti write that we experience the timelessness of space as ‘Now’ (2018, 23). Yet we know there is change from ‘Now’ to ‘Now.’ Physically, this has been described as time measuring changes of state. OK, humbly, I suggest this begs the question about time and change (especially for this article), but we want to make the most of what these concepts and differences offer in the realm of metaphor for physics and what Sorli, Kaufman, and Fiscoletti refer to “in the psychological or conceptual reality of “past-present-future”” (2018, 24). In other words, to reference Bergson, one experiences over a *durée* with the mind and the brain. These are ‘things’ one can watch and pay attention to – analyze, if you will. This is the model-of-mind I am developing here. Over a specific *durée*, one sees change, one thinks through it, the thinking itself changes, and the state of learning also experiences change.

We want to take this a little further and express this model, albeit with abstraction. As quoted above, Nicholson Baker writes, “All large thoughts are reluctant” (1997, 12). Then, on the next page in that essay, he writes, “Large thoughts are creatures of the shade” (1997, 13). What does this mean? Well, for this context, it suggests that any challenging learning object might be referred to as a ‘large thought.’ So besides being ‘reluctant,’ as described above, the fact that the large learning scenario/thought hides in the shade means it is not immediately, if ever, under our control. It lurks to become known, controlled, maybe even to be wrestled. Our model-of-mind must reflect that, because that is where we place our current understanding of the large thoughts, where we think we need to

study, and where mistakes will inevitably happen as we drag those challenging changes out from the shade into the light. %

> We can do this and shall express this declarative statement by now exploring positive psychology.

Positive Psychology.

Ilona Boniwell, in *Positive Psychology in a Nutshell*, writes, “good to be a positivist” (2012, 19). Sure, that’s mushy language. Boniwell’s major point is that positive psychology focuses on potentials (1). Charlotte Style mentions these terms as the major sub-topics within ‘positive psychology’: “Optimism, Strengths-based psychology, Flow, Subjective well-being, Psychological well-being, Happiness, Choice, Gratitude, Time perspective, Positive emotions, Emotional intelligence, Goal achievement, Self-acceptance and self-worth, Hope, Resilience, Meaningfulness, Purpose, Wisdom, Spiritual practices” (2015).

When library persons experience big changes in libraries, these persons do not know how those changes will turn out, but they do know they will learn something. Boniwell writes that motivation is beneficial to positive psychology – perhaps because motivation(s) are indicators of justification, reasons bigger than ourselves, and hope generally. In fact, Boniwell writes, “...hope is a goal-pursuit thinking that causes emotions” (27). That sentence does not explicitly state that ‘hope’ is a positive emotion or attribute of one’s psychology – but it implies it in context of that section and in general speech. ‘Hope’ is defined in Oxford English Dictionary as, 1, “Expectation of something desired; desire combined with expectation” *noun* ; 2, “a. *intransitive*. To entertain expectation of something desired; to look (mentally) with expectation...” *verb* ; and 3, “*transitive*. To expect with desire, or to desire with expectation; to look forward to (something desired)” *verb*.

Note the variation between the ‘noun’ and the ‘verb.’ In the noun context, a subject has an object (hope) and in the verb context, the subject has a predicate (hope). One is a ‘thing’ in some relationship to an ‘action’ while the other is, more like, the ‘action’ itself – oft times setting up some

relationship to a 'thing.' In the noun context, we have to ask ourselves how we define a specific hope. This will vary from context to context of course, but must be done in important decisions that scale and that affect multiple layers of library tasks and workflow. In the verb context, with the noun in mind, we "entertain expectation of something desired" in the future that may, yield integration with some new library trend or standard, create a needed efficiency in light of staff changes, or (and), most importantly for this article, produce a giant new learning situation. @@ That is, on the surface, we expect to realize the positive motivation for pursuing the goal, embracing a challenging change, or taking the sometimes painful steps of learning what it would take to pursue that challenging change in the library.

I make this distinction between the noun and the verb as a transition point into the final section (shortly) by re-framing the previous ordering of models-of-mind/thinking with a specific lens – that of 'hope.' I noted above that the best thinking must acknowledge, straightforwardly, the act of thinking itself. The thinker must recognize that he or she is a thinker. The thinker thinks. The thinker thinks thoughts. In the present, one says, 'I am thinking...' One does not say, 'I thinking...' Rules enforce the use of an auxiliary verb called a 'gerund.' Oxford English Dictionary defines, 'auxiliary' as, "Helpful, assistant, affording aid, rendering assistance, giving support or succour" Adjective. Our language about thinking is part of the model of thinking. But in this case, grammar builds assistance and help into the language itself to add fire to that hope in this process. We need it, too – because the real challenges are coming. Language itself, the act of thinking, and the positive reasons we have (hope) for continuing on, to make, embrace, or enforce a change in the library allow me to embrace a positive psychological stance in my model-of-mind and thinking. Hope does not exist in a vacuum. In part, because worldview is not separate from who we are (or think we are) and reasons for hope, learning, how we embrace that learning, and the like. One can note that positive psychology is steeped in notions related to worldview. Worldview also affects how we interact with our colleagues in the midst of, perhaps, the same change. At the risk of sounding a little mystic, we can say, off the cuff, that 'everything's connected' at some

level. One wants to know why, truly, one continues through these challenges along each of the challenges of life.

