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CHAPTER 1

Directed Motivational Currents

Energising language learning by creating
intense motivational pathways

Zoltán Dörnyei, Christine Muir and Zana Ibrahim

In this chapter, we introduce a novel psychological construct whose key aspects
are well-established in major motivation theories. A Directed Motivational Current (DMC) is a conceptual framework which depicts unique periods of intensive motivational involvement both in pursuit of and fuelled by a highly valued
goal/vision. The heightened motivational state of individuals or groups involved
in a DMC is maintained through the deployment of a salient facilitative structure that includes reinforcing feedback loops, positive emotionality and the
prospect of reaching a new level of operation. When applied in second language
contexts, DMCs can energise language learners to perform beyond expectations
and across several levels and timescales, including long-term engagements.

Keywords: language learning motivation, Directed Motivational Current,
vision, goal-setting, eudemonic well-being

A Directed Motivational Current (DMC) can be described as an intense motivational drive which is capable of both stimulating and supporting long-term
behaviour, such as learning a foreign/second language (L2). Drawing on several
aspects from mainstream motivation theories in psychology as well as current
strands of motivational thinking in Applied Linguistics, such as the L2 Motivational Self System, language learning vision and Dynamic Systems Theory, DMCs
form a multipurpose construct with compelling motivational capabilities: they
are capable of acting as a fundamental organiser of motivational impetus in general and, as such, have considerable potential as a specific tool to motivate learners in the language classroom. In this chapter we first provide an introduction to
the concept and then discuss its main dimensions and features. We go on to outline links to established motivation theories and conclude by describing several
relevant practical areas where DMCs can offer benefits.

What is a Directed Motivational Current?

The best way of giving an idea about what DMCs are is by offering a few examples, all of which follow the same pattern: a clearly visualised goal combined with a concrete pathway of motivated action brings a new lease of life and burst of passion to an otherwise dormant situation. Imagine, for example, an overweight university professor who would like to have a healthy lifestyle but whose job involves too much sitting in front of computer screens and too many lavish meals at motivation conferences. One day, something changes: he enrols at the local gym, arranges regular gym dates with friends and surprises colleagues with decisive shifts in his eating habits, swapping from a chocolate biscuit to an apple mid-morning and to salads at lunch. Imagine how this initiative gains momentum when his bathroom scales start showing decreasing figures and his efforts begin to be recognised by family and friends, immeasurably focusing his resolve. As a result, he loses over 20 lbs. in four months.

Alternatively, imagine a pensioner whose life literally takes a turn when she hires a plot in an allotment and starts growing a range of vegetables, with the village show's coveted first prize at the forefront of her mind. We might also imagine someone joining a photography club and getting involved in a socio-photo project leading to a special feature at an exhibition, or someone else starting to attend an evening course in order to finally learn the skills necessary to realise a long-standing dream; in all these activities a great deal of energy is released and the achievement of clear goals ultimately comes to fruition through a powerful surge of highly focused motivation.

Examples of DMCs in educational contexts are equally recognisable. Imagine, for instance, a school which is average both in academic terms and in terms of pupil engagement: students are not particularly absorbed in their lessons and nor do they arrive to class with a great deal of enthusiasm, and perhaps less often still with their homework. Imagine a project which, for some reason, sparks their attention and acts as a catalyst and starting point for a few weeks, or perhaps even months, of motivated activity. Picture these students taking control of the scheme and managing its direction and content, whether they are interested in the autonomy suddenly offered to them or the subject matter of the goal itself. As a result, students are suddenly, if only for this period of time, able to work together at a heightened level of intensity, even surpassing the targets originally set for them and becoming carried away with the achievement they are now imagining possible for themselves. This could happen, for example, in a state school which struggles to generate interest in modern languages when a new and dynamic L2 teacher arrives and manages to turn things around through a few well-selected initiatives, making the L2 a desirable subject choice.

A similar phenomenon is also identifiable over a shorter time scale, with, for example, an invigorating language task set over the course of a single lesson, possibly turning into a project spanning a mini-series of lessons. Imagine the students captured in some way by the topic, the task or the medium at hand and driven to best themselves, pushing to exceed all expectations. Imagine hearing the affirming whines of 'but Miiiiss' or 'but Siiiiir', vocalisations of the frustration at the lack of time remaining at the end of a lesson and a signal that students have become truly invested in achieving their goal. Likewise within academia, picture a motivation symposium bringing together a large group of language teachers and researchers in order to present and exchange ideas about their profession in spite of their extremely busy lives, with this goal of furthering understanding overriding a sparkling May day passing by seemingly unnoticed on the other side of the conference room door.

Each of the above scenarios depicts a powerful motivational drive which unfolds over time and impacts its participants in a significant way. The people featuring in these scenarios achieve something more than they expected they could, and successfully work towards a personal/personalised goal that may not have otherwise been achievable. We hope that at this point these highly charged motivational pathways – or currents – are intimately recognisable; however, to further illustrate them let us take an analogy from nature, the mighty Gulf Stream.

