

INNOVATION:

management, policy & practice

VOLUME 7 • ISSUE 4 • OCTOBER 2005

* FINAL ISSUE OF THIS VOLUME *

CONTENTS

351

POLICY DEBATE

US offshore outsourcing of R&D: Accommodating firm and national competitiveness perspectives — *Thomas A. Hemphill*

357

FEATURE ARTICLES

Generating technological knowledge in Spanish universities: An exploration of patent data — *Manuel Acosta Seró, Daniel Coronado, Guerrero and Rosario Marín Muñoz*

373

Aesthetics of business innovation: Experiencing 'internal process' versus 'external jolts' — *Rafael Ramirez and Niklas Arvidsson*

389

Evolutionary systems: Modelling organisational innovation — *James S. Baldwin, Peter M. Allen, Keith Ridgway and Belinda Winder*

402

EAST ASIAN MANAGEMENT RESEARCH

Banking technology, technological learning and competition: Comparative case studies in Thai banking — *Jarunee Wonglimpiyarat*

416

CLUSTERS

Industrial development centres (IDCs) as a regional innovation tool: Comparing policy practices in Finspång, Sweden and in the Hunter Valley, Australia — *Marie-Louise Eriksson and Maureen McKelvey*

435

A Schumpeterian approach to innovation clustering in a low-tech technology in a peripheral region: The case of garments in Mezzogiorno — *Francesco Quattraro*

451

TECHNOLOGY TRANSFER

Micro-level clusters in the Australian dairy industry: The case of collaboration in the Central Murray region — *Stephanie Miller*

Contents continues /...

Published by **eContent** management PTY LTD SAN 902-4964
PO Box 1027, Maleny, QLD 4552, Australia
info@e-contentmanagement.com

ISSN 1440-1266 • www.innovation-enterprise.com
2005 © eContent Management Pty Ltd
Listed with Ulrich's, AIPS and DEST Register of Refereed Journals
Registered with the Copyright Agency Ltd: www.copyright.com.au

INNOVATION:

management, policy & practice

VOLUME 7 • ISSUE 4 • OCTOBER 2005

CONTENTS

463

Hidden benefits of a collaborative R&D alliance in the pharmaceutical industry: The case of Schering AG and Novo Nordisk A/S — *Ekkehard Brockstedt and Chris Carr*

468

Converging technologies and their implications for technology transfer: The cases of European networks (N EuroNet) and NBIC (nano-bio-info-cogno) technologies as drivers of change — *Greg Tegart*

477

BOOK REVIEW — *Compiled by Peter Cebon*
Engineering and Product Development Management: The Holistic Approach, by Stephen C. Armstrong — *Michael W. Usrey*

479

CONFERENCE REPORTS — *by Sally Davenport*
 Joint 4S & EASST Conference, Paris
 24th International Strategic Management Society Conference, Puerto Rico
 5th Triple Helix Conference, Turin
 14th International Conference on the Management of Technology, Vienna
 Doing Sustainability: Moving from Why to How, Sydney — *by Judy Marcure*

488

EDITORIAL — *Mark Dodgson*

FINAL ISSUE OF THIS VOLUME

** Renew now for 2006 **

Innovation: Management, Policy & Practice announces Volume 8 in 5 issues for 2006, in print and online. Your subscription to Volume 8 (2006) includes a special issue:

Innovation in China: Building an Economic Superpower (ISBN 0-9757422-4-8)

To guarantee uninterrupted delivery, please ensure that your library has renewed your subscription in print and online: subscriptions@e-contentmanagement.com

INNOVATION:

management, policy & practice

The International Journal for Innovation Research, Commercialization, Policy Analysis and Best Practice

AIMS & SCOPE

Innovation: Management, Policy & Practice is an international, peer reviewed journal for the prompt publication of original research, literature and book reviews, methodological advances, policy analyses, case studies, education & training approaches, research commercialization, technology transfer, as well as tactical, financial and compliance tips across all fields of innovation.

EDITOR IN CHIEF

Mark Dodgson, Technology & Innovation Management Centre, University of Queensland, Australia

EAST ASIA ASSOCIATE EDITOR IN CHIEF

Kane Wang, Industrial Economics & Knowledge Center, Industrial Technology Research Institute, Taiwan

ASSOCIATE EDITORS

Horacio Viana Di Prisco, Instituto de Estudios Superiores de Administración, Caracas, Venezuela

Albert I. Goldberg, Faculty of Industrial Engineering and Management, Technion – Israel Institute of Technology, Haifa

Michael Hobday, Science Policy Research Unit, University of Sussex, UK

Fumio Kodama, Graduate School of Engineering Management (MOT Program), Shibaura Institute of Technology, Tokyo, Japan

Johnsee Lee, Industrial Technology Research Institute, Taiwan

Jorge Niosi, Department of

Management and Technology, Université du Québec à Montréal, Canada

Guido Reger, Department of Economics and Social Sciences, University of Potsdam, Germany

Keith Smith, Chalmers University of Technology, Göteborg, Sweden

Toshiko Takenaka, Center for Advanced Study & Research on Intellectual Property, University of Washington, Seattle WA, USA

David J Teece, Institute of Management, Innovation and Organization, University of California, Berkeley CA, USA

Poh Kam Wong, Entrepreneurship Centre, National University of Singapore

Lan Xue, School of Public Policy and Management, Tsinghua University, Beijing, P.R. China

BOOK REVIEWS EDITOR

Peter Cebon, Melbourne Business School, University of Melbourne, VIC, Australia

CONFERENCE EDITOR

Sally Davenport, Victoria University of Wellington, New Zealand

ADVISORY BOARD

David Buisson, University of Otago, Dunedin, New Zealand

Ray Goodsir, DCE Consultants, Altran Technologies, The Netherlands

Peter Lednor, Innovation Programme, Shell International Chemicals B.V., Amsterdam, The Netherlands

Judy Marcure, Food Science Australia, CSIRO, North Ryde NSW, Australia

Cosette Serabijt Singh, Glaxo Wellcome, Research Triangle Park, Raleigh NC, USA

Jack Smith, Office of Technology Foresight, National Research Council of Canada, Ottawa ONT, Canada

Lisa Springer, Wilson HTM Finance, Sydney NSW, Australia

Louis G Tornatzky, Select University Technologies Inc., Costa Mesa CA, USA

READERSHIP AND MANUSCRIPT PREPARATION

Manuscripts should be written for at least two of the following readerships of *Innovation: Management, Policy & Practice*: academic researchers, university educators and professional development trainers; research scientists; public and private sector research and laboratory managers; public policy developers and analysts; company directors, financial officers, marketing, human resources and operations managers. See the inside back cover of this issue for Author Guidelines.

Manuscripts may be submitted to the following sections: Feature Articles; East Asian Management Research in Industry, Innovation & Technology; Technology Transfer Tactics; Innovation Education; Innovation Policy; Innovation Theory; Research Notes, Literature Reviews, Book Reviews & Booklists; Conference Reports & Calendar; News & New Products; Institutions.

SUBSCRIPTIONS AND LIBRARY SAMPLE COPIES

All major international subscription agencies supply the Publisher's journals in print. Print subscriptions to the journal may also be entered directly with the Publisher. One free inspection copy of the journal is available to librarians on request. A free sample copy of a recent issue is available at: www.innovation-enterprise.com/sample.htm

Online subscriptions: Full-text online access for volumes 4–8 is available via approved intermediaries including Extenza, EBSCOhost EJS, SwetsWise Online Content, CNOIEC and Celdes. Full-text online access is available for a surcharge only to institutional subscribers holding a print subscription. Multi-site/campus licences are available. Authentication is via IP address, Athens ID or Username and Password. The host is www.extenza-eps.com

Backsets of volumes *Innovation: Management, Policy & Practice* 1–7 are available for sale in limited numbers.