> We must ask ourselves what we can learn in the midst of these complex change scenarios. To do that, we must explore randomness and antifragility.

That Which Does Not Destroy.

In this article, I have written from an explicit recognition of point-of-view, I have talked about time, its long-standing question and debate, 'durée,' 'now,' the nature of the 'large-thought' as a metaphor for any significant change in a library, and about motivations examined in the realm of positive psychology and its relationship to worldview, to lead up to the change itself and its learning curve. In Nassim Nicholas Taleb's, *The Black Swan*, he analyzes the notion that one can't say something exists or does not exist, will happen or will not happen, with certainty just because one has not seen a thing or personally documented an event. That book's subtitle is, "the impact of the highly improbable." In other words, there are significant events or 'things' one experiences that change the course of one's life or career. These are things such as library systems migrations. Rarely do career librarians go through more than 1 or 2 of them (or so it has been said).

These are 'large thoughts' (to reference Nicholson Baker) that, in the situation, must come out into the open and be processed honestly with attention to detail. These changes happen over time in institutions that themselves have history as institutions and as employers of persons who, barring retirement or quitting, must also process through the changes in an effective way. Yes, one automatically thinks of change-management in this context, but that has been written about quite a bit for two decades or so in respect to libraries. A person, or a point-of-view needs his or her own relationship to change(es) at work. How or why might a person process through these changes in a positive sense? One answer is by embracing the 'antifragile' model-of-mind (Taleb, 2012). To explain his definition of 'antifragility,' Taleb, writes, "Hydra, in Greek mythology, is a serpent-like creature that dwells in the lake of Lerna, near Argos, and has numerous heads. Each time one is cut off, two grow

back. So harm is what it likes. Hydra represents antifragility” (34). Encyclopædia Britannica on the ‘Hydra,’ “Anyone who attempted to behead the Hydra found that as soon as one head was cut off, two more heads would emerge from the fresh wound” and “In modern English, hydra or hydra-headed can describe a difficult or multifarious situation.”

The energy it requires to attack and subdue a hydra is significant, of course. Exhausting, perhaps. But it is more interesting that, having a simple plan to lop off one head and move on to victory, the hydra itself becomes more, not less, of an adversary with each head removed. It clearly responds well to harm by getting stronger. Our response is that we must watch each new head grow and strategize how to control it. This analogy has a limit in real life but I find it useful and creative. It is amusing, even, because as objects and tasks on one’s list are marked off, they themselves do not grow more task-items – even though one’s task-list might feel infinite in length. Taleb’s analysis of the hydra character is that it gets stronger by engaging in struggle and that this is a required response if persons and institutions and systems are to get stronger. He refers to these as ‘vital stressors.’ He writes, “we can see now that depriving systems of stressors, vital stressors, is not necessarily a good thing, and can be downright harmful” (2012a, 38). Taleb’s vision of antifragility is different than positive psychology, although there is some overlapping on the surface. For instance, Charlotte Style refers to, ‘resilience,’ in this way,

“Resilience is not the same as survival. Survival mechanisms may succeed in getting you through immediate or emotionally traumatic events, but, unless you work through the emotional after-effects, you won’t necessarily learn from them or grow as a person. People who survive bankruptcy or job loss but see it only as failure rather than an opportunity for learning and growth are not resilient. Surviving a divorce is different from learning from what went wrong, letting go and building a new life on that knowledge. Resilience implies growth”.

Resilience is not the term Taleb uses – he even pits ‘antifragility’ against ‘robustness’ – but it does help get us in the right area. I think Taleb is adopting that ‘tougher,’ Nietzschean-ism of ‘that which does not destroy makes one stronger.’ That phrase, like the hydra metaphor, also has limits. We must forever

work with and accept the exciting and considerable limits of/on language. Taleb is a fan of weight-lifting and writes about the way we use heavy weights to get stronger, which usually makes normal routines much easier to work within and maneuver. Humans know this to be the case in domains when the language and assumptions are specifically about getting stronger. But we often forget the domains where the same ideas apply, albeit in a different way. Taleb writes,

“...that systems may need some stress and agitation has been missed by those who grasp it in another. So we can now also see the domain dependence of our minds, a ‘domain’ being an area or category or activity. Some people can understand an idea in one domain, say, medicine, and fail to recognize it in another, say, socioeconomic life” (38).

