Threshold Concepts in Practice

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6. AFFECTIVE DIMENSIONS OF LIMINALITY

INTRODUCTION

Threshold transformations foster ontological shifts that are associated with both cognitive and affective changes in the individual. They cause the individual to view and experience the world differently in terms, not just of the intellectual understanding of an idea but also in the way they feel about, or experience, the world. It is difficult to imagine how coming to understand the notion of 'other', identified as a threshold concept by Cousin (2006), would not be experienced as both an intellectual and emotional transformation. In addition to being associated with affective outcomes the very process of transformation associated with the acquisition of a threshold concept itself has been described as a highly emotive experience (Felton this volume). Felton notes that students frequently talk about their encounters with threshold concepts as 'scary' or 'frightening'. By their very nature threshold concepts involve learners engaging with knowledge that is believed to be difficult or troublesome (Perkins, 1999; Meyer & Land, 2005) implying that they are something to be approached with caution or trepidation. Much of this fear comes from the necessity to let go of existing understandings or ways of viewing the world and enter the liminal space, a place associated with uncertainty, as the new concept is grappled with (Meyer & Land, 2005). The current chapter considers the affective dimension of the Threshold Concepts Framework (TCF) by considering the extent to which liminality might be experienced as both a cognitive and affective state that is more easily navigated by some students than others.

We already know that not all learners experience threshold concepts in the same way and that the degree of troublesomeness associated with a particular threshold concept will vary between individual learners (Meyer & Land, 2006). The very willingness of learners to engage with the threshold concept itself and navigate the associated liminal space is equally varied (Meyer & Land, 2006). Some learners are willing, or even eager, to enter the liminal space in the hope of emerging transformed or coming to a new way of understanding whilst others pause at the entrance seemingly unable or unwilling to let go of their pre-existing understandings (Cousin, 2006). Much of the work in this area however, has focused on intellectual or pedagogical explanations to explain the differential experiences of learners when they encounter troublesome knowledge (Flanagan, 2015). The current chapter explores another possible explanation for learners' behaviour when they encounter thresholds and more particularly are required to engage with liminality. It considers

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the extent to which psychological characteristics of the learner, such as resilience, might explain why some students are able to cope with liminality and persist in the face of uncertainty whilst others appear to withdraw from it and remain in an untransformed state. Building on Luthans et al's (2007) construct of Psychological Capital (PsyCap) as one measure of the affective dimension of learning, the chapter explores firstly the potential relationship it has to academic performance before moving on to a consideration of any potential utility it might have as a means of explaining why some learners remain trapped in, or fail to enter, the liminal space and others emerge from the space to inhabit a new place of being. It argues that the malleable nature of some psychological states render them meaningful in a learning and teaching context not only because of their explanatory function but as a potential source of intervention to support a positive learning experience.

AFFECTIVE DIMENSIONS OF LEARNING

Before considering the potential link between affect and liminality it is important to take a moment to consider the place of affect within the context of learning more generally. Within the domain of learning research primacy has typically been given to the cognitive processes associated with learning and learners' behaviour (Baker, Andriessen, & Jndries, 2013). Research has explored the psychological factors associated with learning but there has been a tendency to focus on cognitive processes such as motivation, self-regulation and use of cognitive strategies (see Gębka, 2014 for a detailed discussion of this research). Gębka (2014) notes that researchers have started to build complex models integrating a range of psychological, but still largely cognitive, factors to explain differentiated learning behaviours (Fenollar, Roman, & Cuestas 2007; Phan, 2010). Whilst this work continues to shed light on the relationship between motivation and performance it tells us little about the affective experience of learning and how that might influence subsequent learning behaviour and engagement. In comparison relatively little is known about how affective psychological states such as hope or optimism might relate to the same set of learning behaviours (Baker et al., 2013; Cozolino, 2014; Davidson et al., 2012; Day et al., 2010). In this section we will consider what is known about the place of affect in learning

HOPE

Much of the work exploring the affective dimensions of learning has been carried out within the domain of positive psychology (Lopez & Snyder, 2003; Seligman, 2006; Seligman, Ernst, Gillham, Reivich, & Linkins, 2009) and it stems, at least to some extent, from Albert Bandura's socio-cognitive theory of behaviour (Bandura, 1977, 1997, 2000). In addition researchers have become increasingly interested in the link between affect and learning due to an increased concern about the mental health and emotional well-being of learners (Davidson et al., 2012).

