> *" Creativity can be stifled if a teacher only accepts one 'right' answer or a single 'right' way of finding that answer, or fails to consider whether that 'wrong' answer might not have some merit after all, and by a general intolerance for surprising answers. "*

In terms of teacher roles, it is tempting to agree with Hayes, who suggests there is a need for teachers to reposition themselves from "standing between students and knowledge, to standing alongside them as critical collaborators in its application and production" (Hayes, 2011, p. 209). Many teachers are already doing this, whether consciously or subconsciously, every time they reconfigure a coursebook writing exercise into a speaking task (*teaching creatively)* or give learners a choice of writing tasks in an end-of-unit test (*teaching for creativity*). The creative bit comes in deciding what knowledge to activate and how teachers and learners can make their own (creative) mark on those (potentially stifling) standard classroom practices which can unintentionally limit even the most creative of minds.

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SPECIAL FEATURE   CREATIVITY IN THE LANGUAGE CLASSROOM

Creative language teachers as bridge builders: The value of bisociative thinking

DANIEL XERRI

Introduction

Like most first-time visitors to San Francisco, I was most impressed by the Golden Gate Bridge. Crossing the bridge on my way to Sausalito, I was astounded by this marvel of 20th-century engineering. The day was uncharacteristically free of fog and this allowed me to fully appreciate the grace with which this suspension bridge spanned the one-mile-wide Golden Gate strait, a three-mile-long channel between San Francisco Bay and the Pacific Ocean. Whilst crossing it the words of Joseph B. Strauss, the bridge's chief engineer, reverberated in my head: "Our world of today…revolves completely around things which at one time couldn't be done because they were supposedly beyond the limits of human endeavour. Don't be afraid to dream." Strauss managed to build the bridge that was deemed impossible to build. His exhortation is inspired by his capacity to dream and his belief that dreams can come true. In this I see parallels to the stance of creative language teachers whose commitment to nurturing creativity in themselves and their students through bisociative thinking might at times be considered visionary in an assessment-driven educational climate.

Builder, inventor, poet

The son of a painter and a musician, Strauss was not just an engineer responsible for the construction of more than 400 bridges all over the world. He was also an inventor and a poet. Two of his poems, both written in 1937, celebrate the completion of his magnum opus in the same year.

In *The Mighty Task is Done*, he writes that the bridge was

> *Launched midst a thousand hopes and fears,*
> *Damned by a thousand hostile sneers,*
> *Yet ne'er its course was stayed…*

In these lines Strauss celebrates the defiance of the visionary spirit in the face of scepticism and derision. Similarly, in *The Golden Gate Bridge* his creation is given a voice in order to manifest its audacity:

> *I am the thing that men denied,*
> *The right to be, the urge to live;*
> *And I am that which men defied,*
> *Yet I ask naught for what I give.*
>
> *[…]*
>
> *Above the fogs of scorn and doubt,*
> *Triumphant gleams my web of steel;*
> *Still shall I ride the wild storms out,*
> *And still the thrill of conquest feel.*

Nowadays considered as one of the wonders of the world, this was not the case in 1922 when Strauss proposed the bridge's design plans. These were dismissed as ugly by the media and many people considered it preposterous to imagine that a bridge could ever span the fog that enshrouded the Golden Gate strait. Despite opposition from many different public and private entities, Strauss pressed on with his visionary project and achieved what few thought possible. However, he conceded that "it took two decades and two hundred million words to convince people the bridge was feasible". He explained that "every span is something that 'can't be

done' until the men in steel helmets have driven in their last rivet". Once completed it was the longest suspension bridge in the world, remaining so until 1964. The strength of his conviction is attested to by his reply to the question of how long the bridge would last: "Forever!" For Strauss, "When you build a bridge, you build something for all time". At the opening ceremony on May 28, 1937 Strauss declared that "this bridge needs neither praise nor eulogy nor encomium. It speaks for itself".

Nearly 80 years later, the Golden Gate Bridge continues to hold millions of people in awe, enabling them not only to transit over the treacherous waters below but also to cultivate faith in the human ability to conceive of what was once thought unimaginable. The Golden Gate Bridge exists because one man harnessed his creativity and refused to give up on his vision. For me, Strauss's story is an allegory for what many creative language teachers struggle to achieve on a daily basis in thousands of classrooms all over the world. Their names will probably never become as famous as that of Strauss and their accomplishments will perhaps not be lauded by millions of people for decades after their lifetimes. However, their efforts to be creative and to instigate creativity in the classroom against all odds make a world of difference to those whose lives they touch, no matter how briefly.

