

WORKING PAPER NO.279

**Memes in Organization Studies:
A Preliminary Research Agenda**

By

Manikandan K S

March 2009

Please address all your correspondence to:

Manikandan K S
Doctoral Student (Corporate Strategy & Business Policy)
Indian Institute of Management Bangalore
Bannerghatta Road
Bangalore – 560 076
e-mail: manikandank06@iimb.ernet.in

**MEMES IN ORGANIZATION STUDIES:
A PRELIMINARY RESEARCH AGENDA**

Manikandan K S

Doctoral Student (Corporate Strategy and Business Policy)

Indian Institute of Management, Bangalore

e-mail: manikandank06@iimb.ernet.in

ABSTRACT

Richard Dawkins (1976) introduced the concept of ‘memes’ as the basic unit of cultural evolution in his popular classic work ‘The Selfish Gene’. As organizations can be conceptualized as cultural entities, it makes sense to explore how the concept of memes can be applied in organization studies. Several works have started to appear on this front. This paper offers an introduction to the concept of memes and an account of the literature in the field of memetics. Ideas related to organization studies are explored in detail. It is seen that two key ideas have informed the research in organization studies thus far – ‘memes drive us’ and ‘memes are unit of cultural transmission’. I argue that organization researchers will gain more by following ‘memes as unit of cultural transmission’ idea than ‘memes drive us’ idea. ‘Memes drive us’ is axiomatic in nature, anthropomorphizes organizations and is non-falsifiable as a theory, while ‘memes as unit of cultural transmission’ gives hope to the effort of unraveling the black box of organizational culture.

Keywords:

Memes; Organizational Culture; Intra-organizational ecology

“The history of research in organization theory is a history of borrowing from other disciplines such as social psychology, sociology, anthropology, and even biology”

- Barney and Ouchi (1986, quoted in Hesterly, Liebeskind & Zenger 1990)

Although Barney and Ouchi have relegated biology to the end of their list of disciplines from which organization theory has borrowed and has qualified it with the word ‘even’, the fact remains that organization theory has gained a lot by borrowing thoughts from the field of biology, especially on the theories of evolution. Hannan and Freeman’s (1977) *‘The Population Ecology of Organizations’* is the seminal work which gave rise to an entirely new field of organizational ecology – a field which sought to explain how social, economic and political conditions affect the relative abundance and diversity of organizations and to account for their changing composition over time (Baum & Amburgey, 2005). Ever since Hannan and Freeman (1977), other organizational researchers have applied evolutionary theory at different levels of analysis – organizational, intra-organizational and inter-organizational – to good effect. Carroll (1988), Singh (1990), Baum and Singh (1994) and Amburgey and Rao (1996) give detailed accounts of research conducted on organizational ecology.

Intra-organizational ecology, an important branch of organizational ecology literature, is a view of human organization that applies ecological concepts to explain the processes occurring within organizations (Galunic & Weeks, 2005). Galunic and Weeks (2005) have presented a detailed review of intra-organizational ecology literature. In their conclusion, they point out the areas which have not been looked into extensively by researchers. They pick out Dawkins (1976) ‘selfish gene theory’ or Hamilton’s (1964) ‘inclusive fitness’ as the ideas that have not got the attention they deserved in organization studies. They observe that these ideas have direct relevance to theories of intra-organizational evolution and offers rich avenues of future research.

In this paper, I wish to take forward their observation. I have chosen to explore further the replicator theory of evolution put forward by Richard Dawkins and specifically the

concept of '*memes*' that he introduced in his popular work, '*The Selfish Gene*' (1976). Dawkins described memes as '*unit of cultural transmission*'. As organizations can be conceived of as cultural entities, it makes sense to explore how the idea of memes can take the field of organization studies – especially intra-organizational studies - forward.

This paper is divided into five sections. In the first section, I trace the thoughts on evolution right from the days of Charles Darwin to Richard Dawkins. It is shown how the replicator theory of evolution differs from that of the classical theory. The reader is introduced to the idea of memes. The second section summarizes the important concepts and works that have characterized the field of memetics since 1976. The proliferation of memes into other disciplines is also brought out. The section ends with the key ideas that have emerged out of the field of memetics that can have an impact on organization studies. The next two sections explore the areas where memetics hold promise for organization researchers and where it does not. I end with pointers for future research and concluding remarks.

BIRTH OF MEMES: DARWIN TO DAWKINS

Universal Darwinism

Charles Darwin's '*On the Origin of Species by Means of Natural Selection*' (1859) is one of the defining works in human history as it was the first coherent and tenable account of why we exist. Blackmore claims Darwin's theory as '*the most beautiful in all of science*' as it '*is so simple and yet its results are so complex*' (1999: 10). That was because Darwin's theory had a much greater potential than just providing a theory of evolution of human life. It provided the base on which later researchers developed a generic theory of evolution (Campbell, 1969). Darwin's argument for evolution required three main features: variation, selection and retention. The first requirement was variation among the population so that not all creatures are identical, as otherwise the selection would be random and there is a risk of extinction of all life with just one maladaptive change in the environment. Second, there must be an environment in which not all creatures can identically survive and some varieties do better than others. Retention, the third

requirement, ensures that the offspring inherits the characteristics of the parent so that the evolution can continue.

The idea is this : *'Whenever and wherever there are a group of entities with variations, an environment in which all variations do not perform equally well and there is selection and a mechanism by which the characteristics of the entity are inherited to its offspring, evolution is simply bound to happen.'* This inevitability of the evolution is the part which makes Darwin's insight so clever. Dennett (1995) termed this evolutionary process as an algorithm – a mindless procedure, which, when followed, must produce an outcome, while Dawkins (1982) named it *'Universal Darwinism'*.

This idea of 'Universal Darwinism' or the *Variation-Selection-Retention (VSR)* model of evolution has been effectively applied in the field of organization studies both at an inter-organizational (Hannan & Freeman, 1977; Aldrich, 1979) and intra-organizational (McKelvey, 1982; Nelson & Winter, 1982; Burgelman 1991) level.

