Using a behavioural approach to analyse the suitability of cartoons as a vehicle for teaching and learning in finance

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Abstract

This paper examines the role of using cartoons as a suitable method to assist in the transfer of knowledge within the field of finance. This paper examines this by calling on a dialectical approach to examine the role and interpretation of 'meaning'. Cartoons in and out of the classroom may appear to wield a degree of useful humour, but the underlying and often subtle imagery is as significant as a well-structured historical document. This paper deals with the very nature of the building blocks used in the construction and dissemination of cartoons and the apparatuses that are then used to dissect and analyse the cartoons within their appropriate contextual framework. The field of finance is evolving at a fantastic rate, and the students of finance are constantly challenged to deal with the change in perspectives and understanding that evolve across time. Much of the literature in the field of economics and finance is usually capable of explaining what has happened in the past, but there are few forms of documented literature that can carry contextual information in the same way as that of specific cartoons embodying critical art or satirical caricatures.

Key Words: Cartoons, Critical Art, Dialectics, Meaning, Behavioural Finance, Creative Destruction

INTRODUCTION

Behavioural finance is a relatively modern school of thought that combines the sciences of the fields of financial economics and social psychology. This school of thought is best suited to be able to answer some of the more complex questions that dwindle within the dark corners of the minds of eccentric academics. While some questions could be of a slightly more straight laced in nature, such as the analysing or probing the changing behaviour of individuals in relation to markets or financial instruments, other questions are slightly more complex nature. This paper looks at the role of cartoons as a means of transferring knowledge when teaching Finance. The question posed in this paper is defiantly not lacking in the abstract, actually it should make most people turn their heads and blink in desperate anticipation. Behavioural finance is best suited to answer a question of this nature, as the core underling view of this paper is that teaching finance is an on-going process of deliberate and unstoppable change.

There is a saying that 'time changes everything', especially when we consider the way in which we re-asses our interpretation of the impact of an event over the course of time. Unfortunately, a lot of critical contextual information and thus the core meaning of events are usually lost over time. Not that this paper specifically advocates purely the role of learning finance nor does this paper simply rest on the vast collection of historical cartoons and critical art that has challenged, confronted, confirmed and condemned many a political or economic leader in the past. History may appear to be static, but for all intent and purpose, history is quite dynamic. Learning about events and situations are subject to a point of context that has significant meaning at a certain junction in time. Yet time can erode the original meaning, often superimposing more modern views and values onto a very distant past.

CARTOONS – A STYLISED METHOD OF ARGUMENT

Critical art, cartoons or the use of deliberate caricature was spawn of the renaissance period and developed rapidly under the twin influence of secularisation and technological innovation. Lithography of the 1790's and wood engravings of the 1800's were respectively taken up by the mass media

during this period and it was here that political cartoons came into their own (Conrad, 1991). What appeared to make these satirical cartoons so popular was a function of both their complexity and their simplicity, an underlying humour containing a range of emotions from subtle contempt to shear outrage. Reading is but only one means of acquiring knowledge (Bourdieu, 1993) and if perception entrails a theoretical dimension, then sensorial experience goes hand in hand with deriving knowledge from theory (Brighenti, 2007).

Readers, in the opinion of Warburton and Saunders (1996), are partners in the process of meaning construction. Not every reader interprets the same story in exactly the same way as other readers would. Readers might not make the same associations from the same text or follow the same narrative threads. Neither do readers assign the same value to political opinion. Reading is a process of interaction with a continuous developing chain of interaction (Warburton & Saunders, 1996).

Reading words, interpreting images or decoding visual stimulus in any form could be considered a stylised method of deconstructing an argument which has been constructed and presented within a specific frame and context. For example, creative expression that relies on visual stimulation could, under certain circumstances be considered art. All forms of art can be considered an expression of ideas. Interpreting a visual expression lies at the intersection of two specific domains. One of aesthetics (perception) and the other of politics (power). The medium between the two domains of aesthetics and politics is the 'symbolic' space or referred to as the symbol. A symbol should be aesthetically impressive and symbiotically relevant (Brighenti, 2007) in order to have meaning.

THE DECONSTRUCTION AND ARGUMENT OF VISUAL ART

Visual art is usually supported by a platform, which has been constructed to support symbols through certain concepts or ideas which can support its meaning. The platform supporting the visual arts has the advantage of presenting an idea, that is chronologically unlimited, yet the art itself is designed to present an idea that holds a truth or an opinion which is true for that moment only, yet only interpreted later in time.

Therefore, visual arts can act as a record of that specific event which then is only a window into the past. As such, therein is a hidden store of information that carries justifiable theoretical value (Brighenti, 2007). The stored information could be considered hidden, because the interpretation of this information is dependent on the contextual background of the interpreter or reader of the material. Therefore, each individual would construct his or her own interpretation, given the same store of information present in the visual expression. The very domain of the physical perception is inextricably mixed with reasoning (Brighenti, 2007).