Bisociative thinking

Perhaps what Strauss possessed as a creative individual – willing to realise his dreams no matter how harsh the opposition – was an ability to engage in what Arthur Koestler (1964) calls bisociative thinking. The term appears in *The Act of Creation*, whose insights are more than half a century old but even more relevant for present day education. Bisociation is Koestler's (1964) neologism for the formation of a new matrix of meaning through the act of combining elements from previously unconnected matrices of thought. It informs "the conscious and unconscious processes underlying scientific discovery, artistic originality, and comic inspiration" (Koestler, 1964, p. 21). Koestler uses the term *matrix* "to denote any ability, habit, or skill, any pattern of ordered behaviour governed by a '*code*' of fixed rules" (Koestler, 1964, p. 38). Language teaching can be seen as constituting such a matrix. Using chess as an example, Koestler (1964) distinguishes between *matrix* and *code* by saying that "when you sit in front of the chessboard your *code* is the rule of the game determining which moves are permitted, your *matrix* is the total of possible choices before you. Lastly, the choice of the actual move among the variety of permissible moves is a matter of *strategy*" (Koestler, 1964, pp. 40-42).

> *"...creative language teachers whose commitment to nurturing creativity in themselves and their students through bisociative thinking might at times be considered visionary in an assessment-driven educational climate."*

According to Koestler (1964), "all coherent thinking and behaviour is subject to some specifiable code of rules to which its character of coherence is due – even though the code functions partly or entirely on unconscious levels of the mind, as it generally does" (p. 42). While abiding by these codes is indispensable when riding a bicycle as it stops us from falling off, "thinking which remains confined to a single matrix has its obvious limitations. It is the exercise of a more or less flexible skill, which can perform tasks only of a kind already encountered in past experience; it is not capable of original, creative achievement" (Koestler, 1964, p. 44).

Matrices pattern people's thoughts, perceptions, and activities and they are a result of learning that has condensed into habit. While different habits vary in their measure of flexibility, "if often repeated under unchanging conditions, in a monotonous environment, they tend to become rigid and automatized" (Koestler, 1964, p. 44). Escaping automatized routines of thinking and behaving occurs when dreaming and when engaging in bisociation. The latter is important as it enables language teachers to escape all too familiar routines and forge connections with other matrices, thus resulting in creativity.

Given that in automatized routines only one matrix is active at a time, Koestler (1964) "coined the term 'bisociation' in order to make a distinction between the routine skills of thinking on a single 'plane' … and the creative act, which … always operates on more than one plane" (pp. 35-36). Bisociation "is signalled by the spontaneous flash of insight which shows a familiar situation or event in a new light, and elicits a new response to it. The bisociative act connects previously unconnected matrices of experience" (Koestler, 1964, p. 45). He makes a distinction between bisociation and association by explaining that the former "is meant to point to the independent, autonomous character of the matrices which are brought into contact in the creative act, whereas associative thought operates among members of a single pre-existing matrix" (Koestler, 1964, p. 656). Bisociation consists of "*the perceiving of a situation or idea … in two self-consistent but habitually incompatible frames of reference*" (Koestler, 1964, p. 35). The psychology of the creative act consists of

the displacement of attention to something not previously noted, which was irrelevant in the old and is relevant in the new context; the discovery of hidden analogies as a result of the former; the bringing into consciousness of tacit axioms and habits of thought which were implied in the code and taken for granted;

the un-covering of what has always been there (Koestler, 1964, pp. 119-120).

In this sense the creative act is not the creation of something out of nothing as in the *Old Testament*, but rather the act of rearranging or regrouping already existing elements: "it uncovers, selects, re-shuffles, combines, synthesises already existing facts, ideas, faculties, skills. The more familiar the parts, the more striking the new whole" (Koestler, 1964, p. 120). Koestler (1980) defines creativity as the act of "combining previously unrelated domains of knowledge in such a way that you get more out of the emergent whole than you put in … each new synthesis leads to the emergence of new patterns of relations – more complex cognitive structures on the higher levels of the mental hierarchy" (p. 344).