DMCs and the Gulf Stream

The Gulf Stream is one of the strongest currents in our oceans; it runs from Florida northwards up the Eastern coast of the United States before heading east out around Newfoundland, and forms one section of the North Atlantic's endless circular system of currents. It is typically 62 miles wide, anything from 800 to 1200 metres deep and at points is capable of transporting water at a rate of 150 cubic metres per second. It also transports enough heat to satisfy around 100 times the world energy demand (hence it has recently been considered how this immense power can be harvested). The foremost connection between the Gulf Stream and DMCs concerns the formidable flow of energy, which, crucially, the Gulf Stream maintains without at any point requiring any external replenishment. We believe that a similar motivational stream is evident in the various examples of DMCs offered above: if the correct conditions can be engineered to allow these motivational pathways to be created, a motivational jetstream will emerge that is capable of transporting individuals forward, even in situations where any hope of progress had been fading. Once a DMC is in place, through its self-propelling nature learners become caught up in this powerful flow of motivation and are relayed forwards towards to achieve their goals.

What a DMC is not

Not all motivated behaviour can be described as a DMC. A DMC is a unique and temporary boost to motivation, although in some unique cases real motivational Gulf Streams may emerge which last for decades. The important point to note is that any superstar learner in a given class is not necessarily operating within a DMC; a DMC is a unique drive which is so identifiable that those around the person in the flow are able to recognise a significant change in him/her to the point where, for a short period of time, it becomes a prominent feature of the individual's identity. "Jo won't be coming out tonight; she has her final Japanese exam next week and is completely in the zone with her revision – I don't think I've seen her with her head outside of a textbook for the last two weeks!' 'Harry won't be joining us for pizza tomorrow, he says he feels so much better after all that training, and not just that, he looks great - there's no way he's going to do anything to jeopardise his chances in the marathon next Saturday!"

A DMC is qualitatively different from the ongoing motivation of a good student, due to the fact that it is a relatively short-term, highly intense burst of motivational energy along a specific pathway towards a clearly defined goal: it is *over and on top of* the steady motivation any student will exhibit throughout the year. We do not see it manifest itself in people who are working methodically towards a general life goal five years down the line, but rather in those who set a specific goal in the present, and whose motivation to achieve it takes on such an influence as to disrupt the daily routine of their lives and temporarily alter their identity and priorities. A DMC proper brings a far greater sense of urgency and, perhaps, just a little more drama than regular motivated behaviour; not unlike an injection of motivation into the system. After the accomplishment of the goal, life resumes its normal balance – although perhaps at a modified level – and long-term goals and visions once again assume control of directing thought and action, until the day the conditions may once again fall into place to allow another DMC to emerge.

The main dimensions of DMCs

If we consider the various motivational surges and streams which might qualify to come under the DMC rubric, we find a number of dimensions – characteristic features, typical components and necessary conditions – which these phenomena share in common. It is crucial that all of these conditions are present and are correctly balanced, the specific formula of which being defined by the nature of the DMC itself. It may be the case that there are occasions when several of the required factors are in place, yet they will not be sufficient to fire up the motivational

engine of a DMC. Below we offer a list of what we currently believe to be the main constituents of the DMC make up.

Goal/vision-orientedness

Similar to the streams and currents in nature, a DMC is always directional, taking individuals forwards towards a specific goal. In other words, action is neither random nor spread across different trajectories. Such a powerful motivational drive will not emerge in the absence of a salient goal which provides both cohesion to one's efforts and which allows people to focus their energies towards a clear finish line. This criterion distinguishes a DMC from some other practices where motivation is relatively high – such as pursuing an interest or hobby – as these are not associated with any specific end goal but rather are practiced merely for the sake of enjoyment. In contrast, a DMC has a clearly defined goal: the target weight of a dieter, the performance or presentation students are preparing for, the culmination of an extra-curricular project or the home-grown vegetables our green fingered gardener wants to see win at the village show next spring.

Thus, goal-orientedness is a prerequisite for the generation of a DMC. This characteristic explains why *vision* also becomes a key factor in this respect. Technically speaking, goals and vision both represent similar directional intentions to reach future states, but there is one fundamental difference between the two concepts: as Dörnyei and Kubanyiova (2014) explain, unlike an abstract, cognitive goal, a vision includes a strong *sensory element*: it involves tangible images related to achieving the goal. Thus, for example, the vision of becoming a doctor exceeds the abstract goal of earning a medical degree in that it involves the individual actually seeing him/herself receiving the degree certificate and practising as a qualified doctor. That is, the vision to become a doctor also involves the sensory experience of *being* a doctor. In this sense, a vision can be understood as a goal that the learner has made his/her own by adding to it the imagined reality of the actual goal experience. We believe that the intensity of a DMC cannot be achieved without adding this visionary quality to guiding goals, and therefore view DMCs as motivational currents heading towards a potent personalised vision (the concept of imagery and vision will be further discussed in a separate section below).