Art as an expression is a collection of signs and symbols arranged in a predefined pattern to create some form of meaning. Because symbols are designed to carry meaning, they are chosen to be aesthetically impressive and semantically relevant within a contextual social framework (Brighenti, 2007).

Meaning is not universally singular in any way. It is the interpretation of the signs and symbols presented in that idea that becomes the significant component of the argument. When interpreting an idea posed in any creative form, there are a number of underlying processes that build upon each other to illicit some form of emotional response within the person who is interpreting the expressed concept. The interpretation of this expression is then completely subjective because the emotional response is a construct of the interpreters own personal and social construct of values and beliefs (Brighenti, 2007).

These values and beliefs have been shaped over time from the 'interpreters' personal experience (Brighenti, 2007). This experience is made up of a collection of conflicts, family culture, and social communities within which we interact and the total environment in which we gained experience and knowledge. Thus, social belief is shaped in turn by the collective interpretation of our cultural history as seen through the lenses of our society. This history is once again interpreted by individual beliefs and values, which creates a framework from which to construct some form of meaning to the symbols and signs from the environment.

The interpretation of an expression is very much reliant on our own interpretation of what we ourselves would construct as 'meaning' and the interpretation of expression as a notable aspect of culture, where culture is

culturally bound (Brighenti, 2007). For example, if one was to pose an emotionally charged question to an audience of mixed cultural or ethnically diverse people, there is a great likelihood that the response would vary considerably amongst the sample population. Therefore a challenge in anticipating the emotional response elicited from a visual expression, if one was not prepared to take into account diverse environmental, social, cognitive and individual perspectives.

THE CONTEXTUAL MEANING OF LEARNING

In order to establish the appropriate contextual meaning for learning, Socrates, one of the greatest lecturers of the classical times, taught his philosophies through a process of discussion by encouraging students to ask questions. According to Aristotle, no man can become wise by himself, and thus the very nature of challenges and questions of knowledge between people was the principal seed from which new knowledge could emerge (Stolarek, n.d.).

By asking questions, one is able to elicit more valuable contextual information (from an individual or group), that could otherwise be assumed at face value. The asking of questions brings to the surface emotional content that within itself could carry information that may relate to underlying values, trends and opinions that is thus specific to the individual or groups been addressed. However, information paints a greater picture of background information and provides both depth and colour to the analysis.

RESEARCH METHODOLOGY

This process of interpreting the range of an emotional response could be best analysed from within a dialectical perspective. Thornley, (2005) argues that the dialectical model relies on the hypotheses that the subjective/objective divide is important, that it can be characterized as a mutually antagonistic and dependent relationship, and that this plays a central role in interpreting meaning. There are those who have argued forcefully against the importance of such binary oppositions in meaning (Thornley, 2005).

Derrida's (1967) theory of 'difference' argues that meaning does not depend purely on such oppositions; rather it depends on the complex continuous play of connections and differences between words. This in itself could

be understood as a dialectical process because meaning is understood as a shifting relationship between connection and separation or presence and absence (Thornley, 2005), ultimately forcing change.

The dialectician's view of change is because of oppositional struggles. Change emerges from conflict, and conflict is necessary for change to occur. This would best be summarised as a form of involved conflict or struggle (Ford & Ford, 2005). An advantage of such a model is that it does not assume that a decision is made in isolation of the social or behavioural environment; rather it assumes that there is an emphasis on interrelated systems of ideas and thoughts (Kahale, et al., 2000), propagating the dynamic nature of analysing and interpreting context holistically.

In ancient Greece, dialectics was considered a form of reasoning and was used extensively by Plato, who believed that the practice of dialectics is the highest form of philosophy, stating, "dialectics is like a god", and that "dialectics is the copingstone of the sciences" (Honderich, 1995). Dialectics appeared and reappeared over the years until the 19th centuries, where interest in the 16th century theories of Ramus and the emergence of Scholasticism culminated in the view that, with opposing views, one view must be true, and the other view must be false (Stolarek, n.d.).

Models of dialectic thought emerged in the work of many intellectual traditional thinkers, such as Darwin, Von Bertalanffy, Piaget, and Kuhn (Kahale, et al., 2000). Kant had also re-applied dialectical thinking to the structure or arguments showing that principals of science have contradictory aspects (Honderich, 1995), which could be kneaded together to find a line of possible truth.

Considerable value of this theory of dialectics dictates that perception is far from being static. Dialectics allows for dynamic rationalisation. Kant proposed that all methods of applied reasoning and even the interpretation of world history followed some form of dialectical process. Within this paradigm, internal contradictions are overcome, only to give rise to new contradictions that in themselves required further resolution (Honderich, 1995). Often students of dialectic reasoning would suggest that this is a rather linear (Ritzer, 1996) and somewhat oversimplified process of Thesis-Antithesis-Synthesis, which is also best known concept of dialectics as this is the

mechanism that is associated with conflict and contradiction (Ritzer, 1996).