Research in the domain of positive psychology and learning has tended to focus on the relationship between psychological states such as hope, optimism or resilience and learners subsequent academic performance. The findings from this research suggest, for example, that hope, which is associated with an individual's belief in their own ability to follow identified pathways as a means of achieving future goals through personal agency, is a good predictor of future academic success (Snyder, Shorey, Cheavens, Pulvers, Adams III, & Wiklund, 2002), whilst Chang (1998) argues that a learner's ability to cope with academically challenging situations and to solve problems effectively is mediated by their level of hope. Davidson et al. (2012) explored the specific role of hope as it relates to undergraduate students' learning and performance. They utilised the salutogenic paradigm developed by Antonovsky (1987), which focuses on the extent to which individuals can develop coping strategies and resilience behaviours which promote emotional well-being in a range of contexts, including educational ones (Margalit, 2010). They reported that students who had participated in a workshop designed to enhance their hope, academic self-efficacy and sense of coherence showed more improvement in their grades in the semester following the workshop compared with students who had not participated in such a workshop. In another study Day, Hanson, Maltby, Proctor and Wood (2010) found that, when they controlled for intelligence, prior academic performance and personality characteristics, hope was a reliable predictor of academic success.

OPTIMISM

A second affective dimension that has been considered in relation to learning and academic performance is optimism, which can be thought of in terms of the desire to attain specific goals by attributing their potential achievement to positive outcome expectations and engagement in goal-oriented actions (Scheier & Carver, 1985). Optimism in a learning context is associated with learner autonomy and self-determination in relation to the accomplishment of learning tasks and goals (Shogren, Lopez, Wehmeyer, Little, & Pressgrove, 2006). The optimistic learner believes in the possibility of positive outcomes and that these can be attained through personal effort or persistence (Bryant & Cvengros, 2004).

EMOTIONAL SECURITY AND RESILIENCE

Both hope and optimism relate to an individual's view of their own agency and autonomy within a learning situation and the extent to which they believe they can utilise multiple pathways and strategies to effect a positive outcome in the learning situation. They are associated with the setting and attainment of specific future learning goals and as such will be influenced and shaped by previous learning experiences. We are more likely to make positive attributions about the possibility of future success (optimism) if we perceive ourselves to be responsible for past

successes. Emerging work on attachment-based teaching (Cozolino, 2014) capitalises on these ideas and proposes an approach to teaching which is much more attuned to the affective dimension of learning and how it could support teaching practices. It combines the idea of the importance of emotional security and the development of resilience with states such as hope and optimism to propose an approach to teaching and learning that has learners' emotional security at its centre (Cozolino, 2014). In this context resilience refers to the ability of an individual to cope with, and adapt to, negative experiences and to minimise the damaging long-term emotional consequences of these experiences (Rutter, 2006). Resilient learners can cope with negative learning experiences, irrespective of whether they are perceived to have an internal or external locus of control, as they are able to minimise the negative effects of the experience and adapt to the adverse experience to find alternative outcomes or cope with the delayed success.

PSYCHOLOGICAL CAPITAL

Drawing on work from organisational psychology that explored the effectiveness of individuals within an organization, Luthans and Youssef (Luthans & Youssef, 2004; Luthans, Youssef, & Avolio, 2007) propose that instead of considering individual psychological factors we might think of them as acting together to form a kind of 'psychological capital' (PsyCap) which cumulatively operates to influence human behaviour. PsyCap has its roots in the area of positive psychology and refers to rs to o efers to in the area of positive pate of development' (Luthans et al., 2007, p. 3). It is represented as a higher order multi-dimensional factor that encompasses the three affective components (hope, optimism and resilience) discussed previously with self-efficacy (Bandura, 1997), and is associated with an individualacy (Bandura, nd refers to rs to o efers to in the area of pos's belief in their own ability to accomplish a specific task and the links between self-efficacy and learner behaviour are well established (Pajares, 2005; Schunk, 1991; Zimmerman, 2002). Learners with high self-efficacy typically are more willing to engage in appropriately challenging learning tasks and will persist with a learning task until they complete it, whereas learners with low self-efficacy typically show less persistence, particularly in the face of challenge, and are more likely to give up when they encounter difficulties (Bandura, 1986, 1997, 2000; Pajares, 2005; Schunk, 1991). Luthans et al. (2007) argue that whilst the individual factors that constitute PsyCap influence human behaviour individually it is in combination that their influence is greatest; the whole is greater than the sum of its parts (Luthans, Youssef, & Avolio, 2007; Searle, 2010).