Salient and facilitative structure

While surging forwards, the Gulf Stream moves unwaveringly along a clear pathway and does not falter: a quality not coincidental but rather characteristic of the phenomenon in question. Similarly, a DMC always has a salient, recognisable

structure which does not merely frame the process, but which also plays a vital role in facilitating the unfolding action.

At the genesis of each occurrence of a DMC there must be a clear *starting point* which can unmistakably be identified as the beginning of the process; that is, a DMC never simply drifts into being but rather is triggered by something specific. Consider how important the launch of a spacecraft is: the moment of take-off is a crucial phase of the overall journey as it determines the trajectory, movement, sustainability and of course the final destination. For a successful DMC journey, an elaborate launch system is equally necessary, where all prerequisite conditions are precisely calibrated, since the launch will determine the longevity and strength of the resulting current.

One advantage of a powerful launch is that the system can quickly achieve 'motivational autopilot', that is, a state where the initial momentum rules out the necessity for a motivational intervention each and every time a new step within the sequence is to be carried out. In this respect, the process of undertaking the various steps becomes a *routine* that is directly linked to the initial set-up. This could be compared to domino pieces that, when properly lined up, will all fall one after another from a single push because they are all part of the same chain. Therefore, a key feature of a DMC is the existence of motivated behavioural routines which do not need ongoing motivational processing or volitional control: they will be executed simply because they are part of the structure. The overweight professor does not need to make a principled decision every time he goes to the gym, and in language learning contexts such routines might, in the run up to what might be an important exam or test for example, involve the decision to spend 30 minutes each afternoon watching L2 television or to memorise 10 new L2 phrases every day. In a DMC, sticking to such set routines becomes a smooth and self-evident part of the process, such as with the same semi-automatic process of brushing one's teeth before going to bed.

The exact nature of this start may take different forms, ranging from a tornado-like beginning whereby flow progressively gathers momentum before building to a formidable intensity, to a deluge of motivation as when flood gates are opened and energised movement begins in a manner both powerful and immediate. Likewise, the emerging DMC may take different shapes and forms, depending on how the constituent components relate to one another. In an *upward spiral* the energy level associated with the behavioural sequence grows incrementally as one builds up momentum or expertise, or as the outcome becomes increasingly more within arm's reach; the common observation that success breeds further success falls under this category. Another common type – which we might describe as a *plateauing spiral* – is characterised by an initial rush of energy which leads to the formation of effective behavioural routines which, although they are sustained,

are carried out with a gradually waning enthusiasm. The common appreciation that when losing weight it is hardest to lose the last 2 lbs. than the first 18 lbs. is reflective of this structure.

To conclude, a DMC is always associated with a prominent structure, which not only provides an accommodating framework for the process, but which also takes an active role in keeping the current flowing. Further research will be highly instrumental in mapping out the main structural archetypes of DMCs, and in furthering understanding of how the manipulation of certain conditions may alter their functional properties. For example, it is reasonable to assume that adding regular feedback points to the structure will intensify the current (as is the case with the dieter who steps on the scales every week in the hope of receiving energising feedback), and in a similar vein, making the pathway rich in meaningful subgoals and useful subroutines to be done on an "autopilot" might conceivably increase the robustness of the forward-surging motivational current.

Participant ownership and 'perceived behavioural control'

A person may be caught up in a DMC only if he/she fully internalises the vision driving the current forwards. Although a DMC can be initiated by others, joining it must be a fully autonomous decision and, in order for a DMC to begin, complete ownership of the process and its outcome must be felt. This sense of ownership can only exist if the individual believes that he/she has sufficient capabilities to perform the required actions and thus to participate in the project effectively. This perception has been termed in psychology 'perceived behavioural control' (see the description of Ajzen's theory of planned behaviour below). Thus, a fundamental condition for DMCs is that participants come to believe in the necessity and significance of the project and be fully confident of the possibility of achieving their goal.

Clear perception of progress

People may only continue in a DMC if they have a clear and ongoing perception that they are on track towards reaching their vision. The satisfaction and sense of wellbeing one gains from this sense of progress is one of the main forward drives in a DMC, and in order to feel this satisfaction one needs to receive some sort of tangible feedback while moving forward: some aspects of continuous progress need to be visible. Individuals in a DMC are aware of the fact that they are experiencing something unique, a drive which is not commonly experienced in everyday situations, not even during those times when individuals might feel highly

motivated. This unique experience is fed by the unmistakable signs of achieving the goal: the decreasing waist size in a dietary programme, the coming together of a performance, the growing bibliography marking the progress in an MA dissertation or the visibly growing cucumbers in an allotment plot.

