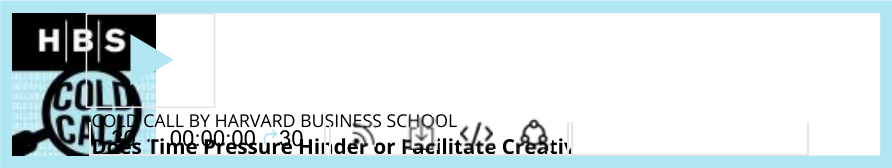
07 DEC 2017 COLD CALL PODCAST

Does Time Pressure Help or Hinder Creativity at Work?

Professor Teresa Amabile discusses how managers can create the ideal conditions for employee creativity and success based on her research in three industries, seven companies, and 26 creative project teams.



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Brian Kenny: Merriam-Webster Dictionary defines creativity as the use of imagination, inventiveness, or original ideas to create something. Such a simple and straight forward definition belies the fact that creativity is the engine that powers innovation, which is the very life blood of firms large and small in every corner of the world. Thomas Edison, one of the most prolific inventors in US history, held 2,332 patents, yet he was fired from his first two jobs for being unproductive. One can only wonder if he would've succeeded in this day and age of instant gratification where customers are demanding better, faster, and the clock is ticking down to the next release date. Today, we'll hear from Professor Teresa Amabile about her case study entitled, Creativity Under the Gun at Litmus Corporation . I'm your host, Brian Kenny, and you're listening to Cold Call.

Teresa Amabile's research investigates how life inside organizations can influence people and their performance. In so doing, she studies individual creativity, individual productivity, team creativity, and organizational innovation, and all of those things relate directly to the case we're going to talk about. Teresa, thank you for joining me today.

Teresa Amabile: It's my pleasure, Brian. Thank you for asking me.

Kenny: Start by telling us who the case protagonist is and what's on his mind?

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Amabile: The protagonist of the case is Stanley Carmine. He's the team leader of a new product development team at Litmus Corporation. This team is trying to do something almost impossible and that is to create an enormous breakthrough in the next two months. They've two months left in their project timeline according to company regulations governing new product development projects. They feel that they're on the verge of that breakthrough, but they really aren't sure they're going to get there in two months. Stanley desperately wants this, the team does, and the person who's feeling the most pressure is Miles Grady, the top inventor on the team. He had a breakthrough a couple years ago, he did it in record time, so everyone's counting on him to do it again. Stanley's really sweating it out, wondering how he can establish the right conditions to help Miles get to this breakthrough because he knows the guy's being paralyzed by the time pressure he's feeling, so that's the dilemma facing our protagonist.

Kenny: That's a tough one. We should point out Litmus is a fictional company. What prompted you to write the case and why did you choose to make it a fictional company?

Amabile: I decided to write this case because in all of my work with companies over the many years that I've been here at HBS I've seen time pressure as a major issue with not only new product development products, although that's where I've seen it most starkly. I've also seen it in marketing projects, I've seen it in strategy development projects. People by and largemdo not feel they have enough time to do their work, certainly not to do their work as creatively, as innovatively, as they'd like to do it. So there was clearly a need for a case on this topic.

We decided to do it as a fictional case because it was part of a research program that I was doing in seven different companies. I had two teams working in two different companies ... who were each experiencing somewhat different aspects of the issue, so I combined them. I melded them into one fictional team, and one fictional company. But many of the quotes that you see in the case are really things that people told us in the course of our doing this study. What we tried to do in the case was to capture the general principles that we discovered in this research.

Kenny: What does Litmus do? What's their business?

Amabile: It's a chemicals corporation, but lately it’s been getting into consumer products. It has a new division, new as about 10 years ago before the case, and they are orienting themselves toward new materials for the consumer products market, which they perceive as a hot area for them. In fact, they had a number of successes.

One of those successes came from this breakthrough that Miles Grady had in this team. By the way, the team is called the Hyatt team, named after a famous scientist. One of those breakthroughs came from what he did a few years ago. He created a product for a client company of Litmus, a dishware company, and they were looking for an ultra-lightweight plastic that could be used to make attractive dishware that would be much lighter than what was currently on the market.

