

RESEARCH PAPER

The change agent in innovation

Jennifer Tann

Business School, University of Birmingham, Birmingham, United Kingdom

ABSTRACT

Much has been written on change management in the organization, and on the roles and expertise involved. But the change agent, whether internal or external to the organization, has received less attention. Change agents are characterized by a low boredom threshold; they need change to be energized and they may not fit in. This paper introduces examples of an academic change agent's activities in different contexts and the effects of change agent interventions. Elusive, the change agent moves on, or out, once the change has been initiated.

Introduction

Innovation – be it in product, technology, structure, organization, practice-focused or concerned with human resources; be it major innovation or minor – is acknowledged to be essential to survival. It is essential for the mature organization as much as for the new one, for large as well as small organizations, for manufacturing industry and the service sector. The innovation may not be new in any absolute sense, but if it is new to the adopting organization, it is often characterized by side effects/employee attitudes similar to those experienced by the original innovating organization (Birkinshaw *et al.*, 2008). Innovation is initiated when a level of dissatisfaction with the status quo is reached, or when one or more managers/staff perceive possible new opportunities that may have eluded others. Many individual innovators believe that, however much established businesses claim to be innovative, resistance to new projects, even ones with huge potential, is common – as is killing innovations (Volberda *et al.*, 2014). Organizations that choose not to undergo a step change do not necessarily fail, but engage in smaller innovations and identify a specialist niche as, for example, Steinway, the manufacturer of concert-standard musical instruments, has done.

Innovation roles

Such are the characteristics and skills required for innovation and change that a large literature has emerged aimed at seeking to recommend practical rules and structures for navigating the uncertainties. Most innovations are far too complex for one person – the innovator or implementer – to manage. The process requires people with different skills to engage and disengage over time (Camison and Villar-Lopez, 2014). It is the interaction between individuals and context that can embed or impede innovation, resulting in outcomes that cannot be fully explained by analyses of people and context taken separately. Indeed, the effectiveness of an innovation is related to the frequency with which individuals with dissimilar frames of reference communicate with each other. A carefully selected team, whose members have complementary leadership styles, is more likely to deliver (Camison and Villar-Lopez, 2014). Eight leadership archetypes have been identified by Kets de

CONTACT: innovation.jt@btinternet.com

ACCEPTING EDITOR: Richard Joseph

Vries *et al.* (2007, pp.91–3): strategist, change-catalyst, transactor, builder, innovator, processor, coach, communicator. The change-catalyst loves messy situations, is a leader skilled at re-engineering and creating new organizational blueprints; while the innovator is focused on implementing the new, having a capacity to solve complex problems. In this model the change-catalyst is change agent by another name.

The business leader has a duty to promote innovation and to create an environment which encourages it. If he/she perceives an opportunity for innovation, it should be offered to an appropriate team member on the understanding that he/she is free to tackle it in their own way. Nolan (1987, p.283), while not identifying the change agent, recommends that a great deal of freedom be given to the employee: 'Innovative activity is usually the most interesting, stimulating and exciting part of a job, and carries the highest potential for learning'. Experimenting with many diverse ideas (some seemingly absurd) is crucial to radical innovation and change, while rethinking the role of failure is important. Some high-technology organizations encourage their designers to fail often in order to succeed sooner (Thomke, 2001). But there is a distinction to be made between failure and errors. A badly conducted experiment may lead researchers to repeat it without learning from it. Creative employees need to be able to play with prototypes. IDEO, a design firm in Palo Alto, California, advocates the development of rough prototypes that staff are invited to criticize. There is a huge 'tech box' with hundreds of gadgets and bits and pieces which designers are encouraged to rummage through, looking for inspiration (Dodgson *et al.*, 2005, p.151). This challenges Tidd *et al.*, (2005, p. 84), who assert that 'successful innovation management is primarily about building and improving effective routines . . . and facilitating their emergence across the organisation'.