Positive emotional loading

Individuals in a DMC usually experience highly positive and supportive emotionality towards the process. This stems from the emotional loading of the vision which is at the heart of the DMC: anything which helps to approach the goal feels rewarding and takes on some of the positive affect associated with the outcome. It is as if each step along the way reproduces – or becomes permeated with – some of the overall passion linked to the whole journey. This is goal-oriented behaviour with a difference: the positive emotional loading of each step generates further energy, and evident in each phase of the motivational journey is the promise of a new experience, a new opportunity, a new identity, or perhaps, as for our esteemed professor, a new level of fitness. This element of exploring something new is highly valuable to DMCs; it offers something beyond the banalities of everyday life. The emotional loading of a DMC is therefore different from the intrinsic pleasure of engaging in a joyful activity, the enjoyment is related not so much to the pleasantness of the activity itself but to the pleasure of goal attainment. This means that even if the specific DMC-related task is not particularly pleasurable – for example memorising the Highway Code during the process of learning to drive – the feeling that one is doing something useful and meaningful that takes one towards their goal endows it with a unique sense of excitement and fulfilment.

Motivation theories related to DMCs

Although the concept of Directed Motivational Currents is a novel idea, this is not to say that aspects of the phenomenon have not been discussed in motivation literature in the past. In fact, given that DMCs are such a potent organising force in several notable aspects of our behaviour, it would be somewhat alarming if we were not to find any references to it in the literature. Before discussing several of the most significant theoretical links however, let us ask an obvious question: why have motivation scholars not come across this concept before?

The most likely answer is that they were simply not looking for it. Motivation theory has traditionally been concerned with identifying generalisable components of an overall motivation construct, which was seen as a static entity. When

trying to explain why, say, Rupert was motivated, scholars offered varied contributing factors, but did not seem to be concerned with the fact that Rupert's motivation might not be constant, and that he could be motivated one day and demotivated the next: that is, the issue of temporal processes characterising motivational change was not on the radar of researchers. The powerful motivational states which accompany a DMC were largely explained in terms of the nature of the goals involved and other generalisable factors related to the individuals, such as their expectations of success, their perception of the value of succeeding or their intrinsic interest in the task. An insufficient focus on the time aspect in this regard is able to explain the fact that it is not possible for a single mainstream motivation theory to subsume this new construct, whereby the channelling of such dispositions into a specific process with a specific structure is able to hugely amplify the motivational energy released. Even one of the closest parallels of a DMC, Csikszentmihalyi's (1988, 1990) concept of 'flow' (see below), is only concerned with engagement in *single* tasks without taking into account any prolonged, sustained time element.

Over the past decade there has been a broad yet notable change within the social sciences. Situated, temporally sensitive theories have become more prominent, and in response to this an increasing number of scholars have started to look at the world in a more holistic manner, adopting a form of complex dynamic systems perspective. Taking a dynamic systems approach means that we attempt to consider the combined impact of multiple factors which influence every human decision and every social phenomenon; this perspective therefore foregrounds the *complexity* of everyday existence (for further explanation, see below). However, while this approach might have increased ecological validity, it has a significant downside in researchability: because everything is related to everything else, it is an immensely challenging task to assess and interpret specific events. It is against this backdrop that DMCs carry a special significance: the intense motivational drive involved can override the distractions and complications an individual faces, and can thus align diverse factors to energise action. DMCs are able to act as a precious organising force which is able to regulate events in a complicated world and thus help to maintain predictability (and therefore researchability).

Although we do not find any past theory of motivation that has explicitly identified or highlighted the DMC phenomenon in its totality, virtually all mainstream theories have something valuable to say about an aspect of DMCs. In the following, we list some of the most relevant theoretical paradigms, indicating as we go what we may learn from them.

Goal setting theory

A prerequisite for a DMC to emerge is the existence of a clearly defined goal at the finish line and clearly marked signposts along the way to provide continuous feedback about one's progress. This aspect of DMCs makes Locke and Latham's (1990) *goal-setting theory* highly relevant, as this theory seeks to explain performance in terms of differences in goal attributes. Locke (1996) summarises the main findings of past research under five points:

1. The more difficult the goal, the greater the achievement.
2. The more specific or explicit the goal, the more precisely performance is regulated.
3. Goals that are both specific and difficult lead to the highest performance.
4. Commitment to goals is most critical when goals are specific and difficult (i.e. when goals are easy or vague it is not hard to feign commitment: it does not require much dedication to reach easy goals, and vague goals can be easily redefined to accommodate low performance).
5. High commitment to goals is attained when (a) the individual is convinced that the goal is important; and (b) the individual is convinced that the goal is attainable (or that, at least, progress can be made towards it).

