

A meeting of mind(sets). Integrating the pedagogy and andragogy of mindsets for leadership development

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Abstract

In this paper we explore two contrasting approaches to understanding and employing mindsets in education and training: the growth and fixed mindset used in formal educational settings, and the mindsets typically used for leadership development for adults. These different bodies of work (here termed pedagogical and andragogical respectively) have largely remained distinct bodies of work. The paper sets out their respective contributions, similarities and differences. It demonstrates that the pedagogical mindsets are implied in the andragogical mindsets and argues that the andragogical approaches – that typically require experienced participants, such as those on MBA programmes - are also of value for the younger (less experienced) learner. The paper also explores current developments in leadership theory that stress the need for a shift from competency and skill development, to mindset approaches in order to tackle the complexity of leadership challenges. Taken together, it argues that mindset approaches are highly relevant for tackling some of the managerial and leadership challenges we face and should be integrated into all levels of leadership development and not be reserved for the mature, experienced learner.

Introduction

Mindsets have become increasingly important as a means of developing individuals. Broadly, there are two main literatures that consider the types, role, and efficacy of mindsets in personal development: those focused on the development of young people (typically school children), and those used to develop adults in their leadership or managerial competencies. The former – which here will be referred to as the pedagogical mindset – focuses on the distinction between two mindsets regarding intelligence and personality that is found in the literature on student education. One mindset assumes that a person is largely constrained - or 'fixed' - by their innate ability, with implications for their development in competence. The other, a 'growth' mindset, treats intelligence like a muscle that can be exercised and developed (Dweck, 2000). The latter – referred to here as the andragogical mindsets – considers the mindsets required for effective practice that can be coached and which are focused on developing managerial and leadership capacity (e.g. Gosling & Mintzberg, 2003).

Although the pedagogical approach has much to contribute to the andragogical and vice versa, they are typically taken separately, perhaps in part due to the different constituents they seek to serve, and the assumptions made about them. The pedagogical (quite literally 'child focused guidance') and the andragogical (or 'adult focused guidance') assume differences between learning styles and needs that require a different art and science of education. These differences pertain to a number of factors, such as their approach to learning, previous experience, subject focus, and motivations. It is assumed that adults are more self-directed in their approach to learning and have more control over their learning in contrast to children who are more dependent on others for the 'what' and 'how' of their learning. Adults are also more experienced, and this is typically drawn upon in the learning process, whereas children are treated more akin to an empty vessel to be filled with knowledge. Adults are assumed to learn for their personal development or to achieve a particular aim or develop a skill, whereas for children it is often subject centred which itself influences the order and scope of learning. For adults the reason for learning is likely to be driven by their own desires or

circumstances, but for children it is more typically an expectation which is structurally embedded in their upbringing. It is also argued that adults are more intrinsically motivated and thus more likely to be engaged, whereas children are more likely to require extrinsic rewards, such as good grades, to maintain motivation.

These distinctions can be debated, and the growth mindset certainly challenges some of these assumptions, such as the motivation for learning. Other distinctions may be generally true in practice – such as the fact that students are primarily taught to a subject syllabus – but this doesn't necessarily preclude the possibility that younger people could be taught differently; specifically that the andragogical art of engaging learners - typically applying methods that draw on personal experiences rather than remain rooted in abstract thinking - may be of equal use value to them, particularly when exploring extra-curricular life skills. Whilst it is reasonable to assume that adults have more experience which they can apply to their learning – indeed some educational programmes of learning insist on a minimum number of years in work or at a certain management level – it doesn't necessarily follow that the methods employed that draw on experience are unsuitable for the younger, and less experienced learner.

The applicability of the andragogical mindset for the younger audience particularly comes to the fore when considering the role of leadership development. Ordinarily we associate leadership and managerial education with adults, but as has been previously noted (Rehn, 2009) young people are 'schooled' in what it means to be a leader or manager from an early age. Leadership-focused development has played a role in extra-curricular activities in schools and youth organisations, through sports, camp-based activities, community-based work, and increasingly through youth-led activism. Young people are already leaders and are engaged in leadership development and the need for them to develop these skills is increasingly recognised in educational settings and society more widely in order to prepare them for life and to tackle the global goals of sustainable development.