In general, dialectical thinking tries to explain an outcome or synthesis of conflict, which, through this process, is transformed into a new concept or function and thus attains a new enlightened stage of development or learning (Wood, 1998). This learning process in itself is an attempt to find some form of truth. Assuming that a truth is linear and its interpretation is from a selection of an opinion from two or more alternatives. In other words, a choice requires a set of conflicting alternatives (Schiffman & Kanuk, 1997) and assuming that the perfect harmonisation of thesis and anti-thesis would be possible, thus from this an absolute truth would emerge.

However, the overriding aspects of the dialectic debate are the conflicts and the contradictions among various levels of social reality (Ritzer, 1996). It is our own social reality, which manifests itself within the debate, and establishes its own unique set of contradictions. Thus, the thesis and the anti-thesis would never quite be in harmonisation, and a truth would never really be found. This is because alternatives are never quite perfect substitutes for each other and the choice of alternatives is associated with different levels of meaning to the decision maker. Meaning also induces emotions and internally generated factors that seem to generate emotional reactions that are as intense as stimulus that is produced by external causes (Baron & Byrne, 1994). Emotions are ignited most frequently when seeking the truth.

It is the quest to discover truth through learning that leads Kahale, Lui, Rose and Kim (2000) to suggest that dialectics should be viewed as a type of learning process which is inherently interactive, capable of transforming the very 'terms of interaction' into meaning (Kahale, et al., 2000). Human beings are inherently born with an ability to learn; yet learning itself takes place only within the context of one's own experience (Papilia & Olds, 1985) for without experience, there is no context to create meaning and from which to interpret the learning.

Learning is thus achieved through the process of argumentation (dialectic), which is best stimulated through the interaction of intelligent behaviour, the goals of which are adaptive and orientated. It is the goal-orientated component of intelligent behaviour that is made up of conscious and deliberate steps taken towards

some cognitive notion and adaptive in that the human mind may use this process to identify and solve new challenges (Papilia & Olds, 1985).

LEARNING USING ARGUMENT

It was pointed out in a research conducted by Ashley et.al.(n.d.), that learning within a dynamic environment using the dialectical process of argument encouraged students to construct a mental schema for making and responding to arguments, which ultimately resulted in deeper knowledge and improved skill transfer (Ashley, et al., n.d.). In other words, the process of learning was improved as meaning was created through the dialectical process of argumentation. Argument was the process of constructing context from which meaning could be efficiently interpreted. The ability to learn as measured by intelligence then determines a person's ability to acquire, remember and use knowledge and apply understanding to everyday problems (Papilia & Olds, 1985).

Donald (1991) suggests that the human brain is characterised by an overall capacity to learn, symbolise, and manipulate symbols, which can be tailored to produce any specific capability that people demand (Ratner, 2007). Through higher order thinking, humankind is predisposed with consciousness. People are assumed to see, interpret and experience the world in terms of meaning, and in essence, people actively construct their own social reality (Haralambos, 1985). It is the very nature of our cognitive process that the thoughts and memories that we bring to mind in constructing our social reality frequently exert strong effects upon our emotional states (Baron & Byrne, 1994). It is interesting to note that the dialectic of words and meaning is related to the Taoist relationship between xu (the unreal), and shi (the real) (Da'An, 1996). Given the limits to human rationality, not all cues are appropriately attended to and interpreted optimally (Porac, et al., 1989).

Schachter and Stinger's (1962) two-factor theory as presented by Barron and Byrne (1994), state that any form of stimulus will automatically initiates a search for the cause of these feelings that have been initiated by the stimulus. Once the cause of the stimulus has been identified, we apply a label to that stimulus. The label is subjectively influenced by external cues that we get from the environment in which we live. Thus, we label feelings in accordance with what the world

around suggest we should be experiencing in our reality (Baron & Byrne, 1994). For example, is it then rational to view something as been either truly 'good' or truly 'bad' or does the process of thinking that it is either 'good' or 'bad' make it so?

The nature of society is one of continual change, and so are the values that are being created by society. What was yesterday considered completely unacceptable behaviours or norms, could become acceptable behaviours or norms tomorrow, and then perhaps unacceptable again in the distant future. Castillo (1997) argues that cultural differences exist and as such the observed behaviour of individuals could be interpreted very differently between social cultural groups. In one incident, what is identified as a symptom (what people observe), and what this symptom signifies is very dependent on society's individual constructed realties (Castillo, 1997).

Porac, Thomas and Baden-Fuller (1989), ingeniously model the main cognitive constituents for a constantly changing view on our reality. An individual's microeconomic monetary actions or an individual's need for capital is interpreted using a processing sequence in which the individual reacts to cues found in the environment and is able to externalise these interpretations through their behaviour.

The process of interpretation is made by linking received cues with well-developed cognitive structures in memory to create meaning. This meaning is translated into a reaction which is an expression of the contents of the interpretation and even an expression of the process through which such interpretations are generated. Over time, individual cognitive structures become part of a socially reinforced view of the world. The cyclical nature of interpretive activities implies that the material or environmental and cognitive aspects of our reality are thickly interwoven (Porac, et al., 1989). Yet, our interpretation of the material or 'environment' may not influence meaning to all exposed to the stimulus in the same way and this is emphasised by Castillo (1997), who suggests that the local environment may not necessarily generate a specific pattern of behaviour or even generate the same identity among individuals.

