

# Reflections From A Not So Distant Microcosm

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## ABSTRACT

How does the process of social change affect or threaten firms? This question and the many issues related to it remain fertile areas of debate amongst academic scholars. This paper seeks to add to this debate through consideration of an undergraduate cohort at the University of Tasmania. In doing so, it will be argued that within the context of enterprise education, such a cohort is a representative system to the more general process of social change occurring within larger systems. It will be further argued that we can move the debate forward through suspending concern for the context of the social system undergoing change, and increasing our focus upon the elements of interaction and the processes of replication that exist irrespective of any differing contextual setting. In doing so, this paper aims to promote the virtues of awareness and reflection as critical and essential adaptive properties through which survival is greatly influenced.

**KEY WORDS:** Social Change, Reflection, and Awareness

## INTRODUCTION

For Veblen (1925), the evolution of our social structures was based on a dialogic relationship between the evolution of institutions and man's habits of thought. In the face of constant selective pressure from the environment, the fittest temperaments would prevail, and in turn these temperaments would be responsible for new institutional structures more favoured by the prevailing selection forces. Veblen was less interested in whether it was the environment selecting in favor of particular temperaments, or whether it was the adaptive ability of man's temperaments to changing circumstances that produced new social structures. He was more concerned with expressing the view that the process had no identifiable starting or finishing point. That the firms of today, can never expect to be in accord with the requirements of the present.

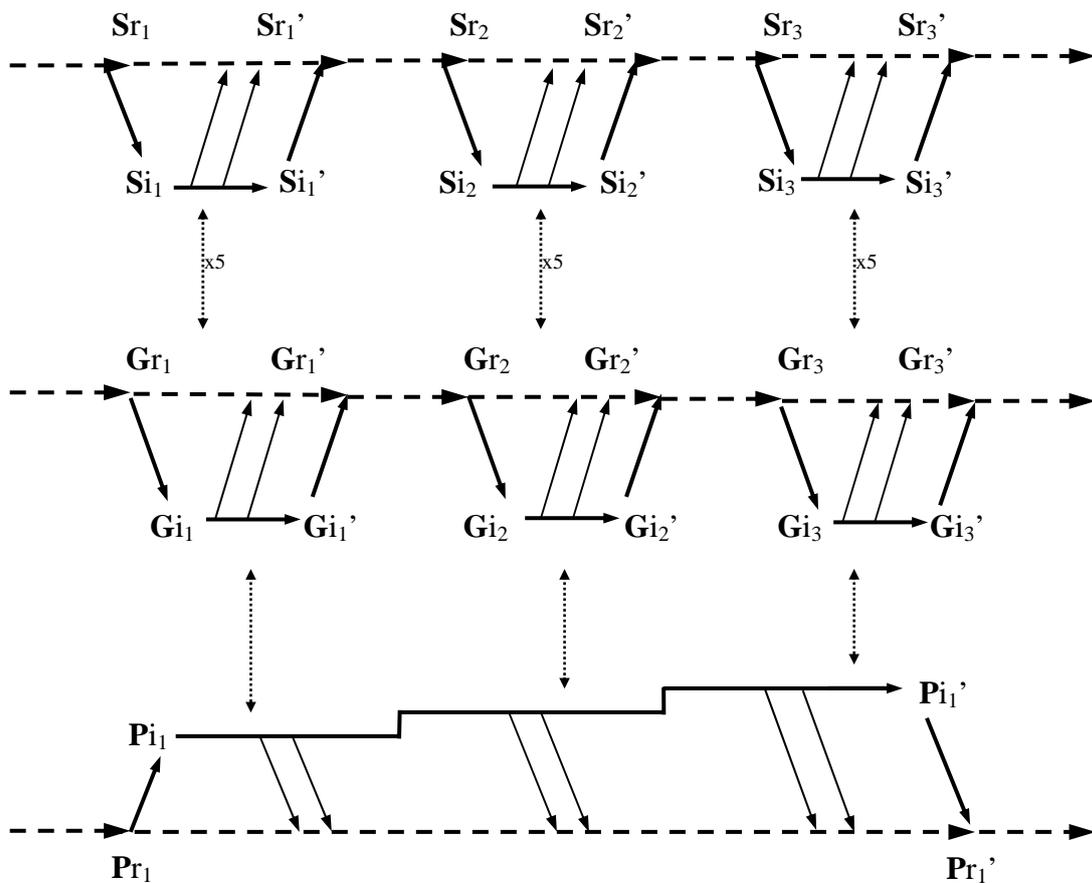
Veblen was a champion of Darwinism (Hodgson, 1999), he saw Darwinism "as a loom upon which the whole fabric of economic thinking could be rewoven" (Hofstadter, 1959, pp.152-5). He felt that "the evolution of society is substantially a process of mental adaptation on the part of individuals under the stress of circumstances which will no longer tolerate habits of thought formed under and conforming to a different set of circumstances in the past" (Veblen, 1925, p.192). It was assumed to be an inexact process of adjusting inner relations to outer relations, made surer by the degrees of freedom surrounding the process. An important driver of the process of readjustment was considered to be exposure of man to the action of the environment. Importantly, throughout this process, a socio-cultural learning process driven by the generic evolutionary process of variation-selection-retention (Campbell, 1965) was highly probable. Accepting the presence of an evolutionary process, the remainder of this paper seeks to discuss a process of readjustment, that when reflected upon provides clues as to what factors may influence the survival or extinction of a firm during times of environmental change.