Innovation: Management, Policy & Practice volume 8 (2006) will publish in five (5) issues of approximately 100 pages in February, April, July, October and December 2006 on a calendar year subscription cycle (January–December).

Institutional subscription rates for volume 8, issues 1–5 (2006) including Airmail, and GST where applicable, are:

North America, Europe, Scandinavia, North-East Asia and

the Middle East: print only US\$499.00; print + online US\$599.00.

China, South and South-East Asia, South America, Australia, New Zealand, Pacific and Africa: print only AU\$499.00; print + online AU\$599.00.

Individual subscription rates (print only) are US\$179.00 and AU\$179.00, respectively. A private postal address is required.

Evaluation copies of special, topic-based issues may be requested by course coordinators. Discounts apply to large single-issue orders and course adoptions. Pay-per-view options for individual articles in volumes 4–8 are available. Subscriptions should be paid in advance by bank cheque, bank transfer or international money order to:

eContent Management Pty Ltd
(*Innovation: Management, Policy & Practice*)
PO Box 1027, Maleny, Queensland 4552, Australia
Tel.: +61 (0)7 5435 2900; Fax: +61 (0)7 5435 2911;

or

3372 Middlefield Road, Palo Alto, CA 94306, USA
Fax: +1 (650) 494 1063 (North American Sales)
Email: subscriptions@e-contentmanagement.com

ISSN 1447-9338

Aesthetics of business innovation: Experiencing 'internal process' versus 'external jolts'

SUMMARY

KEY WORDS

business aesthetics; internal-process innovation aesthetic; external-jolt innovation aesthetic; organisational fit; managing innovation; 'what feels right'; sustainable business cycle; Shell's Gamechanger; case study; management implications

This paper summarizes findings of a research project on business innovation. It contrasts two forms of innovation – those of 'internal process' and 'external jolt'. We propose that their deployment depends on how managers responsible for business innovation in large firms feel about, and sense and make sense of innovation. The felt-sensed form of innovation that they find appealing or with which they are comfortable, makes a big difference on what type of innovation process is actually put in place, and is sometimes manifested in the actual business model. Our ambition is to highlight these so-called 'non-rational' aspects in innovation decision-making that, we propose, complement – and sometimes shape – rational analyses determining managerial efforts to innovate.

Received 15 July 2004

Accepted 7 December 2004



RAFAEL RAMIREZ
Professor, HEC-Paris and
Fellow at Templeton
College
University of Oxford,
United Kingdom



NIKLAS ARVIDSSON
Postdoctoral Fellow
National Institute for
Working Life
Stockholm, Sweden

INTRODUCTION

Business innovation is a field that attracts many people – academics as well as practitioners – and consequently many theories and explanations as to what makes it successful exist. Innovators in innovation research (Christensen, 1997; Van de Ven et al., 1999) are quickly acclaimed. Yet, no single perspective or ultimate answer, nor a single well-accepted contingency

model has been decided upon, and differences continue to exist (Autier, 1999). Our ambition is to shed new light to the understanding of such differences by introducing a new perspective on business innovation – aesthetics.

Our paper reports the findings of a co-sponsored research project to investigate the nature of business innovation, i.e. the creation of new sustainable business models. Building on

Rafael Ramirez and Niklas Arvidsson

earlier work on aesthetics, we found that the sense managers make, in the sense-making (Weick, 1995; Weick, 2000), and in the sensing-feeling and forming-a-view meanings (Ramirez, 1987; Strati, 1999; Damasio, 2000; Schlag, 2002) of innovation contributes to determining which innovation approach they enact. Their preferred sense of what innovation is, and how appealing they find one mode of innovation to be, will be manifested in terms of the way they connect people and technology (Latour, 1998) to enact their chosen mode of innovation.

WHAT DO WE MEAN BY AESTHETICS?

Aesthetics is a helpful way to understand how people feel they have experienced different approaches to something. Aesthetics assesses how some feelings shape what is sensed, experienced, apprehended, perceived, and conceived of. The understanding aesthetics affords is not confined to art, and has over recent years been applied to organizations (Ramirez, 1987; Strati, 1999), to decision-making at NASA (Feldman, 2000) and to understand how judges interpret American law (Schlag, 2002). Here we extend the use to appreciate how managers determine which form of innovation they feel most in tune with. This then affects, and is affected by, which form of innovation they implement.

Aesthetics is: 'an experience that cognitively and/or perceptually enables us to symbolize "felt life"' (Langer, 1953/1979). A central idea in aesthetics is that for a given mind whatever objective reality may exist, can only be in practice accessed by that mind. The mind cannot know the reality without it itself engaging the outside world and interpreting it. Thus, the way in which we interpret 'reality' depends on how our mind connects with the data and information our minds experience (Ramirez, 1991). To quote Bateson (1972): 'by aesthetic, I mean responsiveness to the pattern that connects'. Connection between mind and reality where we feel responsiveness (by us or by reality) constitutes experiences we term aesthetic ones. The response to the pattern depends

upon how minds connect what they consider vital to what they experience. For managers:

Aesthetics in organizational life, therefore, concerns a form of human knowledge; and specifically the knowledge yielded by the perceptive faculties of hearing, sight, touch, smell and taste, and by the capacity for aesthetic judgment (Strati, 1999: 2)

This means that to study the aesthetics of business innovation we describe how managers respond to the pattern that connects a given mode of experienced innovation efforts to their feeling of what is vital (i.e., in life). To illustrate what we mean, we quote Schlag's comparable analysis of how aesthetic experience operates in the realm of law in the USA:

Law is an aesthetic enterprise. Before the ethical dreams and political ambitions ... can even be articulated ... aesthetics have already shaped the medium within which those projects ... work. (2002: 1049)

What I am after is the description of those recurrent forms that shape the creation, apprehension, and identity of law. What is at stake is to reveal the aesthetics within which American law is cast. (2002: 1051)

This is precisely what this paper attempts to do – not for American law, but for innovation. We will describe two different approaches of business innovation in terms of their aesthetics. We acknowledge the possibility that other aesthetic forms of innovation may exist. The two forms we centre on were found in the research we carried out, and became apparent to us when the research was completed. One approach we identified we call the 'internal-process' aesthetic, the other the 'external-jolt' one. Our article provides an alternative explanation as to how, and to some extent why, particular firms and managers select a specific way of organizing their innovation efforts.

Our approach does not mean we ignore more standard explanations for how managers and firms organize their innovation activities. The

internal-process approach is often rationalized as being effective (see e.g., Normann, 2000; Hedlund, 1986). Likewise, the external-jolt approach also is argued to be effective (see e.g., Van der Heijden, 1996). Our article wishes to contribute to a richer picture of ways to organize innovation by adding the aesthetics of innovation, e.g. in terms of managers' pathos and ethos (Strati, 1999), to the more traditional and rational arguments distinguishing, characterizing and evaluating each of the two approaches. While contingency theorists (Woodward, 1965; Thompson, 1967; Lawrence and Lorsch, 1967) attribute the differences among innovation types on so-called 'external' or 'objective' conditions such as complexity or type of technology, our findings suggest that individual sensitivities may be as important in determining the type of innovation that is enacted.