The question being posed in this paper is to consider to what extent the andragogical approach could (or perhaps even does) play a more significant role in the leadership development of young people. In doing so it assumes firstly that such education is not the preserve of so-called 'post-experience' adults, and that management education of young people, including school children and undergraduates, is a relevant concern for the broader field of management and leadership education, incorporating as it does qualities pertaining to resilience, reflection, self-development and collaboration.

The paper addresses this by firstly considering the pedagogical and andragogic approaches to 'mindset' education, exploring their ideas and contributions. It explores how they have been largely treated as distinct literatures, with pedagogical mindsets playing a small role in adult learning, and andragogical mindsets almost entirely absent from learning focused on young people. It then reflects on the leadership theories that support the shift towards mindset-based approaches in the andragogical approaches. The paper concludes by presenting an argument for the value of andragogical style leadership development for those who ordinarily experience pedagogical approaches. It considers how the integration of these perspectives contributes to the development of leadership education and learning.

Pedagogical mindsets

The work on mindsets in the context of school-education is largely based on the work of Carol Dweck and her collaborators. Dweck (2000, 2006) developed the idea of two mindsets, that of the 'fixed' (or initially termed the 'entity') mindset and the growth mindset, where mindset refers to the

belief held by an individual about the role of effort and ability in learning, their self-perceptions of intelligence and ability and what they attribute to being the cause of their success.

The fixed mindset assumes that an individual has a range of abilities, or level of intelligence, that is largely unchangeable. You're smart when you don't make any mistakes or are quicker and better than others (Nicolls, 2014). Any failures, therefore, are more likely to be attributed to one's natural ability (and its limits) and seen as unavoidable, leading to a sense of helplessness when faced with setbacks. It also leads to a focus on performance (as the indicator or validation of ability) over the process of learning itself. The fixed mindset is not just a disadvantage for those who believe they are less competent and therefore should not waste their time expending effort. It is also a limitation for those who have higher levels of self-belief as they avoid tasks which might require high levels of effort (seen as an indication of less ability) or that risk failure, as this threatens their identity (Dweck, 2000).

The growth mindset is held where there is a belief that one can improve and do better, that any past failing is based on a lack of effort or understanding rather than innate ability or intelligence, and that both ability and intelligence can be developed. This requires a shift from an emphasis on considering outcomes to the learning process itself – recognising effort, effective strategies, focus, persistence and challenge seeking behaviour (Dweck, 2006). In other words, it is equally 'smart' if you develop your capacity to work something out. The aim here is primarily to learn and develop rather than achieve immediate outcomes and is typically associated with a perseverance that Angela Duckworth described as 'grit' (Hochanadel & Finamore, 2015) or is termed 'academic tenacity' (Dweck, Walton, & Cohen, 2014). It means that people are motivated to keep trying as they believe they can develop their ability. Although ultimately achievement can be attained through a successful outcome, it is also recognised through the process of deeper learning and enhanced understanding and skill development (Schmidt, Shumow, & Kackar-Cam, 2017). It is frequently considered in terms of resilience (Nicolls, 2014). This process rather than outcome orientation is often challenging for academic environments that focus on results (Haimovitz, Wormington, & Henderlong Corpus, 2011; Martin, 2015).

The growth mindset is usually explored in relation to a pupil's 'academic mindset', but more broadly they have implications for the development of competencies, the locus of control (Schmidt et al., 2017), autonomy, capacity, resilience and thriving (Gerson & Fernandez, 2013) and belonging (Dweck et al., 2014; Rattan, Savani, Chugh, & Dweck, 2015). An individual with a growth mindset is more likely to embrace challenges, exhibit perseverance and be intrinsically motivated (Seaton, 2018), handle problem solving, perceive agency and self-efficacy (Pawlina & Stanford, 2011). The type of mindset, and levels of interest exhibited (Schmidt et al., 2017) is also closely related to theories of motivation (the likelihood of someone taking on a task, and their persistence in it (Vroom, 1964)), particularly when there are setbacks (Yeager & Dweck, 2012) in light of their perceived ability or potential to improve in order to succeed (Haimovitz et al., 2011). This has particular relevance in circumstances where challenges are likely to be significant and also has implications for equality (e.g. reducing race, gender and class-based achievement gaps (Rattan et al., 2015)). The growth mindset also has much in common with goal-based approaches, such as goal setting theory (Locke & Latham, 2002) and self-determination theory (Deci & Ryan, 2012). The growth mindset is associated with goals of learning, improved understanding and skill development in contrast to those with a fixed mindset who are more focused on performance orientated goals – demonstrating success in meeting targets (perhaps competitively) rather than development (Schmidt et al., 2017).

