Asia-Europe Institute

Creativity and Business: Lessons from the Advertising Industry

AEI Occasional Paper 18

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Creativity and Business: Lessons from the Advertising Industry

Dr. Mark Kilgour

Good morning, I would first like to express my thanks for the invitation to talk about a topic area that I am passionate about, Creativity. I first started my research into creativity 15 years ago. I was in Singapore at the time and I was interested as the Singaporean government was talking about the need for creativity and were undertaking a number of initiatives to promote it. I strongly agreed with the sentiment. Singapore realised that it needed to encourage a more creative society to build upon its solid foundations, and improve the welfare of its citizens. However, while fully supporting the initiative, at the time I thought to myself, 'Singapore has an education system which focuses on rote learning large amounts of information from a very young age'. Intuitively to me this highly structured learning education system did not seem to support the development of creativity. At the time however, I had no sound basis for my assumptions. I therefore started what has been a long road to better understanding creativity, driven by the desire to understand the creative thinking process better, so that I could assist people and societies to be more creative.

There is no doubt that in the current century we face a number of significant challenges that need creative solutions. Financial crises, rampant debt levels, the major trading currencies around the world all undertaking massive experiments in quantitative easing, global warming, health epidemics, increasing inequality, decreasing quality of life, aging populations, rapidly decreasing birth rates and its impact on GDP growth, pollution, long term recession in Europe, and the list goes on. All these problems require creative solutions and for that we need creative individuals, creative societies. But what is creativity?

This question has vexed both everyday people, academics, and government officials alike, for a long time. I knew that if I were to develop better ways to encourage and nurture creativity then first I had to understand it. This speech is entitled 'Understanding Creativity: Lessons from the Advertising Industry', because it was largely through research both in, and from, the advertising industry that I have gained a better

understanding of the creative thinking process. Without understanding the creative thinking process I knew that I could not hope to develop ways to improve my own and other's creative expertise.

I would like to show you the following promotion, http://www.youtube.com/watch?v=lqT_dPApj9U. I think most of us would agree that this is a creative idea. It involves taking the idea of a vending machine and connecting it with a brand message – happiness. The new way of using the vending machine has not been done before, so it is original. Originality is crucial for advertising as unusual things grab our attention and make us look. For most people originality is what makes an idea creative, but this promotion is also appropriate, it bridges the gap between the key brand message, that of happiness, and the use of the vending machine to do unusual things, such as give out flowers. In doing so it attains that key message. This illustrates part of what creativity is, an original way of doing things in an appropriate way.

An exercise I use in my training is to ask trainees the simple question: What is half of 12? And to get them to write down as many responses as they can in 3 minutes. Many are stuck with the answer 6, and do not go much beyond this when in fact there are many possible answers such as 1 - as in cutting out the 2 in 12, or 2 - visa versa, or one x 3 x 4 /2, or 12/2 or a 12 written with the bottom half rubbed out, or too short a period of time to get to your next meeting in KL rush hour traffic. In fact the number of answers is endless, it just depends upon the ability to look at the question differently. Indeed this is one definition of creativity: "Creativity is the ability to look at the same thing as everyone else and think something different". *Albert Szent-Gyorgy*

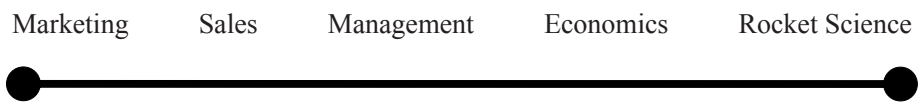
This definition is in line with what most people on the street see as creativity, that a creative ideas is primarily a new or novel idea. While this is part of what makes creativity, as the promotional example illustrated earlier, it is not enough for an idea to just be original or different, it also has to be appropriate. I hence expanded upon Albert's definition to include this element of appropriateness, and also include the fact that the creative process is essentially a combination process. Hence;

> "Creative thinking is the process of combining ideas in ways that have not been done before, in *order to develop an original and appropriate solution to a problem*." Mark Kilgour