## THE SETTING

The contextual setting is that of an undergraduate course in entrepreneurship at the University of Tasmania. Throughout the course, students are required to adapt to a constantly changing environment, adjusting their methods of interaction accordingly. There is always at play, a directional selection pressure associated with the

designer's desire to see all students become reasonable adventurers (Heath, 1964). That is, individuals capable of creating their opportunities for satisfaction. This selection pressure however, whilst relatively predictable, accounts for little of the actual action in the workshop environments that the students must adjust to. More specifically, it is the continual variations in performance of competing groups and the unpredictability of peer evaluation that creates an environment in which total adjustment is merely a dream. It would perhaps be clearer to explain the entanglement of these combined selection forces using Figure 1 to illustrate the process.

**FIGURE 1 – INTERACTING AND REPLICATING ENTITIES**



In general terms, Figure 1 illustrates a process of Lamarckian evolution that is nested within the Darwinian process of modification by decent (i.e. moving form left to right). As noted by Jones (2005), a Darwinian theory concerns the process of change, assigning the major (but not exclusive) causal role to natural selection. The presence of Lamarckism is granted on the basis that “acquired characters are inherited only rarely and weakly” (Gould, 2002, p.354) relative to the process of natural selection. That is, the positions of Knudsen (2002) and Hodgson (2001) that Lamarckian processes can nest within the overarching nature of Darwinism are held, assuming that we accept that social entities acquire (heritable) characters in a metaphoric sense (Hull, 2001). Across the three levels of Figure 1, the pairs of arrows directed towards the broken lines indicate the acquisition of acquired characters. Let us now consider the processes suggested within Figure 1 in finer detail.

There are three entities suggested in Figure 1. First there the students (S), the groups (G) the students form, and the program (P) they both interact with. The symbols  $S_i$ ,  $G_i$ , and  $P_i$  refer to the interacting entities, and the symbols  $S_r$ ,  $G_r$ , and  $P_r$  refer to the replicating entities that are modified through the interaction of students, groups, and the program with each other. The primary suggestion is that in addition to modification due to natural selection, the students, groups and indeed the program are modified through the inheritance of acquired characters. Figure 1 illustrates a timeframe related to three workshops, although in reality, there are eight. As each student interacts with their group the first time ( $S_{i_1}$  to  $S_{i_1}'$ ), their individual performance will initially be determined by each students habits of thought (e.g. their capacity to communicate, think creatively, etc), and to a lesser degree by the traits they acquire through their interaction with their group. Correspondingly, the first interaction of the group (comprised of five students) will occur from  $G_{i_1}$  to  $G_{i_1}'$ .