These goal characteristics can undoubtedly help us to clarify what kind of directional pathways may work best when trying to initiate a DMC, but it is a further aspect of goal-setting theory which offers the most obvious benefits: the issue of *proximal* versus *distal goals.* Because goals are not only outcomes to shoot for but also standards by which to evaluate one's performance and provide a definition of success, distal goals may be less effective in this respect than a series of *proximal subgoals* the overall process can be broken down into (e.g. taking tests, passing exams, satisfying learning contracts). These subgoals have a powerful motivating function in that they mark progress and provide immediate incentive and feedback – they are therefore an indispensable part of any DMC.

Self-determination theory

Deci and Ryan's (1985) *self-determination theory* offers a detailed discussion of autonomous – or self-determined – engagement with tasks. The theory introduced the renowned concept of *intrinsic motivation,* referring to behaviour performed for its own sake, and its counterpart, *extrinsic motivation*, which involves regulation coming from outside of the learner through the incentive of external rewards. Of particular interest for us are two sub-theories complementing the

intrinsic/extrinsic dichotomy; first, it has been consistently found that people will be more self-determined in performing a particular behaviour if the task engagement supports three fundamental human needs: (a) *autonomy* (i.e. experiencing oneself as the origin of one's behaviour), (b) *competence* (i.e. feeling efficacious and having a sense of accomplishment) and (c) *relatedness* (i.e. feeling close to and connected to other individuals). Second, Vallerand (1997) further distinguishes between three subtypes of intrinsic motivation: (a) *to learn* (engaging in an activity for the pleasure and satisfaction of understanding something new, satisfying one's curiosity and exploring the world), (b) *towards achievement* (engaging in an activity for the satisfaction of surpassing oneself, coping with challenges and accomplishing or creating something) and (c) *to experience stimulation* (engaging in an activity to experience pleasant sensations). These categories all have bearings on a more nuanced understanding of DMCs.

Theory of planned behaviour

Broadly speaking, Ajzen's (1988) well-known *theory of planned behaviour* states that someone's intention to perform an action is a function of two basic factors: a person's 'attitude towards the behaviour' and the 'subjective norm', the latter referring to the social pressures put on a person to perform the behaviour in question. What is particularly relevant for our purpose is a third component introduced into the model, *perceived behavioural control*. This refers to the perceived ease or difficulty of performing the behaviour (e.g. perceptions of required resources and potential impediments or obstacles). Behavioural performance is thus seen to be determined not only by people's intentions to perform the behaviour in question but also by their perceptions of control over the behaviour. To be fully motivated, an individual must believe that they have the ability to do the job and that there are no impeding factors beyond their control. This is in full accordance with our earlier argument that people can only enter a DMC if they believe that they are in full ownership and control of how things progress.

Theories of self-imagery and vision

Over the past decade the concepts of imagery and vision have become important components of motivational understanding, and because this approach has been highly influential in shaping recent L2 motivation theory, let us consider it in more detail. Ever since Allan Paivio's (1985) seminal paper introduced imagery as a method of positively inspiring athletes to improved performance, imagery training has taken a central place in the psychological toolkit of the sporting world.

Visualisation-based approaches also stand prominent in other areas of research, such as within the field of medicine, and continue to exert a growing influence on all areas of psychology (see Taylor, Pham, Rivkin & Armor 1998).

How can we best understand the motivational dimension of vision? Or to turn the question around, which theoretical approach to motivation can best accommodate this visionary aspect? And what bearing does any of this have on our understanding of DMCs? The answer is provided through a seminal paper in 1986 by Markus and Nurius, which introduced the concept of 'possible selves'. These represent an individual's ideas of what they *might* become, what they *would like to* become and what they are *afraid of* becoming. Imagery is a central element of possible selves theory: possible selves are more than mere long-term goals, they involve tangible images and a sensual experience of the goal. They are a *reality* for the individual: people can 'see' and 'hear' their future possible self. Thus, in many ways, possible selves are similar to dreams and visions about oneself.

The two types of possible selves most relevant to the motivation to learn are (a) the *ideal self,* which refers to the future self-image that represents the attributes that someone would ideally like to possess (i.e. representation of hopes, aspirations or wishes) and (b) the *ought-to self,* which refers to the future self-image that represents attributes that one believes one ought to possess (i.e. representation of someone's sense of personal or social duties, obligations or responsibilities) (Higgins 1987). Drawing on possible selves theory, Dörnyei (2005, 2009) introduced the *L2 Motivational Self System,* which offers a framework for vision in second language education. It involves a tripartite construct of the learners' motivational experience. The key aspect, from the point of view of our present discussion into the dimensions of DMCs, is that the first two components involve future self-states the learner envisages in a vision-like manner, and experiences as if reality:

–   *Ideal L2 Self.* This concerns the L2-specific facet of one's *ideal self*: if the person we would like to become speaks an L2 (e.g. the person we would like to become is associated with travelling or doing business internationally), the ideal L2 self is a powerful motivator to learn the L2 as we work to reduce the discrepancy between our actual and ideal selves.
–   *Ought-to L2 Self.* This concerns the attributes that one believes one *ought* to possess to avoid possible negative outcomes, and which therefore may bear little resemblance to a person's own desires or wishes.
–   *L2 Learning Experience.* This concerns situation-specific motives related to the immediate learning environment and experience (e.g. the positive impact of success or the enjoyable quality of a language course).

