

The creative instability hypothesis

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Abstract. This paper provides an analysis of why many ‘stars’ tend to fade away rather than enjoying ongoing branding advantages from their reputations. We propose a theory of market overshooting in creative industries that is based on Schumpeterian competition between producers to maintain the interest of boundedly rational fans. As creative producers compete by offering further artistic novelty this escalation of product complexity eventually leads to overshooting. We propose this as a theory of endogenous cycles in the creative industries.

Keywords: Economics of creativity, creative industries, Schumpeterian competition, overshooting

JEL Classification Codes: D11, D21, Z11

1 Introduction

In Schumpeterian competition, business failures are often traced back to the consequences of falling behind in the innovation race. But sometimes businesses fail for the opposite reason, namely, due to overshooting the market. They might, for example, overcomplicate their products with technically interesting features that are too far ahead of those with which consumers are willing or able to engage. This failure of being ‘too excellent’ has, at least in the business school canon, the status of a quixotic cautionary-tale, making it seem exceptional. But in the creative industries such overshooting is, we believe, not uncommon. Our motivating case is the ‘prog-rock’ excess of the 1970s (adroitly satirised in the 1984 movie ‘This is Spinal Tap’), but examples abound wherever fans, managers or even capital markets reward initial artistic success with creative indulgence, and where creative producers compete with other creative producers for the limited attention of fans. Sometimes this produces breakthroughs of high genius (Galenson 2006), but in this paper we set out reasons for expecting it frequently to end badly.

The dynamic we describe has similar structural features to what Post-Keynesian monetary theorist Hyman Minsky (1986) proposed as the ‘financial instability hypothesis’, where competition between banks to grant credit in rising markets leads to overshooting of leverage and thus to eventual collapse. Our model is also related to what Harvard Business School theorist Clayton Christenson (1997) called ‘the innovator’s dilemma’, where firms that compete by making their products more and more sophisticated within an existing technological genre end up creating opportunities for new entrants that offer simpler products with new but less refined technologies.

The creative instability hypothesis describes a mechanism by which creative producers end up destroying demand for their works by the very process of trying to stop their sales from decaying as the attention of their fans is attracted elsewhere by new products from rival creative producers. Put simply, our thesis is that creative producers have to change their products to maintain interest and attention, but competitive pressures make them prone to overshooting with the changes they make, with the result that they may alienate their customers and open the door to rival suppliers.

The rest of the paper is structured as follows. Section 2 examines the cognitive drivers of demand for creative products, showing why producers who fail to change what they offer will sooner or later suffer from shrinking sales. Section 3 moves the focus to the supply side and explores the nature of the creativity optimization problem from the standpoints of both the ‘suits’ that finance and manage creative workers and the ‘creatives’ themselves. Section 4 discusses why, in practice, dealing with this problem involves experimentation and how the competitive process between creative teams and firms drives creative experiments into more extreme domains than would be expected from the previous section’s analysis. Section 5 then sets out a three-phase analysis of cycles of creative instability that arise from the tension between the contrasting perspectives of sections 3 and 4. Section 6 offer concluding comments and flags several other domains where we expect this overshooting mechanism to operate.

2 Bounded rationality and the demand for creative products

The outputs of creative industries consist essentially of flows of information. If these flows of information could be fully apprehended and assessed in a single

sitting, consumers would have no reason to revisit any creative products through time. Indeed, if they could fully absorb these products whilst browsing them at retail outlets or by encountering them in social settings, Arrow's (1962) Information Paradox would apply: there would be no need to purchase the products at all. The demand for creative products is thus underpinned by the finite capacities of consumers to memorize and make sense of the information flows that these products entail, in other words, by what Simon (1957) called 'bounded rationality'.

As Hayek (1952) and Kelly (1955) recognized, the process of decoding incoming flows of sensory information involves trying to find patterns in it that enable phenomena to be ordered and classified. People do this by checking the fit of the information stream against previously stored templates. If no existing template fits acceptably, then they create new templates by combining elements of existing ones to see if an adequate fit can be found. The finite processing power of the human brain is mitigated by the way it has evolved to avoid wasting scarce attentive capacity. Our senses work by processing changes in incoming information and turn off if exposed to the same information for any significant period. If incoming sensory inputs cease to pose a challenge, human attention moves in search of a flow of sensory inputs that is worth trying to decode and, failing that, switches into a daydreaming mode, generating internally possibilities on which to reflect.

Evolutionary fitness is enhanced by the possession of a mind that avoids squandering attention on either (a) stimuli that have been rapidly categorized as involving nothing significantly new or immediately challenging, or (b) stimuli so lacking in any initial semblance of order as to imply that decoding will be a long

drawn out process that gets in the way of decoding many other potential claims on attention. As Scitovsky (1981) emphasizes, consumers are most comfortable amidst sensory inflows that are mid-scale as regards novelty, neither boringly familiar, nor so novel as to be overwhelming. If consumers fail to find themselves in the midst of sufficiently novel stimuli, they will go in search of excitement. Indeed, there is a tendency even to keep ensuring they do not become bored with themselves: Scitovsky casts pleasure-seeking behaviour as experimenting outside one's comfort zone with temporarily higher degrees of novelty than one usually handles, to see if one can cope with living dangerously.

This view of cognition clashes with equilibrium-based views of consumer behaviour, though it does provide a basis for a dynamic view of decreasing marginal returns to the repeated consumption of creative goods. Repeated listening to a particular piece of music, for example, is likely to exhaust the consumer's capacity to see more complex patterns in it. Any further insights come at increasing cost of time foregone from getting to grips with other pieces of music, or other products, creative or otherwise. Though the consumer may then cease to listen to this piece of music after 'playing it to death' following its purchase, it may be enjoyed periodically in future due to a perceived need to restore decaying memories of it, or to re-evaluate it in the light of patterns newly formed via the consumption of other pieces of music or to test socially sourced conjectures. Likewise, the consumer may buy other products by the same creative team and subject them to the order-discovering process. However, for the consumer to continue to demand products by the same creative team there will need to be both an expectation of surprise (cf. Sedgwick, 2007) and an expectation that it will not be unduly challenging to find some kind of order

within it. If the consumer does not have a basis for forming such expectations (for example, if reviews report that nothing new is being attempted, or if induction based on the trajectory taken by the sample of products so far consumed is not promising), then it will not seem worthwhile to purchase new products by the creative team.