Each group also has the ability to inherit acquired characters through individual learning and from learning and imitating the performance of the other groups. As this occurs, the replicating code of the students and their groups are subject to change that may (or may not) prove beneficial going forward to the next workshop. This process is represented in Figure 1 through the use of solid and broken lines. The solid lines signify the proposed causal relationships related to the manifest behaviour of each entity. The broken lines indicate the presence of a replicating code that is subject to Lamarckian evolution through downward pressure from each entity's interacting elements. So as a student interacts with his or her group (i.e.  $S_{i_1}$  to  $S_{i_1}'$ ), his or her replicating code is open to alteration, thus ensuring that their next interaction with the group ( $S_{i_2}$  to  $S_{i_2}'$ ) is done so potentially based upon a modified set of habits of thought. Likewise, as each group interacts with the program's workshops, (i.e.  $G_{i_1}$  to  $G_{i_1}'$ ), its replicating code is open to alteration, thus ensuring that their next performance ( $G_{i_2}$  to  $G_{i_2}'$ ) is potentially based upon a modified set of collective habits of thought. Finally, throughout the entirety of this process, the program's replicating code is subject to frequent and unpredictable change. As a result, the nature of the interaction between the groups and the program (which includes the other groups, their peer assessment and the rules of operation) is unpredictable.

### **REFLECTIONS OF ADAPTATION AND CONFUSION**

Observations of the process of social change occurring in this context are now reflected upon to provide an analogous process from which consideration can be given to survival and extinction factors in the traditional marketplace context. The discussion is premised on the following syllogism:

- All social change can be explained through reference to the generic evolutionary process of variation, selection, and retention.
- Understanding the interaction and replication of any social entity vis-à-vis its environment will aid our appreciation of possible constraints and obstacles to adaptation within a specific environment, and therefore
- It is possible to gain insights into the nature and process of social change (as it relates to the marketplace) through considering the process of social change as it occurs in a classroom setting.

The practice of reflecting from one social change process to another requires the temporary suspension of thought related to the context/s of social change. This

enables a greater focus to be given to the (universal) elements of interaction and the processes of replication that must exist regardless of social context for adaptation to occur. Therefore, despite acknowledging the value of understanding the interaction between context and process to explain outcomes, this paper seeks to reflect upon what can be observed about the process of social change in one domain and reflected upon in relation to another domain.

### **Observation One**

The workshop environment is typically very vibrant. There is much excitement and courage demonstrated as the students push the boundaries to find an edge to their performance. There is much appreciation of the efforts of other groups, and there is a sense that they are all travelling along an uncharted road together. Perhaps an accurate description of the behaviours typically exhibited is one of competitive bragging. There's preparedness to fail in order to succeed is their badge of honor and a source a currency within the workshops. The ideas and behaviours of each group are proudly put forward for consumption by fellow groups. Ideas and techniques are revealed and their perceived advantages spill across groups and result in mutations as the semester unfolds. Essentially they are energised by the presence of their fellow groups.

When the subject of who will become the group of the year is raised and focus brought to bear on this issue, a significant change occurred. Instead of a sense of competitively bragging, the groups engaged in a process of competitive jockeying. Admiration was replaced with suspicion. Openness gave way to secrecy, and fair peer assessment became an instant casualty.

### **Reflection One**

Clearly, it is possible that the players can impact the rules and nature of the game. In the above observation the nature of the selection pressure operating on the interacting elements of each group was ramped up by increased competition. Yet, Nalebuff and Brandenburger (1996) predict that the best we can expect to gain from such a situation would be equal to our added value. Unfortunately, it would seem that each group has removed their added value from the game and is now intent on gaining a distinct advantage vis-à-vis the other groups.

Rather than allowing their replicating codes to be freely modified within and across an environment they were collectively shaping, the groups have unwittingly introduced a form of downward causation. A force typically considered by most to be a more powerful (Galunic & Weeks, 2002) than the pre-existing upward causation that accompanied the previous freedom they operated within. Essentially they have altered the environment so that it is not their habits of thought and their behavioural expression that positively influence the group performance, to one where the environments more harshly selects against their performances. Preceding the announcement of the group of the year, the nature of demand was of the primary sort. As the pioneers of their new forms of group performance, they actively sought to support experimentation and variety within the workshop environment. Post announcement, the nature of demand shifted to selective demand. Those groups with similar styles competed against each other and those with differing styles increasingly rejected the virtues of each other. In summary, the centrifugal nature of the competitive bragging (onward and upward) was replaced with a centripetal nature of the competitive jockeying (backwards and downwards).