This may hold even if people resist the process of individuation and social atomisation and begin to cluster in communities or form

organisations that often generate a communal type of 'cultural identity' over time (Richardson & Jensen, 2003). Fitzjames Stephen (1874) observed that:

> *A belief may be true or may not be true. If it is true, my life will be greatly enriched by believing that it is true, and I shell feel more secure. Lacking proof either way, why shouldn't I choose the more rewarding alternative, traversing one road even not knowing whether it's the right one* (Hospers, 1990).

Moscovici (1961), referred to a coherent set of shared cultural beliefs as social-representations of the world. These social representations of the world were seen to provide a 'shared reality'. This 'shared reality' ultimately is a framework for individuals within society to communicate with each other and make sense of their world (Witherell, 1996). This shared reality with others creates meaning, either through a sense of belonging, a sense of identity or by creating a conforming behaviour, which is very necessary for the greater good of society.

Richardson and Jensen, (2003), emphasises the importance of this 'shared belief'. The 'fundamental' assumption of a cultural sociology is a space where policy makers deal with the dialectical relations between socio-spatial practices and the symbolic and cultural meanings that social agents attach to their environment. This implies that there is a need to conceptualise socio-spatial relations in terms of their practical workings and their symbolic meanings (Richardson & Jensen, 2003) into beliefs.

Interpretation of a 'belief' or even interpreting the meaning derived from such a belief does not have an independent existence or a reality of its own which can be considered separate from the individuals in society (Haralambos, 1985). Meaning is imposed by the greater society that may constrain members to act in a certain way. Individuals do not assume a meaning to something, but rather meaning is derived or constructed by people through the process of social interaction (Haralambos, 1985).

Society is organised into an infinite number of individual social structures, each consisting of specified individual spheres of cultural composition through which societies generate

their own independent meaning systems (Castillo, 1997). While some individuals may consider themselves conservative or liberal, how prepared are they really to tolerate others political perceptions or views. Deriving meaning through the thought process is consequential to an interpretation of the material or the environmental. Thus, there must be directional flow of thought from societal to meaning.

LANGUAGE AND IMAGES

Vygotsky (1997) proposes that the 'true' direction of the development of 'thinking' does not flow from the individual to society, but from society to the individual (Blunden, 1997). Within social interaction there is a strong cultural element and a cultural entity is something created by the social agreement that something is 'real' (Castillo, 1997). By telling stories and making up explanations of the world, people create an impression of the subjective and inter-subjective world that they inhabit. Storytelling is a constructive function of cultural meaning systems. Cultural meaning systems are a fabrication of beliefs that would not exist without the meaning systems that had created for them in the first place. Therefore, we can argue that our reality is a construct of meaning, and meaning is socially derived through social agreement. Therefore this gives value to the social norms and social experience of the individual (Castillo, 1997). Putnam (1991) suggests that 'facts' about the external world and the shared nature of this social context is crucial to language. Because language is a product of our communal life, the role of language plays an important role in interpreting meaning that we collect and add to our store of knowledge about the external world around us (Thornley, 2005).

Images are visual metaphors based on language (Wardekker, 1996). And language is specific to cultural values and norms. For example, an image of a horse could represent wealth in one society, or work in another. Language and imagery is thus fundamentally bound. Language and behaviour is shaped by the nature of the social setting, its shared beliefs and its cultural background. Ritzer (1996) explains that people, their consciousness and their reality could not exist in isolation and Vygotsky (1997) maintained that new meanings, constructions, conditions and institutions are fashioned through language from existing social reality (Ratner, 2007).

Traditional beliefs are not quite the same thing as personal beliefs, for as time passes, personal beliefs are nurtured through empirical learning. This 'nurturing' happens under very different conditions for each individual, and this creates tiny adjustments in the development of beliefs. Personal beliefs are in themselves different from the earlier traditional beliefs, as there is no such thing as the universal, a-historic human identity. (Passer & Smith, 2004)

However, the formation of a constant belief is not within the individual, but within the community. For example, the Japanese value interpersonal sensitivity. They have created cultural prohibitions against causing negative emotions in others (Passer & Smith, 2004). It is not acceptable or polite to upset someone within the Japanese society. This is in contrast to some western societies where publicly humiliating individuals is could be seen as 'comical'. Beliefs can only be correctly interpreted from within a society as beliefs are defined by the very culture within society (Wardekker, 1996).

Donald (1991), proposes that culturally dependent verbal and written symbols (namely language) which are additionally imposed on any individual (taught) and If maintained (used), may stimulate new cognitive search strategies, new storage strategies, new memory access routes (mental functioning), new options in both the control of and analysis of one's own behaviour (Ratner, 2007), and thus is useful to stimulate cognitive development. In other words, learning additional languages is a way of accessing other parts of the brain and is good for building and maintaining intelligence.