The logic underlying the consumption of creative products thus implies that if creative producers stand still they will lose their existing audiences even if the set of competing products that consumer are yet to explore does not change. Increasing knowledge of what a particular creative producer offers is bad for business unless enough of a reputation is garnered for being able to offer 'surprise and delight' with each new release. Failure to change would mean that the only hope of a continuing income would come from reaching new customers, either those switching away from other suppliers with whom they have become bored, or new generations (as with the steady back-catalogue sales of long-deceased artists such as Jimi Hendrix).

At first sight, one might expect that creative producers could rely upon a general churning of bored customers from rivals to replace those that they lose to rivals due to their failures to keep offering enough surprise in their successive products. For example, from the standpoint of Lancaster's (1966) analysis, we might expect that consumers who like the technical virtuosity of neoclassical shred-metal guitar music might turn to other forms of rock if this genre ceases to offer novelty; in doing so, they will trade virtuosity for increased novelty in other dimensions. However, if the consumer is a pattern-seeking agent with finite cognitive processing capabilities, as per the combined perspectives of Hayek, Kelly and Simon, then such a willingness to make trade-offs should not be taken

for granted. Rather, the consumer is likely to end up using rules and templates for making choices of a satisficing kind, dividing products into 'acceptable' and 'unacceptable' piles on the basis of whether they offer 'too much of X', 'not enough Y' and so on. Though rules for choice might include trade-off procedures, studies show that in the face of a mass of products and/or products with many characteristics, consumers tend to switch towards non-compensatory decision rules (the classic studies are those reported in Payne, Bettman and Johnson, 1993; more recent contributions include Norman *et al.*, 2004, and Lenton and Stewart, 2008). What is also known is that if consumers switch from a setting in which their choices are limited into one in which they face a huge range of options, they are prone to get overwhelmed and avoid choosing anything at all (Iyengar and Lepper, 2000). If nothing is acceptable on all counts but a choice is actually made, a priority ranking over characteristics may be used rather than a compensatory trade-off method (Earl, 1986).

These kinds of behaviour should be expected in the context of creative products: for example, music, video and book stores typically have thousands of products in stock, while a large city will often have upwards of 40 movies screening in a single week. Non-compensatory decision rules used for making manageable the task of choosing may label particular genres as 'no-go' areas—for example, a shortage of prospectively interesting neoclassical shred-metal will not typically lead a lover of this genre even to consider purchasing CDs of rap, techno, country and western, and so on. Furthermore, in areas that are not ruled out, the range of choice and lack of any basis for starting to get to know the territory may be sufficient to paralyze the consumer. The frustrated neoclassical

shred-metal enthusiast might thus cease buying music for now and look to other kinds of creative products, such as video games, as a form of new excitement.

Difficulties await creative producers who seek to keep their markets alive by offering something new, but before we consider them it is worth considering consumption of creative products by those who seem to be eschewing novelty. Examples include elderly consumers who keep buying albums by, say, Foster and Allen, all of which offer much the same kind of sentimental music and overtly focus on reminiscing, or baby-boomers who would no longer dream of buying an album by Status Quo due to the band maintaining a 12-bar rock status quo in its products but who would nonetheless take the trouble to attend a live performance by them. Such behaviour seems essentially ritualistic, aimed at affirming group membership and standing (Earl, 2001). It is concerned with the maintenance of identity in a world that is changing, with younger generations in the ascendant. Though the mind is programmed to focus on novelty, it may prove difficult to deal with novelty regarding one's place in the world and ability to deal with a world that is changing rapidly. As Adam Smith ([1795] 1980) recognized in his study of the history of astronomy, new ways of thinking get tried only when existing ones become too unwieldy as means of making sense of incoming evidence. Hence if one's identity, or the identity of the group with whom one identifies (such as 'the generation in command') is under threat, it may prove cognitively easier to cope by looking for evidence that all is well rather than trying a new set of rules for making sense of the world.

3 Optimization of creativity through time

When creative agents seek to retain existing customers or to win new ones by doing something different, they have three basic options:

1. Pursue novelty within their existing genre, differentiating their products by moving towards either pole of any of the axes in terms of which they and/or their potential customers view the genre (Favaro and Frateschi, 2007). For example, compositions can be made more 'free-form' rather than 'carefully arranged', 'longer' rather than 'shorter', 'dissonant' rather than 'rich in harmony', and vice versa, and so on.
2. Try to come up with products in an existing but different genre.
3. Innovate by synthesising existing genres to create a new one (Earl, 2003; Magee, 2005; Herrmann-Pillath, 2010).

Each option can be challenging, particularly where creativity takes place in a group setting and involves negotiation regarding different visions and when members differ in their capabilities in particular areas. For example, it may be a major struggle to develop a coherent long composition from initial ideas but it may also be challenging to move towards much shorter, stripped down kinds of compositions since this will require a bigger capacity to generate 'catchy' ideas as opposed to the capacity to modulate a smaller set of ideas. For those used to being able to expound at length in a novel or symphony, crafting a short story or a jingle that works effectively may be a very real challenge, and vice versa.

Creative synthesis requires skill in multiple genres, or the ability to select and integrate new personnel who have the required additional skills. Thus although

the challenges of diversification beyond core competencies are well recognized in analysis of business strategy, they also need to be recognized by any theory that sees creativity as a process involving the coordination and development of capabilities rather than something that just happens as a result of being 'gifted' in some creative sense.

