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The Alexander Technique and the Science of Self-Regulation - Glenna Batson

‘The desire that Mankind will come into the heritage of full individual freedom within and without the self still remains an “idealistic theory”. Its translation into practice will call for individual freedom *in* thought and action through the development of conscious guidance and control of the self. Then and then only will the individual be liberated from the domination of instinctive habit and the slavery of the associated automatic manner of reaction.’ (Alexander, *UoS* 1932: viii)

Overview

What is the Alexander Technique? To date, no one academic discipline captures the scope of Alexander’s discoveries. Is it an art or a science? Is it a method of postural re-education, a study in consciousness or simply a practical approach to managing stress and promoting lifelong harmony in daily living? Alexander advanced an empirical method of mind-body education whose essence only now is beginning to be understood. Historically, the Alexander Technique found a compatible niche within mind-body education - the many conscious, embodied movement approaches to improving health and wellbeing. Today, the Technique finds theoretical support from scientific research on self-regulation and self-control. This chapter locates the Technique within the perspectives on self-regulation from cognitive and social science, neuroscience and neuropsychology. It points to the prescience of Alexander’s method as an embodied approach to skilful, adaptive living.

By the early 1900s, Alexander had understood the impact of conscious awareness on optimal everyday function. His early work had focused on re-education of the ‘kinesthetic systems’ of breathing and speech (Alexander, *A&L* 1995: 79). It soon became evident that his work offered a powerful means for gaining an essential personal freedom - the freedom of thought in action. Alexander realised that becoming fully human required conscious control. Conscious control enabled individuals to choose between reacting automatically¹ to stimuli and responding more purposefully and productively.

¹ The term ‘automatic’ here means compulsory and obligatory reactions. These reflex (knee-jerk) reactions usually occur without conscious thought and reflection.

The essence of Alexander's method lies in learning to transform knee-jerk reactions to life's encounters into more meaningful, productive behaviours. The *way* one lives - mindfully or automatically - influences *how* one lives. In *Conscious Constructive Control of the Individual*, the second of his four books, Alexander wrote: 'if Man is to evolve in the right direction, the gap between instinctive and conscious control of the self must be bridged ... only by a technique that wedded theoretical ideals to practical methods of daily living' (Alexander, *CCC* 1923: 4).

Alexander found significant support for his work among the intelligentsia. As John Dewey, the American educational philosopher, writes:

'The principle and procedure set forth by Mr. Alexander are crucially needed at present. Strangely, this is the very reason why they are hard to understand and accept. For although there is nothing esoteric in his teaching, and although his exposition is made in the simplest English, free from technical words, it is difficult for anyone to grasp its full force without having actual demonstration of the principle in operation. And even then, as I know from personal experience, its full meaning dawns upon one only slowly and with new meanings continually opening up ... The principle is badly needed, because in all matters that concern the individual self and the conduct of its life there is a defective and lowered sensory appreciation and judgment, both of ourselves and of our acts, which accompanies our wrongly-adjusted psycho-physical mechanisms.' (Alexander, *CCC* 1923: xiii)

Throughout most of the 20th century, the Alexander Technique was relegated to the domain of mind-body (Somatic) education (Knaster, 1993). Alexander has been called the 'grandfather' of the Somatics movement (Murphy, 1992: 13),² a humanistic, holistic health movement that flourished in Western society between the turn of the 20th century and throughout the 1990s (Eddy, 2009; Knaster, 1993; Green, 2007). These practices mainly focused on helping individuals develop their capacity for conscious sensory awareness to expand their potential for freedom and autonomy in living (Hanna, 1970).³

² Michael Murphy is co-founded the Esalen Institute (California, USA) and the Esalen Center for Theory and Research. He speaks of Alexander as the grandfather of the Somatics movement in the introduction to his book, *The Future of the Body: Explorations into the Further Evolution of Human Nature* (Murphy, 1992).

³ Somatics pioneer Thomas Hanna (1928-1990) dubbed this movement 'Somatics' from the Greek word 'soma,' meaning, the body in its wholeness (Hanna, 1970).

The Alexander Technique is unique among Somatic practices in that it requires learners to stay present in the moment, in their own here-and-now experience. It prescribes no special exercises, forms of meditation or training in other activities; rather, it asks that learners to attend consciously to how they are moving as they engage in daily and skilled activities. As well, learners are asked to avoid adopting specific postures that conform to any socio-cultural norms of rightness (such as military style posture). Instead, they enter into a process of discovering how to achieve more harmonious relationships in living. The Technique teaches people how to consciously think and reflect on their actions *while* in activity.⁴ The Technique remains a radical shift away from dualist thinking that separates mind and body.⁵ Philosopher William James is attributed with saying that humans are unique because they can produce consistent ends by variable means.

