



H3 Accelerated Learning® (H3AL) for language

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Abstract

H3 Accelerated Learning® (H3AL) is a holistic approach to cognitive abilities, learning and general wellbeing created by Dr Silvia Toniato and applied by Silvia Toniato and Delbert Skeete since 2012. It works by stimulating the human body - a biological self-equilibrating and learning organism - to enhance its capacities. H3AL has a specific protocol for language learning, whose results are as follows:

- *In a 20-hour course (no homework required), an average improvement in speaking and listening skills from absolute beginner (A0/A1) to a good basic level (A2); from a basic level (A1/A2+) to an intermediate level (A2+/B2); from an intermediate level (B1/B2+) to an advanced level (B2+/C1); reading and writing skills follow the same pattern from the 21st hour lesson onward;*
- *Students preparing IELTS progressed from A1+ level to a B2+/C1 level and passed their IELTS with a grade of 5.5 (B2+) and 6 (B2+/C1), all in a 100-hour course (with very little homework), test preparation included.*

These results are consistent and independent of the age and the education of students.

HEAL's effectiveness depends on its capacity to significantly facilitate the learning process through the deconditioning and the teaching (or self-teaching) approach that characterize its protocol.

H3AL's creation involved deep considerations on how we learn, and its results are shedding new light on how our body-brain system works. www.heal.it

1. Introduction

I have always had the good fortune to be considered an intelligent person, a good researcher and a good teacher. I was nonetheless far from understanding how the learning process worked, until two major events brought a turning-point in my life: my father fell seriously ill, which led me to apply my scholarly skills to better understanding the functioning of the human body according to both contemporary and ancient science; and I met the Bowen therapist Delbert Skeete, becoming a friend, student and eventually colleague of his. What do the human body and an 'obscure' Australian technique have to do with learning capacity? Just bear with me for a few more pages.

2. How do we learn?

It is a fact that, on average, it takes a baby no more than three years to learn its native language. So why does it often take a teenager or an adult longer to learn a foreign language? Can a fully developed brain function worse than one that is still under construction?

Some would say 'yes, because neuroplasticity decreases with age', but this is apparently not true: scientists recently discovered that 'an old dog *can* learn new tricks!' [1] Not only does the brain keep its plasticity longer than we used to think, it can also *regenerate*, even in our dotage, as the full recovery of Nobel Prize winner Dario Fo from a bad stroke (which in 1995 left him nearly blind and hardly capable of moving) as well as the wonderful case of the blind and semi-paralysed old lady discussed by neurologist Oliver Sacks [2] famously prove.

So why does a baby seem to learn a language better and faster? And, now that we come to think of it, how can a *developing* brain *learn so well*?

We can begin to answer both questions by considering that *we start learning – that is processing and storing information – before we develop a brain*. According to researchers David Chamberlain and Rüdger Dahlke, embryos develop ears within the first week after conception, that is even before implantation in the womb and before the brain and heart appear [3]. Furthermore, the pioneer of hearing research Alfred Tomatis discovered that the ears and skin (appearing within the 3rd week) have similar sensory cells. This made David Chamberlain wonder 'whether the skin could be considered as an extension of the ear and whether we could also hear through our skin' [4].

Whether or not we can 'hear' through our skin, we can definitely *feel* through it, which means that we have an inbuilt hearing-feeling system that starts working *without* the brain. The brain blossoms within



an already developing and functioning system, it doesn't lead the process; it is one of its products and *participates* in it, not necessarily in a central role.

It is well known that, from the womb stage onward, the brain develops via peripheral stimuli: our sensory experiences *shape* our brain. The brain acquires and stores information, but *we learn through our body*.

2.1 The path of information

Information gets to the neocortex via two routes: the extracellular matrix (ECM) and the nerves, that is via a non-linear [5] (apparently *quantum* [6]) circuit, as well as via the linear route provided by the chains of neurons.

The ECM is a substance made up of water, sugar and proteins that envelops all cells that live a symbiotic life, allowing them to be an organism. Our cells (except for neurons, which also communicate directly via synapses) do not touch each other: all their communications occur through the ECM. The Extracellular Matrix regulates the generation and functioning of cells and tissues by the continuous exchange of biochemical, biophysical and electromagnetic information at both local and systemic level. It regulates cell differentiation and gene expression. [5]

It has been proved that a well functioning ECM means a healthy and self-repairing body, whilst a lower ECM functioning level (i.e. an ECM longer than normal permanence in acidosis) triggers health issues. [5]

Such an outer shell is the first filter of sensory information – as with a window, its 'cleanness' determines our view and perception of the landscape. Moreover, the neurologist Antonio Damasio suggests that the neural maps associated with ECM activity, by ensuring the 'sameness and continuity' needed to build a sense of self, are the ones we use 'as the reference for all the other [neural] maps', thus establishing self-consciousness [7].