This definition adds in the combination process. It has been recognized that creative thinking is essentially a combination process. It involves taking ideas from domains of knowledge and combining them in a new way. What though is a domain? A domain has been described as the conventional wisdom regarding a particular field of research, or as the rules, practices and language of a recognized area of action (Ford, 1996). Domains are constantly changing due to new creative ideas, for example Stone Age people would not have viewed the moon and the tides as relating to similar domains, but we relate those two concepts today. In addition there are obvious connections between various areas of conventional wisdom, or study, for example, marketing and sales.

Therefore, the concept of a domain may be best described as a continuum of related concepts, with some domains more closely related than others. This description of domains of knowledge provides a basis for understanding creative ideas. Creative ideas involve new combinations from either within a domain, or combinations of different domains of knowledge to produce an original and appropriate solution.

The Domain Continuum



While almost complete I have found that this definition still needed further development. The follow slide shows an innovative New Zealand product, the Yike Bike. The Yike bike is a foldable, electric bicycle, built in the form of a mini-penny farthing, and provides a low cost, convenient method of short distance urban transportation. It weighs around 10 kilograms, has a top speed of around 23km per hour, can travel around 14km on one charge, but you can have extra batteries, and the recharge cost is around 20 cents. On the website it says "Introducing Yike Bike, a unique combination of artistry, innovative design & engineering." (Source: www.yikebike.com). This covers the combination element, the innovation or originality component, and the appropriateness, through their reference to engineering. It also adds what I have learnt to be an additional key component to creativity - artistry.

Artistry is an interesting term. Some would say creativity is art, but artistry in a creative sense is the ability to present that new combination in a way that others will actually pay attention to; Presentation Matters. Early work by a couple of my current co-authors Prof Scott Koslow and Prof Sheila Sasser, as well as Prof Edward Riorden, looked at what advertising practitioners saw as creativity. They found that creative ideas must be both original and appropriate, but also artistic. Until recently I did not put much weight on the importance of artistry, but as I will talk about later, due to some recent research I am just in the process of writing up, I have changed my mind. Creativity is therefore a combination process that contains three key elements.

A creative ideas is both high on originality, it is a combination of ideas in a new way, as well as being appropriate or relevant to the people who must use the result of the idea. To succeed that idea must also be artistic, that is presented in a way that will grab your attention. These are crucial elements in any success advertisement, as they are in any successful creative idea; be it a new product, a better process for doing a job, or a new approach to solving a problem.

But even this definition I found was inadequate. Why? because of the nature of the combination process. What I found in looking at creative ideas is that not all ideas are created equal. This next slide shows the Martin Jetpack. This is another New Zealand invention that involves essentially strapping a powerful engine and fuel on your back so you can fly. This idea is certainly novel, it involves combining two domains or areas that are not normally combined, that is human transportation and individual flight. While the idea of a jet pack has been around for quite a while, our inability to successfully develop a reliable unit has meant it has just been seen as a bizarre idea. If successful this will come to be seen as a Big C idea and has the potential to have a major impact on how we move around. Whether highly original ideas are viewed as creative or not will depend upon the extent to which the ideas are accepted as appropriate within the field. Here are some quotes that illustrate the problem with highly divergent, or original, ideas.

“Heavier-than-air flying machines are impossible.”

Lord Kelvin, ca. 1895, British mathematician and physicist

“There is no need for any individual to have a computer in their home.”

Ken Olson, 1977, President, Digital Equipment Corp.