Mindsets therefore affect the cognitive, emotional and motivational processes, they shape the psychological orientation towards the selection, encoding, and retrieval of information that shapes

behaviour, they mediate the adoption of pre-existing responses to situations and can become almost unconscious acts applied in a relatively effortless manner (Ade, Schuster, Harinck, & Trötschel, 2018). The growth mindset is associated with the development of personal characteristics and the promotion of resilience (Yeager & Dweck, 2012), social skills (Fraser, 2018; Tan, Oe, & Le, 2018) and socio-emotional competences (Nicolls, 2014). In addition to motivation, pedagogical mindsets should be understood alongside other psychological processes such as attribution theory, the self-concept, self-efficacy, and self-confidence. Specifically, in a growth mindset it is recognised that one's value is not what you are capable of now but is something you can develop. In turn your self-esteem is higher because you are not limited by your present capabilities but have more self-belief and optimism for your self-development. This in turn increases self-confidence as you believe that through effort and persistence that you can improve your skills and understanding. You know you can learn and develop. Mindsets also need to be appreciated in their situational and cultural context.

In the educational setting the growth mindset has been explored directly in the context of how pupils' mindsets are associated with their motivation to study, course redesign (Boyd, 2014) and feedback strategies (Cornwall, 2018; Sperling & Shapcott, 2012). Related work considers the need to encourage and cultivate student responsibility for their learning and development of the skills necessary for their motivation, self-regulation, collaboration and building the academic mindset through non-curricular means (Carpenter & Pease, 2013). Further studies have considered the mediating influence of peers (King, 2019), parents (Schleider et al., 2016) and teachers on the mindsets held by pupils (Nicolls, 2014), including teacher's own mindset orientation (Brooks & Goldstein, 2008; Dweck, 2015; Gutshall, 2013; Paek & Sumners, 2017) and their practices (Dweck, 2017), and more broadly the effect of the school culture (Cohen, 2013) and the institutional/structural arrangements (Hanson, Bangert, & Ruff, 2016; Ryan & Deci, 2000) such as organisational policies, staff-student ratios and teacher-student relationship (Nicolls, 2014; Schmidt et al., 2017). For example, praising pupils for their intelligence and performance, rather than the process by which they achieved the outcome tends to lend weight to the fixed mindset (Dweck, 2017). The age of children, with those younger being seen as more optimistic about their ability to learn and more motivated to study (Haimovitz et al., 2011) but those slightly older being more cognitively developed, able to cope with abstract thought and with greater reflective and self-reflective skills (Schmidt et al., 2017) may also impact their mindset. The role of psychological safety in facilitating the growth mindset is also crucial (Edmondson, 2019). This takes into consideration the learning environment, specifically in terms of how learners are supported through their learning. A 'safe' environment ensures that learners are not punished or humiliated for speaking up or making mistakes. An educator needs to ensure that mistakes are seen as part of learning; something that might be normalised by them sharing their own past 'failures'.

These mindsets can be changed through a range of interventions tackling learning strategies and the capacity to accept and learn from mistakes (Dweck, 2017; Pawlina & Stanford, 2011; Schmidt et al., 2017), with pre- and post- intervention surveys to capture the initial mindset and the extent to which it changes thereafter (Dweck, 2000; Schmidt et al., 2017). Fixed and growth mindsets are also usually measured as contrasting ends of one scale (Burnette, O'Boyle, VanEpps, Pollack, & Finkel, 2013; Dweck, 2012), although they are also seen as relatively independent, where one might be high (or low) on both scales (see Puente-Diaz & Cavazoz-Arroyo, 2017). Evidence suggests that immediate changes are usually possible, but sustained change requires repetition and reinforcement through teaching practice (Seaton, 2018), although not all studies show overwhelming support (but see Rattan et al., 2015; Yeager & Dweck, 2012) and most do not engage in sustained programmes and/or are laboratory-based (Fraser, 2018; Schmidt et al., 2017; c.f. Dweck, 2017). The majority of studies of pedagogical mindsets are based in the US, and certainly few are conducted in less economically developed countries, suggesting a lack of diversity in contexts (but see Chao, Visaria,

Mukhopadhyay, and Dehejia (2017))'s large scale field experiment in India). But despite the mixed evidence of longevity, the changeability of mindsets has been demonstrated.