How might this classroom example relate to the real world? In fact, it mirrors the developing years of the Hobart pizza industry. In the early 1970s, a group of

passionate Italians became the pioneers of the now highly competitive and mature pizza industry. In the beginning, the pioneers, many who played competitive soccer with or against each would often meet socially. They exchanged stories of their newfound wealth and shared trade secrets through their inability to not *brag* about their success. As a consequence, practices related to how best to operate a pizzeria were transmitted across the early pioneers. Even with the entry of the first national franchise chain, the early pioneers prospered. By and large, all parties successfully operated in an environment that was characterised by the presence of primary demand for pizza. The actions of the majority related to the overall promotion of pizza as an alternative form of food to other substitutes.

However, the beginning of home delivery created the conditions in the marketplace under which many pioneers became increasingly competitive towards each other. A process of competitive jockeying developed as they sought to achieve greater market share through ever expanding boundaries. Demand became more selective with positioning based more so on comparison against other pizzerias rather than against other substitutes. During this period of the industry's development, the inheritance of acquired characters was problematic. It occurred through distanced observations and through guess work rather than through the intimate sharing of trade secrets. Put simply, it was every man for themselves. Those that survived did so by staying true to their initial habits of thought, avoiding the temptation to change their organizational form and to follow perceived trends.

### **Observation Two**

With regards to planning their presentations, it is clear most groups were unable to truly appreciate how they should respond to feedback received from the other groups. They clearly could not accurately assess the perceptions of their group by the other groups. They were also unable to appreciate the degree of cohesion in their group. As a consequence, it would seem that the groups frequently misperceived their opportunities to impress their audience and to also over-estimate their actual ability to execute their performances.

When surveyed, the groups declared the importance they placed on the feedback received from the other groups. They also revealed a desire to use the feedback to better their future performances. However, when surveyed as individuals there was clearly disagreement expressed as to the value placed on feedback received. There was also much disagreement concerning the value of each person's role within his or her respective groups. Clearly, it would seem that the organization of the groups and their intellectual involvement with the feedback received from their interaction space was not overly assisting their performance.

### **Reflection Two**

What lessons may be gleaned from the students with regard the broader process of social change? Firstly it would seem that the actual performance of the groups would appear to be based more on misperception than on a true processing of information related to the fitness landscape. In assessing the groups' feedback, the students tended to focus more on what negative elements to eliminate than which positive elements to reinforce. Langlois (1997) suggests that we could reconcile such outcomes within a simple two by two matrix that contains market and operational opportunities compared against type 1 and type 2 errors (see Table 1 over page).

This simple matrix allows us to consider how value creation may be by-passed in order to remove the obvious elements that seemingly distract from our performance. However, what Table 1 highlights is the need to pay simultaneous attention to both

negative and positive factors. De Bono (1992) introduces the notion of a baseline of competence (BoC) against which current and future performance should be judged against. Performing on or below the baseline would be the result of either (or a combination of) type 1 or type 2 errors. During times of continual social change, to perform above this imaginary baseline, an equal focus of the factors that will improve performance must also occur. Table 2 illustrates the nature of such success factors by merely reversing Table 1.

**TABLE 1 – TYPES OF MISPERCEPTIONS**

	<b>Type 1 errors</b>	<b>Type 2 errors</b>
<b>Operational opportunities</b>	changing operational routines in ways that do not enhance or effectively utilize (core) competences	Failing to notice opportunities to improve or utilize operational competences
<b>Market opportunities</b>	Applying operational competences in ways that do not create value	Failing to notice opportunities to apply existing operational competences to create value

Source: Langlois (1997)

**TABLE 2 – OPTIMAL TYPES OF PERCEPTION**

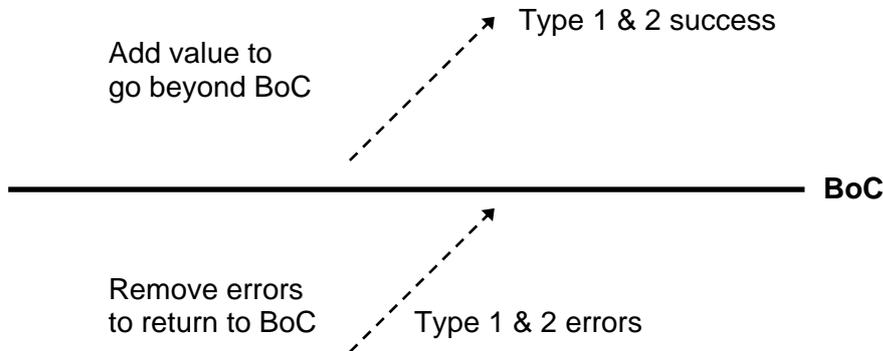
	<b>Type 1 success</b>	<b>Type 2 success</b>
<b>Operational opportunities</b>	changing operational routines in ways that enhance or effectively utilize (core) competences	Capitalizing on opportunities to improve or utilize operational competences
<b>Market opportunities</b>	Applying operational competences in ways that create value	Capitalizing on opportunities to apply existing operational competences to create value