Creative individuals "copy, transform, and combine old ideas, synthesize existing information, combine eclectic influences, remix material, build on what came before, and connect the seemingly disconnected" (Popova, n.d.). According to Behrens (n.d.), "the greater the number, disparity, and presumed initial irrelevance of such influences, the more likely that they would eventually make unexpected combinations". This implies that in order for language teachers to be creative they need to be open to as many influences as possible and willing to learn about a broad range of subjects. For bisociative thinking to be possible, teachers need to revisit practices and experiences

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they might be too accustomed to, establish connections between elements they might never have considered similar before, and reacquaint themselves with knowledge and events through new perspectives.

Bisociation liberates the individual from habitual thinking and behaviour and facilitates creative originality. The shift in attention entailed by bisociation is revolutionary as it is "wrought by jettisoning previously sacrosanct doctrines and seemingly self-evident axioms of thought, cemented into our mental habits" (Koestler, 1980, p. 364). What distinguishes those capable of bisociative thought from those who merely engage in associative

thinking is the former's potential for destructive-constructive acts:

> The skills of reasoning rely on habit, governed by well-established rules of the game; the 'reasonable person' … is level-headed instead of multi-headed; adaptive and not destructive; an enlightened conservative, not a revolutionary; willing to learn under proper guidance, but unable to be guided by his dreams. (Koestler, 1964, p. 659)

Creative originality is distinct from diligent routine or virtuosity and it "always involves un-learning and re-learning" (Koestler, 1980, p. 364). This is because "the act

of discovery has a disruptive and a constructive aspect. It must disrupt rigid patterns of mental organization to achieve the new synthesis" (Koestler, 1964, p. 104). When language teachers engage in bisociative thinking they are able to transcend the dogmas and entrenched beliefs that govern their practices. This enables them to position themselves as creative practitioners who are well placed to stimulate creativity in the classroom (Xerri, 2013).

Conclusion

Strauss epitomises the notion that "a bridge engineer has to be a dreamer who should not easily give up his ideas" (Ponnuswamy, 2008, p. 12). When one considers the impact of their teaching, one realises that perhaps the achievements of creative language teachers are as colossal as those of Strauss. By means of bisociative thinking, they build bridges in their lessons, establishing connections between subjects, topics, and perspectives. They build bridges in the minds of their learners, enabling them to foster latent abilities and exploit these not only for language learning but for lifelong education too. They build bridges between the past, present, and future because creative language teaching transforms learners'

experiences, thoughts, and emotions and makes them inquisitive human beings who are themselves willing to engage in bridge building.

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INSPIRED/INSPIRING PRACTICES

Creativity in the classroom: Some long-held beliefs, and some tried and trusted activities

CHARLES HADFIELD

Firstly, a few personal anecdotes to put my classroom approaches and the activities here outlined into perspective:

A long time ago, after a university degree in French at a British university, I spent a year in teacher training to become a teacher of French in British secondary schools (the PGCE or Post Graduate Certificate in Education).

I had a very interesting year, including a three-month stint on teaching practise in a

(then) brand new 'comprehensive' school (a new idea in the early 1970s, to blend the old grammar schools with the old secondary-modern schools, to create a more egalitarian place of learning where everyone would benefit … *ah, golden days, never come back*!) Half of my teaching practice was with teenagers in French classes, and half was spent in EMT (English as a Mother Tongue). As a novice teacher of both a foreign language and my own, I was absolutely astounded by the difference in culture of the two areas. In English, I was encouraged by my mentors, the colleagues tasked with helping me through my first steps in 'real teaching', to be as creative as possible – writing poems, haiku, concrete poems, getting the young learners to express their feelings, to pour their thoughts and ideas onto paper in any way possible: *"Never mind the spelling and*

> " *… 'mistakes' are a valuable, and energising part of the learning process.* "

grammar, Charlie, we can always mop those up later on," said one colleague, as if referring to a messy domestic science (cookery) lesson. We had a lot of fun, and I treasure some memories of the stories and poems those young teenagers produced (and wish I had kept copies … but this was a world before the photocopier arrived!).

Not a step away was my French classroom. I was faced with a large class of (not all very) enthusiastic teenagers in their second or third year of this then most common foreign language. The method we used was then quite novel: the "Question and Answer" method which was the basis of most of the PPP (presentations, practise drills, and – potentially, we all lived in hope – production phases of the lessons) approach:

"Repeat after me: This is an apple" "This is an apple" "Is this an apple?" "Yes, it's an