Going beyond the educational sphere, mindsets are also used to explore 'transition points' in a students' educational career and for their move into employment (Baldwin, 2019). Mindsets from the education setting have, less frequently, been linked with professional practice. For example, Ade et al. (2018) have been influenced by Dweck's growth mindset (2006) and Gollwitzer's (1990; 2012) work on mindsets in decision-making to develop a negotiation mindset incorporating collaborative, curious and creative 'inclinations'. Mindsets have been proposed as a means of influencing consumers (Murphy & Dweck, 2016), have been linked with improved performance and motivation (Cook et al., 2019; Lyons & Bandura, 2018), and the study of intergroup dynamics and conflict (Rattan & Georgeac, 2017), impacting the reaction to feedback (Zingoni, 2017) and engagement at work (Caniëls, Semeijn, & Renders, 2018).

Pedagogical mindsets are also linked with leadership, such as its impact on the effectiveness of transformational leadership (Caniëls et al., 2018), their role in the mindsets of leadership coaches and leaders (Chase, 2010), experiential leadership development (Heslin & Keating, 2017) and their suggested potential for graduate employees (Baldwin, 2019). In the main the conclusion here is that growth mindsets are required to enable leaders to believe in their own development, and such a belief also needs to be held by the coaches / trainers. The focus of the growth mindset on 'process' rather than 'content' indicates that the models, although focused on the formal educational setting, have extensive relevance for lifelong learning and development.

Key lessons can be learned from the growing literature on growth mindsets, namely: (a) the evidential effectiveness of the growth mindset for providing self-belief, self-efficacy, and intrinsic motivation that can lead to sustained improvements in performance, (b) the possibility for interventions to be used to change mindsets from fixed to growth modes, and their effectiveness, (c) the value of a focus on 'process' over 'outcome', (d) the importance of sustained work on mindsets to ensure their enduring effectiveness (recognising that short-term, one-off interventions may not result in the same lasting effectiveness), (e) the significance of the environment including individuals, groups and cultural context, in shaping the adoption and effectiveness of the growth mindset, (f) the importance of the mindsets of teachers and trainers, (g) the significance of context for mindsets – one may tend towards more of a growth mindset in one context, and a fixed mindset in another, and (h) that mindsets have relevance beyond the educational setting.

Andragogical mindsets

Andragogical learning involves the adult learner making decisions about the what, how, where, when and why of their learning (Booth & Segon, 2009). Mindsets in this context have been referred to as "A predisposition to see the world in a particular way ... to perceive and reason in certain ways ... and bringing to each new experience or event a preestablished frame of reference for understanding it" (Rhinesmith, 1992: 63). In a less determined fashion, they are also considered to be "ways of thinking and meaning making developed over time through contextual interactions and personal relationships" (Stewart & Woldoko, 2016: 247). It is often associated with leadership and leadership development (Gosling & Mintzberg, 2003), decision-making, and strategic development and change management in complex, global contexts (Pisapia, Reyes-Guerra, & Coukos-Semmel, 2005).

One mindset framework that has been used for practicing managers is Gosling and Mintzberg's (2003) 'five minds of a manager' that directly address the challenges facing managers today of needing to reconcile competing challenges and therefore requiring different 'minds'. They argue for

five mindsets: the reflective mindset, the analytic mindset, the worldly mindset, the collaborative mindset, and the action mind-set that address the management of the self, organisations, context, relationships and change respectively. These mindsets are understood as an 'attitude' but one that is orientated to openness rather than 'setting' one's mind and, woven together, these mindsets require deep engagement for effective practice.