This resistance by 'the establishment' makes the combination of distant domains, or Big C ideas, highly risky. However, the vast majority of 'new' ideas are the result of people making connections between mental elements that would fall within the boundaries of a single societal domain, rather than combinations from very disparate domains. The next slide is a product I am sure you are all familiar with, the Dyson vacuum cleaner. This represents a very successful product based around finding better ways to engineer the existing product. Most people would say Dyson developed a creative vacuum, but it is not the same type of creative idea as the individual jetpack. One is a radical shift in terms of how things are currently done, the other is based upon incremental improvements on an existing idea. Dyson's vacuum cleaner designers and engineers were not combining unusual areas of thought, but making a number of rapid incremental changes, what I call small c changes. Many rapidly occurring small c ideas over time, can make a change that is spectacular. This incremental or small c creativity is much easier for others to appreciate and accept, as they are used to seeing things done in that way.

This led me to the following diagram which shows different types of creative ideas. Small c or incremental ideas are the combination of ideas from within the current field or domain, in new ways. The result is ideas that are highly appropriate but most people view as not radically different. They improve on what we currently know and they require the idea generator to have in depth knowledge of specialist areas. A highly structured education system that encourages a high level of very specialized knowledge will support incremental small c creativity.

Alternatively Big C ideas are the result of combinations of domains of knowledge that have not been associated with each other in the past. They result in a paradigm shift that can change whole industries. A number of automotive companies are in the process of launching alternative energy based cars, they have the potential to change the world radically if successfully adopted, and once costs come down. The issue with these major new combinations is that because those ideas were not previously connected with each other it is hard to first make them work, as there is not a common base of knowledge that connects them, and which we can build upon. It is also very difficult to get others to accept that the radical new idea will work.

Each type of creative thinking requires different training and expertise. If we want Big C paradigm shifting ideas then we need to teach the ability to connect distant

domains, divergent thinking. If we want to encourage incremental, small c creativity then we need to teach specialist knowledge. Which is better? That depends upon our objective. If we want improve upon the current ways of doing things with ideas that are easier to implement, then small c is better. If we want to radically change the world, then we need Big C creativity. Of course if you are a small fish swimming in someone else's pond, then you probably want to change the rules of the game rather than fight against that strong dominant competitor who changes the rules to suit themselves. Importantly however, we can develop people's ability to develop both types of creative idea.

So how do we go about developing creative thinking expertise and why is it important to do so? Apart from the examples I have shown of creative advertising, and innovative products, creativity also has the ability to make radical changes in how we do things in business and in our daily lives – process design. I saw an advertisement a number of years ago, where two men in suits were walking down a corridor and they passed a man saying to himself "a nickel, a nickel we save a nickel." One of the men turned to the other and said "So what, we saved 5 cents?" The other man replied "We save 5 cents on every transaction, and we make 25,000 transactions a day". This is an example of where small changes can have big effects. If we encourage creativity amongst our staff and people in society, numerous small changes from many sources can result in radical improvements. So how do we encourage creativity? There has been significant research into how to improve creativity in society, the focus of which has been in the areas of education.

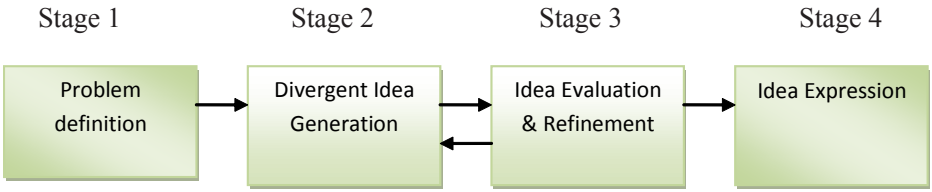
Since Guilford wrote his seminal article on creativity 60 years ago, there has been a lot of interest in measuring and identifying creative potential. In the 1960's Torrence developed a pen and paper test to identify creative talent in children – for example one of these is to 'write down as many uses for a paper clip as you can in five minutes'.

Mednick (1962) also developed a theory stating that people have different levels of associative ability. What this means is that if you were to give a person with a flat associative hierarchy a concept they are able to connect that idea to many others. Another person with a steep hierarchy would have a very limited number of responses. For example I could say "Tell me what round objects you find in a doctor's office?" One person may end up with just two or three, while another person may have dozens including such ideas as 'the dots on the i's' on the doctors pad, and 'the zero on the doctors keyboard'. Like Torrence, Mednick developed a test to identify associative

abilities. The thinking was that creativity is a rare inherent talent and we needed to find those few creative geniuses at a young age and nurture them for the sake of society.