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Miles had this brainstorm of how they could repurpose a material that no one was really paying much attention to, and it worked. They were able to do the technical work in record time. They got this product out to their customer in something like six months less time than they had estimated. The customer was thrilled, and the team and the company started thinking, 'Hey, wait a minute, maybe there's a bigger market opportunity here. Maybe we can use the same kind of process to make things beyond dishware.' Small appliances, things like vacuum cleaners that can be annoyingly heavy if people are trying to move them around. But they needed something that was even stronger and yet still very lightweight, so that's the project that the Hyatt team is trying to crack here.

The company was very enthusiastic about this, but they're starting to lose their patience. When I say they, I mean top management that does regular reviews of new business development projects. They're losing their faith in the team.

Kenny: Miles set the standard, and unfortunately now they are being held up to that same standard.

Amabile: You bet.

Kenny: That's pretty common I would guess.

Amabile: It is pretty common, and this stage-gate process that Litmus uses for projects is pretty common in a number of industries for developing new products and services. It makes sense, right? A company can't continue to invest on an indefinite basis in projects that really aren't going anywhere. They have to decide, how much longer do we let this thing go on? What do we need to see?

So the company has told Stanley Carmine, the team leader, that they need to see at least a promising prototype by August 15th, and it's the middle of June when this case is unfolding. They're pretty sure that two months is not going to do it for them. They've been working for several months already, they already got one extension. Stanley thinks he's going to ask for another extension, but he's not sure he's going to get it, and if he gets it, he's not sure it'll be enough.

Kenny: So what's at stake here is the project itself. They'll pull the plug on the project if they don't start to see the progress that they want. So Stanley's thinking about asking for the extension. What's his motivation for that? What does he think if he's not really sure that they can deliver, wouldn't it just be best to pull the plug?

Amabile: Here's the interesting thing about Stanley's state of mind: he's a new team leader. He's been with the company for 20, 25 years, and he himself is an accomplished scientist and he's had a lot of experience in developing businesses. This is his first experience leading up one of these high stakes product development teams. He's not sure how to manage the creative talent on the team. He wants to facilitate Miles' creativity, he thinks he can do it, but he's not certain he can. He doesn't know if it would

spark Miles' creativity to actually let him feel that pressure because some people do believe that they're more creative under high time pressure, really under the gun, maybe he should somehow try to get the time pressure relaxed, that's why he's thinking of the extension. If he can at least create the illusion of relaxed time frame for Miles, he thinks maybe that would do it. He really doesn't know, and in fact, as we see in the case, the top managers themselves are uncertain about what's the best way to go in terms of supporting someone's creativity under such time-pressured conditions.

Kenny: Is this fairly common in your experience? I don't say this to offend any creative people out there, but they have a reputation for being a little difficult to manage.

Amabile: They do have that reputation but It's not entirely fair, Brian. It is a stereotype somewhat deserved. Some creative people are not particularly difficult to manage, many are, and I think there are a number of reasons for that.

One is they care intensely about their work, that's my experience in all the creative individuals that I've interviewed. Not only in business settings, but even in the arts, I spent a day interviewing the novelist John Irving once. He had interesting experiences with time pressure himself. This is very common, people who do work that's on the frontiers are doing something incredibly difficult, and they put a lot of pressure on themselves, and they know that others are counting on them, the expectations are pretty high. It's easy to get cranky under those conditions, and creatives really feel that they need space, and that they need time to do their thing. That doesn't always fit very well in the corporate environment.

Kenny: You talk about space and time, the exhibits in this case are diary entries. Really interesting diary entries, and this notion of space and time comes up quite a bit . So, we're looking at Miles' reflections of his day to day or week to week activities. Can you talk a little bit about that?

Amabile: These diaries that we have in the case are not typical. It's very common for scientists and technicians and engineers to keep lab logs, where they track what they did, what the outcome was each day or each week. Our study asked people doing these new product development projects to keep daily diaries about their work experiences.

We had 26 creative project teams in seven different companies in three industries and we asked questions about their emotions that [particular] day, their perceptions of the work environment, and their motivation that day.

We also asked them to describe one event that occurred that day that stood out in their mind. We analyzed those for events that had an impact on their psychological state. We also analyzed those events to look at when they were coming up with their creative ideas. We didn't tell them that we were

looking for creativity, but if they told us that they came up with a new idea, or that they solved a complex problem in a new way, we counted that as an instance of creativity that day.