Now the focus is not solely on the elimination of misperception, but also on areas of direct improvement. The aim of the process is now to ensure that any new variations to the norm (be they innovations or acquired characters) improve performance below *and above* the BoC. Figure 2 (over the page) illustrates the direction of desirable change in overall performance.

What happens on the front stage is determined by the back stage, and ultimately selection will work differentially upon the individual replication codes. What becomes obvious from this discussion is that applying resources to merely eliminate type 1 and type 2 errors may restore performance to the baseline, but it adds little value. Therefore, such change cannot guarantee survival, only mediocrity which depending upon the harshness of the prevailing selection pressure, may still result in (comparative) failure. This is likely to occur within a turbulent environment due to the effect of the Red Queen principle (Van Valen, 1973). The Red Queen principle

suggests when surrounded by other rapidly evolving entities, merely maintaining (or slightly improving upon) the status quo may be detrimental to fitness.

## FIGURE 2 – THE BASELINE OF COMPETENCE (BoC)



### Observation Three

The last observation of the groups' workings relates to their ability and motivation to work to complete their tasks in an ever-changing environment. Clearly the workshop environment was unpredictable. Unlike life itself that tends to be not fair, yet forgiving, the workshop environment mirrors that of the business world, fair, but unforgiving. Those groups that could lay claim to having progressed above the BoC were those that worked together, enjoyed each other's company, and respected each other's individual differences. Those groups that tended to be dysfunctional seemed only capable of eliminating errors, with no guarantee they weren't introducing new errors. They appeared highly reactive, reflecting less about how to communicate, with more focus on correction than value creation.

Whereas the better-performed groups tended to be well rehearsed, the dysfunctional groups often left their final meeting until just prior to the workshop. There was less creativity and energy associated with their performance, their spontaneity drowned out by their lack of appreciation of each other's individual roles. It would seem that these students tended not to appreciate the inseparable link between what was planned, designed, and rehearsed and what was eventually offered for consumption to their fellow students.

### Reflection Three

Returning to Veblen (1925, p.193), he felt that "if any portion ...of society is sheltered from the action of the environment in any essential respect, that portion of the community ...will adapt its views and its scheme of life more tardily to the altered general situation; ...tend[ing] to retard the process of social transformation". Adapting Goffman's (1959) dramaturgy approach, we can establish interaction boundaries using his frontstage, backstage metaphor. The frontstage represents the space where the group's performance interacts with the other groups, whereas the backstage represents the space where this performance is rehearsed, planned, designed and implemented. The use of the metaphor encourages exploration of the suggested relationship between the interacting elements and the environment. The challenge remains to separate front stage from back stage, and to define what is visibly offered for consumption by a group (or firm). Just as important is to establish which backstage processes (despite their invisibility) determined the nature of the frontstage performance.

Under the circumstances outlined in observation three, a selection illusion is likely to occur. A default assumption may typically arise that the selection process is unfair or too harsh. This line of thought is consistent with the view that markets select (against) and remove firms that have insufficient profits (Murmann, 2003). While true, this is an after the event description of what has been selected. Given that markets are 'in fact quite tolerant of underperformance' (Whittington, 1993, p. 24), going beyond a default to profits is necessary.

It is more likely that other specific elements of the group's (or firm's) performance (rejected on the front stage) have caused poor performance. Therefore, a focus on interacting entities must move beyond activity systems, but not extend immediately to an entire group (or firm). What must be considered is the actual nature of what is offered for consumption. It has been proposed (Jones, 2005) that what constitutes the firm's offerings could be considered, a combination of activities that are delivered by humans and technologies, actual products and services, and the identity of the firm. These three elements, while not representing an exhaustive search for all possible offerings provide elements of focus. Through them, we can see how change is enacted within the firm through modification to existing goals, boundaries and activities, and we have material elements whose consumption (i.e. marketplace acceptance) can be measured. Lets now consider the three issues together with regard to survival and extinction factors in the domain of the traditional marketplace.