Sadly however, these tests have not proven to be very successful at finding creative geniuses. We may test for creativity but those test results do not match well with long term creative achievements. More importantly a person may score well on these tests one month and not so well the next time they sit the test. So while there is undoubtedly some degree of inherent creative ability, there is also a lot more to creative success than inherent ability. What was clear from this research was that there is more to the creative thinking process than merely the ability to 'think outside the box', and much of our creative ability can be learnt. What also became obvious was that in order to encourage creativity I needed to break it down into a series of steps and then identify what could be done to improve upon each step in turn.

The Four Stages of the Creative Thinking Process



The above diagram illustrates the four stages in the creative thinking process. Looking at each of these four stages we can identify ways to train people to be more creative at each stage. This is where advertising research came in. The advertising industry is unique in that it employs people who's primary role is to develop creative ideas. This results in an exceptional research environment for understanding more about the creative thinking process.

Like all creative ideas, advertising ideas must contain originality and appropriateness. The following outdoor advertisement for plant fertilizer is a good example of this. The idea connects the key message of plant growth with the product in an original and attention grabbing way. Subsequently the advertising industry is fertile ground for understanding each of the four creative thinking stages.

Looking at the first stage: Problem definition. One problem we have that limits our creativity is that we tend to look at the world in its current form, and do not stop to question if the current way of doing things if the right way. Additionally the question itself can limit our ability to think creatively. This is partially due to what is called mental set fixation. If I show you the following picture, what comes to mind?

We do not see a sideways nametag, or a chimney in a roof from the perspective of looking down at it from the sky? Or a pocket with a round ink smudge. Why Not?? The problem is that we have such well-developed memory categories around this image that we can only see the door. Just like when we are faced with the question of what is half of 12, we can only see 6. When it comes to being creative however we need to look at situations in new ways. Any situation can be seen as needing a new or better solution, it is a matter of how we define the problem.

For example my shoelace is untied. I see that as the problem and without thinking I automatically reach down and tie it up. If however something makes me re-define the problem differently, for example both my arms were broken, then I would see the problem as 'I cannot tie up my shoelace'. This would lead to very different solutions, such as inventing a shoe that ties automatically, or lace-less shoes. So problem definition, or redefinition, is crucial in determining if we develop creative solutions in the first place.

Indeed many creative solutions have been the result of chance, factors in the environment which have resulted in combinations that would not have otherwise occurred. One of the most famous of these is penicillin. After going on holiday Dr Alexander Fleming found a mould had contaminated one of his sample dishes and that mould killed bacteria - penicillin is discovered. However, we do not need to leave things to chance, or broken arms, we can apply basic problem re-definition techniques to almost any situation to become more creative. Once we have taught people these techniques then they continue to look beyond the status quo to find creative solutions.

The second stage of the creative thinking process, idea generation, has attracted the most research attention. Many researchers have applied a range of creative thinking techniques to improve creativity. One piece of research by Goldenberg and Mazursky and Solomon looked at award winning advertisements to see if there was a pattern.

They found that the vast majority of award winning advertisements fit into six templates, and these could be easily taught. Here is an example. http://www.youtube.com/watch?v=ejEBSeddCg8. Teaching students these templates has resulted in very successful advertising ideas in a very short period of time.

For example when asking students to use the extreme consequences template (which shows an extreme consequent of using the product), to promote Kia's new hydrogen car, they came up with 'Polar bears freezing due to the success of the car reversing global warming', and 'people drowning as water is the output from the car and everyone was using the car'. However, the question I had was 'would the success of these and other types of creativity techniques that have been shown to work on students, apply to non-student groups, particularly industry practitioners?'