Enter Dawkins: The Replicator theory

Prior to Dawkins, evolution was thought to be occurring for the 'good of the species' or 'good of the individual'. Scientists argued that natural selection occurred at the group or the individual level. The alternate school to this theory questioned the mechanism behind group selection. They argued that if for example, a group of organisms all act for the good of the group, then the one individual who does not, can easily exploit the rest. He will then leave more descendants who will in turn do not act for the group, and group benefit will be lost. Hence it was argued that it is best to look at evolution in terms of selection occurring at the lowest level of all (Dawkins, 1976).

It was left to Richard Dawkins to theorize and popularize this school of thought, which he did admirably well in his 1976 book *'The Selfish Gene'*. In this book, Dawkins developed a replicator view of evolution. Speculating on how the evolution process could have kicked off billions and billions of years ago, Dawkins proposed that evolution began when the raw chemicals interacted in the presence of sunlight over a long period of time and formed a remarkable molecule by accident, a molecule that was capable of

replicating itself. He called it the '*Replicator*'. Dawkins thesis is that the genes are the present day descendents of those primeval replicator molecules, i.e., genes are replicators. Dawkins turned classical biology on its head and argued that it was the genes which are the drivers of evolution. Dawkins claimed that if there is a replicator that makes imperfect copies of itself only some of which survive, then evolution must simply occur.

A question now arises as to what then is the role of the organism. Note the similarity of this question with Coase's (1937) question on as to why organizations exist? Dawkins' answer was that the organisms – animals and plants – are all 'extended phenotypes' that the gene replicators use to survive and replicate themselves at lowest cost. He called us and other living beings the 'gene machine'. Hence it should not surprise us to watch behaviors that are detrimental to the individual organism. Such behaviors survive as they are good for the gene inside us.

So the idea is this: "replicators replicate for their own good." It means that they are not bothered as to the welfare of the organism. Replicators in that sense are blind; they have only one power – 'replicating power'. They just seek to replicate themselves which is their sole mission. And that's why Dawkins called them 'selfish' and his theory came to be widely known as the 'selfish gene' theory.

The other replicator: 'Meme'

Dawkins devoted almost the entire book 'The Selfish Gene' to explain his gene theory of human life evolution. But a proponent of 'Universal Darwinism' that he was, Dawkins asserted that all evolution, be it of life or culture, occurs through differential survival of replicating entities. Genes are just one example of replicators. There may be others. To put his point across, he devoted a chapter towards the end of his book on another such replicator which he named '*meme*'.

Asking the question, are there are any other replicators on this planet, Dawkins answers, "*I think that a new kind of replicator has recently emerged on this very planet...staring in our face...it is still in its infancy, still drifting clumsily about in its primeval soup, but already achieving evolutionary change at a rate that leaves the old gene panting far behind.*" (1976:192)

The new soup that Dawkins referred to was the soup of human culture. And he named the replicator unit as meme, a unit of cultural transmission or unit of imitation. His examples of memes included tunes, ideas, catch-phrases, clothe fashions, ways of making pots or of building arches etc. Just as genes propagate themselves in the gene pool from leaping from on one body to other, memes propagate themselves in the meme pool leaping from brain to brain through non-genetic means, chiefly through imitation. This idea of memes has got implications for various fields including organization studies and was developed further by later researchers, an account of which is given in the coming sections.

In this section, I traced the evolutionary thought from the days of Darwin to that of Dawkins. It was seen that all evolution can be explained by a generic algorithm of Variation-Selection-Retention (VSR). The replicator view of evolution propounded by Dawkins sees all evolution occurring through a differential survival of replicating entities. These replicating entities or replicators are blind in the sense that they have only one power – replicating power. They need not be necessarily of any use to the organism in order to survive and replicate. Genes are the replicators that drive the evolution of life. Memes – unit of cultural transmission or imitation – are the replicators that drive the evolution of culture. Genes and memes replicate for their own good i.e., those phenotypic expressions of replicators survive, which give them an opportunity to replicate further and gets transmitted into the next generation, even though that particular phenotypic expression need not be to the welfare of the vehicle, i.e., the organism or organization as the case may be.

In the next section, I give an account of the literature on memes and its proliferation into the other areas over the thirty years since the term was coined by Richard Dawkins. The section is not coherent as the first, a reflection of the nature of field which is currently at a stage ripe for consolidation and focused research efforts.

MEMETICS: GROWTH OF MEMES

Though Dawkins devoted only one chapter on memes in his book and did not elaborate much on the topic, the ‘meme’ of meme has caught on with several detailed works

coming out in the last two decades (see Brodie, 1996; Blackmore, 1999; Aunger, 2002; Distin, 2005).

Memetics

A fledgling field of research has emerged around the idea of memes in the last decade. The field termed '*memetics*' refers to the theoretical and empirical science that studies the replication, spread and evolution of memes. The aim of memetics is to understand what characterizes fit memes, and how they affect individuals, organizations, cultures and society at large. The memetic perspective is thus seen as complementary to the traditional social science perspective, which focuses on the characteristics of the individuals and groups communicating rather than on the characteristics of the information being communicated. In order to structure the debates in the field, an on-line, peer reviewed, international e-journal was floated in 1997. The journal titled, "*Journal of Memetics: Evolutionary models of Information Transmission*" (accessible at <http://www.jomemit.org/index.html>) came out with seventeen issues from 1997 to 2005. While books on memes such as Blackmore's (1999) and Brodie's (1996) served to expand on the concept of memes and refine it further, the journal served as an outlet for applied work and framework for conducting empirical work in the field. I shall now delve on this literature on memes. I start with an overview of definition of memes, followed by the explanation of two important concepts – memeplex and path dependence. Works on meme replication cycle and selection pressures that operate on memes are discussed thereafter. A brief overview of the empirical work and the proliferation of memes into other disciplines are provided. I conclude the section by summarizing the main ideas emerging out the literature that can have a potential impact on the field of organization studies.