The brain has two main patterns for processing information, because it distinguishes between a stimulus received for the first time and one already processed. In both cases, the neocortex will ask the limbic system if it has an already stored interpretation-and-reply for the specific incoming stimulus. [8]

The limbic system's answer with respect to a stimulus received for the first time would be 'no stored reply yet', obliging the neocortex to drop the autopilot, *pay attention* to the situation and say whether we can safely enjoy it or we had better 'fight or run'. The limbic system would then store the answer and stimulate the hypothalamus to produce specific neurotransmitters to make the cells embody the answer and behave accordingly [8].

For information that has already been processed, the limbic system would answer 'yes, I know what to do', and make the hypothalamus produce neurotransmitters corresponding to the *memory of the stimulus, without asking the neocortex for a new evaluation*. [8]

An 'enjoy the situation' answer goes with the production of neurotransmitters like dopamine and endorphins, triggering wellbeing, relaxation and wider awareness, whilst a 'fight or run' answer makes the body secrete adrenaline and cortisol, inducing stress. [8]

Moreover, when cells reproduce themselves, they multiply or cutt the number of receptors ('doors' the neurotransmitters link up with in order to share information with cells) according to the previous use they made of them. This mechanism makes us more *receptive* to certain neurotransmitters than others, and more willing to get the ones we are best equipped for (i.e. to prefer answers that produce them).

But what has all this got to do with learning? When a student listens to a lecture or reads a textbook, he is unlikely to do it through the perception of the present moment: he is most probably listening and feeling through a projection of a past lecture or reading, without even being aware of it. Students see us through a window with a picture of their first teacher on it.

Why then do babies seem to learn easier and faster? Because their younger window, having fewer layers of projections on it, is likely to be cleaner. They are also naturally allowed to *experience* things – we learn through our peripheral sensory system, remember? – something that older learners are often prevented from doing.

Low levels in learning performances, far from indicating poor learning skills, simply show a dusty window and/or teaching methods that don't allow students to *experience* the subject they should be learning about.

3. The two complementary ways

H3 Accelerated Learning[®] protocol follows two complementary directions:

- Cleaning dusty windows by a gentle deconditioning process;
- Letting the body and the brain acquire correct information through experience while avoiding new bad conditioning.

3.1 Deconditioning

As I mentioned earlier, most of us most of the time don't live in the present moment [9], meaning that instead of listening to the actual stimuli we are receiving, we listen and respond to a stored memory of them. To *decondition* the system we need to get the neocortex formulating a *new evaluation* of an already processed experience. This means that we need to make the brain activity *shift* while we live the experience, so that the brain, because it is differently activated, can perceive the experience as a different one.

There are several methods of shifting, such as mindfulness meditation, bilateral stimulation, active visualisation or hypnosis (awareness of the present moment and deep relaxation representing a shift in 'normal' brain activity). Three of the deepest and most effective ways, however, are the *ensoñation* of Toltec tradition [10] (we recently found that this state has neurological correlates and are about to publish our data), lucid dreaming and, according to our findings, the Bowen technique.

Lucid dreaming means recognizing that we are dreaming *while* we are dreaming. This has been proved to be a neurologically definable state of consciousness [11], in which brain activity and neuroplasticity are *higher* than in the waking state. If we experience something in a lucid dream, we can rewire our brain response to it [1].

The Bowen technique is a holistic technique consisting of gentle moves performed at very precise points on the *skin*. It became widespread in Australia in the 1950s through the work of the chemist Thomas Ambrose Bowen and is now treated by most national health systems in the same way as osteopathy and acupuncture. Bowen therapists are not unanimous in describing how the technique works: some believe it works through energy meridians (most Bowen points correspond to acupuncture points), others through the stimulation of the nervous system or the fascia; and finally there are others who support the neuromuscular focus [12]. Jerome Johnston (BSc), however, indicated to Delbert Skeete that Bowen's surprising effectiveness is due to its stimulation of the ECM. Following this brief but essential tip, I found solid scientific evidence that Johnston is right [13]. At a very basic level, we can describe Bowen's action as being able to liquefy the ECM, thus breaking its longer permanence in acidosis, and therefore rebalancing its functioning. In a slightly more extensive explanation, we can say that the shift and the enhancement of ECM activity triggers a better bodily functioning, which is mirrored in a higher brain activity, bringing in more awareness and allowing a deconditioning process to take place.

This enhancement of brain activity is measurable and quite impressive. The EEG of a person during and after a Bowen session shows a *significant level of all brain frequencies* (from delta to gamma) in the waking active state, meaning that Bowen brings brain activity to its highest potential (see Table 1 and 2).