Change agent characteristics

The change agent has been memorably described by Rogers (2003, p.400) as 'A marginal figure with one foot in each of two worlds' – both inside and outside the organization; a boundary spanner. He/she, whether internal or external to the organization, works independently and at ease across functions; he/she does not seek recognition for their own activities, being characterized by 'self-confidence tempered with humility'. The change agent needs to understand how potential innovation adopters perceive new ideas and this will depend, in part, on the former's attributes. Ottaway (1979) proposes a taxonomy of change agents: change generators, change implementers and change adopters, identifying those who convert an issue into a felt need (Ottaway, 1979; London, 1988, pp.58–9). For change to be successful, the change agent needs to identify relevant characteristics of the potential adopter. Five categories of potential adopters have been identified by Rogers (2003, pp. 282–4): innovators (venturesome, for whom innovation is almost an obsession), early adopters (more integrated into the social system, act as role models), early majority (deliberate), late majority (sceptical) and laggards (traditional). Two-thirds of adopters belong to the early and late majority categories. Mobile phones, for example, were first adopted in the US by executives (early adopters) and were a status symbol. When manufacture was taken up by the Finnish company, Nokia, smaller, colourful mobiles suitable for children were manufactured, besides all-purpose communication devices for adults and business. Nokia invested 9.6% of its profits in R&D, compared with the more usual average of 2–3%. By the 1990s, there was a 104% adoption rate in the 18–34 age group, some people owning two or three mobiles (Rogers, 2003, pp.260–1).

In his work on innovation adopter categories, Rogers (2003) has estimated the average annual number of contacts with change agents by different types of adopters. It comes as no surprise that innovators score the highest with 20 contacts a year, early adopters average 15, early majority 12, late majority 5 and laggards 3. 'Change agent contact is one of the variables most highly related to innovativeness' (Rogers, 2003, p.382), but change agents are faced with two major issues: information overload and social marginality in that change agents (whether internal or external) occupy the territory midway between the change agency and the client system. Rogers (2003, pp.282–4) identifies seven roles for the change agent in the process of introducing innovation to a client system.

Change agents develop and articulate a need for change; once the change agent is perceived as credible and trustworthy, information exchange takes place; they diagnose client problems; they create an intent for change in the client system; intent is translated to action; the innovation being adopted is stabilized to prevent discontinuance and, in conclusion, change agents put themselves out of business by developing the innovating organization's ability to manage change without them. While this would seem to be focused on the internal change agent (who moves on to a new problem) these roles are also applicable to external consultant change agents.

The legitimacy of external change agents will be tested against the extent to which they provide a convincing rationale for a new product, process, or system for a specific organization. The internal change agent may be a member of staff recognized for skills in facilitating innovation in relevant business or technological areas. The higher in the hierarchy the internal change agent's position, the more efficient the innovation adoption is likely to be (Warrick, 2013). Gilley *et al.*, (2001, p.234) suggests that the internal change agent may be the CEO, but that is to confuse the role of change catalyst with decision-maker.

The external change agent may be a consultant or an academic with an ability to place new products or practices within a wider context. Internal or external, they act as influencers, people who persuade and motivate; enablers who network, identifying coalitions and partnerships; they bring people and resources together; encouraging self-reliance in others and not taking no for an answer. The change agent clearly enjoys change and then disappears, moving on to the next project (if an insider), or leaving the organization (if an external change agent). It is the responsibility of the sponsor to ensure that the implemented innovation/change is lasting. But first it may be necessary to take a 'holiday' from the problem, generating material that has no apparent connection with it, 'making the familiar strange and the strange familiar' (Cawsey *et al.*, 2012, p.286). The legitimacy of external change agents will be tested against the extent to which they provide a convincing rationale for the new product, process or system for a specific organization. While the change agent must possess a high degree of expertise in the innovation to be adopted, he/she must be an enquiring and challenging facilitator who draws ideas from others, identifying expertise both inside and outside the organization.