To succeed in generating sales, products that push the creative envelope must either tap into latent consumer preferences and previously unmet consumption capabilities, or be released in such a way as to ensure that consumers will be prepared to take the risks necessary to develop a taste for them. As Throsby (1994: 3) points out, 'the endogenization of taste in economic models is likely to be essential if any progress is to be made in explaining the demand for art', a point that is especially resonant in discussion of competitive offerings that develop from within an artistic niche or genre. The standard way of addressing this is via the Stigler and Becker (1977) and Becker and Murphy (1988) strategy of supposing temporally interdependent preferences (Brita and Burros, 2005). This approach allows for path-dependency in 'creative consumption capital', and prima facie allows that consumers can follow any consumption path laid out by producers. However, this theoretical conjecture is flatly rejected by sociological analysis of lifetime preference formation and preference plasticity, which finds strong anchoring effects and constraints on the extent to which preferences and tastes depart from initial settings that were laid down through early experience or environment, or subsequent discovery (Holbrook, 1995; Schindler and Holbrook, 2003; North and Oishi, 2006). Endogenous preference change clearly is involved in sequential consumption that will tend under competition to depart from its starting point, and this can be

in part explained by the accumulation of 'creative consumption capital' (Becker and Murphy, 1988). However, there are limits to how far this process can go. Preferences certainly are not infinitely plastic (Zizzo, 2003): in many cases, endogenous transformations will eventually reach a point where consumers prefer not to go any further and may begin to become positively nostalgic for earlier, simpler styles of the artistic genre. The problem for creative producers is in knowing where that point lies.

Decisions about the marketability of a particular creative concept sometimes concern a potential one-off venture. However, despite the fact that a 'one hit wonder' may sometimes be able to retire comfortably on the proceeds of the hit, the creative sector is one in which the strategic management of entire creative portfolios is normally a central concern. Creative artists or teams (hereafter, 'creatives') normally need to display the potential to deliver a string of profitable works in order to succeed in winning financial and managerial backing. This is because promotion costs loom large in the calculations made by the 'suits', a fact that explains the willingness of creative organizations to invest enormous sums in limited numbers of superstars (Rosen, 1981; Adler, 1985). Enduring connections with particular creatives enable suits remove the need repeatedly to incur the set-up costs of establishing new brands.

Where portfolio management is the order of the day, decisions about how creative a project should be cannot be resolved in a reductionist manner by focussing on the prospective costs of bringing it to fruition and the revenue stream it is likely to generate from its sales. Rather, such decisions need also to take account of the potential impact of the proposed project on future sales of the creatives' previous works and on its potential impact on the marketability of

the creatives' subsequent works. In other words, the process of optimizing net earnings from a particular creative team or individuals is all about generating and maintaining goodwill relationships with customers who, if all goes well, may purchase a succession of outputs from the particular brand's growing portfolio over a long period. When each new project is being considered, the key issue is what it will do to the creative brand's fan-base, with a fan, in microeconomic terms, being seen as a rent-generating consumer whose quasi-inelastic demand arises due to accumulated artist- or genre-specific 'consumption capital' (Becker and Murphy, 1988).

This non-reductionist view of demand presents strategic challenges to both suits and creatives. Ideally, each new offering by the brand will increase the fan-base. However, because the passage of time changes the cohorts from which fans can be recruited, it may in some circumstances be worthwhile to authorize creative projects that run the risk of alienating existing fans, in order to recruit new fans who offer much more promising potential as sources of revenue. A new creative product that wins new fans may win substantial 'back-catalogue' sales from them, as well as making them potential customers for subsequent releases by the brand. This may more than offset sales lost by alienating older fans whose probability of purchasing future works is declining due to boredom, changing interests, time availability, and so on.

From the standpoint of the suits, the type of creativity that it is optimal to authorize depends upon the contractual relationship they have with the creatives. If they have recently signed the creatives to their organization, they will have little interest in what the new product will do to back-catalogue sales; what matters is whether there is any need to reposition the brand with a view to

maximizing sales from the set of new works the creatives may deliver over the duration of the contract. If they have paid a significant advance to get the creatives to sign the contract, they will be more concerned with immediate paybacks than they would be if they were dealing with creatives who were coming towards the end of their contract and had long since generated a healthy net return. The risk that creatives will defect to another organization at the end of their current contract will make it more likely they will be given more artistic freedom once they are coming towards the end of their existing contract.

Although such freedom may pose risks to the current suits in terms of future sales, it shows their commitment to the creatives and may therefore reduce the risk of having to pay an enormous advance at contract renewal in order to keep the creatives from signing with a rival organization that has no investment in the existing back-catalogue. Hence, the more recently that creatives have signed contracts committing themselves to a particular organization, the more they will be under pressure to deliver product that the suits regard as having 'commercial' potential.

When the suits give the go-ahead to a particular creative project they are not merely committing to risks in terms of their revenue streams that depend on the project's creative success; they also run risks on the cost side due to the project taking more time and other resources to bring to fruition. Time that the creatives spend on making the project work is time foregone from further creative projects or from promoting works from their portfolio. Grandiose projects that run the risk of taking years to complete could have bad consequences for cash flow, not merely due to upfront payments but also because the absence of the creatives from the public eye in the meantime

reduces interest in them and in their past outputs. Here, then, is further reason for suits to be cautious about authorizing projects that look abnormal in their creative vision.

Creatives will likewise be concerned with the impact that their current project could have on their overall sales, though their interests in this respect may not align well with those of the suits who currently manage them and provide them with resources. This is not merely an issue associated with having earnings streams that come from both past and current organizations with whom they have contractual arrangements; they may also be prepared to compromise their lifetime earnings to some degree because they derive satisfaction from the process of working on creative projects and from the latter's aesthetic outcomes. In other words, they may get utility from being creative as well as from spending their income. Only if the competitive environment is very tight will they have to focus on doing what is in the interests of the suits (cf. Williamson, 1964). In a somewhat slack competitive environment, the creatives may do what fits their creative interests despite expecting that the price of this is some sacrifice of income. The suits may be well aware that their creatives are making such a tradeoff and yet rationally tolerate it so long as prospective net earnings seem acceptable: they may judge that attempts to impose more control could produce even worse outcomes, ranging from reluctance to renew the contract or attempts at premature exit, through to upsetting the ability of the creatives actually to be creative.