Recently, Dörnyei and Kubanyiova (2014) have summarised in a book-length overview the various methods for generating vision in both language learners and teachers. They understand vision as 'one of the highest-order motivational forces' (2014: 9), thus, through vision, it becomes possible to consider motivation as a long-term, ongoing endeavour: when students are able to create a long term vision of the version of themselves they are working towards, this is ever present regardless of the day to day levels of motivation which we know will wax and wane. Vision also seems to be one of the most reliable predictors of students' long-term intended effort (ibid.), which explains its relevance to the understanding of DMCs: in order to create the environment in which a DMC may emerge, students' visions need to be actively nurtured. Dörnyei and Kubanyiova describe six key components of a framework for developing a vision-inspired teaching practice:

1. *Creating the vision:* The logical first step in a visionary motivational programme is to help learners to create desired future selves, that is, construct visions of who they could become as L2 users and what knowing an L2 could add to their lives.
2. *Strengthening the vision:* The more intensive the imagery accompanying the vision, the more powerful the vision; therefore, we need to help students to see their desired language selves with more clarity and, consequently, with more urgency for action.
3. *Substantiating the vision:* Possible selves are only effective insomuch as learners perceive them as plausible (hence the term, 'possible' self); therefore, students need to anchor their ideal L2 self images in a sense of realistic expectations.
4. *Transforming the vision into action:* Vision without action is merely a daydream: future self-guides are only productive if they are accompanied by a set of concrete action plans, that is, the blueprint of a tangible pathway which leads to them.
5. *Keeping the vision alive:* Everybody has several distinct possible selves which are stored in their memory and which compete for attention in a person's limited 'working self-concept'; therefore, in order to keep our vision alive we need to activate it regularly so that it does not get squeezed out by other life concerns.
6. *Counterbalancing the vision:* A classic principle in possible selves theory is that for maximum effectiveness as a motivational resource, a desired future self should be offset by a corresponding feared self.

Flow theory

We all understand what it means when someone tells us they are 'in the zone'; indeed, any given individual is likely to have experienced this feeling at some point throughout their lives. At those times when we are 'in the zone', we are aware of it and others can also see it in us: we lose track of time and become completely engaged in the task at hand. This sense of abandonment and focus is at the heart of the concept of *flow* as outlined by Csikszentmihalyi (1990) where people become completely lost in the moment, and time and outside influences fall away. Thus, flow is a highly focused motivational state – some would say that it is the ultimate task engagement – when motivation, cognition and emotion are fully aligned with the task under completion. The powerful drive evident in flow is in some respects akin to the drive visible in DMCs: in both cases people are highly engrossed in what they are doing, leading to the concerns of the outside world becoming secondary to the powerful motivational current consuming their attention.

The significant difference between Csikszentmihalyi's concept and that of DMCs lies primarily in the time scale upon which they occur. Csikszentmihalyi is concerned with short-term, one-off tasks such as painting, reading and playing music, while the focus of DMCs is on ongoing behavioural sequences spanning longer-term periods. Furthermore, in discussing the flow experience, Csikszentmihalyi observed that 'it was quite typical for an artist to lose all interest in the painting he had spent so much time and effort working on as soon as it was finished' (1988: 3). This focus on the intrinsic satisfaction with the subjective experience without much concern for the final outcome is in stark contrast to the goal-oriented conceptualisation of DMCs, in which the constituent learning episodes are seen as expressly paving the way for an end goal. Another stark contrast is the emphasis in Csikszentmihalyi's theory on optimal task engagement – or total absorption – without any concern for the structural aspects of the process as it unfolds over time: in other words, DMCs add a salient temporal, structural dimension and directionality to Csikszentmihalyi's original concept.

What can we learn from flow theory? One particularly relevant aspect is the set of conditions which are required for the flow state to occur. As Egbert (2003) summarises, the relevant task conditions can be organized along four dimensions: (1) there is a perceived balance of task challenge and participant's skills during the task; (2) the task offers opportunities for intense concentration and the participants' attention is focused on the pursuit of clear task goals; (3) the participants find the task intrinsically interesting or authentic; and (4) the participants perceive a sense of control over the task process and outcomes. These conditions appear to apply equally to DMCs.

Future time perspective

Time perspective (e.g. Zimbardo & Boyd 1999) is a recent theoretical domain that has not, as yet, exerted significant influence in changing the course of motivational research. It has, however, been gathering momentum, the impact of which is likely to be felt soon. Simply stated, time perspective refers to an individual's disposition towards looking always to the past, thinking only of the present or being highly aware of the future. In particular, research into time perspective is interested in what effect one's time-related bias has on an individual's decision making process both on a day-to-day basis and also over longer periods of time.