Roles of the change agent

The change agent has been characterized as a magician. Lichtenstein (1997) focuses on 'Grace, magic and miracles', the creative non-linear logic necessary, in addition to rational change management, to enable transformation. Gabriel (2000, p.12) makes the important point that 'Magic not only introduces legitimate though temporary aberrations in the behaviour of the characters, but also allows for sudden shifts in the balance of power among the characters'. In a *Wizard of Oz* analogy, Gilley *et al.* (2001, p.59) warn to 'Beware of Flying Monkeys and Poison Poppies which show themselves in unexpected and unanticipated situations and attitudes', a reminder that change involves the unexpected – and it helps to keep a sense of humour. Magic introduces aberrations in behaviour and 'allows for sudden shifts in the balance of power among the characters' (Lichtenstein, 1997, pp.404–6). Buchanan and Boddy (1992, pp.69–73) identify the political roles of the change agent, highlighting the potential tension between the 'Public performance of rationally considered and logically phased and visibly participative change, with backstage activity in the recruitment and maintenance of support in seeking and blocking resistance'. In these terms, the change agent is a skilled political operator. In studying the interactions between professionals and government departments, Tann *et al.* (1996) and Tann and Blenkinsopp (2003) use the less playful but practical term 'shakers and movers' to describe the role of internal and external change agents in the National Health Service (NHS) interacting between organizations at different levels.

To be managed effectively, change requires people in different roles with different talents at different stages of the change process. The change agent is, by temperament, an initiator, proactive rather than reactive. Implementation, project management, consolidation, fire-fighting and

harmonizing are roles better suited to others. However, proximity, empathy and openness between the change agent and organization members will facilitate the introduction of change (Caruso and Salovey, 2004, p.47). The effective change agent (whether internal or external) is a skilled networker both within and outside the organization, a challenging creative problem-solver and critical-systems thinker, enthusiastic, inspiring and an engaging and dynamic communicator (Cawsey *et al.*, 2012, pp.263–6).

Change agents have been classified according to the roles and tasks they undertake (Caldwell, 2003a, 2003b; Kendra and Taplin, 2004). Lunenburg (2010) identifies four categories: the outside pressure type is external to the organization and offers radical options which may include mass demonstrations, civil disobedience and violence to accomplish ends. The other three categories are internal to the company/organization: the people-change-technology type, where the focus of activity is the individual who addresses, for example, employee morale and quality of work performed; the analysis-for-the-top type focusing on systems analysis and operations research, for example, when a project includes the introduction of a new IT information processing system; while the organization-development type often focuses on cultural change. This classification portrays the internal change agent as an easily recognizable manager who will not rock the boat, will not be playful or particularly creative, while implying that the external change agent might well sink it. The external change agent, by taking the wider picture and adopting a negotiating, yet challenging stance, enables managers to achieve change without necessitating mass demonstrations, civil disobedience or violence.

It is clear that change agents need to be flexible, courageous, relational, strategic, creative, intentional and thorough (Lunenburg, 2010, p.2). Fuda (2014) and Fuda and Badham (2011) identify three categories of tasks of a transformational change agent:

1. Doing: the specific skills and methods for creating change
Creating a setting for success without needing to control; artfully applying frameworks, models and tools; providing correction to senior executives without causing resentment; appealing to the heart and then the head; making a call to action.
2. Seeing: the ability to make sense of, and reshape perceptions of reality
Seeing a different 'normal'; perceiving the distinction between fact and truth; seeing leaders sympathetically; seeing all interventions in a strategic context; seeing a higher self.
3. Being: the personal characteristics and qualities of transformational change agents
A role model first and preacher second; optimistic, inspiring hope, not fear; courageous and selfless; trusted and leveraging trust; in service but not subservient.