Definition

Dawkins (1976) in his original work had defined meme as a 'unit of cultural transmission or imitation'. Other researchers (cf. Blackmore, 1999) have more or less adopted the same definition of cultural unit or a unit of information. Weeks and Galunic (2003) have used memes as an umbrella term denoting all cultural modes of thought that subsumes within it ideas, assumptions, values, beliefs, interpretive schema and know-how. Pech

and Slade (2004) see memes as packets of information that replicates from brain to brain via any available means of copying. It is seen that there is a broad agreement on the definition of memes as a unit of culture and the size of that unit is dependent on the context.

Two important concepts stand out repeatedly in memetics literature. They are: *a) Memeplex* and *b) Path dependence*. I shall now explain them.

Memeplex

In his single chapter on memes in 'The Selfish Gene' Dawkins (1976) gives examples of groups of memes that are replicated together. He called them '*co-adapted meme complexes*', a term Speel (1995) later abbreviated to '*memeplex*'. Memeplexes include all those groups of memes that tend to be passed on together, such as political ideologies, religious beliefs, scientific theories and paradigms, artistic movements, and languages. The most successful of these are not just loose agglomerations of compatible ideas, but well structured groups with different memes specializing as hooks, bait, threats, and immune system. Consider the simple example of a chain letter, containing two memes: 'send this letter to ten friends' and 'win lots of money'. The first instruction is not tempting enough to be obeyed without the second one, while the second one is useless without an answer to 'How?'. The first instruction provides the answer. So, both these memes are essential for the chain to continue, i.e., both the memes to spread. To put it in Blackmore's concise words, "*The essence of any memeplex is that the memes inside it can replicate better as part of the group than they can on their own*" (1999:20). Other researchers have pointed out that sometimes a memeplex can take on a character that is quite different from its components (Pech & Slade, 2004).

Path dependence

Another important idea in memetics that is closely related to that of 'memeplex' is that of '*path-dependence*'. Complementarity of memes situated in a meme complex ensures that the collective mindset of the population inhabited by memes converges over time (Staber, 2007). The existing memeplex shapes the opportunity space for new memes and only

memes with consistent content gets selected. In general terms, the current selection of a meme depend on the selection of memes done in the past i.e., variations permitted by previously evolved selection processes drive the current variations and selection. This is the idea of path-dependence. Put in another way, the fitness of new meme with the existing set of memes matters as much as its fitness with the external environment does. Dawkins gives the example of an herbivore and a carnivore animal system to establish this point. An efficient carnivore's body is endowed with a number of desirable attributes like sharp cutting teeth, the right kind of intestine for digesting meat etc. Similarly, an herbivore has flat grinding teeth and a longer intestine with a different kind of digestive chemistry. The idea is that as an environment of a gene consists largely of other genes, each gene that is selected is itself selected for its ability to cooperate with its environment of other genes. The analogy holds good for memes too.

As memes are seen as units of cultural transmission, it becomes necessary to understand the process in which memes get replicated from one host to another and researchers have spent time in investigating this issue.

Meme-replication cycle

Heylighen (1998) proposed a four stage model to analyze the mechanics of meme replication and a list of selection criteria that determine the success of meme replication. He proposed that a meme must pass through four stages in order to get replicated successfully:

- 1) *Assimilation* - wherein the host is infected i.e., the meme manages to enter the memory of the host,
- 2) *Retention* - the meme is retained by the host in his/her memory,
- 3) *Expression* - of the meme by the host in the form of language, behavior or some other form that can be perceived by other individuals, and
- 4) *Transmission* - wherein the expressions in the form of a physical vehicle say language, text or picture, is sufficiently stable to transmit the information to the other individual without too much loss or deformation.

The cycle starts all over again in the receiving individual. Selection pressures operate at each step of this cycle.

Selection pressures: Why are some memes more successful?

Heylighen's (1998) meme-replication cycle brings out clearly the stages in which the selection pressures operate on memes. As memes are replicators driving evolution, there exist selection mechanisms which are an essential requirement for evolution to continue. It is important for researchers to understand these selection pressures so as to conduct applied research using memes theory. Dawkins' (1976) explanation that memes that spread do so because they are good at spreading is unsatisfactory. It is unsatisfactory in the sense that little can be learned from such a statement. It does not help us in managing memes in order to apply them in practical contexts. Hence, it becomes necessary to explore what makes some memes more successful than others. Researchers have worked to flesh out the selection criteria that determine the replicative success of memes.

Heylighen (1994) claims that a meme's fitness depends largely on the ease with which a host can learn the meme, requiring a genetic and cultural predisposition to do so, and how contagious the memes, in that the host is induced to repeat or pass on the meme. In a detailed account on selection pressures, Heylighen (1998) categorized them as subjective, objective, inter-subjective and meme centered. His categorization of selection pressures mapped to the meme replication cycle is given in Table – 1.

Insert Table 1 about here

Heylighen's work assumes importance as such a list of selection criteria can be used to produce a range of testable predictions. That is, all other things being equal, a meme that scores better on one of these criteria is predicted to become more numerous in the population than a meme that scores worse – a falsifiable hypothesis that can be tested through experiments.

Weeks and Galunic (2003) talks of three categories of selection pressures operating on memes in firms: their function, fit and their form. Function refers to the achievement of certain ends, though the functional attribution to a particular meme may be right or wrong. Fit refers to the compatibility of memes with the existing memes - path

dependence again. Form refers to the structure of the meme itself that renders itself to be more self-promoting than others. For example, Heath et al (2001) notes that the more disgusting an urban legend, the more likely that individuals recall it and express it.