Much of the work on PsyCap to date comes from the field of management and organisational psychology and studies considering its direct application in educational contexts are scarce (Searle, 2010). One study which has crossed the boundaries of organisational and educational contexts reported that an intervention designed to enhance the psychological capital of a group of management students showed that improved PsyCap was associated with higher academic performance

(Luthans, Avolio, Avey, & Norman, 2007). Given the scarcity of studies exploring the relationship between PsyCap and a range of cognitive and affective factors already associated with learning and learner behaviours. In a small-scale study undertaken with a cohort of 46 undergraduate education students, this author (Rattray, 2014) found evidence of a modest relationship between PsyCap and academic performance (insert fig or correlation scores). Students complete a modified PsyCap inventory (Luthans et al., 2007) prior to the submission of a written assignment that explored their understandings of the relationship between theories of how people learn and their application within an educational context to determine what, if any, relationship exists between PsyCap and academic performance. Whilst this is a small-scale study it suggests that future work exploring this issue merits a place within educational research.

LIMINALITY AND AFFECT

In Meyer and Land (2005) described liminality as a fluid or liquid state of understanding or being. They note that learners who occupy the liminal space can often move back and forward within this fluid state as they grapple with the threshold they are attempting to cross. Others have described liminality as akin to a kind of 'no man's land' (Hokstad, Rødne, Bråthen, Wellinger and Schetelig, this volume) or even as a labyrinth or maze that learners need to navigate their way through (TRANSark, 2015). Vivian (2012), applying a semiotic framework to liminality, likens it to a cognitive tunnel that one must enter and pass through in order to emerge transformed (see Figure 1). Vivian's conceptualisation of liminality as a tunnel represents a useful metaphor here reflecting as it does the idea of entering a dark and foreboding place where the final outcome, and indeed the path to achieving it, is as yet uncertain or initially at least out of sight (Land, Rattray, & Vivian, 2014). Whether we think of liminality as a liquid state, a labyrinth or a tunnel we cannot deny that it is this element of the threshold concepts framework that has proved to be challenging, or troublesome, to researchers, representing as it does the less well understood part of the transformation. We know that learners pass through the liminal space or tunnel en route to being transformed (Land, Rattray, & Vivian, 2014; Land, Vivian, & Rattray, 2014) but quite what supports or facilitates this passage is less clear. If we characterise mastery of a threshold concept as representing the end point of a particular learning cycle (as well as being the point of departure for another) then we might think of the mastery of the threshold concept as becoming the learning goal to be attained. Work from the field of motivation tells us that motivation is an 'important aspect of the learning experience and consequently it is an integral part of any conceptual change' (Pintrich, Marx, & Boyle, 1993). Motivation can be thought of as 'the process whereby goal-directed activity is instigated and sustained' (Schunk, Pintrich, & Meece, 2008, p. 4). Motivation therefore is associated with a learnereby goal-directed persist with learning to attain mastery of a threshold. The question then for us as researchers is what might explain why some learners persist

in their efforts to grasp a threshold concept sufficiently to negotiate the liminal space, and why others either do not embark on the journey at all, or give up part way through and remain stuck in the liminal tunnel.

THE LIMINAL TUNNEL

The metaphor of the liminal tunnel has utility both in terms of the conceptual and ontological transformations that are brought about by the acquisition of a new threshold concept. Not only does it resonate with the idea of modular curricula that are based on a linear sequencing of disciplinary knowledge but, if we think of it as a cognitive and affective tunnel, it brings the affective dimension of the ontological shift into much sharper focus emphasising as it does the idea of an intimidating or unseen place that must be entered and passed through if transformation is to occur.

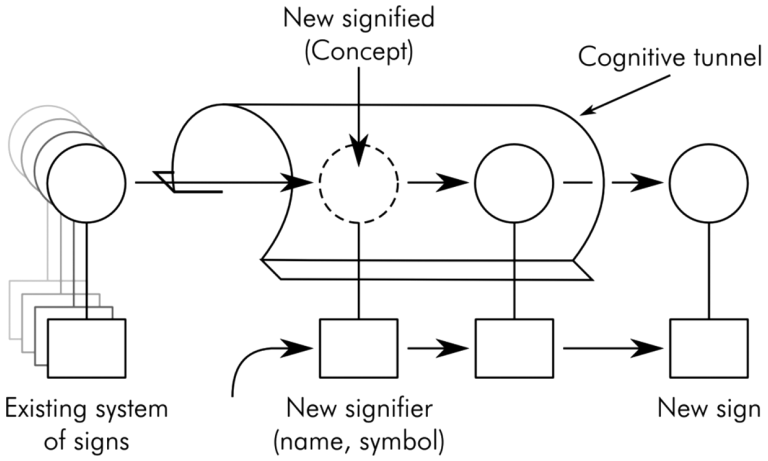

Figure 1. The Liminal Tunnel (Reproduced from Vivian, 2012)