What remains ‘consistent’ in the Alexander Technique is not mastering prescriptive exercises nor conforming to cultural norms of embodiment, but rather, the exercising of one’s capacity to act mindfully. In fact, Alexander railed against physical (prescriptive) exercises that he believed only reinforced faulty kinesthetic awareness and habits of mal-coordination. He regarded these kinds of exercises as attempts to impose rigid corrections to ‘the gradual development of imperfections and defects in the use of the human organism’ (Alexander, *CCC* 1923: 1).⁶ He insisted that his students be taught not

Hanna formally advocated for ‘Somatology,’ the science of self-regulation in 1973 (Hanna, 1973). Somatics functions as an umbrella term for the vast number of mind-body disciplines that issued out of the human potential movement in the twentieth century (humanistic psychology and the holistic health). These disciplines and practices intended to free the body from imposed and puritanical ideologies of control (For review, see Eddy (2009)). Hanna believed this new science would help undo centuries of Cartesian dualism and empower personal, first person experience and self-regulation, both in the scientific arena and in public education.

⁴ American educator John Dewey, friend, pupil and colleague of Alexander, referred to the Technique, ‘thinking in activity,’ a unique form of self-use and self-control. Alexander later referred to this term in his writings (Alexander, *UoS* 1932:16).

⁵ The concept that knowledge arises from the mind alone continues to dominate the ethos of many fields. While human sciences have moved away from reductionist and mechanistic analysis to some extent, a non-dualist understanding of embodiment remains a stumbling block in the eradication of Cartesian dualism (Sheets-Johnstone, 2011).

⁶ The Alexander Technique taught primarily through helping learners gain first-hand (embodied) knowledge of their own experience as they perform everyday-

what to do (their preconception of) the ‘right’ way to perform an action, but rather, ‘*how to prevent (inhibition) the wrong thing from being done*’ (Alexander, CCC 1923: 53).

As Alexander evolved his method, he began to apply the operative term ‘the Use of the Self’ to his work (Alexander, *UoS* 1932). The Self is not a mental construct, but emerges from actively engaging in the world. The Self then is not merely the material body, nor a function of the brain, nor even of the mind. Rather, it expresses ‘psycho-physical unity’ in activity. Alexander intuited that ‘everything, whether physical, mental or spiritual’ translated into ‘muscular tension’ (Alexander, *Ac&L* 1995:107). Therefore, ‘shortcomings, defects, or disease should neither be classified nor remedied as such’ (Alexander, *UoS* 1932: 2). Use manifests as physically embodied patterns of habitual action. *Good* use implied a raising of ‘the standard of functioning and improving the manner of reaction ... A bad manner of use ... [tends] to lower the standard of general functioning’ (Alexander, *UCL* 1946: 8). Therefore, to promote good use, a dynamic process of conscious awareness is needed to bring poor use to consciousness and redirect it towards improved ends. Alexander believed his method offered the necessary skills to gain ‘conscious constructive control’ within the ‘complexity and complications of civilized life’ (Alexander, *UoS* 1932: 4-7).

The Technique in Contemporary Science

Today, Alexander’s discoveries resonate with the contemporary science of *self-regulation*.⁷ Self-regulation is the ability to monitor our

and skilled tasks. The most automatic and pedestrian of daily functions - sitting, standing, walking, reading, making breakfast ... these become the material for learning to distinguish the difference between succumbing mindlessly to habitual behaviours and exercising conscious choice. Learning the Technique begins with becoming aware of, observing and reflecting on the interrelationship between physical (bodily) reactions and their associated thoughts and emotions arising from daily movement. These reactions impact negatively on bodily deportment (poise) and coordination, and also increase our levels of stress. Alexander’s three-step process of means whereby, inhibition and direction aim to rectify mindless reactivity, replacing reaction with conscious constructive (embodied) control. The means whereby affords an individual conscious access to developing reliable sensory perception and appreciation. Inhibition stops unnecessary activity in the nervous system. Direction engages a more active and three-dimensional use of the body in space.

⁷ The ‘science’ of self-regulation is founded on inter-subjective experience, interaction and relationship (Thompson, 2007). It is not one science, but a synthesis. It aligns with phenomenology, the philosophy of lived experience espoused by Western philosophers Ludwig Wittgenstein, Edmund Husserl and

own thoughts, emotions and actions, flexibly altering behaviour to meet ongoing demands of society and sociability (Schunk and Zimmerman, 1989). Synonymous with self-control, self-regulation enables intentional, goal-directed, social interchange (Heatherston, 2011). Issues of self-control arguably are among the most important questions of our digital age and also some of the most complex. By necessity, human control must embrace the reality of living in constant flux and change within changing contexts. How do we control ourselves as we encounter the constant flow of information and change throughout growth and development?