Just like the test for creativity I found that these technique had mixed results outside the training sessions. In looking at these techniques I, and a fellow researcher Prof Scott Koslow, wanted to understand how different types of creative thinking work and for whom. We ran an experiment on advertising creative personnel, as well as students. Essentially we looked at three groups, creatives (those people paid to develop creative ideas in advertising agencies), account personnel (who try to ensure the advertising client and situation is well understood and looked after), and students (a novice group in relation to advertising). We then gave these different groups two different types of creative thinking techniques. Some were given a technique which forced them to try to make a very distant domain connection – a divergent thinking technique – and others a technique that focused them on looking at the problem from a purely advertising domain perspective - a priming or convergent thinking technique.

What we found was that these techniques have very differing effects on the different groups. As you can see by these results, for advertising account personnel the divergent thinking technique had a positive effect on the originality of their ideas and the convergent technique had a negative impact on their ideas appropriateness. For the creative, the divergent thinking technique had a negative effect on originality while the convergent thinking technique had a strong positive effect on their idea appropriateness. For students the techniques had positive effects on both originality and appropriateness.

These results told us that firstly, it is not a one size fits all proposition. For people who have high levels of divergent thinking abilities, such as advertising creatives,

it is better to focus them in on the domain and ensure their ideas are appropriate. For people who are too focused on the appropriateness elements, (the account people) convergent thinking techniques lock them into the box, but divergent thinking techniques can take them out of it. For people with limited knowledge of an area, both types of techniques worked, indicating the need for them to develop divergent thinking expertise but also knowledge of the area before they can generate creative ideas to start with. Most importantly however, creative thinking techniques work.

These results also support the inverted U shape effect of knowledge on creativity. That is we need a certain amount of knowledge in an area as the basis for making combinations, but too much knowledge results in the inability to think outside that area, perhaps because we just become too specialised and do not have enough base knowledge in other areas. It is not too much knowledge that limits creativity but the type of knowledge and how that information is stored and retrieved. Finally, the use of creative thinking techniques can activate expertise into something with much more creative potential, but only the right technique to the right person. Creative techniques can be seen as a continuum with techniques that encourage a person to make a close association to the current problem, known as convergent techniques, all the way to techniques that encourage a distant association, divergent techniques. Training different groups in these techniques has shown that we get better at divergent thinking, and can make more distant associations with practise. We can make you better divergent thinkers, flattening your associative hierarchy.

1% Inspiration, 99% perspiration is a phrase you will all have heard. This applies to creativity. One of the difficult things for many inventors is that they excel and enjoy the act of divergent idea generation, but do not like the next stage, refining that idea and making it appropriate. This next stage requires a very different approach from the previous one. Stage three shows us that we cannot just teach people to think more divergently, we must then provide them with knowledge of structures and expertise in the domain to be able to change that unusual combination into something that works. To some extent it seems like a catch 22 as we need a lot of knowledge about an area in order to be able to refine our creative ideas, but too much knowledge locks us into an old way of thinking and mental set fixation. How do we overcome this - through divergence techniques applied at the problem definition and idea generation stages.

When we come up with a creative ideas it results in a whole lot of internal connections between the two domains of thoughts – the Aha moment. The two domains

suddenly become linked. The classic example is the child who suddenly makes the connection between people and his pet cat. Before he had not seen the two as similar, but he notes that they both have two heads and two eyes and then suddenly a huge rush of connections cascade through his young mind – four limbs, toes on the feet, a torso, two ears, one mouth… For the idea generator that moment of insight, the creative breakthrough results in the sudden connection between those two previously unconnected domains and a feelings of euphoria. The idea generator can see the greatness of their idea, but sadly most of the times others cannot. This leads to the importance of the final stage in the creative thinking process – idea expression.