## **DISCUSSION**

Throughout this paper it has been suggested that the nature and degree of selection pressure upon firms may be significantly influenced by their own individual behaviours. That difficulties are also likely to be experienced when attempted adjustment to an unstable environment adds insufficient value creating activities. Finally, that firms must appreciate the fact that ultimately they are being judged as much with regards their backstage performance as they are their frontstage performance. Leaving aside literature related to imprinting (e.g. Tucker, Singh & Meinhard, 1990) the evolutionary process unfolding for the firm's of today is not ontogenetic, or a process based on a fixed set instructions (e.g. human evolution). It is phylogenetic evolution, allowing for the 'complete and ongoing evolution of a population' (Hodgson, 1993, p.40). We accept that generative mechanisms determine structural change, and that these mechanisms may also be altered through a blind (and differential) process of selection.

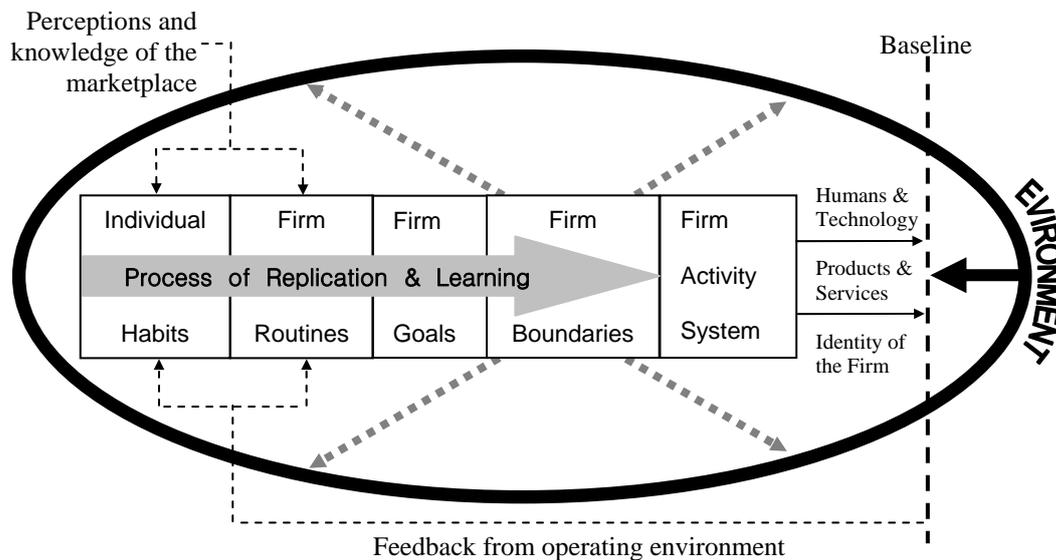
While these claims do not represent new or startling revelations, they bring a specific focus on the elements within the control of firms that can be manipulated to avoid adverse selection. Firms clearly have a number of choices to make, choices that may prove beneficial or detrimental as the case may be. The discussion within *reflection one* did not intend to suggest that firms should find ways to continually cooperate with fellow competitors within the contested resource space. This would be too difficult a task to achieve in normal markets (and perhaps illegal). That section of the discussion however highlighted the change from promoting ones virtues to defending them. In the case of the Hobart pizza industry, those firms that have survived are those that chose to promote quality within a specific niche, rather than defend a territory.

The literature related to resource partitioning (e.g. Aldrich, 1999) covers this occurrence well. Firms occupying a niche as either a generalist or specialist are common in most industries. Clearly the challenge is to determine on what basis to compete and to develop and present a value proposition that eclipses the prevailing selection pressures. That is, during times of changing demand, survival may well

depend more on the ability to actively promote (rather than defend) a set of qualities. It would seem that an obstacle to the achievement of such an objective would be the ability of the firm's employees and management to interpret to nature of change within their marketplace.