In working out how far the creative envelope should be pushed, both suits and creatives will, if acting rationally, take account of the need to ensure that the product that is offered aligns with the consumption capabilities of potential

customers. In the light of the discussion of bounded rationality in section 2, it is to be expected that a product will be rejected if consumers cannot 'get into' it because it requires too much skill in discerning patterns in, and construct meaning from, the flow of information associated with it. If products are highly complex, many potential customers may fail to give attention to them after initially failing (or hearing reports from others who failed) to discern plot, theme, melody, and so on. The human tendency to make evaluations relative to prior reference points and to suffer from loss aversion (Kahneman, 2011) will limit the willingness of consumers, as well as suits and creatives, to take risks with products that seem to be straying too far from familiar territory. However, if consumers can develop their skills in appreciating creative products by successively trying more challenging works, a complex work is not inherently impossible to sell. Rather, the crucial thing is whether the market is yet ready for it: for example, Stravinsky's *The Rite of Spring* caused a riot in its horrified audience at its world premiere, but within a couple of decades parts of it were included in Walt Disney's animated feature *Fantasia*.

The consumption capabilities issue will impose a bias towards conservatism and simplification within rational choices about how far to go in exercising creativity. Where creatives with a reputation for offering complex products have been signed to a new team of suits, it is likely to be evident that sales will be impossible to expand unless the product is made more accessible—in modern parlance, 'dumbed down' (see Holbrook, 2001)—to those who have not yet developed the consumption capabilities necessary to appreciate the creatives' earlier works. If new fans are acquired by offering something that is far more readily appreciated than the creatives' back-catalogue material, they

will then become more likely to take the risk of trying works from the back-catalogue. If creatives are not prepared to dumb-down their products to widen their audiences and instead want to push their creativity further, they may have little alternative but to reorient their output towards a different audience that has more advanced skills in consuming creative products, an audience that is inherently likely to be smaller than their existing fan-base.

The issues raised in this section reveal the complexity of choices about how far to push creativity. But this does not mean that they are necessarily impossible for creatives and suits to handle. The autobiography of veteran drummer Bill Bruford (2009) provides a superb case study of how a creative artist can generate a comfortable income over many decades by developing an understanding of these kinds of trade-offs. His desire to keep challenging himself in creative terms meant he had to try to cultivate audiences that were increasingly far from the mainstream. In the process, he sacrificed some of his earlier fan-base, hoping that some of his new audience might also try his earlier work. Smaller revenues from the sale of his later jazz recordings and fading opportunities for live performances did not cause a plunge in his income, for he cultivated his back-catalogue sales by other means (such as working from time to time with former 'prog-rock' colleagues) and, by internalizing things that might have been handled by others, he captured more of the revenue he generated (for example, by forming his own record company, arranging his own tours and being prepared to back his judgments with his own money as he operated as a band leader and hired the cream of new jazz talent to work with him). He thereby avoided having to keep replicating previous performances and

limiting his drumming to what would cut through on FM radio and in concerts in large stadium venues.

4 Barriers to rational choices about creativity

It would be unwise to generalize from Bruford's autobiography and say that his case provides a basis for viewing these kinds of choice 'as if' they generally approximate to optimal choices and there are no inherent tendencies towards creative overshooting. Bruford is not a stereotypical creative artist with tendencies towards excess, delusion and disorganization. Rather, he is an intelligent, shrewd observer of the music industry, with traditional middle-class values; he sought to juggle strong family commitments with maintaining creativity and did not set out to become a superstar. A clear lesson from his account is that creatives and suits have to learn how to be competent decision makers in the context in which they work, and that the pace of the industry and creative work do not make such learning easy. Indeed, in Bruford's case it was the painful experience of overly long periods creating epic 'prog-rock' works that led him towards more spontaneous, improvised kinds of music, while the technical and logistical nightmares of being a prominent pioneer of electronic drums made him return to the subtlety allowed by a simple acoustic kit.

For the creative industry's suits to avoid errors in agreeing to bankroll creative projects, they either need to have developed reliable rules of thumb (as predicted by Kay, 1979, in the wider context of corporate research and development) or, and this amounts to much the same thing, they need to employ knowledge of what Kahneman (2011) calls the 'base-rate' statistics regarding the probabilities that they face, such as the probability of a work being completed

within a particular period given the general nature of what its proponents are promising to do or how far they have got with it in a particular time. Experienced suits in the creative industry will have worked with many creatives on many projects and should, in principle, be able to apply their knowledge, including knowledge of particular creative teams' track records, to make good base-rate assessments of which projects it is rational to back. They should thus be in a position to know when to encourage creative risk-taking and when to rein it in, even if the creatives in their charge do not have such a wide range of experience or, through success, become increasingly detached from their audiences and less able to judge what next will find success in the marketplace.

The importance of taking a look at base-rate information as a source of salutary reminders is acute in this sector because of the inherent barriers to trying out creative projects at market research 'clinics' until they have actually been developed and refined from a 'concept' or 'demo' to an advanced state. This problem underlies the huge uncertainties that De Vany (2004) characterizes as driving the Hollywood's obsession with finding bankable star performers whose personal brand reputations may substitute for customer knowledge of the movies in which they perform (Sedgwick, 2007). Even where a concept can be tried out on managers and focus groups at an early stage, there is the risk that the sales of the finished version may be quite different from those that were predicted: the product may evolve away from the original vision during development and/or customers' tastes and tolerance may change in the interim. Large players in the creative sectors can seek to insure themselves against such disappointments by having diversified stables of creative producers and performers. Even so, rather as with insurance companies, their long-term

survival depends on their success rates, relative to their rivals in terms of pricing these risks and managing their portfolios.