Birch and Clegg's (1996, p.118) toolkit for business creativity is an accessible, playful, yet challenging approach and presents many relevant tools for change agents. There are numerous exercises, each chapter ending with a short extract from fiction. The reader is almost defied to admit to being no more creative than when he/she began. The authors present selected creativity techniques, developing a toolkit intended to assist the reader to see the world differently. The reader is invited to daydream, a skill that all who are concerned with increasing creativity need. Throughout the book the reader is shown creativity blockers – among which are 'you', 'the brain', 'following the rules', 'removing ambiguity' (Birch and Clegg, 1996, p.118). When recruiting, organizations tend to select staff who will fit with the norms and working styles of the company when, perhaps, 'It is time actively to recruit oddballs' (Birch and Clegg, 1996, p.120). By definition, oddballs do not fit in. They may learn to conform, they may leave or they may change the immediate environment, establishing a small but powerful enclave of creativity. Finally, the creative organization encourages risk-taking, which involves low formality, respecting learning and having fun. It may be argued that Birch and Clegg's recommended approach would suit only the business start-up – but even there, the originating innovating entrepreneur may resent the rule-breaking propensity of others in the

organization. Nevertheless, as with IDEO, this approach is not only possible, but also flourishing in some larger companies, such as Siemens Nixdorf (Dover, 2002).

The change agent in action

Midway through 1999, the pharmaceutical adviser of a Manchester primary care trust (PCT), recognized the possibility that there might be a large number of unplanned/unwanted pregnancies resulting from the celebrations of Millennium Eve (Tann and Blenkinsopp, 2003, pp.235–45). At the time, pharmacists were not permitted to dispense the ‘morning after’ pill without a doctor’s prescription. The inevitable delays would have reduced the efficacy of the treatment, besides which the price charged was too high for people in inner-city areas of social deprivation. Adopting the role of change agent, internal to the sector but external to the pharmacies in the PCT, the Manchester area pharmaceutical adviser decided to initiate over-the-counter emergency hormonal contraception. Outcry ensued, questions were asked nationally but, through persistence, political networking, addressing local pharmacists’ anxieties, recognizing what protocols had to be in place – and ensuring that they were – an initial group of ten pharmacies was ready to provide the service by Millennium Eve. What had been an audacious move in 2000, became mainstream national provision and the PCT change agent withdrew to a regional role.

In the examples of change agency which follow, the author was the external change agent. A major UK manufacturer of underground drainage pipes for the construction industry had a product failure – a junction pipe which connected drainage systems. The problem was exacerbated in that, being underground, the fault was not immediately detected and a number had been installed, with potentially dangerous consequences. The author was commissioned to work with the original product development team to produce a design brief for the replacement junction pipe. At a two-day consultation, the product’s faults were identified and a storyline constructed of how the original junction pipe was designed and taken to market. The team identified, in parallel, the design brief principles which should have been used. Then, working with these principles, the group produced a design brief for the replacement product, which was subsequently adopted by the company. The change agent moved on. And there were additional outcomes: team members, who had been engaging in cross-functional blame, ceased their in-fighting; and it was recognized that failure in a no-blame environment could provide excellent opportunities for organizational learning. As the principles for the new design brief were generic, they could be applied by the company in other contexts.

The managing director (MD) of a UK housing association in the Midlands recognized that internal organizational transformation was required. He held discussions throughout the association and then threw down the gauntlet, inviting all staff to join him on a journey for change. He listed 15 points encapsulating what he had learned about the association during the previous year, some good and some not so good: ‘We now know the extent of the job ahead and burying our heads in the sand is not an option’. The author was commissioned as external change agent to facilitate culture change, the MD being the sponsor. Each employee was given a copy of Spencer Johnson’s *Who Moved my Cheese* (Johnson, 1999), a story of three mice whose cheese was always provided for them in the same place until one day it was not (cf. Lundin *et al.*, 2000, 2002). Each mouse behaved differently in response to the perceived threat of starvation. ‘Finding the cheese’ became the housing association’s metaphor for change as staff reflected, without accusation or blame, on whether they were prepared to critique the status quo. As sponsor, the MD challenged staff to compare the housing association with others, taking some staff to visit what he considered to be an exemplary organization. He wrote to chief executives of local companies (not necessarily in housing) with a reputation for outstanding customer relations, asking if they would be prepared to second a customer services manager to the housing association for a short while. The walls of the office building became picture galleries for posters in cartoon style headed ‘achieving excellence’. When staff accepted that the process of change would continue, the change agent moved on. Part-way through the planned