The reflective mind dwells on and thoughtfully considers experiences and explanations. The analytic mindset calls for deep analysis of the complexity of structures and systems, including their underlying assumptions. The worldly mindset calls for engagement with the experience of the worlds of others – stepping into their shoes that takes in context, culture and personal disposition – that in turn makes us look at our own world anew. They distinguish the specificity of the worldly view – this place, this person, their ways of seeing – with the generalised perspective of the global view – the generality of diversity everywhere but of nothing in particular. The collaborative mindset (see also Linden, 2010) places managers inside the network of relations rather than managing from outside – a shift from the heroic individual to the engaged manager who accomplishes things with others by creating the context for this to happen. The action mindset balances – through reflection (the mindsets are certainly not independent) – change and continuity. It recognises that sometimes the effort in steering is to keep a similar course, and sometimes it's to find a new one and most likely an element of both at the same time.

Pisapia et al. (2005) highlight three cognitive processes: reframing (sorting and interpreting data and questioning assumptions), reflective (scrutinising) and systems (or holistic) thinking that are required to tackle complex and fluid circumstances, that move us away from linear forms of thinking, and require us to work effectively with others. The ambition of their paper is the 'strategic mindset' based on these cognitive processes required for effective leadership. Paxton and Van Stralen (2015) introduce the idea of a collaborative and innovative leadership mindset which highlights connectivity and relationships in the context of complexity, and is grounded on Mezirow's and Associates (2000) transformative learning in which the 'habits of mind' are expanded such that one becomes 'more inclusive, discriminating, open, emotionally capable of change, and reflective' (Mezirow & Associates, 2000: 5-6 as cited in Pisapia et al., 2005: 13). Collaboration, learning and collective leadership are central to this mindset, and stress the need for openness to change, innovation, and diversity. In it, leadership and power are shared, learning should be systematic, multiple ways of knowing are endorsed, and practical outcomes are sought.

One mindset that receives considerable attention (Cseh, Davis, & Khiliji, 2013), and for which there is a scale of measurement (see Javidan, Hough, & Bullough, n.d.), is the global (leadership) mindset (Smith, 2012). Cseh et al.'s (2013) content analysis of interviews with global leaders regarding their perception of global leadership qualities included 'transcendence', 'plasticity of the mind', 'mindfulness', 'curiosity', 'humility', which in turn were supported by 'learning', 'self-reflection' and 'awareness of others', 'cultural competence' and 'cultural intelligence'. Javidan et al's (n.d.) measurements capture psychological-, social- and intellectual capital (at individual and group level). Although similar in intent to Gosling and Mintzberg's 'worldly' mindset its translation into a scale suggests something less holistic, less integrative and less elusive. At the same time, many of the qualities, including the emphasis on reflection and collaboration, reflect the broader spectrum of the 'five minds'.

More in keeping with the conceptual principles of the 'five minds' is the conceptual framework for leader(ship) education and development (Grunberg et al., 2019). The principle underpinning this model is a framework for education that spans pedagogy and andragogy but with it being used differently as age (and experience) dictates. It consequently provides principles and skills, drawing on biological influences as well as psycho-social aspects of leadership. Yarnell and Grunberg (2017)

argue these principles develop the ‘allostatic’ leader, a leader who is responsive, adaptable, learning and open to change through experience. Although more detailed than the ‘five minds’ in its specificity as a training tool and in its links to character, context, role knowledge and so on, its experiential and holistic approach is in common.

Other mindsets include those engaging with team diversity and its impact on performance (Van Knippenberg, van Ginkel, & Homan, 2013), recognising their role in intergroup relations and how this may impact on bias and stereotypes (Rattan & Georgeac, 2017).