As has been demonstrated in the simple classroom example, misperceptions about change in social systems are likely to be a frequent event. This despite the fact that at any given time there are tangible indicators of fitness available to any firm, such as market share, reputation, employee and customer opinions. Nevertheless, misperceptions are to be expected. Just as a dominant design cannot be know until it has emerged (Tushman & Murmann, 1998), the firms of today can never be expected to be accord with the requirements of today given they are still attempting to adapt to yesterdays requirements (Veblen, 1925). Knudsen's (2002) conception of a baseline (incorporated into Figure 3 below) provides a mechanism through which existing perceptions could be balanced against market feedback before judgements are made regarding the fitness of the firm's interacting elements.

**FIGURE 3 – REPLICATING AND INTERACTING ENTITIES**



The critical decision that the firm must be capable of making is not necessarily on what basis to compete, but where to compete. The seminal question, “what am I selling to whom?” must be carefully considered (Lodish, Morgan & Kallianpur, 2001, p.1). To correctly address this question, the firm must have the ability to understand which resource space it should attempt to occupy. From a strategic perspective, it should be then possible to reconcile current feedback with the firm's knowledge base to design the optimal mix of interacting elements. However, this assumes that the firm's activity systems (i.e. bundles of routines that facilitate the firm's backstage and frontstage activities) are capable of executing the firm's strategic plans. As has been discussed in *observation three*, what happens on the backstage will ultimately influence the degree of selection pressure received to the frontstage.

Just as the groups that interact with the entrepreneurship program (illustrated in Figure 1) rely upon the habits of thoughts of individuals, so do the work groups within firms. This would suggest at least three specific issues for firms attempting to adjust their inner relations to their outer relations. First they must ensure that all individuals

are *aware* of the purpose and nature of the change. Second they must ensure that sufficient *reflection* accompanies any effort to eliminate type 1 & 2 errors whilst also attempting to maximise type 1 & 2 success factors. Lastly, firms must ensure their employees have the energy to alter their habits of thought and an incentive to do so.

## **CONCLUSION**

Many assumptions must be held to allow for any expectation that firm's can traverse the every changing fitness landscape that modern day firms occupy. The process of social change however does not discriminate on any other basis than relative fitness vis-à-vis the environment at a given point in time. To what degree do the observed behaviours of an undergraduate class help us to understand the real-life process of social change? In the same way that Dawkins (1983) proclaims the ubiquitous and over-arching nature of Darwinism's variation-selection-retention process, this paper argues that a common process relates to all social change.

The main differences being the context and the actors involved in the process of social change. As social structures, firms of all types will however limited in their endeavours to adapt to a changing environment by an ability to synchronise frontstage and backstage performance. Observing this process unfolding in real-time is challenging if not impossible in many instances. Finding an analogous contextual setting through which the underlying process can be studied is not so difficult. The beauty of a classroom setting is that many of the selection forces can be artificially created and (to a degree) directed.

The key factors that prevails across both contexts is the importance of awareness and reflection. The actors responsible for organizing behaviours on the backstage and ultimately for altering the interacting elements on the front stage must perform a difficult balancing act. What should remain unchanged, what should change, and what will be unavoidably altered as a consequence of the inseparability of the parts of the whole? Even allowing for Veblen's (1925) concern that the firm's of today can never be accord with the needs of tomorrow, achieving fitness today is incredibly challenging. While misperceptions are to be expected, a trial-and-error approach affords firms a buffer against extreme maladjustment. This is especially so when the nature of change within the operating environment is unpredictable (McKelvey, 1994).

In their highly seminal paper, Hinton and Nowlan (1987) argue for the importance of a continual feedback mechanism that merely informs you that your searching (i.e. attempted learning) activities are bringing you closer to increased fitness. Within Figure 1, the suggested relation between the interactors and replicating codes is based on the inheritance of acquired characters, be they beneficial, or harmful. The challenge, as stated by Jones (2005) is to stay within a corridor of fitness. The 'corridor of fitness' concept refers to the degrees of freedom afforded the firm's activities, products and services and identity by the selective environment. If the relevant actors appreciate that they can never be fully in accord with an unpredictable environment, then complacency can be avoided through the development of a culture of continual reflection. Thus, through increased awareness and reflection, a buffer zone is possible through which firms can attempt to get closer and closer to a higher level of fitness.

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