five-year change programme, the group of which this housing association was a member merged to become one of the largest national associations, but not before the UK Audit Commission had commended the 'Strong, clear and passionate leadership creating a culture which supports continuous improvements' (Baddeley, 2006).

Churches are infrequently known for embracing and effecting organization change. However, an eighteenth-century English cathedral, which lacked the endowments of a medieval foundation, was faced with having to produce an annual budget in the context of an interregnum and a level of income failing to match the rate of inflation. Year on year, the budget had replicated the previous year's, but with cuts. The cathedral chapter, encouraged by an archdeacon, charged the residentiary canons with the task of developing a challenging new strategy. The canons planned two days away with a lay member of the chapter (a *de facto* internal change agent) during which they would construct stories of possible futures, informed by imaginative use of current data on congregations, urban plans and relations with the diocese. The canons divided into two groups working in separate rooms, one group being invited to construct an imagined but realistic, positive story, the other a negative story of the future, both on a five-year timescale. The positive story was built around increased giving by the business community, enabling new building and repair work to be undertaken. The negative story identified extensive dry rot in the building while, in the churchyard, a dead, pregnant teenager was found one morning propped up against a tombstone (and still the choir sang Palestrina). Having shared their stories, the two groups returned to their respective rooms to discuss what should be done in the light of their own particular narrative. The positive scenario group discussed improving cathedral facilities and providing a coffee shop in the grounds, both much needed. The negative scenario group sat in their room in silence – which ran and ran, the change agent being prepared for the silence to last as long as it took for a member of the group to put forward an idea. Eventually, the most senior canon hesitatingly said 'We must let it (the cathedral) fall down.' When the two groups reconvened and shared their proposed solutions, it was the drastic negative scenario which energized both groups and prompted the development of a potential strategy in which the cathedral faced outwards towards the community. The subsequent budget reflected this and many of the planned actions were subsequently implemented.

In 1999, the UK government initiated its 'third stream' activities, funded in England by the Higher Education Funding Council for England (HEFCE) through several programmes, the main objective being technology transfer and the commercialization of university-based research. The first phase of the Medici programme in selected UK universities began in 2002 and, after evaluation, was extended to 2006. It was led by the University of Birmingham and initially involved medical schools, schools of biosciences and health care-related disciplines in five research-intensive Midland universities (Birmingham, Aston, Leicester, Nottingham and Warwick). A further ten Midland universities joined the programme for phase 2, at which stage the programme was extended to include creative industries and technology. The initial objective was the appointment of subject-specialist fellows as change agents in the departments of their respective disciplines. One-year fellowships were awarded through a competitive selection process, the successful applicants being awarded a bursary for a year. Fifty-one fellows were appointed, approximately half of whom were existing members of staff (some on short-term contracts). The other half were recent postgraduates or completing doctoral students employed on full-time contracts. Most of the fellows were based in academic departments, the remainder being appointed to technology transfer offices. Approximately one-third of the fellows had their own ideas which they wished to develop commercially. All fellows had a sought-after skill set and those who had been seconded returned to their academic departments at the end of the year, others being appointed to technology-transfer roles. The remaining 34% took up posts in industry, including in spin-out companies.