Our ambition is to outline inherent characteristics of two different archetypes or 'ideal types' in the Weberian mode of 'aesthetic managers' (Dobson, 1999: 126) by outlining how different managers sense good innovation management. Organizational culture and professional identity as well as personal taste are factors that contribute to our capacity to feel things and possibilities. Feelings we are comfortable with shape our preferences. Cognitive psychology and neurology are making great contributions to increase the understanding of how this works (Damasio, 2000). In this paper we aim to survey the results of these differences in the field of business innovation.

METHODOLOGY

The innovation research project that makes the empirical foundation of this article used several complementary methodological techniques. The project was launched in 1999 and finalized in 2000. Its aim was to explore the nature of business innovation by combining theoretical findings and conclusions with managerial experience. To achieve this, the project group included academics as well as managers with the aim of integrating the knowledge and experience from these

two fields of expertise. There were two parallel and mutually rewarding objectives. One was directly focused on normative advice for managers and firms. The other one was aimed to deepen the conceptual understanding of business innovation. Both approaches underlie this article.

The research group initiated the project by defining the main issues and questions that were to be studied. A set of introductory interviews with managers were made with the ambition to develop a preliminary understanding of how practitioners viewed business innovation. In parallel, a literature review was undertaken to understand how research academics view these issues. The objective was to use a grounded theory approach (Glaser and Strauss, 1968) to build an initial understanding via constructive dialogue between theory and practice, and thus develop better insights as to how business innovation forms are characterized and chosen. Our grounded theory approach meant that we continuously and simultaneously sought theoretical models and empirical examples that informed each other. Our data was mostly qualitative. The combination of theory and practice helped us produce our findings. In essence, our methodological approach depended on our own ability to be empathetic, imaginative, and able to put ourselves in the managers' 'shoes' (Strati, 1999: 54).

Further interviews with managers and experts led to propositions that served as input to two workshops that were held in The Hague and in Stockholm. The workshops were attended by some twenty managers and half a dozen academics. The co-sponsors were Shell International, the European Patent Office, Sonera, and Wartsila. Henry Mintzberg, Richard Normann, Wally Olins and Kees Van Der Heijden contributed to the study. The project was led by Rafael Ramirez and managed by Lennart Nordfors of the Service Management Group. This article, which is a by-product of the original contract research, presents how managers approach business innovation by using aesthetics to understand and describe their preferences.

Rafael Ramirez and Niklas Arvidsson

WHY AN AESTHETIC APPROACH?

Initially our study aimed at researching how large MNCs worked with business innovation, i.e. how they managed their attempts to transform their basic business model or business logic. The search for the most important issues was broad and open at first. As the research and discussions evolved it became clear the firms and their managers choose between different models and that the choices are not superficial, but deep. The differences seemed to us to be quite fundamental, and thus we had to look for roots (Pepper, 1942). We have called the two that we found most prominent the ‘internal-process aesthetic’, and ‘the external-jolt aesthetic’, respectively. When we asked managers what determined which of the two they preferred and actually deployed, their answers clearly indicated how important feelings and intuition were in determining their choice. Examples of answers include:

All managers are guilty of judging ideas by who generated them, rather than the substance of the idea. It is very difficult to separate emotional feelings about the originator from the idea itself. This may come from preconceptions about the individual’s motives for proposing the innovation, personal dislike, historical arguments, perceived difficulties about selling the idea to one’s boss due to his preconceptions about the idea generator and so on. (Innovation is) a very emotional business.

If you have a problem, the Army will want to invade, the Air Force will want to bomb and the Navy will want a blockade. In business, a lawyer will suggest a legal remedy, an engineer a technical remedy, a financier a financial one and so on. How can we confront these identities, deep seated in personal knowledge and professional history?

Our mindset is the most powerful tool enabling – or obstructing – innovation.

Such views made us notice how significant the personal feelings appeared to be. From a rational

perspective, the risk of not being the firm who in the end commercially exploits an internally generated business innovation often made managers prefer the internal-process approach over the external-jolt one. Still, even in these cases the motivation contained an element of personal feeling for key managers. As for the external-jolt approach, the personal drive for managers to engage external people and groups known for their creativity and novel thinking was obvious. Ignoring individual biases centred upon gut feel and sensed opportunity, and pretending that all choices followed the tenets of contingency theory rationally, did not appear possible for us. Perhaps, we wondered, all in all, our research signalled that strong personal and subjective arguments possibly determined which approach would be chosen above all else – and that these would then be dressed up as rational arguments ex-post. Our acquaintance with the aesthetic approach to organization made us more attentive to these aspects and this possibility. In any case, aesthetics provided a compelling conceptual framework to account for the differences in choice when managers select a preferred business innovation mode. We next explain the two models – the internal-process aesthetic and the external-jolt one – that were found in our study.

INTERNAL-PROCESS AESTHETIC

The internal-process innovation aesthetic is often manifested as a well-oiled mechanism that screens and supports ideas. It is typically depicted as a ‘funnel’ (Figure 1). At the broad end of the funnel ideas are brought in, they are selected in a screening process, and those that are retained become projects that are supported through various stages such as ‘proof of concept’, ‘prototyping’, and then ‘launching of pilots’, before they are ‘adopted’ and ‘scaled up’ into actual business initiatives. Those business initiatives that are kept are considered ‘innovations’, those that are spun out are considered ‘ventures’. A well-known and well-developed example is Shell’s ‘Gamechanger’ process.

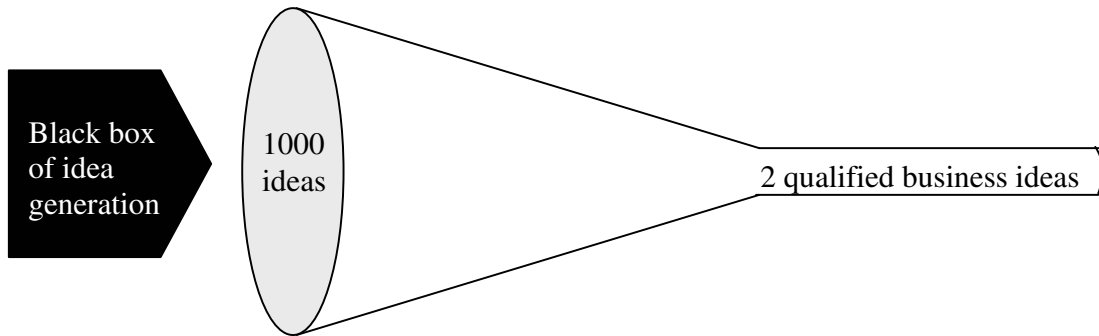


FIGURE 1: The funnel

Shell’s ‘Gamechanger’ process manifests the extent to which the internal innovation aesthetic is focused on managing the risk of losing business opportunities from ideas a-priori assumed to be inherently good. Innovation in this aesthetic involves a conversion of captured promises to something real. The internally managed process converts ideas it seeks and elicits, then screens these according to the perceived – often felt – potential they have of becoming viable businesses, and it excludes ideas it screens as unworkable into rejections. While ‘Gamechanger’ does not do much about the quality of the ideas it receives

spontaneously, it does make efforts to elicit good ones through ‘ideation’ workshops around given themes, such as ‘cities and their future’ (Table 1).