Complexity and mindsets have been considered in relation to complexity theory and the resilience required to manage complexity through a ‘systems’ mindset by recognising the fluidity of complex situations, the need to think holistically and the need to employ multiple perspectives (Cristancho, 2016). The relationship between cognitive complexity and mindsets has also been linked with Kegan’s (1982) adult development theory, and specifically how the complexity adopted by educators can help develop more complex and flexible qualities of mind in their students by drawing on these principles (Stewart & Woldoko, 2016). This places less emphasis on the ‘types’ of thinking but more on a broader notion of capacity building through increased cognitive complexity and adaptivity in mindsets achieved by moving away from the socialised mind, through the self-authoring mind to the self-transforming mind. The model is constructivist in nature, focusing on our meaning-making systems and specifically the meaning we construct from our experiences which builds the self. Obviously, this is developed over a life course, but is seen as particularly appropriate for adulthood where there have been more life experiences, and perhaps more experiences relevant to management and leadership. Its subject-object distinction (the former being a mindset largely hidden from view, a mindset that has been created and is taken for granted, the latter one which attends to the object in a more critical, reflective manner, one that explicitly examines the object and questions our assumptions) can be found in the ‘reflective’ managerial mindset.

More broadly, mindsets stand in contrast to the development of specific skills and competencies (Kennedy, Carroll, & Francoeur, 2013). It is not that skills are irrelevant, but they are particular. In leadership terms they can lead to prescribed ways of working or preferred behaviours that may be insufficiently sensitive to context and circumstance. They also preclude the capacity for creative responses particularly in response to uncertain, ambiguous and unexpected situations, which we consider further below.

Overall, although different on specifics such as depth of focus, the andragogic mindsets reflect an interest in a) diversity – of opinions, experiences and people, and an openness to these, b) cognitive complexity, adaptability and development including analytical and reflective thinking, c) holistic and systemic thinking, recognising interconnections, impacts and change, and d) collaborative and collective approaches. Furthermore (f) they are closely aligned with the growth mindset of the pedagogical approach in creating the ‘learning mode’ that is required for the achievement of these mindsets.

Reflections on leadership development

The emergence of mindsets in training and practice parallel shifts in leadership theory that underpin these developmental approaches. These include:

- (1) The shift away from heroic leaders to leadership as a process (Carroll, Levy, & Richmond, 2008; Pisapia et al., 2005)
- (2) The move towards more collaborative (Raelin, 2016) and relational understandings of leadership (Kennedy et al., 2013).

- (3) The introduction of complexity into discussions of leadership (Uhl-Bien, Marion, & McKelvey, 2007).
- (4) The emphasis on social capital (developing relationships, building networks and creating collective capacity) in leadership development (Day, 2000).
- (5) A shift from specific skills and competencies (Carroll et al., 2008) to a 'mindset' (Kennedy et al., 2013).

These lie at the heart of the andragogical mindset approach. The alternative to leadership as ways of 'doing' (leadership skills and actions), 'behaving' (behavioural and style approaches to leadership) and being ('traits'), is the way in which we 'see' the world – the frames that are described as mindsets. It is seen to follow the shift in leadership thinking towards emergent, relational and collective approaches required to tackle uncertainty and complexity and engage collaboratively – to build capacity (Kennedy et al., 2013). As we appreciate the complexities of the world, we move from known skills to tackle known problems, to ways of engaging – individually and collectively – that requires constant change in ourselves and others (Kennedy et al., 2013), which we can also recognise as the growth mindset.

This shift in how we understand leadership has led to a commensurate shift in leadership development that has moved away from identifying great leaders and exploring what they did, their behaviours and personal competencies. Understanding leadership as a relational process that exists beyond a leader has shifted attention to broader notions of capacity building and also tackles the ways of seeing and assumptions made of the world, which explains why the mindset approach has become so prevalent. The mindset approach avoids the closure inherent in focusing on specific skills used to tackle known problems by remaining open to new ways of seeing and engaging that enable leaders to better address the complex, emergent and fluid world in which they work in ever changing ways.

These approaches for developing leaders have typically been used to support senior leaders in the world of business or public service, drawing on their shared perspectives and experiences, often from international cohorts (e.g. international MBA programmes). Their cognitive complexity is also considered more appropriate for the experienced learner. However, in the final section we consider whether such approaches may also have something to contribute to younger learners.