The Empirical promise

Van de ven (1989) has noted that management scholars apart from contributing knowledge to the discipline should also consider as their central mission, to apply that knowledge to the practice of management as a profession. It is important to see how memetics fare on this front. In fact, Edmonds (2002) stated the lack of empirical basis and well defined methodology as one of the main challenges of theory of memetics.

Researchers have recognized this challenge and have begun in right earnest to examine the mechanism behind meme transmission and replication and develop empirical methodologies concerning memetics so that it can develop into a full fledged applied theory. Such works are beginning to trickle through. JoM-EMIT with the stated objective of being an outlet for empirical studies, experimental work, case studies and computer simulations in the field of memetics, has published some of the early pointers to empirical work in the field. One of the noteworthy attempts on the empirical front is that of Dirlam (2003).

Competing meme analysis

Dirlam (2003) presented '*Competing Meme Analysis*' as an empirical methodology to address problems in memetics. The methodology comprises of three steps. In the first step, the researcher with sufficient expertise in the phenomena being studied identifies the organization of memes within an activity. Each activity is divided into several dimensions. These dimensions are like the chromosome slots. A group of memes compete to characterize that dimension, just as a gene competes with its 'alleles' to enter the chromosome slot. The idea is that the succession of memes that occurs with time can be a clue to identifying competing memes. In the next step, records of activities are collected and coded for the presence or absence of each meme identified in the first step. In the final step, changing frequencies of each coded meme is analyzed over time and space. Competing Memes Analysis offers a method by which the path of succession from

one meme to the next can be tracked. By identifying pairs of competing memes and factors affecting their growth rate and their competitive strength, harmful effects of the overgrowth of dysfunctional memes can be controlled.

Pointers for empirical work are also available from other closely related fields such as cognition and psychology. Berger and Heath (2005) in their *Cognitive Science* article, has suggested that ideas and cultural representations have a 'habitat' – a set of environmental cues that encourage people to recall and transmit them. They have proved empirically that the successful spreading of an idea depends both upon the fluctuations in and prevalence of their habitats.

Proliferation of 'memes'

Like all interesting theories, memes too has been adapted and applied in various other disciplines. A number of researchers have expanded on Dawkins' insight, integrating evidence from a variety of disciplines, leading to a burgeoning interdisciplinary literature. Weeks and Galunic (2003) opines that this literature is of uneven quality. Works on memes have dotted fields such as philosophy (Dennett, 1995), psychology (Blackmore, 1999), anthropology (Richerson & Boyd, 2005) and social psychology (Heath et al., 2001). A series of work have also emerged in the field of management and organization studies (Gelb, 1997; Frank, 1999; Williams, 2000; Vos & Kelleher, 2001; Williams, 2002; Weeks & Galunic, 2003; Whitty, 2005; Staber, 2007; O'Mahoney).

Several ideas emerging out of the memetics literature seems to have a potential for impact on organization studies and management. It is seen that memes offer a unit of analysis for the study of culture. Sometimes memes replicate in groups. Memes part of such memplexes replicate better as part of the group than they can on their own. The notion of path-dependence means that the fitness of new meme with the existing set of memes matters as much as its fitness with the external environment does. It is also shown that empirical work is possible in the field of memetics.

To summarize I find two prominent ideas standing out from the review thus far that have can have an impact on organization studies:

1. “*Memes drive us*”
2. “*Memes are units of cultural transmission*”

I argue that the first idea do not hold as much promise for research in organization studies as the second one. This is explained in detail in the next two sections.

MEMETICS IN ORGANIZATION STUDIES: THE LACK OF PROMISE

‘Memes drive us’

This idea is true to the selfish replicator theory of evolution propounded by Dawkins. As noted above Dawkins argument is that the replicators are not bothered about their utility to their carrier, their sole mission on this planet is to replicate themselves. The selfish replicator theory is an interesting theory contradicts the current assumptions of the audience (Davis, 1971). A meme’s eye view is an interesting conceptual lens as it turns down the widely accepted notion that ‘men and women shape ideas (memes)’ on its head and contends that ‘memes (ideas) drive men and women’. In a way, this idea is similar to the ‘iron cage argument’ (Weber, 1952; DiMaggio & Powell, 1983). While DiMaggio & Powell (1983) argues that institutions take a life of their own *over time*, Dawkins suggests memes (which can be thought of comprising the institutions) drive us all the time, *right from the beginning*.

Explaining the divide

Works based on this idea have begun to appear in the field of management and organization studies. Most of these works follow a similar pattern. The researcher brings out an existing unresolved divide in the field and uses the ‘memes drive us’ argument to bridge the gap. Work by Vos and Kelleher (2001) on mergers and Staber (2007) on regional clusters fall under this category.

Vos and Kelleher (2001) uses memetic theory to explain why mergers and takeovers persist when the literature on mergers remains divided on as to whether mergers add value to the acquirer or not. Using the meme lens, they contend that from the point of view of the acquiring firms, mergers and acquisitions can be seen as driving the evolution

of ideas, shaping the flow of technology, information, and tastes rather than as value adding. They discuss the merger literature which posits managerial power as the driver for mergers rather than financial reasons and conclude that when viewed from meme's perspective, power is not the end goal, but rather only means to the end which is mimetic transference. Acquiring firms can spread their memes to the acquired firms upon takeover thereby increasing their fidelity, fecundity and longevity. As the M&A meme enables this memetic transference, it has successfully replicated itself over time and survived. By the same token, target firms employ anti-takeover mechanisms to protect their memes even when research shows that target firms experience positive wealth gains upon takeover.

Just as Vos and Kelleher (2001) tried to explain the paradox in merger literature, Staber (2007) uses the memetic paradigm to explain the paradoxical presence of empirical evidence on the existence of distrust in regional clusters, though the extant theory in cluster literature predicts that social relationships based on distrust are prone to failure. He adopts a meme's eye view and gives an account of how the notions of trust and distrust evolve and spread in a cluster. Bringing out the importance of context and past history, he posits clusters as a cultural phenomenon that is created and reproduced by human agents as they selectively perceive and enact the ideas that draw their attention. Individual or cluster performance is just one of the selection mechanisms and hence it is possible to explain the persistence of dysfunctional beliefs.