Unfortunately, a major lesson from Kahneman's (2011) work is that base-rate information is often ignored: the evidence says that, in practice, even experts are prone to make over-optimistic assessments of probable outcomes due to substituting answers from easier-to-answer questions (such as 'Do I like the idea of making this happen?') in place of the harder-to-answer questions (for example, 'what are the odds of it being successful?') that they do not take the trouble to answer. Once a project is underway, estimates of time to completion will tend to be based on what has been accomplished so far, without careful analysis of whether this involved meeting challenges that are representative of what could subsequently be faced. If a project has so far made slow progress, this could be taken as being the result of challenges of 'getting into it' (a 'steep learning curve') rather than merely the start of a mounting set of difficulties.

A major reason why base-rate information may not get examined in the context of creative industries is that the whole idea of probability is called into question where creative projects genuinely do 'push the creative envelope' rather than merely engage in formulaic reworking within existing genre frames (cf. the non-probabilistic view of choice proposed by Shackle, 1949). Kahneman would not accept this view: for him there is always *some* kind of base-rate category to which a supposedly singular project can be assigned. However, his research shows that instead of trying to do this, even experts tend judge likely outcomes on the basis of whether or not they can tell coherent stories about how they may be able to use their expertise to shape the way that events unfold. Plausible-looking pitches by creatives may thereby win over the suits without

any debate about whether any previous accomplishments used in making their case are actually relevant or should be viewed as decisive in the new context.

It is, however, not necessary to assume that creative overshooting always gets authorized because of the lazy thinking that Kahneman emphasizes. Nor do we need to blame it on pathological behaviour (involving, say, narcissism or delusions of grandeur: cf. the discussions of managerial pathologies by Kets de Vries and Miller, 1988), even though such forces may often be at work. Rather, it seems likely to arise purely as a result of the impossibility of computing rational choices because creative products inherently involve not merely uncertainty about the quality that may be achievable within a particular time period and budget, but also uncertainty about revenue due to the latter depending on how far rival producers plan to take a particular concept within a particular timeframe. Our contention is that *these uncertainties open the door not just to occasional errors by individual suppliers but also to collective creative excess in a highly path-dependent manner.*

The threat to rational creative choice that is posed by competitive interdependence in a dynamic environment deserves to be known as the Richardson/Schumpeter Problem, as it involves elements from the work of Richardson (1960) and Schumpeter (1943). Attempts to assess the consequences of going ahead with a particular creative projects are undertaken in an environment in which outcomes will be affected by the success of creative choices made by rivals who are trying to maintain the attention of their existing fan-bases and win attention from those from whom they have not previously won it. Rational creative choice requires knowing what these rivals are up to in creative terms and how consumers will respond when their products reach the

market. What the rivals do may steal the ground from a creative team's current project, or it may help make the market more receptive to it. Everyone needs to out-guess everyone else in order to make a rational choice.

Herein lies the creative producer's dilemma: on the one hand there is the risk of being outcompeted due to offering too little novelty, with the result that the audience dissipates from boredom or is captured by more exciting offerings from elsewhere; on the other hand, there is the risk of overshooting the market by offering new products that push the creative envelope too far away from established reference points. About the only thing that is likely to be clear is that there is a need for some kind of ongoing investment in novelty generation.

Where collective overshooting does occur, it involves two dimensions. The first is application of the 'decision rule cascade' idea advanced in Earl, Peng and Potts (2007) (in contrast to the established 'information cascade' notion) and entails a drift process by which creatives imitate the norms (or style, or idea) that proved successful for other creative individuals or teams; the initial direction of the successful creative departure is essentially random (hence drift). The second is that although random in direction, this drift process does involve pursuing the development of a concept or idea in a particular direction that sooner or later runs into a rising gradient. Depending on the initial impetus, the gradient can be to either of the polar extremes of the characteristics in terms of which the product is seen.

On the one hand, it can involve increasingly minimalist or anarchistic creations that make it harder and harder to justify claims that the output falls into a creative category such as 'art' or 'music' rather than 'rubbish' (epitomized in the music industry by impresarios including John Cage's silent 'composition'

4'33" in concert programmes, and by the calculatedly shocking behaviour of the Sex Pistols). These creations may not depend upon investments in acquiring new production capabilities and may not take much time to get from the concept stage to the finished product, but they may necessitate a huge managerial input in terms of public relations, marketing and legal services and have substantial opportunity costs. Alternatively, pushing the creative envelope can involve growing complexity, making greater demands on resource budgets, briefs, organizational tolerances, and suchlike.

Either way, this escalation will tend to overshoot the mass-market by going beyond the audience's attention or rate of accumulation of absorptive capabilities. This market overshooting will tend to have negative economic consequence for the creative organization, risking loss of audience and consumer demand. But this is also a seemingly natural part of cultural and economic co-evolution, such as when the filigreed fussiness and elaborate stage shows of prog-rock in the late 1970s gave way to the simple music and raw energy of punk rock, which in turn rapidly threw away its mass-market appeal by pushing the concept to extremes of 'hardcore' and 'Oi!'

Of course, creative competition is not always associated with overshooting into increasingly complex or minimalist attempts at offering novelty for consumers. Strategies based on stripping down and simplifying (or augmenting and slightly 'jazzing up') existing products may be a way of trying to reach a new audience or rekindle the interest of an existing fan-base whilst dealing with an inability to generate genuinely new material, as with the revisiting of past musical works in an 'unplugged' (or orchestral) setting. However, given the potential to destroy future revenue from a hard-won fan-

base by eschewing novelty, competitive strategies based on pushing the creative envelope will have a more obvious appeal to creatives who have a vision of how to do this and feel that they risk being left behind by rivals if they do not act on their vision.