The head of the school of sciences in one of the Midland universities drew a comparison between years 1 and 3 of the Medici programme: 'in year 1 things began to happen . . . in year 3 colleagues were seeking out the Medici fellows'. Of the 80 academic staff in the school, around 25% had progressed to a patent or further grant and three staff were almost exclusively focused on

the business applications of their research. But difficulties were identified in establishing cross-school commercial projects (mirroring perceived difficulties in setting up cross-school research projects). Three reasons were given: income was attributed to individual school budgets; lack of alignment with school strategic plans; different sub-cultures. Rogers (2003) points out that a key change agent attribute, besides expertise in the area concerned, is that change agents need to work through opinion leaders and must have adopter orientation and empathy. This suggests that university change agents are more successful if they do not rock the boat but conform to the group norms where change is to be effected. This begs the question as to the extent to which more radical ideas are ignored or abandoned.

Personalities of change agents

Potential change agents can be identified in personality terms. They are highly motivated by change, need change in order to flourish and have a low boredom threshold. They need personal autonomy and, in challenging currently held knowledge and beliefs, may seem to be disruptive. They are charismatic in seeking to overcome resistance. They have less regard for the status quo and rules than others and frequently change their own ways of working. They see the big picture and have a low tolerance for detail. They are impulsive; indeed, they are likely to make mistakes if required to work in project management mode for long. Change agents assume that the consequences of the innovation decisions with which they have been involved will be positive. This is not always the case.

There are psychometric instruments which measure aspects of creativity, some measuring capacity or, more specifically, the relationship of creativity to IQ. For instance, the creative reasoning task independently scores convergent and divergent thinking. Others, such as KAI, the Kirton Adaption-Innovation Inventory (Kirton, 1989, pp.31–6) and the innovation potential indicator (IPI), measure cognitive styles rather than capacity for creativity, problem-solving and innovation (TrainingZone, 2007). An underlying assumption of KAI is that the measure relates to an individual's preferred strategies in change, creativity, problem-solving and decision-making. Traits of cognitive style, as measured by KAI, appear early in life and are largely stable. KAI measures an individual's style preference along a dimension from adaptive to innovative. While adaptors contribute stability, order and continuity, innovators provide a break with the past, are future-orientated and engage with uncertainty. Innovators are perceived by adaptors as rocking the boat, being abrasive, impractical and undisciplined, while adaptors are more positively perceived by innovators as conforming, traditional and practical.

While the cognitive style of the change agent may be somewhere along the adaptor–innovator dimension, it is clear that the task also requires empathy, insight, patience and excellent communication skills in order to engage with a dominant culture. IPI is designed around four groups of constructs:

Motivation and autonomy (MTC) in which a person with a high preference for personal responsibility in tackling problems is intrinsically motivated to find solutions. This translates in IPI into motivation to change. High scores on this scale point to an individual possessing a high level of intellectual curiosity.

Challenging behaviour (CB) in which a person generates something new by challenging currently held knowledge and beliefs. This scale includes non-conformity and risk-taking, together with social independence.

Adaptation (AD) in which an individual clarifies and structures information, whether to improve what already exists or to consider first principles.

Consistency (CWS) in which a high score indicates a preference for a prudent, methodical approach, while a low scorer has less regard for structure and tradition, being more likely to solve a problem by bending or breaking the rules (TrainingZone, 2007).

IPI was administered to 37 of the fellows from cohort three of the Midlands Medici programme in a workshop setting and posted to 14 absent fellows, 43 returns being made in all. Eighteen fellows (42%) had a typical change agent profile (high MTC and CB, low AD and CWS). While the remainder of the fellow population had a mean lower MTC score, it was still comparatively high, CB being lower and the AD and CWS scores significantly higher. Of the typical change agent fellows, 12 were in research-led universities in such fields as biosciences, psychology, nanotechnology, vision sciences, criminology and computer science. Six were at newer universities and included a sociologist, artist, dancer, jeweller, fashion designer and computer scientist. It was a preference for known rules and structure and the desire to refine a problem using known methods rather than redefining it that characterized the majority of fellows. Rogers (2003) observes that, besides expertise in the area concerned, change agents need to work through opinion leaders and must have adopter orientation and empathy. This suggests that the fellows may have been more successful by being able to conform to the style of the group within which change was to be effected, rather than rocking the boat. It is not unknown for academics to appoint in their own image. A research fellow needs a degree of personal autonomy to be effective but little can be achieved, however much potential the individual possesses as a change agent, without the support of the head of department. Change agents will usually show motivation to change, challenging behaviour, but little adaptation and consistency in work style. It could be argued that the sponsor for university or other organization innovation projects would know who in the organization might possess the styles and abilities indicated by KAI and IPI. But it is possible that high innovators on KAI or IPI may adopt a degree of coping behaviour so as not to stand out as disruptive influences.