Impacting managerial behavior

The internal process innovation aesthetic also focuses on influencing managerial behavior. It mobilizes the structure and systems within an organization to initiate, evaluate, select, support, and husband successful business innovation. This aesthetic is directed at initiatives whereby an organization’s innovation efforts are channelled through built-for-purpose processes largely determined by leadership. It is important to underline that the innovation outcome itself is not considered as controllable – the aim in effect is to make something new – but the innovation process and its managerial characteristics, e.g. organizational structure, incentive system, budget process, priority setting, etc., are definitely seen as controllable or manageable. In this aesthetic business innovation is centred on the purposeful structuration of emergence. In arguing this point of view, Normann (2000) suggests that emergence-enabling processes have to attend to:

TABLE 1: KEY CHARACTERISTICS OF INTERNAL PROCESS INNOVATION

Important aspects of the conversion process in the aesthetic process innovation aesthetic:

- High input : output ratio
- Internal financing secures early stages, external (BU) financing must be found in later stages
- Peer reviews of ideas and proposals
- Budget to continuously ‘angel finance’ early seed stages is not tied to the normal budget process
- Year-around submission and treatment of ideas
- Clear stages with hurdles and pre-set time limits for each hurdle
- Multi-competence based staffing including external actors when needed, marshalled into credibly competent panels that decide whether hurdles are cleared
- Degree of change is an important evaluation feature (incremental innovation is not included – considered part and parcel of ‘every day’ business development)

- Extant cognitive frameworks and barriers in existing internal thought processes,
- How social interaction occurs in the firm,
- Values and norms influencing behaviour – including how the history and identity of the firm are described,
- Relations with external actors, and

Rafael Ramirez and Niklas Arvidsson

- The constituencies of power and of the people having power.

Collins (2001: 1998) describes internal processes for business innovation in a similar way. Such processes, he suggests:

- Build an organization that is ‘larger’, in the sense-making meaning of ‘large’, than a particular CEO or a particular existing business idea,
- Make it possible to realize objectives that others consider mutually exclusive, for instance, continuity *and* change,
- Result in defined core values or a core purpose of the firm that guide employees over a very long time period, and
- Maintain values that allow change *and* improvement as well as innovation *and* renewal.

The internal process innovation aesthetic is centred upon an *institutional approach where decision makers feel they should, and can, control innovation*. It seeks to create institutions, i.e. social and normative manifestations of objectives that govern values and behavior. If successful, these innovative institutions will grow larger than individuals and become rooted in the organization. As one of the co-sponsors of our research phrased it:

Business innovation is organizational behaviour, and people encourage this behaviour, or disallow it.

Conflict and integration

In order to overcome behaviours that disallow innovation, idea generators are encouraged to work with implementation through well-tested techniques. The internal process innovation aesthetic also often entails discourse that generates manageable conflict and debate, manifesting different opinions and arguments. Scenario processes that constructively surface conflicting world-views, helping any one actor to rethink what she considers unthinkable and questioning the taken-for-granted (Schwartz, 1992; van der Heijden, 1996) can be part of this aesthetic.

Enacting this aesthetic thus involves institu-

tionalizing structured multifunctional and multi-disciplinary debate to constructively channel conflict-oriented thinking and behaviour. In this innovation aesthetic, such institutional efforts aim to challenge conventional wisdom, for it is in this way that the aesthetic holds innovation will happen. A paradox of such processes is that they are situated in, vetted by, and financed by the very same institutions they are set up to depart from. The managerial challenge of this innovation aesthetic is to reconcile both logics in a creative tension, maximizing discomfort without destroying the system it is embedded in (Table 2).

Van de Ven et al. (1999) and Ramirez and Wallin (2000) showed that innovations and their journeys in this aesthetic very often consist of decade-long time units. Van de Ven and his colleagues depict the manning of innovation initiatives as wolves running in packs. Because innovations take many years, many actors, often working part-time on an innovation, will work on several over their careers. Knowledge developed in one innovation project will disseminate elsewhere in the organization as people move between innovation projects. Yet, the possibility of the organizational ‘pack’ to run in more than one country is seen as a real difficulty. Reputations and communities of practice spanning different time zones are harder to develop and maintain than those located together. Proximity appears vital to ensure success.

Critical issues when building a strong internal innovation aesthetic

A major limitation of the internal-process aesthetic is that it may not do as well in the creation of high quality ideas as it does in their evaluation, support, and (when it succeeds) exploitation. If innovation depends on the ‘right’ idea to start with, as this aesthetic assumes, the promises and limitations of ‘ideation’ workshops in their attempt to rethink the existing mind-set of a given business logic, are this innovation aesthetic’s most poignant defining factor and the internal support process must continually fight for the

TABLE 2: CONFLICT AS A SOURCE OF INNOVATION

Managed conflict is a key to success in this innovation aesthetic. Examples of conflicts inherent in the internal process innovation aesthetic:

- Initial innovation ideas proliferate into many that develop into parallel and/or divergent forms.
- Setbacks and mistakes will be encountered.
- Multiple criteria – for success and failure – will co-exist, often not aligned with each other. As one manager we interviewed expressed it: ‘We expect disagreement, disconnection, and heterogeneity.’
- Manning innovation projects involves discontinuities. Most people participate part-time, and there are always those who are promoted out of, or into, ongoing innovation efforts.
- Top management mentors, sponsors, criticizes, and institutionalizes innovation. The four roles are often in conflict with each other. Sometimes a single manager plays multiple roles. When one or more of these roles is not appropriately attended to, this will contribute to higher rates of innovation failure (Van de Ven et al., 1999).
- Implementation can happen very early, while innovations can extend over long periods of time. Innovation processes are often not linear, based on predefined stages or steps. Non-linear, i.e. ‘chaotic’ in the mathematical sense, causalities are to be reckoned with, and managed.
- In general, the innovation process stops when resources run out or when implementation succeeds (Van de Ven et al., 1999).
- Reinvention is often at work.
- Individuals, and the teams to which they belong, are assumed to be people who like to innovate. The problem is that organizational routines, and – too often – immediate bosses, disallow this energy from manifesting itself positively. The internal managed innovation often spends huge resources on removing blockages, more than on providing incentives.

idea’s potential to be safeguarded. This inherent difficulty was nicely captured by Ciaran McGinley, at the European Patent Office:

The most frequent killer of ideas that I have seen in all my working life at the EPO is ignorance of what is possible. I would be very rich if, for every time I heard, ‘Ah, I didn’t realize that was possible’ I received 100 Deutsche Marks. Yet, on the other hand, ignorance of such barriers is bliss – frequently it is the ‘dumb’ question that is brilliant.

Accepted and unquestioned perspectives of what is and is not possible kill too many innovation possibilities in this aesthetic – even quite late in a given initiative. It is because people have realized this to be the case that ‘intrapreneurship’, corporate venturing, and spin out activities have flourished.

In the internal process innovation aesthetic another important defining factor is what attracts, and what impedes, managers and professionals to join innovation initiatives. Table 3 depicts some of these forces.