A Non-functionalist approach

Other researchers have found that this idea of 'memes drive us' provide a theoretical framework that takes a non-functionalist stance toward the subject of inquiry without imposing non essentialist approaches about human nature. It proffers itself as a suitable theoretical framework which makes possible a genuinely descriptive rather than a normative account of the phenomena under study (cf. Weeks & Galunic, 2003; Whitty, 2005).

Weeks and Galunic (2003) work on organizations using a meme's eye view is by far the only work to have come out on memes in top organization research journals. They have attempted to theorize the cultural evolution of firm using the memes paradigm and hence

propose a complementary theory of firm to that of existing theories like transaction cost theory (Coase, 1937; Williamson, 1975) and knowledge based theory of the firm (Kogut & Zander, 1992; Grant 1996). They conceptualized firms as social distributions of modes of thought and expression and memes as the basic unit of carrier unit of such cultural elements. Adopting a meme's eye view, they theorized that firms evolved as a process of the selection, variation and retention of memes. In other words, firms are nothing but a mechanism that is selected by the evolution process that offers memes a survival advantage and hence aid them in replicating themselves. Such a perspective free of any functionalist assumptions, they argue, will offer a genuinely descriptive theory of the nature of the firms we have as opposed to other theories of the firm which are normative in nature.

Whitty (2005) adopting a similar argument has presented a memetic paradigm of Project Management (PM) has argued that PM is behavior brought about as a consequence of the replicating behavior of a particular collection of memes. Viewing PM as memplex comprising of memes that are mutually compatible, each one selected for its capacity to cooperate with the others, Whitty contends that the project form of organization structure is just a mechanism that has been selected by the evolutionary process for the successful replication of PM memes. Using such a memetic approach, Whitty argues that actors like project manager or institutions like PMI (Project Management Institute), Project management Book of Knowledge (PM-BoK) are all features that have been selected by the evolutionary process for further replication of the PM memplex.

These works are examples of the use of memes as a theoretical framework with non-functional assumptions to explain a phenomenon 'as it is' rather than 'what it should be'. It is claimed by these researchers that such works can explain the presence the dysfunctional features in organizations and mindlessness in organizational behavior (Ashforth & Fried, 1988).

The lack of promise

I argue that these studies suffer from anthropomorphizing and do not offer further directions for research. They do offer an alternate way of describing the phenomena. But

if one carefully sieves through such works one can discern a uniform underlying format: Take a phenomena, describe it, bring out factors contributing to the phenomena and in the end attribute whatever that cannot be explained to memes. Such explanations do not provide predictions or directions for further research.

A specific powerful illustration of the futility of this approach can be seen in one of the points made by Weeks and Galunic (2003) in their work. They refer in their article to Burgelman's (1991; 1994) compelling account of how the idea for a microprocessor came to the fore in Intel at a time when suggestions that firm diversify from the memory business were illegitimate. After giving an account of how the memetic selection happened in the case of Intel, Weeks and Galunic give an additional perspective of the issue: "*Another way to look at it, however, is that the microprocessor memes effectively used those middle managers to reproduce themselves through the organization*" (2003: 1330). Weeks and Galunic just make this comment and neither revisit nor elaborate this later point in the article. The fact is they could not; the very nature of the logic takes them to a dead end. Given that this could have been an additional perspective of the issue, it falls short on further explanatory or utilitarian grounds.

'Memes drive us' is an interesting theory as per the criterion listed by Davis (1971) as it turns down accepted wisdom. Yes, but Davis (1971) also maintains that a theory has to have repercussions at the practical level also in order to be truly interesting. Davis writes: "*If this practical consequence of a theory is not immediately apparent to its audience, they will respond to it by rejecting its value until someone can concretely demonstrate its utility: 'So what?' 'Who cares?' 'Why bother?' 'What good is it?'*" (1971:311). 'Memes drive us' idea fall flat on this count. The statement is of axiomatic in nature. I shall use the words Lambert and Brittan quoted in Hunt (1983) on problems of such extra-empirical statements: "*Appeals to God's will, for instance, although satisfying to many people, are not generally held to be explanatory; that the Lisbon earthquake occurred because God willed it is not really an assertion open to scientific investigation*" (1983:85). One only needs to replace the words 'God's will' with 'memes' will' to understand the lacuna in using the 'memes drive us' idea to explain organizational phenomena.

Moreover, explanations such as power, institutions (DiMaggio & Powell, 1977), superstitious learning (March, Sproll & Tamuz, 1991), fashions and fads (Abrahamson, 1991) etc. do exist to explain dysfunctional features in organizations. The memes theory does not offer any significant progress beyond them.

Thus it can be seen that the ‘memes drive us’ idea though inherently interesting and captures the instant attention of a researcher does not offer significant avenues for useful research at this juncture. So, where does memes hold promise for organization researchers? The answer lies in the second prominent idea listed above: ‘memes are units of cultural transmission’.

MEMETICS IN ORGANIZATION STUDIES: THE PROMISE

‘Memes are units of cultural transmission’

This idea flows from Dawkins (1976) original definition of memes as ‘units of cultural transmission’ or ‘units of imitation’. Memes as unit of cultural transmission offers an approach to social processes at the micro-level of ideas and beliefs (Staber, 2007). The possibility of empirical work in the field of memetics as brought out earlier enhances the promise of this idea. It has been observed that just as the presence of a particular gene in a particular organism is verifiable, the presence or absence of meme in a human mind is discernible. Frameworks such as ‘competing meme analysis’ (Dirlam, 2003) and concepts such as memeplex and path-dependence offer a good starting point for tracking memes inside organizations. Other researchers have worked to bring out alternate frameworks for the application of this idea in organization studies. A notable work is by Pech and Slade (2004).