5 The three-phase 'creative instability hypothesis'

Those familiar with Hyman Minsky's (1974, 1986) financial instability hypothesis will recognise parallel concepts are employed in developing the creative instability hypothesis. This is not a coincidence: both are formulations of a dynamic mechanism in which innovation-driven competition interacts with endogenous preferences causing a critical systemic parameter to move further and further away from a sustainable setting: in the financial instability hypothesis that parameter is income-debt relations; in the creative instability hypothesis it is artistic complexity. Specifically, Minsky's financial instability hypothesis proposed three distinct income-debt relations for economic units: (1) *hedge*, where income covers full debt amortization; (2) *speculative*, where income only maintains debt (i.e. debt must be continually rolled-over); and (3) *Ponzi*, where only income growth maintains debt (as in a pyramid scheme). Minsky argued that economic units move through these successive phases under force of competitive pressure due to financial innovation and endogenously changing risk preferences. As this happens the financial system will become increasingly taut and the economic system increasingly fragile, eventually leading to collapse. Importantly, the cause of the collapse is not the eventual 'shock' that triggers it, but rather is inherent in the mounting fragility of the economic system. The core theorem is that although an economy does have

seemingly stable states of income-debt relations (i.e. hedge positions), over periods of prolonged prosperity and in the face of competitive pressure, actual positions will transition to more unstable states, eventually leading to financial collapse. After the fall, income-debt relations will then reset to safe hedge positions from which the cycle will begin anew. 'A fundamental characteristic of our economy', wrote Minsky (1974: 269), 'is that the financial system swings between robustness and fragility and these swings are an integral part of the process that generates business cycles.' During the upswing, spectacular rises in asset values lead to a euphoric mood that diverts attention from considering downside risks and the sustainability of asset price increases in relation to underlying 'fundamentals'. Before the collapse it seems that 'the sky's the limit'.

Our creative instability hypothesis makes similar claims for a creative organization, but instead of income-debt relations (mediated by the dynamics of asset and consumer prices) the creative instability hypothesis is modelled in terms of artistic complexity with respect to creative producer-creative consumer relationships that are mediated by the dynamics of *consumer attention* relative to *producer creativity* (Lanham, 2006). Similarly, the creative instability hypothesis argues that in the course of a creative opportunity playing out, the creative organization will transition through three distinct phases of escalating creative investment. These phases we call: (1) *mainstream*, in which creative production is well organized and managed, and successfully maps to mainstream consumer tastes; (2) *edgy*, in which creative agents push the boundaries of the art's style and medium, but still carries many consumers along with them; and (3) *experimental*, in which the creative producers are largely in the *avant-garde* realm of 'art for art's sake' and have substantially overshot most of their

previous market. A fundamental characteristic of the creative economy, we argue, is that the creative organization swings between mainstream and experimental states and these swings are an integral part of the process that generates fashion and cultural cycles.

This model of creative output thus reverses the ‘art-school → underground → mainstream’ sequence and predicts cycles of instability rather than any resting point. It recognizes art and creative output as a *competitive* economic activity rather than assuming, in effect, that there is only the artist and the consumer, and that the problem is how to match them. Although our argument emphasizes competitive selection, we want to de-emphasize the explanatory power of market selection on artistic behaviour—i.e., on how the artist chases the market—which is the standard explanation (North and Oishi, 2006). Instead, we emphasize ‘artist *versus* artist’ competition. The standard sequence might work as a model of how some genres/artists get established, particularly in a subsidized cultural economy, but it is far removed from the reality of the modern creative industries (Potts and Cunningham 2008). Hence we argue that it is a reasonable abstraction for our default setting for creative production to be not ‘art school pretension and unrecognized genius’, but rather with the organizational forms of commercial success in creative supply meeting appreciative consumer demand.

Like Minsky’s financial instability hypothesis, which also does not explain how the robust states of ‘hedge’ income-debt relations come about, we also eschew a theory of how a well managed and successful creative organization comes about. We propose a theory recognizing that once such a state arrives, which is something that competitive forces should generate, those same

competitive forces will continue to push the organization beyond the mainstream state and into increasingly edgy and then experimental states, leading to market overshooting and possibly organizational collapse. Our model thus predicts that 'mainstreams' should decay from within, as the competitive pressure to be ever edgier becomes pressure to be experimental, which may lead to market collapse. Consider these three phases, beginning with the initial state of mainstream creative production and consumption.

CIH 1: Mainstream

The initial phase of the creative instability hypothesis (CIH) begins with a well-managed creative organization that successfully produces the creative output that its market audience demands. This is 'mainstream' because the creative organization creates and delivers creative product (a flow of information) to a stable population of consumers who value it. And they do so under competitive pressure, where other creative organizations are also competing for that same audience/market. So the first implication of the CIH is that mainstream is not an equilibrium but is actually evolutionary unstable. It is a contestable space.

The sort of organizations that have attained this state under competitive conditions will tend to be broadly conservative in creative budgets and briefs, which is to say that management (i.e., the 'suits') will have a tight rein on creative content and execution and will occupy a space of proven business models for creative production and delivery. This sounds pedestrian and unadventurous, but a well-managed organization is likely to be central to the successful delivery of a flow of creative content to expectant consumers. This will be true whether

these are B2B contractual relations, as an advertising agency or an architectural company, or whether B2C, as in music, film, television or video games.