Context matters to strength, the hydra, and making our way through changes while learning. This is way different than behaviorist modeling. Christopher Winch writes, “behaviourists seek to explain learning in terms of modifications to bodily movements by external stimuli” (4). I mentioned above that worldview is absolutely connected. It is clearly connected to how one thinks, how one thinks about thinking, and how one thinks about learning in the midst of a complex change scenario. The behaviorists seem to have an ‘object’ orientation, a materialistic view of humans because Winch writes of them as though each human is beset and challenged from outside and that how one learns will be the response to those various and disparate stimuli. But according to another worldview, much of human action and choice comes from the human heart and reveals itself outward in on how one reacts to stimuli, change, and, as in the case with any large and significant change in a library, colleagues. Also, to refer back to the models-of-mind mentioned above, how could one honestly put together a mode-of-mind if learning is reaction to outside stimuli? A model-of-mind that considers itself as being part of a physical object reacting to outside stimuli would have little chance of being trusted because, even the behaviorists believe in the mind, one could not say that the very notion of the model itself is fleetingly and whimsically tethered to those outside stimuli.

Context matters to strength, the hydra, and making our way through changes while learning. The domain under consideration is the library, maybe an academic library, maybe a public one, or something in a corporate environment. We must be able to adopt this understanding of the hydra across domains – from weightlifting and muscle building to library work. For it is through that head-first dive into the change that will yield the best results and best learning outcomes. ## That dive is stressful but it is the most useful. Taleb, in writing about these situations from an antifragile point-of-view, writes, “I read Nietzsche’s *The Birth of Tragedy* twice, first as a child when I was very green. The second time, after a life thinking of randomness, it hit me that Nietzsche understood something that I did not find explicitly stated in his work: that growth in knowledge – or in anything – cannot proceed without the Dionysian” (256). He talks about randomness. But how does he mean that? One may not think it’s obvious why I am talking about Nietzsche here in an article about learning amidst change in libraries. Defining the ‘Dionysian’ is its own subject. The OED does not have a definition that helps here other than, “Of or pertaining to Dionysus or Bacchus, or the Dionysian or festivals held in honour of Dionysus.” Yikes, that is circular and completely unhelpful here. What does Nietzsche himself say about the ‘Dionysian’ in *The Birth of Tragedy*?

He writes...

“So Dionysian art usually exercises two types of influence on the Apollonian capacity for art: music stimulates the allegorical contemplation of Dionysian universality, and music allows the emergence of the allegorical image in its most significant form. From these facts, intelligible in themselves and accessible to any more perceptive observer, I deduce the capacity of music to give birth to myth” (89).

And...

“the Dionysian daemon, that such a regular powerful effusion of the simplest political feeling, of the most natural home instincts, of the original manly pleasure in struggle should continue to exist? Yet, if on the one hand, in any significant expansion of Dionysian agitation, one can always sense how the Dionysian loosening of the chains of the individual manifests itself first of all in a reduction of the political instincts, to the point of indifference or even hostility, then just as certainly on the other hand Apollo the genius of the principium individuationis is also the builder of states, and the affirmation of the individual personality is indispensable to the existence of the state and the sense of home” (111).

Without being too weird, one must acknowledge that if the Dionysian gives birth to myth, then it can't be too hard a jump to think back to the hydra and its multi-head status. I think it appropriate to reference it in Taleb's book. The management view of change must come to terms with the individuals in one's library or one's department and that an orderly and procedural structure to change is good. I don't disagree. But we are not talking about management of change here are we? We are looking at the point of view that has jumped head-first into the learning opportunity that comes with change in libraries. Point of view is not the same thing as an individual – rather, it is a model-of-mind that is engaged without 'self' awareness in the process of learning. Yes, this is abstract. But so is learning. Taleb, by throwing aside the divisions between domains when looking at antifragility, suggests strongly that this Dionysian model of learning is required for real gains – that one will gain when one engages fully and with abandon. Of course, this abandon is not the same thing as maintaining no awareness of the model-of-mind present. In our model here, even as one throws one's self into learning, that very model provides some guidance and some framework for adaptation and growth over time within the domain of library life and choosing, implementing, and studying new technology and systems deployments.