Memetic Engineering

Pech and Slade (2004) examines ‘memetic engineering’ as a means of facilitating organizational diagnosis and development. Memetic engineering is put forward as a practical process that aid in protecting the organization from toxic memes (attitudes, beliefs, mindsets, and values that are reflected through behaviors that range from those that detract from or subvert the organization’s strategic intent) and as a means of

heightening awareness of potential threats in the cultural environment or the mindscape of the organization.

Insert Figure 1 about here

The ‘memetic engineering’ framework offered by them is shown in Figure 1. Managers and Organizational Development consultants can map the existing memeplex of the organization. They can then use the three memetic dimensions of meme fidelity, host susceptibility and level of resonance to analyze the power of various memes to influence change. Questions on their compatibility with organizational mission and intent will also be looked into. Armed with the information on the power of memes and their level of utility to the organization, one can then proceed to look for means for altering or extinguishing a toxic meme by asking questions such as, ‘Who is susceptible?’, ‘Which part of meme contribute to its high fidelity?’ and ‘Why does the meme resonate with some people?’. Suitable steps can then be taken to eliminate or reduce the impact of toxic memes. This is the process referred to as memetic engineering. Memetic engineering, thus, offers a practical framework that can be applied in an organization context systematically.

On diffusion of innovations

O’Mahoney’s use of the memetic lens to study the diffusion of management innovations is one of the better works to emerge in this area so far. Taking on the anthropocentric assumptions that strongly underlie much of traditional innovation literature, O’Mahoney explores the dynamic and the interactive properties of innovation itself that contribute to its own replication by interacting with and altering its political and cultural contexts. He uses two case studies on the implementation and diffusion of BPR to explain his point:

“Through an algorithmic process of variation, replication and selection, the BPR method and the instructions for its replication are often reproduced through the actions of active replicators, identified here as processes themselves, interfaces with suppliers, redundant consultants, process managers, process outsourcing, the ‘cut and burn’ approach and the ‘lifting’ of processes from elsewhere. These are not the simple attributes characteristic of

early innovation research but active instructions that are fairly unique to BPR which enable it to spread more effectively than many other competing memes.”(O’Mahoney)

He concludes that the central insight that memetic perspective brings out is the need to understand the ‘inside’ of innovation itself as much as the ‘outside’ i.e., its political and social environment, if its diffusion is to be properly understood.

O’Mahoney in the course of his paper says that his paper adds another perspective to innovation literature, showing that replication (diffusion of innovations) is not necessarily for the good of organizations or individuals, replicators that flourish are those that are good at replicating. This assertion is nothing but the ‘selfish replicator’ idea. But on careful study of his analysis of the two case studies on BPR, I find it is the second idea of ‘unit of cultural evolution’ that he has employed. He looked at innovations as ‘memeplexes’ and tracked their evolution in both cases to arrive at his insights. This is a proof of my assertion that it is the ‘unit of cultural evolution’ idea that could be of great use relative to the ‘selfish replicator’ idea. I shall give pointers as to how this idea could be used in organization research in my final section.

The issue of Agency

The problem with the ‘memes drive us’ idea is its assumption of complete non-agency by staying true to Dawkins thesis. However, this can be overcome by having a different approach to agency. For example, Weeks and Galunic in their conception of an evolutionary theory of culture has adopted Giddens’s notion of culture as something that is ‘*created by intentional activities but it is not an intended project*’ (Giddens, 1984:27, quoted in Weeks & Galunic, 2003). They see culture not a grand, conscious, coherent design by organizational leaders, but something that emerges step-by-step out of the interactions of intendedly rational people making what sense they can of their various situations. Hence, the meme’s eye view is sensitive to the role of human agency, but not completely. To put it succinctly in Weeks and Galunic’s words, ‘*human agency in meme selection tends to be tactical rather than strategic*’ (2003:1329). Thus the evolution and distribution of memes in a cultural system is not independent of the cognitive and social capabilities of individual actors, but neither is it completely determined by them. This

revised conception of agency coupled with ‘units of cultural transmission’ idea will be a fertile ground for effective future research in organization studies.

DIRECTIONS FOR FUTURE RESEARCH AND CONCLUSION

I shall now list some potential future research directions using memes lens in organization studies.

- Memes offer a way to study social processes at the micro-level. By identifying and tracking memes in an organization it is possible to open the black box of organization culture.
- Memes can be conceived of underlying organizational routines. One way to look at is to see routines as hardware and memes as the software driving the hardware. This can help take forward the routines literature in the direction of the likes of Feldman (2000).
- McInerney and McInerney (1998, quoted in Pech 2003) explain that short-term memory, which operates in the earlier part of the information processing system, processes new information more readily when it is related to already existing schemes of knowledge. This idea closely parallels with the notion of absorptive capacity (Cohen & Levinthal, 1990).
- When a new meme is introduced inside the organization, it competes for resource like any other replicator and the resource here is human attention. It competes with existing memes within organization. Research on questions as to which among these memes will succeed can be guided by the literature on fitness criteria and Dirlam’s (2003) ‘competing meme analysis’.
- We know that memes can exist as memeplexes. It would be interesting to look as whether memes be tracked at memeplex level and as to how do one establish the linkages between memes within a memeplex.
- Memes can also inform the literature on best practices. Conceptualizing best practices as memeplexes, one can trace their diffusion into an organization, its compatibility with the existing organizational memeplex and its effect on the success of best practice. One can also ask questions such as, “To who is the ‘best practice’ best for?” Is it best for the consultant, the champion, the organization or

the best practice itself? The revised notion of agency could be drawn upon to answer such questions.

- As shown by Pech and Slade (2004), memetic engineering framework can be used to study organizational change and development. There is scope for application of their framework in organizational contexts to conduct empirical studies.