It is typically the larger companies and organi-

zations that excel in the internal-process innovation aesthetic. A typical mode is the more traditional approach using R&D labs as the source of innovation. The Finnish marine engine manufacturer Wärtsilä has been very successful in using labs to design marine engines leading to a strong business. Other famous examples are AT&T’s Bell Laboratories, which was taken up by Lucent after the de-merger, and Xerox’s PARC, which Xerox failed to sell when it entered financial trouble. Partly big firms favour this innovation aesthetic because of their financial resources, partly because they have large workforces they can mobilize internally, obtaining considerable requisite variety (Ashby, 1956/1969). Thus, Shell’s Gamechanger has some 90,000 employees it can call upon at any one time. Such numbers are impossible to match by smaller companies. Firms sometimes also extend these aesthetic to internalize staff working for subcontractors and alliance and joint-venture partners. In this way, Shell can access 800,000 professionals. A growing trend is to extend the internalization to include suppliers and customers, and sometimes also competitors,

Rafael Ramirez and Niklas Arvidsson

TABLE 3: REASONS WHY PEOPLE JOIN OR DO NOT JOIN INNOVATION PROJECTS

Why people join innovation projects	Why people who might innovate avoid innovation projects
<ul style="list-style-type: none"> • Innovation is felt to be more meaningful than alternatives ways of using time. • Innovation is fun. • Innovation is challenging or developmental. • Innovation is considered 'serious' by peers. • The reputation of people who have already joined is high. • Innovation enhances reputation or employability. • One was 'poached' by an aggressive manager. • Top management supports it. • Allows one to re-address regretted previous compliance constructively. 	<ul style="list-style-type: none"> • Career advancement is within silos, not transversal. • Reputation is established per discipline and/or profession, not across them. • Inappropriate reputation mechanisms exist for the grey zones in which innovation takes place. One will not be recognized for the efforts. • 'Being poached' from existing business projects to the innovation project creates personal bitterness and bad will – there is no clear upside. • Innovation is a one-way street. The probability to return from innovation to other activities or original skill pool with valuable and attractive 'lessons learnt' is very low. Innovation 'does not pay'.

for example, Ericsson-Nokia-Alcatel-Siemens-NTT-Docomo-Tandy in the development of GSM (Ramirez & Wallin, 2000).

Measuring in the internal-process innovation aesthetic

While managers often believe that 'what gets measured gets done', it is not surprising that there are a number of dimensions in the internal-process aesthetic that can be and are measured.

Table 4 shows examples of indicators of success in the internal-process aesthetic.

EXTERNAL-JOLT AESTHETIC

This innovation aesthetic assumes existing organizations sooner or later become dormant and need an external jolt to wake up and re-vitalize them. In this aesthetic, innovation is depicted as an *external* event that, if successful, 'kicks' a sustainable business cycle into motion. The view is

TABLE 4: INDICATORS OF INNOVATION IN INTERNAL PROCESS

Effectiveness indicators of internal-process innovation can include:

- Number of ideas 'captured' or 'generated'
- Number of 'live' initiatives in the funnel
- Dollars generated by innovations 'delivered' at the end of the funnel vs. dollars spent in funnel up-keep
- Extent to which seeking and constructively developing internal conflicts and debates has been obtained
- Extent to which seeking disagreements with the official views (particularly of the future) in and of the company has been obtained
- Success rates in linking fundamentally different people and competencies to each other
- Extent to which culture safeguards disagreement and non-conformity
- Number of critical counterparts engaged with internally
- Number of diverse skills and competencies to enact plausible new business initiatives that have been marshalled
- Extent to which culture tolerates or values change and novelty, particularly in organizations in which the majority culture frowns upon these, formally and – particularly – informally.
- Contagion rates – innovativeness is contagious and so these metrics attempt to evaluate the epidemic's advance rates.
- Clear accountabilities for four key roles: mentoring, sponsoring, criticizing, and institutionalizing innovation.
- Effects on HR (employee attraction, retention and commitment).
- Effects on corporate culture and social capital/reputation ('most admired' company/executive)
- Proportion of sales depending on (recent year) internally generated innovation efforts
- Number of patents, value of patent portfolio
- R&D expenditure as a percentage of sales

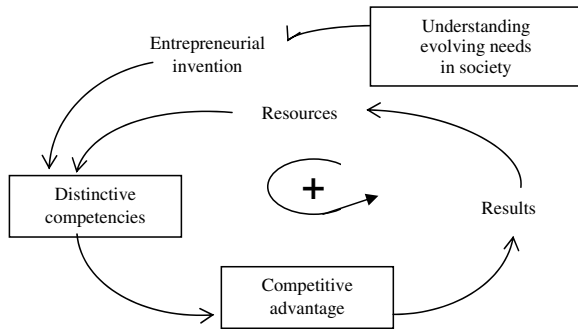


FIGURE 2: Key characteristics of process behind the external-jolt aesthetic

that an inventor ‘hits upon’ an idea, by invention or discovery, and alone or with others develops a business model that makes that invention sustainable. Certainly, many companies, and even industries, are understood according to this logic. Xerox and the firm Tetra Pak are examples (Ramirez & Wallin, 2000).

A good example of how this innovation aesthetic is graphically expressed is offered by Van der Heijden (1996: 69) in Figure 2.

While many *new* organizations are born through this innovation aesthetic, a challenge for this aesthetic is to reconcile its mode of innovation with *already existing* organizations. The literature on organizational change is replete with efforts to this effect – the best known being the creation of crises and the acquisition of companies with specific expertise. Famous examples include Welch’s ‘become number one or two in your industry, or be sold or closed down’ in GE and the acquisition of Amersham by GE to create GE Health Care.

Essence of externally driven business innovation in this aesthetic

In this aesthetic, innovation is considered to take place in short, memorable events that pinpoint phase-change transformations. While such events can be internal, most such jolts in this aesthetic are taken to come from the outside, transforming what competitors, customers or suppliers previ-

ously thought impossible into new possibilities (e.g., Tetra Pak’s UHT milk). People with the gift for this aesthetic attract potential employees working for rivals and investors to secure success. Michael Lewis’ (2001) account of Jim Clarke, who founded Silicon Graphics, Netscape, and Healtheon – each worth over one billion USD at their peak – is a superb example of this innovation aesthetic.

External jolts can be a bad surprise as well as a positive discovery or invention. Losing exclusivity on a patent, or finding out that fraud has been committed are examples. Negative jolts point out that innovation efforts have been misdirected. An example is LM Ericsson’s losses in the first years of the new millennium that stem, according to an article in Financial Times, to its failure to bring in innovative product design, concentrating too much of its innovation effort on the internal technical workings of the devices.

Whole business models can be based on the external-jolt innovation aesthetic. A well-known example is that of Cisco. As opposed to AT&T-Lucent’s extensive use of the renowned Bell Labs, Cisco does not depend upon large in-house R&D facilities. Instead it actively and systematically seeks out breakthroughs – radical innovations in its external context – that aim to change the game. To succeed with this innovation aesthetic, Cisco developed a sophisticated system to see and detect such jolts, and to profit from them by signing alliances, partnerships, creating joint ventures, or acquiring the organizations that had made them come about. At one point it was gobbling up at least one start-up company a week. The example shows that the aesthetic explanation is at least as compelling as the contingency theory one: two perfectly good companies in the ‘same’ industry choose two different modes of innovation. Our research did not extend to interviewing the managers that chose each mode, but suggests that doing so by concentrating on their aesthetic preferences is worthwhile research to pursue. In the same way, Shell’s Chemical Business division uses a ‘hunter team’ whose main purpose is to scan the

Rafael Ramirez and Niklas Arvidsson

external world for interesting innovations and new ideas that can be useful for Shell. Clearly part of the reason for doing so is that the internal-process aesthetic manifested in Gamechanger is felt to have its limitations.

It is not surprising that companies and their managers pay attention to externally generated jolts, proactively and not just passively. A proactive approach involves establishing a presence in innovative clusters. One example is Telia-Sonera, the Nordic telecommunications operator, who opened up an office for exactly this purpose in Silicon Valley. This enables them to be attentive to, and even participate in, such external jolts. The only reason to take such action is a deep belief in the external-jolt aesthetic. Telia-Sonera invests in exposure to, and participation in, external jolts that produce innovation. It feels this way in part because in such richly interactive constellations of actors, competition is difficult – or impossible – to define and study *ex-ante*. Industry borders are ever more blurred as technologies converge and as companies seeking greater shares of customers' wallets compete with each other regardless of the 'industry' the SEC classifies them into. A good example is that of the US-based truck leasing company Ryder that redefined the truck industry (see Normann & Ramirez, 1998). It is often 'Prime movers', i.e. companies who alter the rules of the game and set new competitive standards (Ramirez & Wallin, 2000), that exert such jolts on unsuspecting others.