Time is the other element here we don't want to forget. It is only with the patience over time that we see results in weightlifting or other domain. We will not make progress in this area without the requisite effort that does not injure. One must acquire learning over time, both of the system, and what steps are required for the change itself (i.e., data prep, export, workflow analysis, functional requirements, technical set up, etc), and of course how all things adapt to the new scenario. This is obvious. But the less obvious analysis of time in this context is that time will pass. One should act as if this change will see successful completion after the appropriate amount of time. Of course, nobody really knows what might transpire, but it is probably best to trust that time will happen in the way it does and that there will be an end to this change (at least at the major level). But if one has trust that

time will continue, we find that even time itself is related to worldview. This seems inescapable. The notion there will be an end to the major change seems incompatible with the hydra because each time a 'success' is accomplished, the hydra has grown two heads to replace the one that has been removed. It is surely mathematically impossible to declare 'completion' or success if every step along the route to a major change spawned ever growing number of major elements to get under control. But remember, in Taleb's understanding of the hydra, it is 'us' or 'I' who is the hydra. 'We' or 'I' get stronger under the appropriate stressors. Are not library staff and librarians lifelong learners? It seems wise and professionally strengthening to engage in large change scenarios – not just because the assorted departments heads or library director have decided something (which is often the case) but because one finds positive enjoyment in these challenging situations. Just as time itself will pass, the change itself will make progress over that time, this passing of time should provide some hope – to allude back to positive psychology and the words of 'hope' expressed above. It seems one should have hope that we will not be destroyed. More than that, one should expect to get stronger by engaging, head-first, large-change scenarios.

> Now to wrap this effort together and close.

Conclusion.

The upshot of an article like this – about a mode of thinking that approaches thinking itself – is that actual life and actual motivations be considered indirectly. I find myself thinking of Albert Camus' essay, 'The Myth of Sisyphus,' in that even though the hard workload of a major change might feel like an eternity of pushing a rock up a hill only to have it roll back down again to the bottom, one can find dignity and peace in this change if we, in part, accept that, as a hydra, we get stronger as we engage. \$\$ In the metaphor of pushing the rock up the hill only to have it roll back down again forces one to think of time – both as *durée* and as continual status-checks. Both must deal with time and the experience of the change even while we learn and reflect on 'progress' and how our model-of-mind helps guide this process. One need not have a model-of-mind written down, but one should be aware of it as a 'thing.'

This article reveals that, as humans, we are not simply evidence-processing machines. And if we use the word ‘machine’ to talk about ourselves, we must realize that it is a word – emanating from a worldview giving it more gravitas than a metaphor alone. These words we use when we talk about ourselves are often related to worldview, but they also provide frameworks of hope amidst serious change and rumors of change afoot in libraries. Fighting what seems to be a hydra in a large change-scenario is overwhelming if we think of the change itself as the hydra. But if we consider, à la Taleb, that it is us who is (are) the hydra and that we get stronger in these change scenarios if we use a model of mind influenced by antifragility in and over time. My hope is that this POV is encouraging and helpful to adopting a antifragile lifelong learning approach and motivation over time.

IN-TEXT COMMENTS FROM THE TEXT (refer to the symbols in the body for the context):

@: I admit that I am mostly ‘channeling’ technology here because it is a bias of mine.

#: In G. William Barnard’s book, *Living Consciousness* (referenced in the bibliographic sources below), he describes ‘durée’ as ‘the dynamic, everchanging nature of consciousness, a consciousness expressed and manifested in-and-through-and-as time’ (Barnard). One cannot have ‘nature’ of consciousness without a worldview. A worldview’s correspondence to reality determines the ‘nature’ of consciousness.

\$: In ‘Hope Theory,’ the authors define ‘hope’ as, “Hope is defined as the perceived ability to produce pathways to achieve desired goals and to motivate oneself to use those pathways.’

%: One must also acknowledge that the ‘model-of-mind’ is itself a large thought in the shade.

&: Please see my comment above about worldview. The same idea applies to a positive attitude, or more aptly defined, hope.

@@: In this case, the ‘new learning situation’ is a stand-in for what Nicholson Baker calls ‘large thoughts.’ I am aware this is fairly abstracted – but please bear with me.

##: I found the article, ‘The Proper Treatment of Language Acquisition and Change in a Population Setting,’ by Partha Niyogi, Robert C. Berwick, and A. Noam Chomsky in: Proceedings of the National Academy of Sciences of the United States of America 106, no. 25 (2009): 10124-0129.

<http://www.jstor.org.proxygt-law.wrlc.org/stable/40483663>. (accessed early 2019) of some use but am not including it in my sources list. Specifically, the way they discuss the space between iterated learning model (IL) and social learning model (SL) because it frames, from the outside, a difference between the mind learning and the physical context of work and/or people.

\$\$: Camus’ essay is quite interesting – even though it is steeped in the question of why one should not commit suicide. I don’t accept his presupposition because my worldview is one of faith and belief that humans have dignity because each one is made in the image of God [Genesis 9:6].

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