While words in themselves carry meaning (Thornley, 2005), all of our previous and on-going experiences consist of the use and organisation of some combination of our senses, laying the foundation for interpretation and deriving meaning (Brown, 2001). Interpreting the meaning of words, which could appear to be an objective action, is actually culturally dependent, and this is a subjective process of interpretation.

How symbols or signs, which appear to be objective, can actually signify or stand for something in a way which produces meaning is very critical in clarifying the nature of the relationship between these two seemingly different (objective and subjective) elements of language. The rules specifying the ways in

which these symbols can be validly ordered and arranged are known as syntax. In terms of meaning, both the symbols that are used and the way in which they are ordered have an impact on meaning. Thus perceptions of symbols and syntax have an important connection to meaning or semantics but they must also remain distinct from it (Thornley, 2005), which is culturally dependant.

Perceptions or, in other words, our constructed reality, is the interpretation of the immediate contact that people have with their environment. Once perceptions of the environment have been drawn and arraigned into some significant order, meaning is derived. Interpreting the environment into meaning enables people to develop and use their creative powers on the environment to satisfy their needs. In this sense, a valuable trait of human nature is creative intelligence, the ability to transform from imagination to reality (Ritzer, 1996). This makes it possible for people to meet their needs, and develop their own unique behaviour associated with a particular environment. Thus, the process of the interpretation of the environment into perceived reality is a construct of social interaction and cultural norms, which helps to determines individual behaviour.

Brown-Van Hoover (1999), suggest that our three major sensory systems (visual, auditory and kinaesthetic), dictate the significance that certain representative functions (stimuli) will have on individual behaviour. It is from these representational systems that our perceived model of reality is formed and coded to determine the strategies or behaviour used by individuals within the environment (Brown-VanHoover, 1999).

Behaviour is dependent upon how external information is gathered, constructed and organised to fit into our individual model of the world and so to initiate behavioural outcomes. These visual, auditory and kinaesthetic systems form the basic transmission mechanisms through which strategies, patterns of human behaviour are formed, and by way of which we arrange our representational systems and construct our realities of our environment into meaning (Brown, 2001). The determination or interpretation of value is of the visual arts is highly subjective and very specific to culture, social background, personal beliefs and values. There is still a great likelihood that Orientals may appreciate Eastern Art more often than Occidentals who will most likely appreciate Western Art more often.

However, there are many other criteria that might be considered cross-cultural and allow for the cross-cultural movement of innovations or creations. Bandler (1980) refers to the structure-of-meaning, which occurs in a specific sequence of the representational systems a person uses to process information. These representational system sequences are referred most often to as strategies. Moreover, strategies are formal structures independent of content (Brown, 2001), yet dependent on culture (Ratner, 2007).

Our reality is not only shaped in the 'now', but it is also cultivated from our experiences developed over the course of our lives and personal reality is made up of factors such as our life experience, our individual background and cultural history.

Helmholtz, (1968) made the point that in each period; it is the reminiscence of previous experiences that act in conjunction with present sensations to produce a perceptual image. Clearly, the elements in the memory that are derived from experience are just as powerful as those that are derived from present sensations. Memory in this context is culturally reconstructed from a natural process (our environment) to a psychological (cognitive) one (Ratner, 2007). For example, Melzack (1961) proposed that pain is not simply a function of the amount of bodily damage alone. Pain is also a function of experience and how well we remember previous experiences. In this light, the way we feel and respond to pain is a function of the culture in which we have been brought up (Ratner, 2007).

Vygotsky (1997) proposes that a culture develops a specific cognitive schemata or interpretive template that is used when deriving meaning. This schema facilitates the processing of the stimuli received and provides a tool from which information can be interpreted. Emotions, sensations, motives, needs, imagination, perceptions and memory are integral parts of a cultural cognitive schema. In addition, perception, reasoning, memory, emotions, needs, motives and personality use social means (such as linguistic concepts), as their operating systems. Individuals are shown to interact with the environment through the intermediation of social institutions (Ratner, 2007).

Wetherell (1996) highlighted that in-group experiments, the participants were affected by the meaning derived from a situation, which in itself may be influenced by cultural variables. In a situation of group experiments on individuals in society, it was found that individuals whom had been affected more frequently by cultural changes were less likely to conform, than those whom had a more stable cultural background (Tacconi, 1996).

According to Tacconi (1996), the analysts should state as clearly as possible the values that guide their specific analyses and they could provide the decision makers with a range of options that depend on different stakeholders' ethical positions. It should be up to the decision makers to select the option most suitable to their cultural stance (Tacconi, 1996). The problem is that the social world is so complex and multidimensional that we must create numerous institutional concepts to try to describe, codify and understand its varied dimensions. Thus, 'society', 'race', 'culture', 'identity', 'state', and 'nation-state' are concepts that we have created to help us understand our reality. They have in themselves no ontological status independent of human nature. The reality to which these concepts refer to is embedded in our constructed reality via our own set of social interactions that are in themselves an on-going process of change (Robinson, 2002).