The consumers of this mainstream state are *satisficing*. They maintain actions that work, and change them when they no longer work, generally by experimenting with new rules and then using meta-rules to select those that work to lock in as new behaviours (Earl and Potts, 2004). The structure and logic of these rules and knowledge-changing behaviours are themselves influenced both by innate capabilities and also by socially embedded rules. As argued in section 2, they desire to be surprised to a degree but creative products purchased by their existing rules may be unexpectedly surprising if the creative strategies of those whom these rules favour have changed unexpectedly. The consumers' in-built tendencies to desire, to some degree, novelty (Scitovsky, 1981), to try to find patterns in streams of incoming stimuli (Hayek, 1952), accompanied by tendencies towards 'sunk cost bias' (Thaler, 1980), will ensure that they will try to get to grips with unexpectedly surprising products rather than immediately writing them off as mistaken purchases. If they succeed in making sense of these initially puzzling purchases by creating new patterns into which such products fit, they will have adjusted their templates of tolerance into line with their experiences: i.e., their aspirations will have adjusted to their attainments with something of a lag (Simon, 1959). If a change in the supply of creative output occurs it can thereby generate new tastes by causing surprise (Sedgwick, 2007). However, structural linkages between mental constructs typically make it impossible to change some views and expectations without changing others, and so on (Kelly, 1955), so rethinking one's position on what is acceptable may prove difficult or impossible—particularly if one's cultural

values are tied up with one's identity (Holbrook and Schindler, 1994). Thus there will be cognitive limits on the ability of consumers to adjust their templates and hence limitations on the pace or ultimate extent to which creative producers can drive tastes in particular directions.

Within the population of creative organizations in each market niche, there will be variation. Some will allow more creative freedom than others, and will go in different directions. These minor variations will matter as the creative organizations that were relatively less successful at capturing attention in each previous round update their strategies by copying those who did better. Success will be in some part observable to others, and so the learning organization will rationally afford more creative freedom in order to compete more successfully.

By this process of variation and imitation the competitive escalation begins. Competition for consumer attention combined with the tendency of such markets to have strong social network feedbacks will mean that the relatively more successful creative economic units will be those better resourced and able to 'unleash' their creatives. For each individual creative organization, there are now powerful competitive incentives to increase investment in creativity.

CIH 2: Edgy—pushing the envelope

The second phase of the CIH we call 'edgy'. Edgy involves 'pushing the envelope' by taking a genre into a more extreme form than before, stretching the capabilities of those who produce it or who manage the creative agents. Edgy also assumes that consumer competences have also developed and 'those in the know' can follow and appreciate the new directions and developments the producers have offered. There is risk of failure because, for example, the product

might be harder to replicate reliably in live performances, or harder to explain to potential customers. But taking such creative risks may offer potential for much higher returns: the organization at the creative edge is highly competitive and is, in effect, seeking to lead creative development of a genre or market segment in a direction that others may then follow. If a creative team or firm can take consumers into that space then it can earn rents pending the arrival of competitors who follow its lead.

The lesson will come to pass, arriving simultaneously in many organizations, that ‘creativity pays’ (in the Minsky model, the equivalent lesson was ‘leverage pays’). Proposals to increase creative budgets will be passed; projects that were previously rejected as overly bold will be green-lighted; the creatives will be ‘let off the leash’. This is the start of the upswing where ‘creatives’ are in greater demand and afforded increased freedom. Extant creatives can expect to be more highly valued and new creatives will be induced to enter the market and to compete on the basis of their new ideas not their lower prices. Specifically, high failure rates will generally tempt managers or entrepreneurs to back what is going well and to allow one’s creatives to push the envelope of what has been succeeding, but this will sooner or later run into sharply diminishing or negative marginal returns. For example, it is likely to result in recording artists spending forever in the studio, over-elaborate staging of live performances, and excess in music—the inherent likelihood of problems in both execution and in sustaining the attention of customers is far greater with a double album with only a handful of tracks linked by some kind of concept than with a typical single album consisting of ten songs. But at the same time, we should expect that this increased creative freedom will yield new creative

directions and that initial successes may begin to tip creative moods towards euphoria. Grand designs that would previously have been unthinkable may now start surfacing and being taken seriously.

Pushing the creative envelope is risky business not only in terms of its technical challenges but also because of the difficulty of anticipating the extent to which potential customers with differing templates of tolerance and abilities to construct new patterns of understanding and consumption decision rules will be alienated rather than attracted. With norms on the move, there is no easy way to judge between prospective returns at the margin of exploration versus those at the margin of exploitation of what already exists.

CIH 3: Experimental

The third phase of the CIH is 'experimental' (in the sense of 'experimental music'). Such *avant-garde* economic units will be characterized by 'art for art's sake' and with output heavily skewed to the inclinations of the creatives themselves, and often with less regard for audiences or for business considerations. Common characteristics of this third state include indulgence of 'bad behaviour', tolerance of ideas purely on reputation, and rampant unaccountability. The 'experimental' stage may well seem like the artistic ideal and is often romanticized as such, especially within elite art schools. But in practice it is usually a commercial disaster. One reason for this is limited consumer tolerance. One can only discover what the consumer will regard as 'over the top' by going beyond what they find acceptable. With a kind of 'arms race' taking place in pushing the boundaries in particular areas, there is no guarantee that creatives and their managers will gradually experience

diminishing marginal revenue and get a sense of when to stop rather than crashing down after overshooting in their race for bigger returns.

Big budgets do not promote clever creative thinking in the way tightly constrained problem-solving does: for example, putting a band in a 64-track recording studio gives huge freedom to experiment with different sounds and arrangements on a given song whereas if a band only has a few tracks its member and producer really have to know where they are going before they spend any time (or money) recording, as sounds have to be layered in a careful sequence and there are points of no return as they overdub. The fear of 'no going back' will concentrate the mind wonderfully, much in the same way that a live recording does.

Easy access to resources may thus be prone to result in over-engineered aesthetics that are simply too complex for the market to appreciate, either in the sense of being too complicated for them to fathom, with frills getting in the way, or involving additions that are too subtle for them to notice (for example multiple layers of instruments in a piece of recorded music), or an end product that is too polished and hence is lacking any 'edge', compared with simpler 'rough and ready' material. Given what is known about perception in terms of 'just noticeable difference', the highly polished product may be a great waste of creative input, ending up seeming all rather bland rather than full of nuances. If creative strategies are copied, genres that were initially successful due to being outstandingly different end up becoming the norm, so 'back to basics' can then look different and stand out. Otherwise, the only way to stand out when big budgets start going on rehashes of mega-genres is to double-down bets so as to

be the most spectacular or arresting in whatever dimensions most matter (Chai, Earl and Potts, 2007).