Self-regulation then is a learned skill. To become an adaptive, empathic human being, life-long learning is needed (Berrol, 2006; Stern, 2000). From our first breath at birth, we are learning to relate – imprinting, attuning, attaching, bonding and developing empathic relationships (Berrol, 2006; Stern, 2000). Although unconscious psychic material clearly plays an important role in living, it is conscious awareness that can alter the course of negative and obligatory tendencies – the drives, obsessions, compulsions, etc.

While a thorough analysis of self-regulatory theory from any disciplinary perspective is beyond the scope of this article, suffice to say that the perspective on control of human behaviour has changed markedly over the last half of the 20th century. In the 1950s, humanistic psychologists (Kelly, 1955; Rogers, 1951) reacted to behaviourist and even Freudian notions that people either were ‘pushed by their inner drives or pulled by external events’ (Seligman, 1991: 8-9). Throughout the 1980s and the 1990s, self-motivation, self-regulation and self-efficacy took centre stage in psychosocial discussions on volition (Deci and Ryan, 1985; Bandura, 1986; Mischel, Cantor and Feldman, 1996). Many questions arose during these discussions. How can conscious volition (choice) be exercised to flexibly meet and adapt to life’s demands? How can human beings turn negative reactions into positive responses? Can they live consciously, appreciably and autonomously, evolving towards greater depth of our inter-relationships and levels of self-actualization? Or, are they subject

Maurice Merleau-Ponty throughout the late 19th and 20th centuries. (See Johnson (1990) for an overview). It further incorporates theories of embodied cognition (Varela, Thompson and Rosch (1991)). Last, it incorporates many theories of complexity, chaos, nonlinearity and non-reductionism (holism). (See Anderson (1999)).

to a relentless emotional palette of reactivity? Must unconscious, reflex, knee-jerk reactions and irritability dominate behaviour?

Today, models of self-regulation have evolved from a variety of trans-disciplinary perspectives - philosophy, cognitive neuroscience, neuropsychology, social psychology and cybernetics (control-systems engineering) - 'making for an interesting, if not wholly compatible, mix of interpretive metaphors' (Karoly, 1993: 26). Focusing on the scientific perspective, self-regulatory control aims to bridge between automatic and conscious behaviour (Kahneman, 1973). It implies that humans basically are motivated to act on their own behalf. Skills of self-observation and reflection enable humans to distinguish threat from safety, to determine how they are reacting to others and vice versa, and to resolve discrepancies between self-knowledge and social expectations and norms.

Evolutionary theorists consider the human forebrain (the pre-frontal and frontal cortex) to be the most evolutionarily advanced part of the brain. This part of the brain enables self-regulation because its critical functions include intending, planning and executing our actions (Crone and Ridderinkhof, 2011), as well as negotiating social relationships (Mesulam, 1998; Lieberman 2007). The forebrain is strategic in our ability to become aware of ourselves, predict, plan, infer, judge and reflect on our actions. The pre-frontal cortex, particularly, enables the ability to transcend the brain's hardwiring - neural processes limited to reflexive stimulus-response mechanisms (Declerck et al, 2006: 148). Self-regulatory processes afford humans the ability to alter their thoughts, feelings or actions in order to realize intentions and goals. Here, personal competence and self-efficacy depend on developing the capacity to anticipate, evaluate and inhibit unwanted behaviours (Ford, 1987; Karoly, 1993). Cognitive processes - both internal and transactional - guide the stability of an individual's actions as conditions change. These processes help maintain homeostasis by inhibiting compulsions, addictions and other anti-social and destructive behaviours, prejudices or emotions (Heatherston, 2011; Le Doux, 1996). Without these *executive* functions of the cortex, our behaviour would be dominated by uncontrolled and uninhibited impulses, drives, and emotional and physical reactions. Without conscious guidance, we are subject to unrestrained emotions and obligatory behaviour - reactive and unruly. We could not focus on any topic for very long, a common phenomenon in those with at the extreme end of the spectrum of attention deficit hyperactivity disorder or with traumatic brain damage.

The Skills Needed

In spite of having a precocious forebrain, humans still need to consciously develop skills of self-regulation. Why? First, researchers tell us that although human beings assume that they have control over their lives, most everyday life decisions are not determined by conscious reflection and intention (Hassan, Uleman and Bargh, 2005; Eagleman, 2011). Instincts, drives, obsessions and compulsions and other unconscious phenomena play an important role in choice and decision-making (Eagleman, 2011). Choices largely 'are triggered by features of the environment offering rewards or punishments, and that operate outside the conscious awareness and guidance' (Bargh and Chartrand, 1999: 462). Therefore, we need to develop conscious development of self-regulatory skills to offset destructive and anti-social behaviours (Heatherston, 2011; Le Doux, 1996).