We have found that this brain state is not stable in time with a classic Bowen treatment (though the results of self-repairing activity enhanced in the body of course remain) and that it can be stabilized by applying Bowen within the H3AL protocol.

By using a short and specific set of Bowen procedures, H3AL induces a deconditioning process in learners.

3.2 Actual learning

After cleaning windows, we should also be careful not to let them get dusty again.

This is a very delicate and subtle aspect which I do not have enough space to discuss here. For a first taste of our strategy, here are a few of the main features of our teaching method for languages:

- The lessons are dynamic and fun
- In each class there are two teachers (one native speaker of the students' language and one native speaker of the language to be learned) and no more than four students
- At least one teacher must have a solid background of the history and philology of the two languages involved
- There is no direct grammar teaching (to walk and run properly we don't need to learn how our muscles work, that is a different skill)
- Neither mnemonics nor suggestology are involved
- There is no homework and there are no textbooks.



4. Conclusion

I believe that the human physio-biological structure and consciousness allow us to learn in a very quick and highly effective way; we just need to remember that 'Learning is experience. Everything else is just information' (A. Einstein).

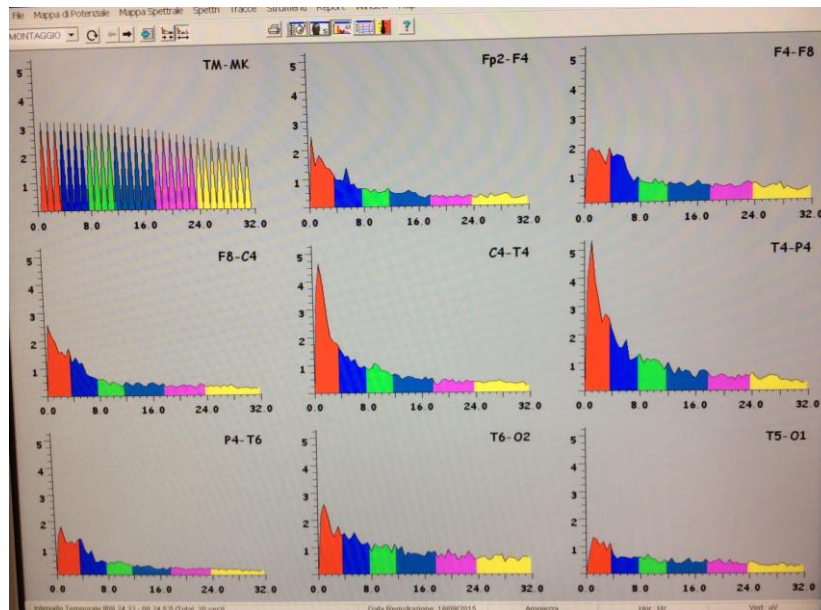


Table 1. A healthy brain in the waking active state (while reading, speaking and listening) – subject using the Bowen H3AL protocol. Such an intense presence of all measurable brain-wave frequencies (delta, theta, alpha, beta1-2, gamma) shows an apparently paradoxical state of consciousness described by the neurophysiologist performing the EEG as a brain simultaneously in a deep sleep and fully awake, that is a more highly activated brain.



Table 2. Anomalous graphoelements associated with a lesion in the left hemisphere (left) – at the end of the Bowen application within the H3AL protocol, the EEG showed a fully normalized brain activity (right).

References

- [1] Charlie Morley, *Dreams of Awakening*, London, 2015, p. 20
- [2] Oliver Sacks, *The Man Who Mistook His Wife for a Hat and Other Clinical Tales*, New York, 1998, pp. 59 ff.
- [3] Alfred R. Austermann, Bettina Austermann, *The Surviving Twin Syndrome, A Solution Book*, Berlin, 2006, pp. 25 ff.
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- [5] A. Phislinger, *Extracellular Matrix and Ground Regulation*, Berkeley, 2007, pp. xii-40



- [6] Jim Al-Khalili, *Quantum biology might explain life's biggest questions*, TED, 2015
- [7] Antonio Damasio, *The Quest to Understand Consciousness*, TED, 2011
- [8] Claudia Rainville, *Metamedicina*, Torino, 2015, pp. 33-53
- [9] Morley, *cit.*, p. 58
- [10] Sergio magaña, *L'alba del sexto sole*, Torino, 2012, p. 41
- [11] Morley, *cit.*, p. 5
- [12] Louise Tremblay, *The Little Bowen Book*, Québec, 2007, pp. 28-41
- [13] The study is included in a book I am writing, and which will hopefully be published soon.