Conclusion

This paper is an attempt to explore the promise of the idea of memes in organizational studies. By giving a short yet sufficient introduction to the notion of memes, bringing together the disaggregated literature on memetics, culling out important insights that have the potential to impact organization studies and finally by arguing that ‘memes as units of cultural transmission’ offers the best possible future for memes in organization research than the ‘memes drives us’ idea, this paper contributes to the field of organization studies.

REFERENCES

- Abrahamson, E. 1991. Managerial Fads and Fashions: The diffusion and rejection of innovations. **Academy of Management Review**, 16-3: 586-612
- Aldrich, H.E. 1979. **Organizations and environments**. Englewoof Cliffs, NJ: Prentice Hall.
- Amburgey, T.L. & Rao, H. 1996. Organizational ecology: Past, present and future directions. **Academy of Management Journal**. 39-5: 1265-1286.
- Ashforth, B.E. & Fried, Y. 1988. The Mindlessness of Organizational Behaviors. **Human Relations**, 41-4:305-329.
- Aunger, R. 2002. **The Electric Meme: A new theory of how we think**. New York: FreePress.
- Baum, J.A.C. & Singh, J.V. 1994. **Evoloutionary dynamics of organizations**. New York: Oxford University Press.
- Baum, J.A.C. & Amburgey, T.L. 2005.Organizational ecology. In J.A.C.Baum (Ed.) **Companion to Organizations**: 304-326. Oxford: Blackwell.
- Berger, J. & Heath, C. 2005. Idea habitats: How the prevalence of environmental cues influences the success of ideas. **Cognitive Science**, 29: 195-221.
- Blackmore, S.J. 1999. **The Meme Machine**. Oxford: Oxford University Press.
- Boyd, R. & Richerson, P.J. 1985. **Culture and the evolutionary process**. Chicago, IL: University of Chicago Press.

Brodie, R. 1996. **Virus of the Mind: The New Science of the Meme**. Seattle, WA: Integral Press.

Burgelman, R.A. 1991. Intraorganizational ecology of strategy making and organizational adaptation: Theory and field research. **Organization Science**, 2: 239-262

Burgelman, R.A. 1994. Fading memories: A Process theory of strategic business exit in dynamic environments. **Administrative Science Quarterly**, 39: 24-56.

Campbell, D.T. 1969. Variation and selective retention in socio-cultural evolution. **General Systems**, 16: 69-85.

Carroll, G.R. 1988. **Ecological models of organizations**. Cambridge, MA: Ballinger.

Coase, R.H. 1937. The nature of the firm. **Economica**, 4: 386-405.

Cohen, W. M., & Levinthal, D. A. 1990. Absorptive Capacity: A New Perspective on Learning and Innovation. **Administrative Science Quarterly**, 35(1): 128-152.

Darwin, C. 1859. **On the Origin of Species by means of Natural Selection**. London: Murray (1998. New York: Modern Library)

Davis, S.M. 1971. That's interesting!. **Philosophy of Social Science**, 1: 309-344

Dawkins, R. 1976. **The Selfish Gene**. Oxford: Oxford University Press.

Dawkins, R. 1982. Universal Darwinism. In D.S.Bendall (Ed.) **Evolution from Molecules to Men**: 403-425. Cambridge: Cambridge University Press.

Dennett, D.C. 1995. **Darwin's dangerous idea**. New York: Simon and Schuster

DiMaggio, J.P. & Powell, W.W. 1983. The Iron Cage Revisited: Institutional Isomorphism and collective rationality in organizational fields. **American Sociological Review**, 48:147-160.

Dirlam, D. K. 2003. Competing Memes Analysis. **Journal of Memetics - Evolutionary Models of Information Transmission**, 7.

Distin, K. 2005. **The Selfish Meme**. Cambridge: Cambridge University Press.

Durand, R. 2006. **Organizational Evolution and Strategic Management**. New Delhi: SAGE.

Edmonds, B. 2002. Three Challenges for the survival of Memetics. **Journal of Mimetics – Evolutionary Models of Information Transmission**, 6. , last accessed December 2007.

Feldman, M. S. 2000. Organizational Routines as a Source of Continuous Change. **Organization Science**, 11(6): 611-629.

Frank, J. 1999. Applying Memetics to Financial Markets: Do Markets Evolve towards Efficiency?. **Journal of Memetics - Evolutionary Models of Information Transmission**,3 , last accessed December 2007.

Gelb, B. 1997. Creating ‘memes’ whilst creating advertising. **Journal of Advertising Research**, 37-6: 57-59.

Hamilton, W.D. 1964. The genetical evolution of social behaviour. **Theoretical Biology**, 7:1-52.

Galunic, D.C., & Weeks, J.R. 2005. Intraorganizational ecology. In J.A.C. Baum (Ed.), **Companion to Organizations: 75-97**. Oxford: Blackwell.

- Giddens, A. 1984. **The Constitution of Society**. Berkely: University of California Press.
- Grant, R.M. 1996. Toward a knowledge-based theory of the firm. **Strategic Management Journal**, 17: 109-122.
- Hannan, M.T. & Freeman, J.H. 1977. The population ecology of organizations. **American Journal of Sociology**: 929-964.
- Heath, C., Bell, C. & Sternberg, E. 2001. Emotional selection in memes: The case of urban legends. **Journal of Personality and Social Psychology**, 81: 1028-1041.
- Heylighen, F. 1994. **Memetic selection criteria**.
<http://pespmc1.vub.ac.be/MEMSELC.html>., last accessed December, 2007.
- Heylighen F. 1998. What makes a meme successful? Selection criteria for cultural evolution. **Proceedings of the 16th International Congress on Cybernetics**: 423-418.
- Hesterly, W., Liebeskind, J. & Zenger, R.T. 1990. Organizational Economics – an impending revolution in Organization theory?. **Academy of Management Review**, 15-3: 402-420.
- Hunt,S.D. 1983. **Marketing theory: The Philosophy of Marketing**. Homewood, Illinois: Richard D. Irwin, Inc.
- Kogut, B. & Zander, U. 1992. Knowledge of the firm, combinative capabilities, and the replication of technology. **Organization Science**, 3:383-397.\
- March, J.G., Sproull, S.L. & Tamuz, M. 1991. Learning from samples of one or fewer. **Organization Science**, 2-1:1-14

McInerney, D.M. & McInerney, V. 1998. **Educational Psychology: Constructing Learning, 2nd ed.**. Sydney: Prentice Hall

McKelvey, B. 1982. **Organizational systematics: Taxonomy, evolution and classification**. Berkeley: University of California Press.