The time perspective of most relevance to our discussion of DMCs is Future Time Perspective, which can be defined as 'the present anticipation of future goals' (Simons, Dewitte, & Lens 2004: 122) and is primarily concerned with 'an individual's beliefs or orientation toward the future concerning temporarily distant goals' (Bembenutty & Karabenick 2004: 36). The foundation of much of today's research stems from a 1982 study by De Volder and Lens which demonstrated that students who ascribe higher valence to goals in the distant future will be more persistent and obtain better academic results in the present: in short, one's temporal relation to the future matters. Since then, many studies have confirmed the existence of strong links between a future time perspective and academic achievement, and this critical link is also present in DMCs: looking ahead and being able to set distant goals helps learners to ignore the confusing complexities of the learning environment and thus helps retain focus on what they want to achieve.

Process-oriented approaches to motivation

Current research on time perspectives is closely related to past efforts to conceptualise motivation as a process. There have been some attempts to adopt a process-oriented perspective on motivation in psychology when discussing career motivation and motivation across the life span. Regarding the former, Raynor (1974) introduced the concept of a *contingent path*, referring to a series of tasks where successful achievement is necessary to be guaranteed the opportunity to perform the next task, that is, to continue along the path. An example of this sequence would be someone taking an exam to be able to carry on studying towards a further exam and eventually a degree, resulting thus in a form of chain reaction. In discussing vocational and career contexts, Raynor argues that it is difficult to imagine any sustained motivational disposition without some sort of a contingent path structure. Other scholars have also been interested in the long-term developmental and strategic implications of trying to achieve major goals that span

across one's life (e.g. Heckhausen & Schulz 1995), but such efforts have not gained mainstream status (see Ryan & Dörnyei 2013, for an overview).

Within L2 research, the most elaborate attempt to model the process dimension of motivation was developed by Dörnyei and Ottó (1998). Their model organises the motivational influences of L2 learning along a sequence of discrete actional events within a chain of initiating and enacting motivated behaviour, describing a 'goal → intention → action → accomplishment of goal → evaluation' progression. Drawing on Heckhausen and Kuhl's (1985) Action Control Theory, Dörnyei and Ottó divide this chain up into three main phases: (a) the *preactional phase,* which corresponds to 'choice motivation' leading to the selection of the goal or task to be pursued; (b) the *actional phase,* which corresponds to 'executive motivation' which energises action while it is being carried out; and (c) the *post-actional phase,* which involves critical retrospection either after action has been completed, or interrupted for a short period of time (e.g. for a holiday).

The main lesson of the model is that the three phases are characterised by different sets of motives, and once an individual has actually embarked on the task (e.g. enrolled in a language course), the motivational emphasis shifts from deliberation and decision-making to implementation. The implementation-related motives are of obvious importance from a DMC perspective, as it involves an extended action sequence; the Dörnyei and Ottó model describes it in relation to three basic processes: (a) *subtask generation and implementation* to break down action plans into manageable units and short-term goals; (b) a complex ongoing *appraisal* process to evaluate the multitude of stimuli from the learning environment and to monitor progress towards the goal; and (c) the application of various *action control* mechanisms or self-regulatory strategies to enhance, protect and sustain motivation and learning progress.

Dynamic systems approaches

As already discussed, the most recent theoretical approaches to describing the nature of human motivation have adopted a complex dynamic systems perspective, bringing the social sciences more in line with the description of many world phenomena studied by the natural sciences. A key tenet of this perspective is that the behaviour of a system emerges out of the dynamic interaction of its multiple components, which are themselves also constantly changing. The occurring interferences typically cause highly complicated, sometimes chaotic and generally nonlinear patterns, often making the exact outcome of system behaviour unpredictable, with the weather system being a good example (for reviews, see Dörnyei 2009; Dörnyei, MacIntyre & Henry 2014; Larsen-Freeman & Cameron 2008; van

Geert 2008; Verspoor, de Bot & Lowie 2011). As a result of this, cause-effect relationships between single variables can no longer be taken for granted; we are no longer safe in relying on answers which might, for example, suggest that conscientious students who love travelling are likely to be good at languages, or that girls might be better language learners than boys. Indeed, even if an observation is replicated as many as ten times, we cannot say with confidence that the particular event is certain to occur on the eleventh occasion.