CREATIVE DESTRUCTION

The process of an on-going transformation is termed 'Creative Destruction' and was originally introduced by Joseph Schumpeter in 1942, which describes a process of industrial transformation that accompanies radical innovation. In its crudest form, it is change that destroys and removes organisational values in order to replace them with newly created values. Considered, an inherent danger in the very process of challenging values is that it is not always very sustainable. This is because the process of change could also be, in its very nature, destructive (Abrahamson, 2004). For example, referring to Stein (2002), in a study on the role of cartoons in politics during the Russian revolution of 1905, highlighted the shift in Jewish party politics and the role of woman as victims, which was because of an anxiety brought about by Russia's struggle with modernity. It was the image of the captive woman that evoked anxiety about challenge to traditional gender norms and social practices. It was an image of change and the end of generally accepted norms (Stein, 2002).

Creative Destruction has often been associated with the ongoing evolution of technology. However, technology in its broader definition cannot be limited to material assets only. Knowledge, values, systems, beliefs and thought can be ascribed to a technological form or function. Thus, technology is inextricable from social values.

Social thought gives value to technology, which in turn shapes society. Social values are not independent of thought. According to Brenner and Mandes, (1994), the macroeconomic, social, and political conditions exert an extensive influence on thought. Thought may determine productivity. Productivity depends on market conditions, and market conditions depend on social and political forces, given the current level of technology within that economy. The change in technology cannot be regarded as an exogenous factor affecting the economy; change is an endogenously determined component of the economic system (Brenner & Manders, 1994).

The endogenous nature of technology is a derivative function of the level of thought within the social construct of society. This type of change can be either of a quantitative or qualitative nature in which gradual evolutionary increases or decreases in quantity will lead to sudden, revolutionary leaps in quality (Ford & Ford, 2005).

The evolution of knowledge, values, systems, beliefs and thoughts are because of a qualitative shift caused by changes in quantity, which, in turn, are caused by conflict progressing continuously without any specific limits. Greiner's (1972) discussion in the relationship between quantity and quality becomes most apparent during the organizational growth phases, whereby gradual increases (quantity) in the size and age of an organization bring about periodic modifications in the organizations structures and practices (quality), giving rise to new organizational forms, which is also highlighted by Tushman and Romanelli's (1985) metamorphosis model of organization evolution (Simmons, et al., 1974). For example, an increase in military spending will bring about an increase in global security. As another example, an increase in spending on education will generate better-educated students.

Investment in cultural beliefs may spark an evolution of values. It is not possible for institutions to remain unchanged over time. As an institution evolves and changes, the previous version of the institution is subsequently absorbed and evolved into a new entity that has qualities of both the old and the new institutions combined into one. Many societies today abound with increased social complexity, rapid changing systems and continuous tension. Traditional administrative agencies that are rooted in nineteenth-century processes begin experiencing ever-increasing stress within their agencies, as these agencies have to adapt to the altered environment that they now serve (Simmons, et al., 1974).

Caballero and Hammour (1992) prove that this is a somewhat anti-cyclical in nature, which results in an on-going reallocation of factors of production from contracting production systems to expanding production systems. Often inappropriate politically driven policy that may hinder the pace of renovation that leads to a form of technological sclerosis (Caballero & Hammour, 1996). The final product is not just a simple recombination of the previous two systems, but it is now an entirely new entity that is equivocally qualitatively different from its original form (Ford & Ford, 2005). Brown (2001) suggests that just as capitalism builds up new systems, so too in this process, it also eliminates obsolete systems. The culture and systems that fuelled the business during their growth periods are very likely the same factors, which lead inevitably to their collapse.

THE INTERACTION OF INFORMATION

Thompson (2005) sees this interaction of information as a double-edged sword. For example, the development of the media has created opportunities for political leaders to challenge institutions and bring about change and progress within systems, but the same political leaders are frequently exposed to new kinds of dangers that are the result of the uncontrollable flow of information (Thompson, 2005).

Inferring significance from this continuously changing system becomes more perplexing as one begins to deal with the dynamic nature of the uncontrolled information flows that have various interpretations within the diverse structures that interdependently coexist.

Thompson (2005) refers to the uncontrollable flows of information that are a result of leakages from the communications system, which is used as an explicit strategy by individuals or institutions either as a weapon, or as a political tool. While the flows of information may be uncontrollable, these flows are replete with meaning and intent. The information can be carried through various forms of mass media, which, as Thompson (2005) so unambiguously describes, as a dramatic illustration of a new political theatre that is played out where spatial distance is irrelevant, and the nature of the communications media is immediate. This type of interaction can be either of a face-to-face interaction, mediated or quasi-mediated interaction.