Conclusion

Innovation, even quite modest change, requires creativity, the ability to move beyond what is already known in an organization. This is often managed in-house with an internal change agent working on small, contained, innovations. In major companies, internal change agents will have been identified and will be moved from project to project. Change in the health authority, the drainage pipe manufacturer, the housing association and the cathedral was achieved with an external change agent who could play a challenging, yet facilitative, role. Change agents in the Midlands universities achieved change at departmental level, but possibly little beyond that. Internal staff in a variety of organizations may possess many of the talents required, but these individuals need to be identified and encouraged. An external change agent may be helpful in challenging culture and realizing creativity. He/she will bring new ideas, make connections, ask questions, be playful. It is important for the external change agent to discern when to disappear, while still being contactable. Is a change agent always required for change? Only, it is suggested (with apologies to Dylan Thomas) 'with change on a scale and scope beyond the manner in which pyjamas are folded' (Buchanan and Boddy, 1992, p.24); that is, for moderate- to large-scale change. A change agent is, by inclination, an outsider, 'a marginal figure with one foot in each of two worlds' – inside and outside the organization. A change agent has a habit of disappearing. It is hard to conceive of innovation being effectively introduced without one.

References

- Baddeley, D. (2006) *In Search of the 'Midland Area Cheese ...': A Case Study of Managing Diversity during a Complex Change Management Project in Affordable Housing Business*, Touchstone Housing Association, Coventry.
- Birch, P. and Clegg, B. (1996) *Imagination Engineering, the Toolkit for Business Creativity*, Pitman, London.
- Birkinshaw, J., Hamel, G. and Mol, M., (2008) 'Management innovation', *Academy of Management Review*, 33, 4, pp.825–45.