One of the most difficult parts of the creative thinking process is evaluation. When we develop a creative idea the question then is – to whom is the idea original and appropriate? We will have had the moment of insight and can see the idea is appropriate but other people do not have the same internal knowledge of those ideas that we do, so they will have difficulty seeing the relevance of the idea. Originality is easier to see, as originality just involves identifying that the idea is an unusual combination. However, an idea may be original and appropriate at an individual level, that does not mean it is new to society. On top of all of this, as creative ideas by their very nature, work against the current understanding of the field, people will resist those new ideas. Therefore it is easier to get acceptance of small c ideas as they are linked back to the current domains than Big C breakthroughs.

Added to this are presentation limitations. I would like to think that real content will win over fluff any day, but the reality is very different. Our current research has found that even for advertising professionals who possess excellent presentation skills, presentation ability made a huge difference as to whether external judges viewed a creative idea as original and appropriate. Creative ideas are risky, they break the mould, and it is hard to get others to see them as we do. The idea must be presented in an original way to grab attention but also make sense to others from their mind's eye, which is different from the idea generator.

An art director in a large advertising agency said "Every day I have a baby, which I take to a meeting and 12 people beat it with sticks." (p.348, Mallia, Windels and Broyles 2013). This highlights the problem with creativity and why for many people they are never even willing to express their creative ideas. Creative people have been found to be unconcerned about what others think of them, have high self-confidence,

and are open minded. These traits tell us that while most of us have the potential to generate great creative ideas, most of us are unwilling to express those ideas.

So what? What have I learnt about creativity that will lead to being able to develop training and educational systems to improve it? What are the implications?

- ❒ We can teach you to be a better creative thinker.
- ❒ There are a variety of problem redefinition techniques that will avoid mental set fixation.
- ❒ Creativity divergent thinking techniques work in the problem re-definition and idea generation stages if we want to develop Big C ideas.
- ❒ Convergent thinking techniques assist at the idea refinement stage – structure.
- ❒ To be creative we need knowledge of a variety of domains, ability to think divergently, add structure, and then strong expression abilities.
- ❒ The type of training we should provide depends upon the type of creative idea required – Big C vs small c.
    - ● Appropriateness expectations and rewards will lead to incremental creativity.
    - ● Organizational openness to risk and failure will lead to big C creativity: we need to create the right environment.
- ❒ Teaching creative techniques must take into consideration social elements and evaluative fears.
- ❒ Gatekeepers within the domain must be open to creative ideas.
- ❒ We need to set up the correct environment to encourage creativity including rewards systems, encouragement, and the active solicitation of ideas .
- ❒ Presentation and communication abilities need to be taught to ensure creative expression – it cannot just be a beautiful idea, it must look beautiful.
- ❒ Once you have developed creative ideas you need systems to maximise the returns from them, and to protect them.

So the question is what sort of creativity does Malaysia want? Does it want Big C, paradigm shifting creativity, or to focus on rapid incremental creativity? The Korean car industry is pushing forward with alternative energy cars and being heralded as making Korea the 'New Japan'. This type of Big C change has the potential to do what electronic watches did to the spring loaded watch industry in the 70's, essentially turn it on its head in just one decade. Big C means however big risk. Small c can get

you there at much lower risk. The only problem with small c solutions is that they often involve playing by the rules of the existing players. Paradigm shifting Big C ideas mean creating your own playing field, one where you set the rules.

Developing a creative society involves fundamental changes to how we educate. We need to encourage people to think divergently, realize that easy to grade and evaluate does not equate very well with creativity. We must focus students on thinking, not just memorizing. There is no greater praise from a student than when they tell me 'I taught them how to think'. Creativity is not a simple process, it involves deep knowledge of multiple domains, strong structural knowledge, the ability to think divergently, self-confidence and excellent presentation expertise. It is not an easy process but the rewards are immense.

About the Author

Dr. Mark Kilgour is a leading creativity expert in New Zealand. He is currently the Chairperson, Department of Marketing, Waikato Management School.

His research interests include, creativity, innovation and the creative thinking process.

He wrote numerous books and articles on creativity, innovation and marketing. His most recent book is “Creative Perfection: The Why and How of Creative Thinking”.

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