Face-to-face generally involves a multiplicity of symbolic cues, gestures, facial expressions and also changes in intonation which would require that senders and recipients share the same spatial-temporal framework. Mediated interaction on the other hand would rely on a technical medium to transmit information or symbols to a remote space or time. Quasi-mediated is similar in nature to mediated, only difference is that the intended audience is very differentiated, and the flow of information is one way. Quasi-mediated interaction or, quasi interaction creates a certain kind of social situation in which individuals are interlinked by creating distinctive kinds of interpersonal relationships, social bonds and intimacy. However, in most modern communication media, the visual part of the medium is not in isolation, it is too often accompanied by the spoken word, or additional written words.

'Seeing' is never about just the visual value, as seeing is always shaped by a broader set of cultural assumptions and frameworks. It is the written or spoken cues that are so important in shaping the way an image is then interpreted by the viewer. One area which exemplifies the importance of visibility is in the relationship between political power and visibility. Visibility often is used to depict the importance of political figures in relation to situations, which is not a new in the world of politics.

With the development of print and other media, political rules used a 'visibility' which was detached from their physical appearance in order to fabricate a self-image (Thompson, 2005). This form of art media or expression has a very valuable place in society and is often referred to as critical art.

Critical art does not need to follow a divergent path. Instead, its aim would be to converge

ideas as per Habermans (1984) theory of 'communicative rationality' or action, in which society seeks a common understanding and co-ordinates actions in pursuit of its own goals (Bolton, 2005). Raymond Geuss (1981) suggests that a 'Critical Theory' predominantly adds value to society. 'Critical Theory' could include critical art, critical speech or critical literature that would question the norms of society. This is done by allowing individuals a platform for free thought and new ideas in contradiction to self-fulfilling 'truths' by highlighting how society can quite collectively restrict its own development of thought and become stuck in antiquated ideology (Kadlec, 2006).

Kadlec (2006) argues that there needs to be a balance between critical thought and pragmatism; otherwise all rationality will be lost in the process. Unfortunately, a huge shortcoming of pragmatism is that when pragmatists focus on the political dimensions of experience, it is insufficiently mediated by critical reflexion, which in itself leads towards a utilitarianism view. The pragmatist believes that understanding of human nature is learned through social interaction, but often through lack of sufficient critical thinking often falls short of common sense (Kadlec, 2006). Communicative action is individual action designed to promote common understanding within a group and thus find a way to promote cooperation.

Haberman (1986) sees language as a critical construction, and that a breakdown in communication leads to social pathology and dissolved rationality. Ironically it is the economist who is so often accused of ignoring constraints on individual choice imposed by social forces like the norms and culture bestowed upon by society.

Granovetter (1985) supports the argument that economists are constructing theories while 'under socialising' human behaviour (Bolton, 2005). Critical thinking provides us with reason, and reason allows us to imagine a better world, pragmatists can only evaluate existing reality according to its capacity for efficiency, expediency and predictability (Kadlec, 2006). Critical art allows us to see beyond this pragmatic view, by pushing rationality aside and providing students of philosophy or economics with a broader perspective beyond the schooled norms and taught reason.

Mass media, in any form, is a place wherein various social groups, institutions, and ideologies struggle over this definition and construction of social reality. Gamoson and Stuart (1992) see the media as an arena in which symbolic contests are carried out among competitors for meaning. The success of the contestants is measured in how the preferred meanings are interpreted. The outcome is measured by the degree of influence the media may exert within the social arena (Gamson & Stuart, 1992). There is clearly a two way road to the use of cartoons within this context. The first will be the development or use of a cartoon with its particular chosen set of symbols and images to establish a specific message and the second will be the intended interpretation of the cartoon by the respective target recipients.

THE SUITABILITY OF CARTOONS AS A VEHICLE FOR TEACHING AND LEARNING IN FINANCE

Gamson and Stewart (1992) analysed the use of cartoons during the 1960's so as to analyse the efficiency of the media to project an attitude towards the use of nuclear weapons during the cold war era. The analysis was used to determine how effective the use of critical art would be to inform the target population about issues regarding the politics and power play of the cold war era. Their findings suggested that certain symbols could be identified as 'contested' by rival players. These 'contested' symbols would have different meanings dependant on who would use the symbol. Other symbols were not considered 'contested' as these symbols were owned by certain 'packages'. In other words, these symbols would refer to specific outcomes and generate specific responses in the target group.

The interplay between the 'contested' and the 'owned' symbols are interpreted in order to create meaning, which is used to project a specific message (Gamson & Stuart, 1992). A conceptual analysis of the subject matter to a multi-cultural target group is crucial to the effectiveness of achieving the correct interpretation and generating the appropriate response to the target groups. Multiculturalism in education is relative to radical social reconstruction only in so far as the approach that is taken through curriculum design, the teaching methods and content and objectives are congruent with the type of belief system of the target audience (Stuhr, 1994).

