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Book Reviews

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When Sparks Fly: Igniting Creativity in Groups

Dorothy Leonard and Walter Swap; Boston: Harvard Business School Press, 1999, 242 + × Pages \$24.95

Creativity and innovation, once thought to be the prerogatives of a few creatives in new product development (NPD) and advertising, are now seen as table stake skills for survival in today's business climate. *When Sparks Fly: Igniting Creativity in Groups (Sparks)* provides an essential manager's guide to understanding the creative process within the group settings which now dominate our environment as we seek to connect and apply disparate bodies of knowledge. More succinctly, *Sparks* delivers an overview of the group creative process in a business context.

Sparks is based on the commingling of literature and

experience from the different worlds of management, contributed by Leonard, and psychology, contributed by Swap. Each field contributes from its unique vantage point, psychology characterized by basic research and controlled experiments and management dominated by practical experience, chaos, and a time-pressured environment. However, while *Sparks*' heritage includes psychology, it is a quintessential management book, written for managers and focused on igniting creativity in groups. *Sparks* is a quick read with a non-academic tone except for a few side-bars. For those familiar with Leonard's earlier work, *Wellsprings of Knowledge: Building and Sustaining the Sources of Innovation* [5], *Sparks* is not as academically rigorous or as long. It drills down on a narrow portion of *Wellsprings*, knowledge generation and creative abrasion.

Sparks opens with a chapter clarifying what group creativity is, establishing a bright boundary for the remainder of the book and offering these working definitions for 'creativity,' 'innovation,' and 'groups.'

"Creativity is a process of developing and expressing novel ideas that are likely to be useful." [Page 6]

"Innovation is the embodiment, combination and/or synthesis of knowledge in novel, relevant, valued new products, processes or services." [Page 7]

"A group may be thought of as two or more people, existing in an arrangement that permits some degree of interaction, and sharing some sense of identity as members." [Page 8]

It is clear from these definitions that the authors are focusing and narrowing their presentation of creativity to a "process that leads to a potentially novel, useful solution or process or product" and that "the end result of the creative process is an innovation." [Page 7] The qualifier 'useful' is not often seen as part of the definition of creative, but after some thinking it seemed to me that this constraint was added because the topic was managerially-focused creativity. After reflection, it seems that 'useful' may actually be a precondition for group creativity. *Sparks*' "useful purpose" can become the focus of the Innovation Charter for the group as described by Crawford [2].

Leonard and Swap present their process for creativity as five linear steps for discussion, while acknowledging that in practice it would look more like a "plate of spaghetti." [Page 9] The five steps are (1) preparation, (2) innovation opportunity, (3) divergence: generating options, (4) incubation and (5) convergence: selecting options. This process parallels creative problem solving techniques discussed in detail by VanGundy [7,8] among others, which involve cycling repeatedly through a process of divergent and convergent thinking.

After discussing and debunking many of the myths surrounding creativity, Leonard and Swap plant the seeds for a creative process foundation in a list of key points on creativity, which I have slightly paraphrased below. [Page 6]

- Creativity is a process and the process is similar regardless of the magnitude of the task, the nature of the industry, or the type of project.
- Creative individuals are important to creative groups. But they are not all-important.
- The right group composition is important, not just the right individuals.
- Creativity is a process that can be learned by groups. As a result, it can—and must—be taught and managed effectively.
- The creative process goes beyond just generating novel ideas, although divergent thinking is critical. Convergent thinking is required to creatively choose among novel ideas.
- Creativity involves more than just being different or unusual.

Focusing first on group composition, *Sparks* expands on the concept of "creative abrasion" introduced in *Wellsprings*. Creative abrasion is descriptive of the friction that is caused when a heterogeneous group works together to develop creative ideas. In *Wellsprings* Leonard hypothesizes that the relationship between creative abrasion and performance has an inverted-U shape. That is to say, at low or high levels of abrasion the group is less creative while at moderate levels of abrasion performance is maximized. This dynamic is similar to the finding that moderate levels of stress have an inverted-U shaped relationship with performance [see 1]. Creative abrasion is caused by the diversity of the team members along dimensions such as individual expertise, cultural heritage, dominant thinking styles [see 4], etc. To have creative abrasion groups must have diversity along those same dimensions.