Critical issues in the external-jolt innovation aesthetic

Discourse in the external-jolt aesthetic is centred on connecting people and organizations to each other – and to the events they produce when they interact. This is evident in the clusters that geographically concentrate knowledge-intensive activities into face-to-face (F2F) interfaces. F2F interfaces are helped by, but not replaced by, the jet and the Internet because they make it possible to share tacit knowledge, in real time and intimate space. Videoconferences, e-mail, and/or

phone have limitations in sensing the other, as Ciborra's (1996) research on groupware's impact on teamwork showed.

The 'wolves' generating innovation are in this aesthetic seen as producing innovative events – most often outside the firm. In this aesthetic the firm should be exposed to the wolf pack – in the cluster or the trade show or the academic conference – to be an early or unique benefactor of it, as Cisco illustrates. Jolts in clusters or inter-company consortia or alliance are 'external' to the single firm even if the firm has a representative in it. Such arrangements are – by definition – inter-organizational. Moreover, these arrangements are often risky, and results elusive. The history of Xerox shows how difficult it was to coalesce the constellation of partners it needed to make the innovation work – with Rand finally making the difference (Ramirez & Wallin, *op. cit.*). The same can be said of Nokia with both GSM and Symbian.

While the internal-process aesthetic relies on an internal institutional set-up, the external-jolt one is based on brilliant individuals such as Clarke, and/or on inter-organizational arrangements. Lawson & Lorenz (1999) suggest well-functioning clusters exhibit:

1. Structures and norms that enhance sharing of knowledge, i.e. that counteract quasi-rents from individual knowledge where knowledge is kept from others. They strike a balance between cooperation and competition.
2. Processes or functions stimulating face-to-face contact. These include public and informal meeting-places – like restaurants or bars, high mobility of expertise between different companies, and an outwardly recognizable feeling of shared identity within the cluster as such.
3. A multitude of competencies – including the co-presence of different kinds of knowledge-intensive firms. A 'cluster' is fundamentally different from an agglomeration of similar firms. If the variety in the existing knowledge pool is low, companies cannot find the complementary capabilities innovation requires.

While not all external jolt innovations are cluster-based, cluster characteristics need to be made available for such external jolts to become actual innovations – in conferences, trade shows, alliances, or consortia. In the external-jolt aesthetic, the ‘aha!’s innovations produce can lead to joint creation, not only of new offerings, but also – and more fundamentally – of new industry infrastructure or/and a dominant design. Paradoxical incongruity is part and parcel of this aesthetic. While co-producers compete with each other, they also co-produce a new playing field. The banks and other players that enabled VISA or Mastercard payment systems to become enacted are examples (Ramirez & Wallin, op. cit.) (Table 5).

TABLE 5: CHARACTERISTICS OF INNOVATION IN THE EXTERNAL-JOLT AESTHETIC

Aspects inherent to innovation in the external-jolt aesthetic:

- Innovation ideas happen now and then, in an ad-hoc, unplanned, and unmanaged way, and can be marshalled to develop parallel and/or divergent forms of actual business initiatives.
- Setbacks, paradoxes, misunderstandings, and mistakes will be encountered.
- Surprise detection and capture is the name of the game, although the game can also be extended into moving into, or placing an office in, surprise-prone neighbourhoods.
- Strict logical cause–effect relationships will not be the chosen road to innovation. Chance matters. Efforts are directed to increase the probability of luck.
- Innovation is felt to consist of punctuated events of varying length, not as a continuous built-in function of the organization.
- Individuals’ energy to innovate is ‘out there’ more than ‘in here’, and must be ‘captured and connected to’, more than ‘released and strengthened’, by top management.
- Hunting and gathering, more than sowing and reaping, captures the sense of how innovations that matter happen. Multi organizational arrangements of different types must be a night priority in the managerial agenda, with senior people dedicated to it.
- Investing in external network (alumnae, ex-clients, university collaborations) is important.

CONCLUSIONS AND IMPLICATIONS

We have presented two different and largely incompatible aesthetics with which innovation is sensed and felt. We have suggested that what ‘feels right’ to decision makers makes a difference on what is enacted, made sense of, and related to by managers as well as researchers. The incompatibility between both aesthetics seems to apply to most situations.

We suggest that the two approaches are in particular incompatible within one person, for it is in a person that feelings are manifested. Aesthetic understanding is so personal that one individual can feel securely coherent in only one type of aesthetic at a time. Over their life time people can change their mind if there is evidence that one approach feels better than the other, but feeling comfortable with both aesthetics simultaneously with reference to a single situation is uncommon.

Both approaches can be rendered compatible within a large company if there are different – buffered – units that are governed by each of the aesthetics. Yet, even when a firm exhibits both aesthetics in its organization – the case of Shell Chemicals was mentioned earlier – one seems to dominate the other at any given time.

An issue we did not research is whether the manner in which a firm engages with the external business environment may eventually lead it to switch to an external jolt aesthetic. In a similar reasoning, overdependence on external sources may trigger management into investing to develop an internal process aesthetic.

What is similar between the two aesthetics?

Both aesthetics assume business innovation to entail cognitive processes shaped by emotion (Damasio, 2000), but with different emotions or feelings relating to each one. In the internal-process one, innovation can be planned for, controlled, and ‘housed’ or hosted – even if one does not know for sure what the payoff will be, or when. In the negative sense of domestication, in the ‘internal-process’ aesthetic, innovation can be

Rafael Ramirez and Niklas Arvidsson

co-opted and mastered. In the external-jolt aesthetic, innovation feels like it is something wild, unpredictable and accidental – even if one actively can seek contexts in which the likelihood of being jolted is high. Innovation involves actively seeking, searching for, discovering, recognizing, and/or preparing for accidents that in that very vague sense are ‘planned for’. Innovation here is not and can not be domesticated – it is only upon its being rendered viable as a business that it can be captured and then be internalized.

How do the aesthetics differ?

While both aesthetics underline the importance of connections that feel right, the internal-process one focuses on those situated within a large organization; while the external-jolt one focuses on events, occasions, meetings, and relations between organizations.

As to the ‘management of innovation’, this is precisely what managers in the internal-process aesthetic consider they do – even if the outcome remains uncertain. On the other hand, in the external-jolt aesthetic what is managed is restricted to engaging with likely jolt sources and authors of recent jolts, and neither the innovation itself nor the process by which it comes about is ‘managed’.

The positive sense about innovation in the internal-process aesthetic is that it is contained, and the assumption is that the organization containing the innovation will nourish it and in turn be nourished back. The humour that accompanies creativity (Koestler, 1969) is taken to be more compatible with the organization in the internal-process aesthetic of innovation than it is in the external-jolt aesthetic. In the external-jolt aesthetic the sense about innovation is that the organization and its culture – centred on producing whatever has made it successful – impede or at least not favour innovation. Innovation is nevertheless a valued option, which is therefore placed outside the organization, where it flourishes and from where it can be – perhaps – brought in.