Conscious and unconscious tensions spurred with the use of symbols can be studied quite effectively to reveal information about the collective institution and collective values of society (Conrad, 1991). Clark (2009) sees cartoons as that mechanism that is critical in shaping peoples understandings and perceptions. As seen during the Russian Revolution of 1905-1907, whereby Yiddish cartoonists expressed dissatisfaction with the status quo and buttressed the notion of democratic and multi-ethnic Russia. On the other hand Yiddish cartoonists voiced a distinctly Jewish version of uprising by intervening into Jewish party politics as well as imperial politics. What Stein (2002) points out in this example is that Jewish party politics were rarely the subject of Yiddish cartoons, but Yiddish cartoons were nonetheless used as a tool in an intricate debate over Jewish political alternatives. These cartoons are a record which reflects the complexity of the revolutionary movement and the inter-related worlds of the Jewish and the non-Jewish, the Yiddish people and those that defined them as Russian.

While a cartoon can be seen as a 'snapshot' of an opinion at a specific point in history, cartoons can also represent a view of change, an evolution of thought. Cartoons in themselves challenge the very evolution of science and thought. Clark (2009) points out that cartoon are about race, gender and modernity which represent a model of progress and hierarchies. They are often humorous constructs designed to challenge the authority within any political field. They express larger cultural concerns and added an interpretive visual language to the store of knowledge and culture that permutated through history challenging convention and tradition. They seem to represent a map of our place in society (Clark, 2009).

Cultural training has a role in teaching (Fowles, 1970). Similarly, the concept of knowledge is inextricably bound up with the life experiences of the users of that knowledge and therefore knowledge is also linked to a cultural understanding of society. McCarthy (1977) alludes to this when discussing the role of political cartoons in the classroom as he believes that the best known political cartoonists appear to be idealistic and use 'art' as a sword with which to battle (but might not sway) public opinion. Yet, they are still useful, according to McCarthy (1977) in that they can serve as a dynamic tool when assessing the understanding of material or analysing

historical evidence. However, even though they may be used as primary evidence of events in history, and thus help deepen our understanding; cartoons should be used with caution (McCarthy, 1977) because cartoons are subjected to the artist's stance as they rely heavily upon the communication of stereotypes (Warburton & Saunders, 1996).

Cartoons are an expression of popular culture or an expression of public opinion. The elements of construction are selected on the basis of their recognisability and public resonance in order to share meaning. Discourse and the meanings they carry are merely a representations of a reality located somewhere else (Warburton & Saunders, 1996) and are often depicted with one of society's most idiosyncratic and universal attributes, namely humour. Fowles (1970) explains that by understanding a cultures humour is tantamount to understanding the culture itself.

Humour cannot be taught, only be created with any regularity by those who are truly intimate with the psychological and linguistic patterns of a specific culture. Analysing humour in the caricature is a method of extracting the original meaning out of the caricature that was suggested by the artist. A systematic study of appropriate cartoons can reveal much about the culture (Fowles, 1970), which is necessary to provide a holistic contextual background to establish the relevant meaning. Humour has another element which makes the use of cartoons useful in any learning context, and that is, according to Torok, McMorris and Lin (2004), humour is very important in teaching difficult subjects such as statistics, law and finance.

Humour helps the student retain information, increase learning speed and improve problem solving by reducing stress and test anxiety. One of the most invoking components of humour is that it gives the students a positive attitude towards the subject and the lecturers teaching those subjects. Sarcasm, a cornerstone of critical art, was cited by Torok et.al, (2004) as one of the most appropriate forms of humour used in a classroom, despite the warnings that sarcasm is often considered brutal, sometimes offensive, often humiliating and putting victims of the caricature into the defence. Yet if this form of humour is applied within a constructive paradigm, contextually appropriate, and a suitable rapport has been established between the student and the

lecturer, then this form of humour has true benefits to learning (Torok, et al., 2004).

CONCLUSION

Learning within many of the financial and economic sciences is an analysis and interpretation of a broad collection of historical events. The problem with much of the literature used in this learning is the absence of a proper culturally dependant framework to establish a real understanding of the 'true' events which have happened. We are all a product of our history. No person or event can escape the relevance of our past. Critical art, cartoons and the satirical use of caricature have all the elements of presenting and documenting our complex and often complicated history. Creating cartoons is a method of taking a sudden snapshot of an event and saving it for the future. The advantage of a cartoon is that it is capable of capturing the context of the time and space in which it is taken.

This implies that cartoons are not only capable of storing image, but cartoons are also hold within a contextualised meaning as well. But history is engulfed in change. Analysing the content of a cartoon can be very difficult if the correct context is not established, and thus there is potential for misinterpretation or misunderstanding of history. To derive the correct meaning requires a degree of decoding in order to interpret the cartoon with any form of accuracy. But a person's interpretation of history is not purely objective, it holds a strong subjective element based on personal beliefs. Meaning is dynamic in nature and so is learning.

Bringing cartoons into the classroom is instrumental in closing the contextual gap that develops over time from the point of the event to when lessons should be derived from such an event. History abounds with information, but much of that information is lost due to broad misinterpretation. Cartoons provide more than a record of events. Cartoons provide a platform from which a suitable meaning can be derived that accurately reflects such events. However, cartoons come with a warning. The lecturer should be clear in the way in which the right context is established and presented. However, students should be well equipped with a good sense of humour.

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