It is against the backdrop of this always-changing, unstable and busy nature of our dynamic world that the significance of DMCs is apparent: it is a powerful regulatory process whose course and end-state are, to a large extent, predictable (and thus researchable). DMCs are uniquely able to function in the midst of the confusion of the surrounding world thanks to the fact that their very essence includes the alignment of diverse factors along a goal-oriented pathway, accompanied by a release of energy capable of overriding these distracting influences. It may be of use to picture it in this way: imagine a long haired swimmer's hair billow around her while she floats, unmoving, under the surface of a vast body of water. Under these conditions each strand of hair moves independently, responding to the currents in the water, reacting to meetings with other strands of hair and other bodies in the water, along with a host of other influences. Imagine now that the swimmer starts to swim forwards towards a fixed point in the distance. As she moves down this path, however slowly, her hair will begin to align behind her and all strands, or variables, in the case of DMCs, will start to line up with one another; as long as this attractor is in place we will, to a considerable extent, be able to predict the movement of each strand.

Practical implications

DMCs do not stand as a replacement for everyday classroom motivational practices and nor do they seek to replace any of the tried and tested techniques and activities all teachers have safely stored away in desk drawers. Instead, a DMC is able to offer something supplementary to these. It can be imagined of as a potent boost of motivation which may be utilised to transport individuals towards a chosen destination of special personal significance. At this stage, the details of how exactly to apply this motivational intervention in the classroom are yet to be fully developed – we foresee substantial creative methodological work in this respect over the next five years. We can, however, already at this early stage delineate several broad levels of application, among them: *lesson level, term level* and *course level*. Although each of these applications functions on a different time scale, each follows the same core principles of the DMC framework as described.

Lesson level

Within the time scale of a single language class, we may conceptualise a DMC as occurring within the context of a *task*. An effective language task already includes several elements of the DMC framework: it will be well structured, subsuming multiple smaller elements each of which functioning as proximal sub-goals, and there will be a clear starting point and a well-defined pathway which frames progression towards a specific outcome. To activate the full potential of a DMC however, the task's goal needs to be aligned with the students' broader language visions – that is, they need to see the task as meaningful and effective with regards to their L2 goals – and be given full control over execution. The final ingredient which needs to be ensured is a clear perception of progress – this condition favours tasks where attainment is incrementally perceptible, that is, where students have an ongoing perception of how the final product is taking shape (e.g. producing a visual display or preparing for a role-play performance).

Term-level

Moving beyond this, perhaps the most typical instructional example which may facilitate a DMC is *project work*. Inherently it is often very well set up to allow for maximum autonomy as the project progresses, and it usually has clearly visible and understandable starting and end points. The duration of a project may span anything from a few lessons to a whole semester, yet, regardless of its length it will need to include a generous number of proximal subgoals to act as markers of progress and to allow for continual feedback. It is important that the teacher be clear regarding what is expected from students and through what criteria the resultant product will be judged, so that students will likewise be clear about how they may interpret this brief and how exactly their work will meet the standards expected of them. While project work may have the ability to launch a DMC, it must be emphasised, as with a DMC over any time scale, that it is not assumed this will happen as a matter of course: the connection with a personal L2 vision is a critical component of DMCs and there must be sufficient emotional resonance in each student towards the task, which is where creative content-specifications are of crucial significance.

Course-level

The third level of DMCs spans beyond a single term and concerns a language course as a whole. We have witnessed in the past again and again how effective

some longer-term pathways can be in invigorating learning and generating focus, for example in the run-up to a school trip which has been promised after the successful completion of a language course, or through participation in a competition in which students are able to show off their skills. For some students, the prospect of taking the L2 as a university subject may also initiate a DMC. These extended versions of DMCs are undoubtedly harder to create and need substantially more powerful visions to energise them; although the rewards are far greater, there is also a far greater change and commitment needed in individuals in order to achieve success.

Conclusion

A DMC is an intense motivational pathway which occurs when a variety of time and context-related factors come together in an individual to prompt a firm decision to pursue a goal/vision which is considered personally significant, highly relevant to one's desired identity and emotionally satisfying. A DMC emerges within the framework of a salient structure of behavioural acts – many of them being routines performed on 'motivational autopilot' – which are permeated by the sense of elevated emotionality associated with approaching a coveted prize. After a powerful launch, a DMC is motivationally self-supporting as the initial momentum takes the individual through a set of sub-goals which generate positive feedback and further momentum towards the final goal. In this way, the energy level of the current is sustained throughout the whole pathway and this current carries the individual beyond his/her everyday boundaries towards a personalised goal which may not have otherwise been achievable.

　　Although in its present conceptualisation a DMC is a novel theoretical concept, several established motivation theories have touched upon key aspects of it. Its current timeliness is explained by the fact that within a dynamic systems perspective of the social world, it offers a template which outlines a powerful drive that has the capability to cut through the complexity of the interrelated factors characterising any learning situation. It can thus allow for directed, goal-oriented action and can serve as a motivation boost in contexts where a system – whether a single learner or a larger learner grouping – drifts somewhat aimlessly and without focus. In such situations we believe DMCs may be consciously generated to align diverse factors along a directional pathway, and therefore they can be seen as an intense motivational strategy to combat apathy and demotivation. Thus, DMCs have considerable theoretical and practical potential, both of which we look forward to being developed further through future research.

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