It follows from this that organizational identity

in the internal-process aesthetic is an asset supporting innovation whereas in the external-jolt aesthetic this organizational identity is often regarded as a liability by managers in the innovating organization. The creation of ‘First Direct’ bank by HSBC obeyed to the external-jolt aesthetic – Olins and his colleagues shared the sense with the responsible managers that the HSBC culture and organization would have killed the new form of bank had it been situated within (Olins, 2003). This is also what happened to Tetra Pak’s originators, who out-sourced it from the packaging company they managed (Ramirez & Wallin, *op. cit.*). This is what the corporate ‘venturing’ mode of ‘intrapreneurship’ suggests too. Anger, hate, and conflicts associated with innovation acts are not contained within organizations in the external-jolt aesthetic, they are externalized – along with the joy, excitement, and thrill – until proof of concept allows the entity to be brought to the fold. In this way both aesthetics are also organizational aesthetics (Ramirez, 1991; Strati, 1999), not only innovation ones.

The internal-process aesthetic innovation depends on the belief that managerial competence and organizational characteristics can generate innovation more or less continuously – innovation is here part and parcel of the everyday activity of the organization. The external-jolt aesthetic holds that business innovation stems from exceptional jolts that are event-centered, limited in time and space, and distinct from the everyday of the organization.

In the internal-process aesthetic, implementation is meant to be a seamlessly interconnected element within the innovation journey although it often is not. In the external-jolt one, a distinction between discovery and invention, on the one hand, and recognition, appropriation, and enactment, on the other, is evident. Shell’s interest in renewable energy sources in the 1990s as depicted in the book ‘Leading the Revolution’ (Hamel, 2000: 175–184) illustrates this distinction – which in this case included a difficult managerial change. Georges Dupont-Roc had joined Shell’s

planning group in 1993 to work with scenarios. This work is described as examining which external jolts will plausibly hit the firm within a given time frame. Dupont-Roc and others looked into the future:

I saw the potential for renewable energy sources to reduce their costs and take market share from traditional energy sources, going from a small niche to a serious competitor in the way that oil did at the beginning of the twentieth century.

(Georges Dupont-Roc: 177)

Shell was not easily convinced, but relentless efforts and numerous speeches all over the world by Dupont-Roc and others gathered increasing support from subsidiary managers and the establishment of a new division – International Renewables – in 1997. The story in the book indicates how the appreciation of an external jolt, i.e. changed energy sources, came from a new understanding of the environment, and – as the external-jolt aesthetic supposes – overcoming established corporate views required considerable effort. In the end, however, while the company made renewable energy sources to become part of its business, the external-jolt discoverer, Dupont-Roc, was not asked to head the new division, and he left Shell.

It is true that the individual identifying an external jolt innovation may not be the best adopter and manager of the business it spawns. Yet the people involved in an innovation are often those best able ‘to live the innovation’ – to paraphrase Wally Olins. This is one of the challenges in the external jolt innovation aesthetic.

Essence of the aesthetic approach to business innovation

Our research made us realize that an innovation is aesthetically experienced. The pattern of innovation is felt and made sense of. This involves not only the heads, but also the intuition and guts of the managers involved. The form of these aesthetics can be rendered explicit in archetypes

or ‘ideal types’ in Max Weber’s sense. These provide referents for managers to examine not only how they experience/feel/make sense of an innovation, but also to better determine the consequences these feelings hold for the type of innovation they will enact.

While the distinction between both innovation aesthetics is not too distant from Burns and Stalker’s between mechanistic and organismic innovation (1961), our distinction is not contingent on the external environment – as is theirs – but on what ‘feels right’ to individual managers or management teams. The type of knowledge manifested in terms of ‘what feels right’ entails what Max Weber’s treated as empathy, and which he too considered to be an essential way to know organizations. This empathy-as-knowledge approach has been abandoned in the modern understanding of organizational knowledge, which favoured objective, scientific, detached understanding, as Strati (1999) has so powerfully argued. But as strategy research moves beyond this modern mode (Whittington, 2003), it must re-connect with what practitioners feel. Whittington proposes that strategy research must reconnect with the sociological; this article proposes that it must reconnect with the social psychology of emotion, and the cognitive psychology and neurobiology of consciousness, which has also found that knowledge is, first and foremost, emotional (Damasio, 2000).

The two aesthetics we have proposed are ‘ideal types’ in Weber’s sense. This does not mean that they are ideals one must strive to approximate in practice; it does mean that they are ‘pure’ archetypes that different practices will approximate more or less well, but which provide a reference that allow practitioners to situate their own action and to better understand the implications of what they feel they ought to do.

While we will finish by providing an overview of the managerial implications of each aesthetic, we here highlight aspects of how each of the two innovation aesthetics feels.

Rafael Ramirez and Niklas Arvidsson

Feelings in the internal-process aesthetic

Positive/developmental feelings can include:

- Satisfaction at seeing a well designed, smooth running machine, gather, evaluate, and support actual innovations in a fair and professional way
- Pride in getting ‘the best out of the people we already have’
- Excitement at having the entrepreneurial spirit alive in a bureaucracy
- Confidence stemming from securing inter-functional or inter-departmental collaboration that is otherwise rare
- Confidence in being able to innovate enough to satisfy survival and even growth conditions in the future
- The ‘buzz’ that comes with intellectual curiosity working effectively
- Internally generated internal and external recognition.

Negative/regressive feelings (that if strong can push one to favour the external-jolt aesthetic) can include:

- Arrogance – no one does this better than we do
- Overconfidence in own people
- Blindness to what is being done outside
- Lack of interest in ‘other ways’ and ‘other fields’, and – generally – ‘others’
- Burnout – doing too much internally
- Groupthink – too little external challenge
- Smugness – we are OK, thank you very much
- Cynicism – no one has tried this before, why should we?
- Dissociation/splitting: we innovators are far more exciting/superior than those operational people over there.

Feelings in the external-jolt aesthetic

Positive/developmental feelings can include:

- Excitement in meeting counterparts with whom conversation ‘sparks’ and is mutually enriching (Zeldin, 1998)
- Satisfaction at seeing a external ideas captured, adopted, and adapted into new products

- Pride in getting ‘the best people the world offers to work with us’, in being the ‘preferred’ partner
- Personal development through challenging own assumptions, or widening one’s world by discovering the worlds of others
- The confidence that securing inter-organizational collaborations (alliances, joint ventures, consortia) that are otherwise rare affords
- Serenity in being able to innovate enough to satisfy survival and even growth conditions in the future
- The ‘buzz’ that comes with intellectual curiosity working effectively
- Co-generated internal and external recognition.

Negative/regressive feelings (that if strong can push one to favour the internal-process aesthetic) can include:

- Arrogance – our counterparts are not as good at this as we thought they were
- Insecurity – our people are not as good at this as we think our counterparts thought they were
- Blindness to what is already being done by insiders not mobilised to interact with the outside world
- Feeling over-stretched in trying to cover too many fields/subjects/countries/conferences, which may lead to burn out
- Exceeding one’s absorptive capacity – failure to link external learning to implementable action
- NIMBY – ‘this could be tried out, but “not in my back yard” ’
- Cynicism – my best people are being stolen away into these new, peripheral, external activities – why support them?
- Dissociation/splitting: the outsiders are more interesting than the insiders
- Fatigue after all that travelling.

The managerial implications of each aesthetic are outlined in Table 6.