Research on the influence of the unconscious on behaviour is compelling; yet, it's important to consider the implications. Such findings seem to imply that we can do little to exercise voluntary control over our choices in life. On the contrary, the Alexander Technique is predicated on our ability to self-regulate when it comes to decision-making. Alexander advocated that practicing *conscious constructive control* over our actions enabled humans to exercise choice over knee-jerk reactions to stimuli. More recently, researchers in the motor sciences are questioning previous suppositions that actions arise largely out of decisions made by unconscious (and largely inaccessible) neural processes (Guiggesberg and Mottaz, 2013). A growing body of researchers in motor science has shown that the relationship between neural activity and conscious awareness is more complicated than previously thought (Brass and Haggard, 2008; Haggard, 2008; De Jong, 2011; Krieghoff et al, 2011). The intention to move involves a number of 'conscious goal evaluation stages' of 'intention formation and action execution'. Motor (movement) decisions appear to reflect not so much 'unconscious,' processes as *non-conscious* ones. The process of intention to action has not yet finished (Guiggesberg and Mottaz, 2013: 1). For Alexander Technique teachers this is good news indeed. Practice tells us that rather than merely being steered by unconscious forces beyond our control, the Technique allows learners to cultivate choice by attending to the psycho-physical reactions embedded in habitual movement and thought.

A second reason that human beings need to develop sophisticated skills of self-regulation has to do with habit formation. Habits enable

us to function more readily as we negotiate a multiplicity of tasks in daily living. Automatic processes reduce the effort of mental activity and free us from having to attend to (and react to) every stimulus at every waking moment.⁸ Automaticity eases the cognitive burden of coping with the masses amounts of information coming from our bodies, the environment and our tasks. At the same time, automatic processes are ‘thought lite’, requiring ‘one third less effort than regular thinking’ (Gilbert, 1989: 193).

A habit is not a ‘lack of thought’ or ‘thoughtlessness’ however. Rather, a habit is a manner of ‘thinking in action’, a kind of persistent ‘motor intentionality’, repeated and reinforced until it becomes a default mode of action (Rothfield, 2013: 103). As Alexander admonished, habit has a negative effect on bodily support by failing to properly align our attention with the dynamics of the task at hand.

Psychologists suggest that we need a method, a manner of living, that is consciously ‘intentional’, but at the same time ‘effortless’ (Bargh and Chartrand, 1999: 463). This method should incorporate forethought, self-reflection, and the capacity to use symbols, images and language, the capacity to learn both vicariously and conscientiously – all of which provide freedom of volition and influence over one’s behaviour (Bandura, 1986). Methods for improving self-regulatory skills traditionally have emphasized the use of mental tasks and other cognitive processes to gain control of behaviour in absence of bodily participation.

Alexander (on the other hand) understood that behaviour is not an isolated function of the brain or psyche, but rather manifests as habitual movement patterns. What distinguishes the Alexander

⁸ Everyday life pulls on our attention in multiple ways and directions. Attention is a limited resource, requiring mental effort. Attention quickly can become overwhelmed by multi-tasking (Bruya, 2010; Kahneman, 1973). At the same time, the term ‘effortless’ here means that conscious monitoring need not absorb enormous amounts of our brain’s resources – that we can go about our daily lives without consciously attending to our every sensation as we move, yet be able to call upon conscious control when needed. We cannot possibly attend to ourselves moment-by-moment through ‘conscious, intentional control’. This capacity for attending to self in the midst of life’s demands actually ‘is quite limited’ (Bargh and Chartrand, 1999: 462). Exaggerated self-awareness can interfere with automatic processes needed to perform skilled physical functions (Behncke, 2002; Wulf, 2007).

Technique from the majority of contemporary scientific theory first lies in the degree to which the conscious acknowledgment and control of behaviour is *embodied* and secondly, in the practical *manner* in which choice can be exercised. Practicing the Alexander Technique aims to free humans from automatically succumbing to habit or from consciously over-monitoring their behaviour or otherwise interfering with their ability to act. Short of methods of psychoanalysis, the Alexander Technique helps us bring psycho-physical reactions to the surface and redirect ourselves away from erroneous and interfering actions and relationships.

In Summary

In the end, what the Alexander Technique gives us is an embodied means of *ongoing* self-guidance and control of unified psycho-physical expression. The utility of his work provides us with a strategically practical system for living which puts process (*means*) over product (*ends*). We can draw upon the Technique to consciously negotiate (stressful) reactions, affording us the means to act and to reflect on our actions, as well as to make conscious, enlightened choices as to our future behaviour.

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