Nelson, R.R. & Winter, S.G. 1982. **An evolutionary theory of economic change**. Cambridge, MA: Belknap Press.

O'Mahoney, J. Undated. **Management innovation diffusion : A memetic approach**. <http://joeomahoney.googlepages.com/MemeticsandManagementInnovationDiffu.doc>, last accessed December 2007.

Pech, R. 2003. Memes and cognitive hardwiring: Why are some memes more successful than others?. **European Journal of Innovation Management**, 6-3: 173-181.

Pech,R. & Slade,B. 2004. Memetic Engineering: A framework for organizational diagnosis and development. **Leadership and Organization Development Journal**, 25-5: 452-465.

Singh, J.V. 1990. **Organizational evolution: New directions**. Newbury Park, CA: SAGE.

Speel, H.C. 1995. **Memetics: On a conceptual framework for cultural evolution**. Paper presented at the symposium 'Einstein meets Magritte'. Free University of Brussels.

Stabber, U. 2007. A Matter of Distrust: Explaining the persistence of Dysfunctional beliefs in Regional Clusters. **Growth and Change**, 38-3: 341-363.

Vos, E., Kelleher, B. 2001. Mergers and takeovers: a memetic approach. **Journal of Memetics – Evolutionary Models of Information Transmission**, 5.

last accessed December 2007.

Weber, M. 1952. **The Protestant Ethic and the Spirit of Capitalism**. New York: Scribner.

Weeks, J.R. & Galunic, D.C. 2003. A theory of the Cultural evolution of the firm: The Intra-Organizational ecology of Memes. **Organization Studies**, 24: 1309-1352.

Whitty, S.J. 2005. A Memetic paradigm of project management. **International Journal of Project Management**, 23: 575-583.

Williams, R. 2000. The business of memes: memetic possibilities for marketing and management. **Management Decision**, 38-4:272-279.

Williamson, O.E. 1975. **Markets and hierarchies: Analysis and antitrust implications**. New York: Free Press.

TABLE 1

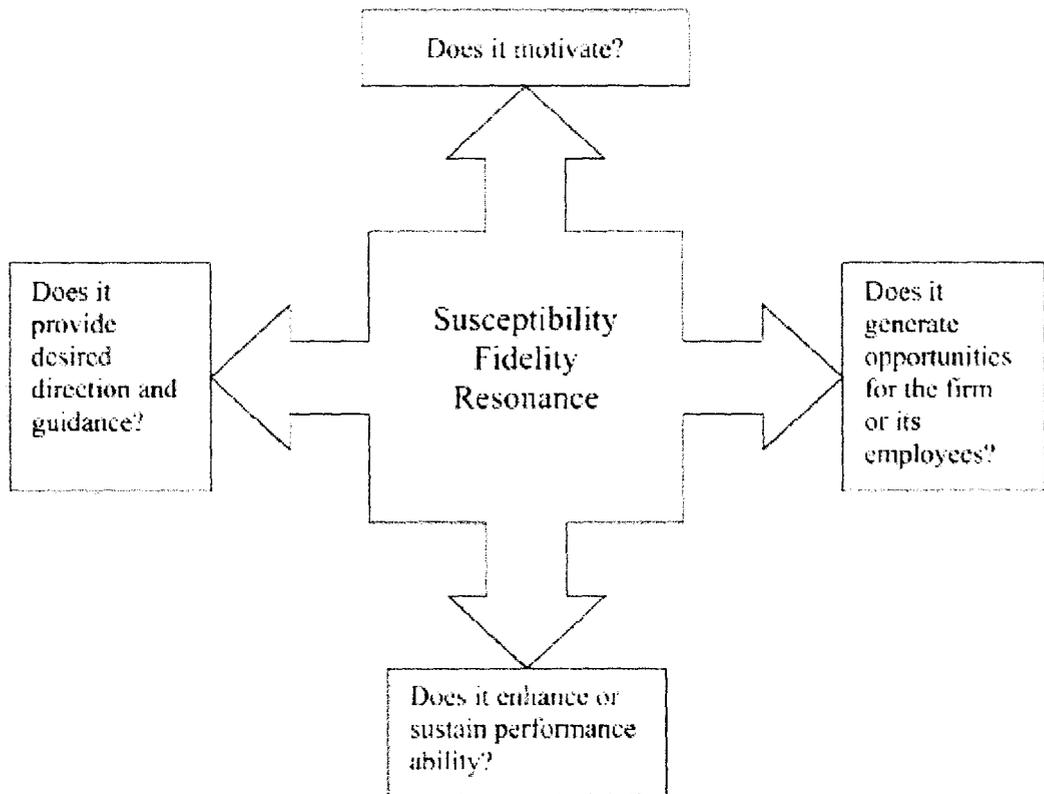
Selection criteria and meme-replication cycle

Stage/ Selectors	Objective	Subjective	Inter- subjective	Meme- centered
Assimilation	Distinctiveness	Novelty Simplicity Coherence	Authority Formality	Self- justification
Retention	Invariance Controllability	Coherence Utility	Conformity	Self- reinforcement Intolerance
Expression			Expressivity	Proselytism
Transmission			Publicity	Proselytism

(Ref : Heylighen (1998))

FIGURE-1

Organizational Development: A Memetic Engineering Framework



(Ref: Pech & Slade (2004))