[A meeting of mindset\(s\) for leadership development](#)

The concluding argument is that there is much that can be gained from bringing the two mindsets together in leadership development for all ages. There is some precedent here: consideration has already been given to the role of growth and fixed mindsets in the context of leadership development, specifically ensuring that those reflecting on their leadership do so in a 'growth mind'. Heslin and Keating (2017) argue that leaders typically do not learn from their leadership experience because they need to be in a 'learning mode' – a growth rather than a fixed mindset. This sets out the benefits of ensuring that those who are learning about themselves as leaders believe that this is a capacity that they can develop. This relates to one's beliefs about innate leadership ability and leadership behaviour and effectiveness, where a fixed mindset is associated with innate leadership qualities, and a growth mindset with the capacity to develop leadership capabilities (Chase, 2010). Evidently those who think they are 'born leaders' are unlikely to adopt a growth mindset and/or engage effectively with andragogical methods of leadership development.

The 'process and product' approaches of different mindsets found in Kegan's developmental theory (Stewart & Woldoko, 2016) discussed above also links directly with the two types of pedagogical mindsets. The subject approach 'to which we are subject' relates to a comparatively fixed mindset in

contrast to the more active 'object' approach which has more growth within it. Kennedy et al. (2013) move from the developing of leadership skills to the development of attitudes and behaviours (their 'mindsets') that reflect the need to develop greater knowledge, and to try different frameworks. They move from the comfort of known skills to mindsets that recognise the ongoing nature of change which reflect a growth mindset and the need learn and adapt and develop. It appreciates there is no certitude in attaining (or recognising and measuring) success as we find in the fixed mindset. Instead the mindset is of continual change, understood situationally and relationally. Success here is the capacity and resilience to learn and adapt, that is to 'grow'.

While pedagogical mindsets focus on a narrower scope – that of the self (ability, intellect etc., and whether that is a 'fixed' or 'growth' mindset), andragogical mindsets have been used to tackle different frames of seeing the external world. But at its heart the growth mindset is about learning and the different andragogical mindsets share the need to develop and evolve meaning – they are inherently open, learning or 'growth' mindsets focused on different capacities (reflection, analytics and so on). Broadly speaking the andragogic approaches require us to be 'in the right frame of mind' in other words a 'growth mind' to effectively engaged with and benefit from developmental opportunities. Interestingly, the growth mindset pushes us to develop our abilities and seek challenges. This is less about the notion one should 'play to your strengths' (see Zhao, 2016) and more about the value of the alternative, to 'play out your weaknesses'. It recognises, as is implied in the andragogical mindsets, that in a diverse, complex, changeable world one has to tackle challenges that might not be in our comfort zone and will require persistence, resilience and commitment. Social skills, although described differently, are also evident in both approaches. Furthermore, the evidence from the pedagogical mindset research is that such mindset change is possible, even if changes can be shorter term unless sustained. This not only points positively towards the likely effectiveness of andragogical mindsets (for which there is less evidence of impact) but also provides a basis from which to consider ways of modelling and testing their effectiveness in the future.

The pedagogical mindsets have much to contribute to their andragogical partner, but here I argue that models used for adults may have equal value for younger learners in leadership development. The emphasis on 'experience' over pre-defined (and typically theoretical) content in the learning process makes these developmental approaches more appropriate for older and more experienced people. However, when exploring mindsets we are not looking at specific knowledge or pre-determined ways of seeing, but cultivating our practices and orientating our minds. In other words, we are developing processes – attending to our ways of seeing, forming attitudes – not passing on specific knowledge or requiring specific experiences. It is the process of considering, deconstructing, exploring, understanding and learning. The andragogical mindsets are the growth mindset in action.

To return specifically to the leadership mindsets, it is not the specific practices and competencies that are being honed through leadership development – specific actions for specific circumstances, or particular relationship-building practices – but a mindfulness of them and an attempt to develop one's capacity to tackle challenges that is inherently open and creative rather than a process of learning and repeating 'known' practices. The 'skills', such as they are, address the capacity to act, not the specificities of how to act.