Scitovsky's (1981) comfort versus pleasure analysis of how people cope with novel stimuli offers further lessons here, too. After periods of accepting over-stimulation from creatives who have been allowed to run wild, consumers may welcome those who offer something less challenging as a break from all that. In weaving these themes, care is required to keep the distinction between spending heavily on pushing the boundaries versus on polishing within a genre. Clearly, overly polished material can seem 'too comfortable', leading audiences to pursue the raw edge, just as creative output that is too challenging in a complicated way can also lose favour to something rather more basic.

By this stage, the creative output of the organization may well be high, but it will tend to be highly variable too. The viability of an organization in this competitive state will come to depend upon staying at the front of sufficient public or market attention. The third phase of this creative system will come to an end with some kind of collapse due to failures to control expenses, the adoption of unsuitable business models, or the creative outputs outpacing the adaptability of the target audience. The collapse can happen quickly, especially where creative products are consumed socially and buyers take their cues from reviewers or acknowledged fashion leaders in their social circles (Potts *et al.*, 2008). Such overinvestment in creativity is recognisable when advertising wins awards but not customers, or when architecture is striking but results in buildings that are unsalable, or when music is technically brilliant but unbearable, or when a film is challenging but unwatchable. Such over-the-top works can of course be understood as strategic investments in signalling games,

but in many cases that can be a *post hoc* justification for what is really the outcome of an escalation of creative investment well beyond the point at which market feedback should have imposed constraints.

The downside of overinvestment may be worsened by a backlash from exhausted customers whose rejection of the latest products entails not simply failure to revise their templates of tolerance to accommodate them but a re-evaluation of what they had previously found acceptable and the construction of new templates that favour alternative genres. This might take customers in a variety of directions—if ‘prog-rock’ suddenly seems pompous and pretentious, some may try to learn to like jazz as an alternative way of appreciating performer virtuosity whereas others may head for classical music that offers symphonic forms without pretence and glitter, and yet others may retreat to simpler, no-nonsense forms of rock.

Where a fan base shatters, the creative agents cannot simply revert to putting out the kind of products they had created before they overshot the mark, as reputational damage will likely extend to previous outputs. Rather, they will need to reinvent themselves, even to the extent of aiming for a new group of customers. This may necessitate forming many new connections, not just creative ones but also with new creative team members and managers. These will be chastened times for extant creative suppliers, but they will also afford new opportunities for the new generation of creatives.

Of course occasionally the muses and the markets will reward the bold and imaginative genius. But there are also many more failures by this method; indeed, under competitive conditions this is the expected outcome. Finally, but by no means trivially, it should also be noted that creative exhaustion may set in,

along with creativity being inhibited by a growing consciousness of how much time and money a project has so far consumed and the increasing likelihood that 'the suits' will start to ramp up pressure for any finished product to be delivered.

6 Conclusion

The creative instability hypothesis proposes a mechanism by which organizations that compete by continual creation of novelty can systematically overshoot markets. This is an evolutionary process in which the more successful are imitated by the less successful. But it is also a market process in which the complexity of creative products needs to match consumers' abilities to recognize, value and consume that complexity. With competitive escalation on the producer side, the consumer side is commonly overshot. The 'Schumpeterian economy' is, we thus argue, creatively unstable. It has a tendency to overinvest, which is destabilizing at the micro level of organizations, although this 'creative destruction' also acts to disrupt incumbent positions and existing artistic styles and genres, creating opportunities for new entrants and new forms of artistic expression. This paper has sought to outline the mechanisms by which this unstable trajectory manifests in the form of the incentives operating within creative organizations and in consequence of consumer capabilities.

The model was inspired by some 1970s 'prog-rock' tragedies, such as the histories of bands such as Yes and Emerson, Lake & Palmer, but it should also be apparent that the creative instability hypothesis is a description of an organizational dynamic that extends broadly over the creative industries. In particular, advertising and architecture firms, both of which have explicit creative mandates, and are often in highly competitive markets, are expected to

be subject to this same process. We have only outlined here what we conjecture is a rather more common and regular process in organizational and economic dynamics than has hitherto represented.

To what else might the creative instability hypothesis apply? Beyond the creative industries are numerous classes of organizations that compete through creativity. An obvious further example is academic departments. In the mainstream state there will be tight control over creative work and projects, with pressure for rapid results and no granting of a sabbatical without a business plan that has promised publications of particular kinds. The opposite end is the world of academics being allowed to spend years on projects that have no budgets, and on sabbaticals with no accountability. Departments with 'superstars' would be likely to be more indulgent of phase 3 'experimental' behaviour, making them less stable by this account than those with lesser creative investments.

In relation to product development creativity, a sense of the cycles that the creative instability hypothesis predicts can be observed in firms such as Ford in Europe, or Mazda, with radical inspired efforts interspersed with dominance of 'bean counters' causing unoriginal designs that concentrate on cost cutting rather than pushing the boundaries. What this example suggests is a further dimension to the analysis of the firm's organization, strategy and markets over a product life cycle in relation to the ebb and flow of creative investment. This offers a new angle and better understanding of how Schumpeterian creative destruction works by highlighting the importance of not only the level of creative investment in an organization, but also the state and mechanisms of control over that resource, and the imitation of those strategies.

According to Minsky the market-capitalist economic system is financially unstable, and according to us it is also creatively unstable. Yet this is not necessarily a bad thing. Creative instability may actually be part of the mechanism of economic evolution in which overshooting creativity, just like overshooting finance (Potts, 2004), is seemingly a viable outcome from the evolutionary perspective because of the spurs and fillips to variety generation and creative destruction processes that it brings. If existing genres do not overreach themselves, new genres are less likely to appear, from which yet other genres may eventually be spliced.

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