We discovered in doing this research that people who are under a lot of time pressure on a given day, actually feel very productive, they tend to feel very creative. But, here's the interesting thing; they were actually significantly less likely to come up with creative ideas, or solve problems creatively on those days. They got a lot of stuff done, but they weren't necessarily creative except under one very special set of circumstances, which I will tell you about in a moment.

“We found that people were most creative most of the time when they were under low to moderate time pressure”
Even though they felt creative, I think they were feeling a lot of adrenaline from being under time pressure, getting a lot done, but what they tended to get done was not their most important work. They tended to get done a lot of stuff that came flying at them, crises that arose, that kind of thing.

Kenny: We're all fielding that stuff every day, there's stuff coming at you that you don’t expect. So, they get caught up in that.

Amabile: Let me tell you the punchline of what we discovered in this research. We found that people were most creative most of the time when they were under low to moderate time pressure. That's when the new ideas came out, that's when the creative solutions to problems came out.

Kenny: Versus like a big team.

Amabile: Exactly. Under low time pressure, if people were in a big team constantly where they didn't have solo time, they actually tended to not be creative under those conditions. So that alone time or working with just one close collaborator seemed to be the key under the low time pressure conditions.

Under high time pressure, as I said, people tended to not be creative. We call this being on a treadmill. They were very fragmented in their days, they were dealing with a lot of things coming at them they didn't expect. They were running. They actually felt like they were doing a lot, and they often were, but they weren't getting anywhere. That's why we call it the treadmill, you don't actually get anywhere. On their most important work. They didn't find a lot of meaning in what they were doing in those days.

I mentioned that one special set of circumstances where high time pressure was associated with high creativity, we call that being on a mission. There were some instances where people were under time pressure, where they absolutely understood the need for the time pressure like a competitor was about to come out with a product just like theirs and they had to get there first, or there was a desperate customer in need, there's a desperate societal need in some cases.

Kenny: This is the proverbial burning platform that you hear about.

Amabile: Exactly. But it's not just the burning platform, Brian, those people have to be protected. They have to be isolated in a way, from all the other stuff that comes up during a work day. They can't be called into meetings that are unrelated to this serious problem that they're trying to address.

If people and companies feel that they have a real deadline, they understand it, they buy into it. They feel great meaning in what they're doing. They understand the importance of what they're doing, and the importance of doing it fast, and if they're protected, or if they can protect themselves so they can focus, they're much more likely to be creative.

Kenny: Those insights answer an important question I think, which is can you structure a workplace to facilitate this kind of creativity under pressure or otherwise?

Amabile: You can. You can't actually manage the creative process itself, but you can certainly manage the conditions for creativity. That's what I encourage my MBA students to do, that's what I encourage managers to do.

Help people understand the meaning of their work, number one. Let them understand the importance of what they're doing, their own individual actions, and how that translates into something that will contribute to a customer need, to a societal need, to something that the company really needs to move forward. Try to give people enough time for projects so that they can explore, so they can do that background research to get the information they need, and then so they can play with it somewhat. That doesn't mean indefinite time frames, but it probably means longer time frames than people are usually given in most companies for most projects.

The other thing is to let people work in a focused manner. Our HBS colleague, Leslie Perlow has done fascinating work on what she calls the time famine in organizations. If co-workers can allow each other some protected time each day to focus on their most important work undistracted, she calls it quiet time, where you're not going to each other for things that you need, or you're not getting in each other's mental space. That can really improve productivity, and I believe based on my research that it will improve creativity as well.

Kenny: I think managers also need to understand that people need time to turn off the email and the other distractions, so all of this, these are great insights. You've discussed this in class with your MBA students?

Amabile: I've taught this case mostly with MBA students, and they look at it from a personal perspective because they have felt the time pressure in their own work. Some of them have been doing creative projects, new product development, some of them, of course, have been starting their own ventures, which requires a tremendous amount of creativity. They find insights for managing their own work, giving themselves enough time and enough space, mental space in a day, in a week, doing that for their teammates, for their colleagues in their companies to be able to do that creative work. It does require collaborative work. I don't want to suggest

that people should be alone all the time in order to do creative work. That collaboration, especially with just a small number of people can be enormously stimulating for creativity.

Kenny: Teresa, thank you for joining us today.

Amabile: Brian, it's been a real pleasure. Thank you.

Kenny: You can find the Litmus Corporation case along with thousands of others in the HBS case collection at HBR. org. I'm your host, Brian Kenny, and you've been listening to Cold Call.

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