Leonard and Swap offer practical advice for those that currently lack diversity and do not have time to hire diversity—invite "aliens" (people from outside) to join the group. To effectively manage with aliens, (1) aliens must be protected against the corporate immune system, (2) no aliens should have to stand alone, and (3) everyone should know why aliens are there. Leonard and Swap also warn that creative abrasion is not simple abrasion. For example, interpersonal abrasion is a clash of people, which should be avoided, while creative abrasion is a clash of ideas, which should be promoted.

The final three steps in the creative process are divergent thinking, incubation, and convergent thinking. The material covered in *Sparks* presents an excellent overview and introduction for anyone unfamiliar with creative problem solving. However, for those looking for a deeper understanding of the techniques used for idea generation and selection, VanGundy [7,8], de Bono [3], and Miller [6] are must-reads.

Moving from the *what* to the *how*, Leonard and Swap include chapters on designing the physical environment as well as the psychological environment for creativity. From

the psychological perspective of group creativity they emphasize the following points:

- creative groups are made, not born, and must be nurtured
- creative groups must be permitted to take risk and fail forward
- creative groups need communication skills including listening skills, listening for connections skills, and presenting skills
- creative groups need passion for the job, for innovation, and for the organization
- creative groups are composed of individuals with intrinsic motivators such as autonomy, time for personal projects, opportunities to learn, and goal setting
- creative groups need to emphasize optimism and encourage recognition of serendipity
- creative groups and management must accept the paradoxes of expertise and beginner's mind, creative abrasion and maintaining cohesiveness, freedom and structure, professionalism and play

The structural organization of *Sparks* is excellent. Each chapter starts with a short management vignette that illustrates the perils of failing to appreciate the importance of the material in the forthcoming chapter. The chapter then concludes with another vignette; this time the manager has learned from previous failure and now succeeds. While entertaining, these vignettes serve a more practical purpose of cementing the concepts into the mind. Also praise-worthy is something *Sparks* is not. It is not a management book three-quarters full of anecdotal stories of past consulting successes and failures as illustrations for conjecture. *Sparks* is a research-grounded management book with research side-bars to provide support for the assertions presented.

If you are a manager seeking to understand the *what* and *why* of group creativity *Sparks* is an excellent book. If you are looking for the *how* of developing and implementing a process for group creativity this is one book you should read. It is an excellent place to start, and you will need additional introductory material on the last three steps in the Leonard and Swaps process, divergent thinking, incubation and convergent thinking. In summary, *When Sparks Fly: Igniting Creativity in Groups* has a very short list of weaknesses and a very long list of strengths; I highly recommend it!

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Brand Leadership

David A. Aaker and Erich Joachimsthaler; New York, NY: The Free Press, 2000

At the October 2001 Product Development and Management Association (PDMA) International Conference, more than one presenter described the ongoing challenge of ensuring that one's product does not become perceived as a commodity. The issue is, how do we convince customers that price is not the only thing to consider and how do we persuade managers to differentiate the product beyond just price? As Tom Peters sees the issue, "In an increasingly crowded marketplace, fools will compete on price. Winners will find a way to create lasting value in the customer's mind."

Having just read Aaker and Joachimsthaler's *Brand Leadership* at the time of the conference, I referred each of the presenters to this book. Many of them, and the general PDMA membership with whom I talked, had not heard of the book, nor had they heard of David Aaker, who is a renowned authority on the topic of brands and brand equity. I suspect that one of the reasons for this lack of awareness is a predominant tendency on the part of traditional product developers to look strictly at product attributes. Indeed, many traditional product developers would equate product attributes to value in the customer's mind. Supporting this supposition is the fact that there are only a few JPIM articles examining the role of "brand" in the new product development (NPD) process. Also, there have been only a very limited number of presentations on branding at PDMA meetings. Could it be that brand is a topic outside the realm of product development?

It is obvious that brand is a product management issue; the conversations surrounding the commodity product issue are evidence that there is also a pressing need to address the topic of brand in NPD. I heartily recommend that product developers consider reading this book or one of Aaker's other books, *Managing Brand Equity* and *Building Strong Brands* [1], to broaden their view beyond product attributes. Like Aaker's former books, *Brand Leadership* reaffirms the need to go beyond product attributes, discusses related