- Buchanan, D. and Boddy, D. (1992) *The Expertise of the Change Agent: Public Performance and Backstage Activity*, Prentice Hall, New York.
- Caldwell, R. (2003a) 'Models of change agency: a fourfold classification', *British Journal of Management*, 14, 2, pp.131–42.
- Caldwell, R. (2003b) 'Change leaders and change managers: different or complementary?', *Leadership and Organisation Development Journal*, 24, 5, pp.285–93.
- Camison, C. and Villar-Lopez, A. (2014) 'Organizational innovation as an enabler of technological innovation capabilities and firm performance', *Journal of Business Research*, 67, 1, pp.2891–2902.
- Caruso, D. and Salovey, P. (2004) *The Emotionally Intelligent Manager: How to Develop and Use the Four Key Emotional Skills of Leadership*, Jossey-Bass, San Francisco CA.
- Cawsey, T., Deszca, G. and Ingols, C. (2012) *Organisational Change: An Action-Oriented Toolkit*, SAGE, Thousand Oaks CA.
- Dodgson, M., Gann, D. and Salter, A. (2005) *Think, Play, Do; Technology, Innovation and Organisations*, Oxford University Press, Oxford.
- Dover, P. (2002) 'Change agents at work: lessons from Siemens Nixdorf', *Journal of Change Management*, 3, 3, pp.243–57.
- Fuda, P. (2014) '15 qualities of a transformational change agent', available at <https://www.linkedin.com/pulse/20140616225248-173414263-15-qualities-of-a-transformational-change-agent> (accessed June 2020).
- Fuda, P. and Badham, R. (2011) 'Fire snowball, mask, movie: how leaders spark and sustain change', *Harvard Business Review*, 89, 11, pp.145–8, available at <https://hbr.org/2011/11/fire-snowball-mask-movie-how-leaders-spark-and-sustain-change> (accessed June 2020).
- Gabriel, Y. (2000) *Storytelling in Organisations: Facts, Figures and Fantasies*, Oxford University Press, Oxford.
- Gilley, J., Quatro, S., Hoekstra, E., Whittle, D. and Maycunich, A. (2001) *The Manager as Change Agent: A Practical Guide for Developing High Performance People and Organisations*, Perseus, Cambridge MA.
- Johnson, S. (1999) *Who Moved my Cheese?* Ebury Publishing, London.
- Kendra, K. and Taplin, L. (2004) 'Change agent competencies for information technology project managers', *Consulting Psychology Journal: Practice and Research*, 56, 1, pp.20–34.
- Kets de Vries, R., Korotov, K. and Florent-Treacy, E. (2007) *Coach and Couch: The Psychology of Making Better Leaders*, Palgrave Macmillan, London.
- Kirton, M. (ed.) (1989) *Adaptors and Innovators: Styles of Creativity and Problem Solving*, Routledge, London.
- Lichtenstein, B. (1997) 'Grace, magic and miracles: a chaotic logic of organisational transformation', *Journal of Organisational Change Management*, 10, 5, pp.393–411.
- London, M. (1988) *Change Agents, New Roles and Innovation Strategies for Human Resource Professionals*, Jossey-Bass, San Francisco CA.
- Lundin, S., Paul, H. and Christensen, J. (2000) *Fish*, Hodder & Stoughton, London.
- Lundin, S., Christensen, P. and Paul, H. with Strand, P. (2002) *Fish Tales*, Hodder & Stoughton, London.

- Lunenburg, F. (2010) 'Managing change: the role of the change agent', *International Journal of Management, Business and Administration*, 13, 1, pp.1–6.
- Nolan, V. (1987) *The Innovator's Handbook: The Skills of Innovative Management*, Sphere Books, London.
- Ottaway, R. (ed.) (1979) *Change Agents at Work*, Associated Business Press, London.
- Rogers, E. (2003) *The Diffusion of Innovations*, Free Press, New York.
- Tann, J. and Blenkinsopp, A. (2003) *Shakers and Movers for Innovation in Community Pharmacy*, Report to Royal Pharmaceutical Society of Great Britain, RPSGB, London.
- Tann, J., Blenkinsopp, A., Allen, J. and Platts, A. (1996) 'Leading edge practitioners in community pharmacy: approaches to innovation', *International Journal of Pharmacy Practice*, 4, 4, pp.235–44.
- Thomke, S. (2001) 'Enlightened experimentation: the new imperative for innovation', *Harvard Business Review*, 79, 2, pp.67–75, available at <https://hbr.org/2001/02/enlightened-experimentation-the-new-imperative-for-innovation> (accessed June 2020).
- Tidd, J., Bessant, J. and Pavitt, K. (2005) *Managing Innovation*, Wiley, New York.
- TrainingZone (2007) *Psychometrics Spotlight: The Innovation Potential Indicator*, 23 January, available from <https://www.trainingzone.co.uk/lead/strategy/psychometrics-spotlight-the-innovation-potential-indicator> (accessed June 2020).
- Volberda, H., Van Den Bosch, F. and Mihalache, R. (2014) 'Advancing management innovation: synthesising processes, levels of analysis and change agents', *Organisation Studies*, 35, pp.1245–64.
- Warrick, D. (2013) 'Developing organization change champions throughout the organisation' in Carter, L., Sullivan, R., Goldsmith, M., Ullich, D. and Smallwood, N. (eds) *The Change Champion's Field Guide Strategies and Tools for Leading Change in your Organization*, Wiley, San Francisco CA, pp.517–30.