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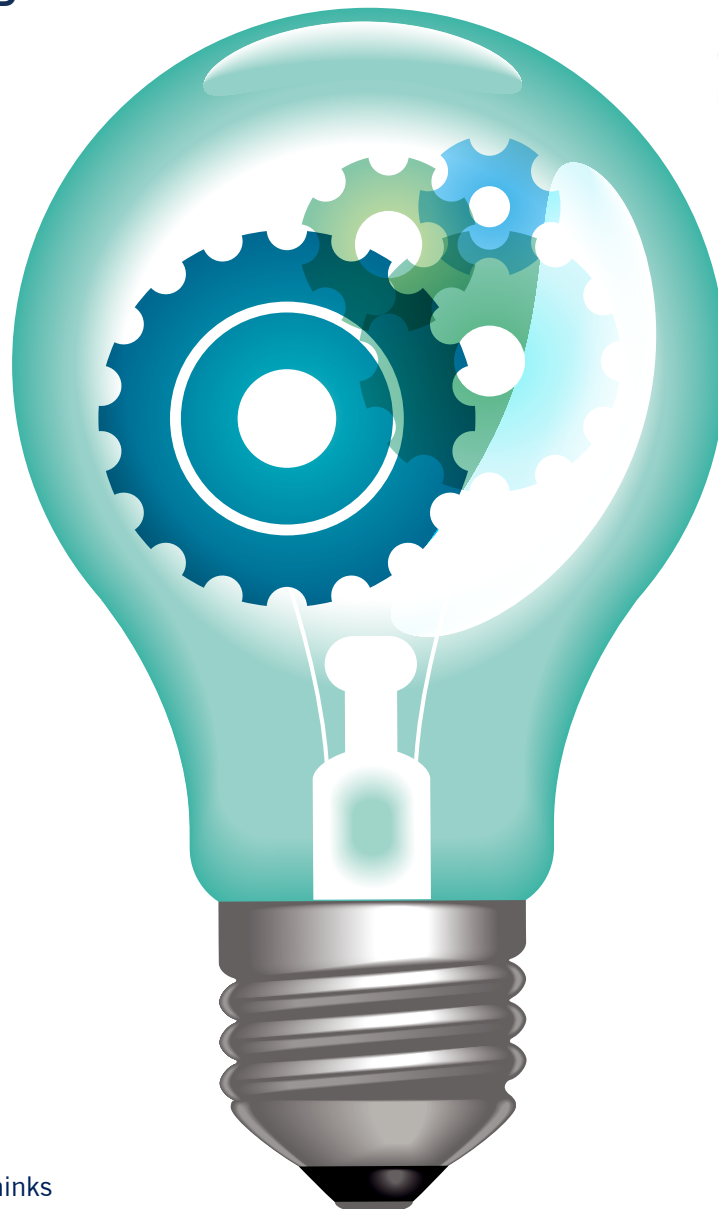
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Why quiet reflection improves development performance

by Daan Stam, Arne de Vet, Harry Barkema and Carsten De Dreu

No-cost, easy-to-deploy ways for increasing development productivity have now been successfully tested in and out of the lab. R&D managers, meeting facilitators and anyone interested in idea generation, take note.

Unsurprisingly, innovative ideas and the quality concepts these ideas generate are crucial to successful new-product development (NPD). They are part of an innovation process in which ideas for new products are initially generated and subsequently evaluated and integrated into a concept. Now, considering that this is largely a team effort, and that many scientific studies demonstrate that creativity in teamwork is most often at a low level, it is vital – especially for business – to understand how teams can optimise idea generation in the whole NPD process.

Although past research in this area has developed various interventions to enhance the ability of teams to generate ideas and concepts, these are often costly and impractical. Furthermore, there is a lack of practical knowledge on deploying these interventions effectively, or how they influence the success of turning initial ideas into concepts. This brings into question the usefulness of these interventions for NPD teams, something that led us

to study alternate ways of improving the creative process. These in turn produced our theories on suspending group debate, which impact idea generation and concept development.

Taking a break

Suspending group debate simply means taking a break from group discussion so that members can individually (and silently) gather and process their thoughts, reflect on the problem at hand, and work towards its resolution. Debate is resumed at some point and these ideas are then discussed and eventually integrated collectively into concepts. According to our hypotheses, suspending group debate (and inviting individual reflection) causes teams to generate a higher number of ideas, a higher number of original ideas, and a more diverse set of ideas.

In addition, we developed a theory about where suspending group debate is especially effective: when at least one group member is low on extraversion. This is a personality

characteristic that explains why some individuals (with high extraversion) prefer working in a group, while others (with low extraversion) prefer working alone. Highly extraverted individuals are most probably excitable, socially active and good at multitasking. On the other hand, individuals low on extraversion are introspective, not very active socially, and have no multitasking skills. Considering many groups have a member that is low on extraversion, suspending group debate is a logical and wise action.

Put to the test

We tested our hypotheses using an experiment in which teams generated ideas and developed concepts for a specific organisational problem. Participants comprised 206 business and economics students (155 males, 51 females, born between 1978 and 1985) divided into 45 teams of four to five persons each. The experiment was part of a business-simulation course at a Dutch university. Teams were randomly selected to suspend group debate, or not.

Results show that suspending group debate causes groups to generate 53 per cent more ideas and 47 per cent more categories of ideas (the effects on the number of original ideas generated were much weaker). Importantly, the results demonstrate that for teams



with one or more members who are very low on extraversion, suspending group debate positively influences all three idea-generation measures: the number of ideas generated; the number of original ideas generated, and the diversity of ideas generated.

Furthermore, both the diversity of the idea set – as well as the number of original ideas – positively influence the innovativeness of the final concept, while only the diversity of the idea set influences the comprehensiveness of the final concept. In other words, suspending group debate really works, especially for groups with one or more group members low on extraversion.

seems a sensible strategy to mix individual brainstorming with group debate when developing new products. Importantly, although other strategies to improve NPD performance exist, suspending group debate for short periods of time is a highly practical technique because it is easy to do and has no costs attached.

Outside the lab, we applied suspending group debate in actual team discussions at several companies – not only at NPD meetings, but also in a wide variety of debates in which managers discussed solutions to a whole range of problems. We achieved good results. Participants

generation, which could also indirectly impact concept development. This is an area that needs further research, not least because these effects are crucial in understanding the factors behind successful NPD. ■

This article is based on the paper *Suspending Group Debate and Developing Concepts*, written by Daan Stam, Arne de Vet, Harry G. Barkema, and Carsten K. W. De Dreu, and published in *The Journal of Product Innovation Management*, Vol 30, Issue Supplement S1, 48-61. DOI: 10.1111/jpim.12063

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Highly practical

Although we should be cautious about deducing practical recommendations from a single experimental study, current findings could provide NPD teams with valuable information and advice. Considering that suspending group debate may positively influence idea generation and subsequent concept development. It therefore

responded very positively to our new approach, which also produced quality brainstorming. Notably, this also illustrates that our findings can be largely applied to brainstorming in general, and not only to strictly R&D activity.

But there is still work to be done. Our study shows that suspending group debate has an effect beyond idea