EMOTIONAL CAPITAL

The affective dimension of threshold concepts has not been entirely neglected by researchers. Cousin (2006) has argued that what she terms 'emotional capital', might provide an explanatory framework for categorising students into different affective typologies. In her work addressing students understanding of 'n her wor' – which she argues is a threshold concept – she found that students' level of emotional capital influenced their willingness to engage with and subsequently understand this threshold, which might itself be considered an emotive concept. Emotional capital is, according to Cousin (ibid) an accumulation of the affective assets or resources which are the result of varied life experiences. Emotional capital is the affective relation of social capital (Bourdieu & Passeron, 1997), and it represents one way of

thinking about the affective dimension of learning. Whilst Cousin applies the idea to one very specific threshold, her acknowledgement that negotiating the liminal tunnel includes an affective component reflects an increasing shift towards a consideration of this aspect of learning and learner behaviour (Weatheral, 2012).

EFFORT AND AGENCY

If a cornerstone of threshold transformations is persistence then the individual needs to be resilient. They need to be able to cope with their own oscillating behaviour within the liminal space as they strive for understanding. They need, further, to believe that the threshold will be crossed and that they are capable of crossing it. They need to be able to envision themselves, even if not clearly, occupying a new space beyond the threshold. In short, they need to have the psychological coping strategies that enable them to deal with the difficult and uncertain liminal phase and to accept that it will take time and effort to find their way through it. Cousin (2006) argues, as we have seen, that threshold transformations might be facilitated by a student's 'emotional capital' and others have established clear links between positive psychological constructs such as hope, (Sneider et al., 2002) self-efficacy (Bandura, 1997, 2000), optimism, (Seligman, 2006) and resilience (Borman & Overman, 2004). In relation to learning, these psychological characteristics are associated with a willingness to engage and take ownership of the learning and with awareness that learning does not simply happen but, rather, it requires effort and agency (Seligman, 2006; Sneider et al., 2002). The notion of agency is of particular importance here as threshold transformations, involving, as they do, changes in individual subjectivity, could not occur without individual agency. The learner needs to come to see the threshold concept as a learning goal to be mastered and to accept that, whilst they can be supported in their mastery of the threshold by a tutor or peer, ultimately the transformation is theirs.

CONCLUSION

In considering what might explain this persistence we could explore the aspects of pedagogy that might support the conceptual shifts involved in the threshold transformation or we can look at the psychological factors that help to bring about the perseverance that is needed to cope with liminality.

The four factors constituting PsyCap might explain why some learners are able to pass through the liminal tunnel and acquire a new conceptual framework and others, despite having the intellectual capacity, are unable to make the same transformation. As we have seen, a learner who believes they are capable of understanding new ideas (self-efficacy), who makes positive attributions in relation to their potential for success (optimism), who can monitor and re-align goals and the pathways to attaining these goals (hope) and who does not give up in spite of the difficulties they encounter with the new knowledge (resilience) may be able to cope with liminality

more effectively than those who lack these affective assets. Cousin (2006) argued that students with less emotional capital might experience greater levels of discomfort with troublesome knowledge and this might result in their being unwilling to enter the liminal tunnel at all and leave them permanently in the pre-liminal space (Meyer & Land, 2005). Cousin argues further that just as social capital is acquired in a cumulative way, emotional capital can be developed through onemulative inal space. This renders it a useful idea in education as, rather than reflecting a fixed set of learner attributes or pathologies, it represents something more changeable. In a similar way PsyCap is considered to be a malleable state rather than a fixed trait (Luthans et al., 2007) and this gives it potential utility in a learning context. Educators who want to facilitate learners' motivation to embark on the negotiation of the liminal tunnel, and engage in the process of ontological shift, might consider embedding the principles of positive psychology in their pedagogy and curricula as a means of enhancing their students' PsyCap and facilitating the engagement they seek.

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