In this paper we have set to map two alternative ideal types or archetypes of innovation, based

TABLE 6: HOW TO MANAGE EACH AESTHETIC RESPECTIVELY

Managerial internal-process aesthetics will:	Managerial external-jolts aesthetics will:
<ul style="list-style-type: none"> ✓ Encourage social interaction across functions, professions, countries, BU:s, and national cultures to increase variety of thinking and cross-breeding of ideas. ✓ Stimulate internal conflicts and debate to question the existing business idea on a continuous, or at least regular, basis. ✓ Build and enforce values and artefacts supporting internal renewal and innovation. ✓ Seek, develop and strengthen forces leading to new thinking and action, including links to others helping this. ✓ Ensure the constituencies of internal power and legitimacy tolerate or support, and reward, innovative action. ✓ Use scenario thinking to develop shared appreciations of others' viewpoints, to develop pictures of possible futures that action plans can bring about, and to constructively channel conflict. 	<ul style="list-style-type: none"> ✓ Seek out new areas of knowledge. ✓ Be present where 'the buzz' is sensed to be. ✓ Avoid 'not invented here' stigma – copy and adopt from the outside. ✓ Recruit people who do not fit established patterns. Have systems attracting and retaining critical, knowledgeable outsiders. ✓ Develop multidisciplinary project teams that include outsiders and stakeholders. ✓ Transfer managers from well-known grounds to unknown terrain regularly. ✓ Connect key individuals with the heartland of specific external knowledge clusters. ✓ Connect to skilled and demanding customers and/or suppliers, or other actors. ✓ Start new product lines or businesses often, and become skilful at ending some of these. ✓ Accept failure in career paths. ✓ Support employees that leave – and welcome them back when time is ripe. ✓ Engage in joint-ventures, alliances and partnerships often, also as minority partner.

on aesthetic distinctions. We hope they will help managers and researchers alike to be more attentive as to 'what feels right' and the consequences of acting out those feelings.

References

Ashby, WR (1956/1969) Self-regulation and requisite variety, in: Emery, FL ed, *Systems Thinking*. Penguin, London.

Autier, F (1999) Ni prescrire, ni laisser faire: une analyse exploratoire des logiques de production de l'innovation dans les organisations. Unpublished Doctoral Dissertation, HEC, Paris.

Bateson, G (1972) *Steps to an Ecology of Mind*. Chandler, New York.

Burns, T and Stalker, GM (1961) *The Management of Innovation*. Tavistock Publications, London.

Christenson, C (1997) *The Innovator's Dilemma – when New Technologies cause Great Firms to Fail*. Harvard Business School Press, Boston MA.

Ciborra, CC (1996) *Teams, Markets and Systems: Business Innovation and Information Technology*. Cambridge University Press, Cambridge.

Collins, JC (1998) *Built to Last: Successful Habits of Visionary Companies*. Century Business, London.

Collins, JC (2001) *From Good to Great – Why Some*

Companies Make the Leap ... and Others Don't. HarperCollins, New York.

Damasio, A (2000) *The Feeling of What Happens: Body, Emotion, and the Making of Consciousness*. Vintage Books, New York.

Dobson, J (1999) *The Art of Management and the Aesthetic Manager – the Coming Way of Business*. Quorum Books, London.

Feldman, SP (2000) Micro matters: The Aesthetics of Power at NASA's Flight Readiness Review. *The Journal of Applied Behavioral Science*. 36(4): 474–490.

Glaser, BB and Strauss, AL (1968) *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Weidenfeld & Nicholson, London.

Hamel, G (2000) Leading the revolution. Harvard Business School, Boston MA.

Hedlund, G (1986) The Hypermodern MNC – A Heterarchy? *Human Resource Management*, 25(1): 9–35.

Heijden, K v d (1996) *Scenarios: The Art of Strategic Conversation*. Wiley, Chichester.

Koestler, A (1969) *The Act of Creation*. Hutchinson, London.

Langer, S (1953 /1979) *Form and Feeling*. Routledge, London.

Rafael Ramirez and Niklas Arvidsson

- Latour, B and Hermant, E (1998) *Paris: Ville Invisible*. Broché, Paris.
- Lawrence, PR and Lorsch, JW (1967) *Organization and Environment: Managing Differentiation and Integration*. Harvard University Press, Boston MA.
- Lawson, C and Lorenz, E (1999) Collective Learning, Tacit Knowledge and Regional Innovative Capacity, *Regional Studies* 33(4): 305–317.
- Lewis, M (2001) *The New, New Thing*. Penguin, New York.
- Olins, W (2003) *Wally Olins on Brands*. Thames & Hudson, London.
- Normann, R and Ramirez, R (1998) *Designing Interactive Strategy: From Value Chain to Value Constellation*. Wiley, Chichester.
- Normann, R (2000) *Reframing Business – When the Map Changes the Landscape*. Wiley, Chichester.
- Pepper, SC (1942/1970) *World Hypotheses: A Study in Evidence*. University of California Press, Berkeley CA.
- Ramirez, R and Wallin, J (2000) *Prime Movers: Define your Business or have someone Define it against you*, Wiley, Chichester.
- Ramirez, R (1987) Towards an Aesthetic Theory of Social Organization. Unpublished Doctoral Dissertation. University of Pennsylvania, Wharton PA.
- Ramirez, R (1991) *The Beauty of Social Organization*, Accedo, Munich.
- Schlag, P (2002) The Aesthetics of American Law. *Harvard Law Review* 115(4): 1047–1131.
- Schwartz, P (1992) *The Art of the Long View: Scenario Planning – Protecting your Company against an Uncertain Future*, Century Business, London.
- Strati, A (1999) *Organization and aesthetics*, Sage, London.
- Thompson, JD (1967) *Organizations in Action*, McGraw Hill, New York.
- Van de Ven, AH et al. (1999) *The Innovation Journey*. Oxford University Press, Oxford.
- Weick, K (1995) *Sensemaking In Organizations*. Sage, Thousand Oaks CA.
- Weick, K (2000) *Making Sense of the Organization*. Blackwell Business, Oxford.
- Woodward, J (1965) *Industrial Organization: Theory and Practice*. Oxford University Press, London.
- Whittington, R (2003) The Work of Strategising and Organising: for a Practice Perspective. *Strategic Organisation* 1(1): 56–65.
- Zeldin, T (1998) *Conversation: How Talk Can Change Your Life*. Harvill Press, London.
- Weick, K (1995) *Sensemaking in Organizations*. Sage, Thousand Oaks, CA.
- Weick, K (2000) *Making Sense of the Organization*. Blackwell Business, Oxford.
- Woodward, J (1965) *Industrial Organization: Theory and Practice*. Oxford University Press, London.
- Whittington, R (2003) The Work of Strategising and Organising: for a Practice Perspective. *Strategic Organisation* 1(1): 56–65.
- Zeldin, T (1998) *Conversation*. The Harvill Press, London.

ANNOUNCING: NOVEMBER 2005

THREE-DIMENSIONAL ETHICS: IMPLEMENTING WORKPLACE VALUES

by Attracta Lagan and Brian Moran

ISBN 0-9757422-3-X; viii + 184 pages; softcover; available November 2005

Who governs corporate behaviour?

Institutionalised greed has made corporate ethics everyone's concern. Proliferating court cases indicate the potential of socially irresponsible corporations to cause physical, mental and financial injury to employees, customers, community, the national economy and natural environment. In this book, Attracta Lagan and Brian Moran show how personal, professional and societal dimensions of business ethics influence the implementation of workplace values by company directors, CEOs, CSR directors, HR managers, middle managers and OH&S officers. Systematic application of their 3D Ethics model leads to consistent and predictable behaviour, aligned to stated personal, workplace and democratic values – that are increasingly being sought by employees, business and society. Ethics is not just about morality; it is a challenging dimension of personal and corporate behaviour that, when consistently applied, results in higher performance.

eContent Management Pty Ltd, PO Box 1027, Maleny QLD 4552, Australia
Tel.: +61-7-5435-2900; Fax: +61-7-5435-2911; subscriptions@e-contentmanagement.com
www.e-contentmanagement.com