Of course, life experience, and cognitive development gained through maturity is well-placed to benefit from the andragogical approaches. However the training through a mindset approach also has much to offer the younger, less-experienced mind. Young people may not have extensive life experience, and may or may not have work experience, but they are not without experience per se. What they may lack is an extensive 'worldliness' – undoubtedly the opportunities for experience increase over time, and the range of experience for those if school age are (typically) more limited. But there is still capacity for the andragogical mindsets to be employed. Further, as we have already

established, the capacity for reflection and learning from experience is by no means certain for those who are older or with more experience. The growth mindset has been proven to be effective in younger people, and given that the andragogical mindsets can be seen to be built on this principle it follows that they should be effective here too. The primary difference to-date has been the mode of teaching, by which interventions are used that bring experiences and examples to shape mindsets rather than a reliance on gathering the examples from the cohort (as is more typical with post-experience students who are asked to reflect on their own practice). But here again the distinction between teacher-led interventions and case studies, that are frequently used in the teaching of post-experience students, is slight.

Leadership can occur throughout most of our lives and training young people to adopt mindset-based approaches is, I argue, a natural extension to the growth mindset. As Heslin and Keating (2017) argues, the growth mindset is a necessary condition for the development of leaders. The emphasis on process and development rather than the learning of (and necessary awareness of) specific skills or acts means that even those with less experience can benefit from such an approach. Indeed, not imposing pre-existing ways of thinking that replicate prior practice, but focus on cognitive development, creativity, and capacity building are life skills that can be developed at any age and in any circumstance and are increasingly seen as appropriate for developing leaders (Kennedy et al., 2013).

Using mindsets for younger learners

Exploring mindsets have only limited value if they are considered in a vacuum as abstract concepts. Here I propose three possible ways in which this can be tackled

- 1) **Experiential learning.** Experiential learning is less commonly used within classrooms but is more typically found in extra-curricular activities. In essence this method is 'learning through doing'. Kolb (1984)'s model starts with concrete experience, followed by reflections on that experience (reflecting on what happened), after which there is abstract conceptualisation of the experience (understanding what happened) before trying out what you have learned. Experiences could include behavioural dynamics such as group work, developing confidence in taking a lead, and working through complex problems. Role play and activities, as long as there is time for reflection, could accomplish this (see also Heslin & Keating, 2017).
- 2) **Case studies.** Case studies are commonly used in post-experience education but can equally apply to younger people. Smith (2012) sets out how undergraduate students learning about a global mindset could achieve this through case studies or (as in her case) 'live' cases through interviews and interactions with someone who would be 'different' as a means of having an intercultural experience. Such an approach encourages the participant to cultivate their mindset(s), developing their analytical, worldly and reflective capacity through direct experience and vicariously through exploring the experiences of others.
- 3) **Mindset training.** This method more directly tackles the andragogical leadership mindsets and uses them as a structure for orientating a learning process. This has been adopted by the author to build the conceptual foundation for an international leadership development programme for young people that needed to balance the consistency of a programme with the need to be open and relevant to multiple cultural contexts. The mindset approaches, unlike traditional leadership models, does not

prescribe best or contingently specified practices, but enables the 'orientations' to be considered in their cultural context. Everyone needs to take action, but how, when and with whom they would do that would depend on the specific cultural and local context, and the precise nature of the challenge facing the actor in question. The mindset training can build directly on the andragogical frameworks and can be used at a conceptual level (appreciating the mindsets) and practical level (utilising them), recognising that you don't need to be global managers to face challenges that require analysis, collaboration, reflection and so on.

Conclusion

Mindset thinking has a rich and diverse body of work underpinning it, that comes from pedagogical and andragogical sources. Although with clear connections between them, these bodies of knowledge are largely treated as distinct because of their different audiences, the most salient differences being level of experience and presumed cognitive development. In this paper I have set out the bodies of work and drawn out their connections concluding that ultimately the 'growth mindset' is central to andragogical mindsets. In a time when we're facing complex global challenges which require collaborative working and creative responses, developing the leaders of tomorrow and the mindsets they need is something to be addressed with urgency. Training our leaders of tomorrow with known practices of today have inherent limitations. Adopting a capacity building mindset approach, typically found in andragogical pedagogies, and in leadership development in particular, can play an important role in the leadership development of all ages, including those with less experience. Such a principle builds directly on the 'growth mindset' that is well-established in formal educational settings and has relevance for learning more widely. The different mindset literatures can learn from each other. The well-established process of testing interventions in pedagogical mindsets could provide more evidence and understanding for the value of andragogical mindsets. The andragogical mindsets can expand the breadth of and qualify the growth mindsets in the context of leadership development.

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