Ideas in Organizations

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A foundation of economic prosperity is that individuals innovate and come up with good ideas, and that good ideas are shared and eventually widely adopted by others. The 2026 Nobel Prize in Economics was awarded to Joel Mokyr, Philippe Aghion, and Peter Howitt for their fundamental contributions in this area, using insights from economic history to pinpoint the combination of factors needed to come together for innovation processes to become self-sustaining, and to elegantly formalize theories of how ideas spread, compete with others, and disrupt pre-existing technologies, in a process of creative destruction to drive economic growth.

While the work of the Laureates elegantly formalizes innovation processes and competition between firms, in this essay I want to discuss one complementary line of more recent work, that narrows in on issues within organizations – specifically the role of organizations in fostering innovation and enabling good ideas to be adopted within them. Firms, government bureaucracies, and universities are but three kinds of organization that need their internal structures designed to encourage innovation, alongside other objectives.

One dimension in the ideas generation process that is perhaps most intuitive to consider is the number of individuals that should come together to develop innovations. Many organizations sense the importance of 'water cooler' moments where co-workers don't just share information, but also come together randomly to spark new ideas. The writer and biochemist Isaac Asimov, in his 1959 essay on "How Do People Get New Ideas?", highlighted the difference between individual versus group-based development of ideas. Asimov writes, "as far as creativity is concerned, isolation is required..the presence of others can inhibit this process, since creation is embarrassing...For every new good idea you have, there are a hundred, ten thousand foolish ones, which you naturally do not care to display." At the same time, in general alignment with empirical evidence, he recognized the gains from developing ideas in groups where, "the optimum number of the group would not be very high..I guess no more than five..a larger group might have a larger total supply of information, but there would be a tension of waiting to speak."

A recent commentary piece in Nature Biotechnology argued that a key part of the generation of scientific ideas is to talk others – 'it takes two' – but at the same time the dynamics of much larger groups might not be more conducive to breakthroughs. This might help explain evidence suggesting that while academic research by larger co-author teams is more cited, smaller co-author teams tend to generate more disruptive, and potentially more pathbreaking, research.

Team sizes are one of many features of an organization relevant for ideas generation. Taking a wider perspective that encompasses other key features requires developing a more overarching framework to understand the process of ideas generation across many different types of organizations. One way to do so is to view organizations as being distinct along two dimensions: the extent to which incentives can be well-designed to encourage individuals or teams to come up with new ideas, and the internal culture of the organization that aids fostering and sharing new ideas.

On the provision of incentives, in many private-sector settings, employees' tasks yield clearly measurable outputs, allowing financial incentives to be designed in close alignment with the firm's overall objectives. This raises the question of whether simply paying for new ideas would spur

creativity in organizations more broadly. Evidence suggests this can be so. Many organizations encourage individuals to (anonymously) suggest ways in which work processes can be improved. One large technology company in the US went one step further – being part of a field experiment in which their treated employees received rewards if their ideas were approved by an expert panel based on an assessment of their innovativeness, profitability and value for the firm's clients, and synergies with other ideas, while nothing changed for control team employees. Rewards substantially increased the quality of ideas submitted, with no impact on the overall quantity of ideas submitted.

In an even more controlled laboratory setting, it was found that the provision of financial incentives in the form of tournament competition across subjects, increased creativity in well-defined closed tasks, but less so in unrestricted open tasks. This leads naturally to a question of the extent it matters which problems workers are tasked to solve – constituting the provision of a non-monetary incentive, autonomy, to workers. A field experiment among students in a entrepreneurship course documented the importance for ideas generation of teams being able to choose the project ideas to work on, or the team members to work with, but performance gains vanished when both forms of autonomy were granted. This was in part because self-selected teams fell prey to overconfidence and fail to exploit their ideas to their full potential.

This leads naturally to the second dimension of organizations I want to highlight: culture. Many definitions of organizational culture have been proposed, including those based on the common knowledge or shared understanding of co-workers, or the classic definition given by Schein [1985] as 'a pattern of basic assumptions -- invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integration -- that has worked well enough to be considered...the correct way to perceive, think, and feel in relation to those problems.' In organizations in which individual and collective behaviors are not entirely determined by formal rules, then pre-existing workplace cultures can step in to determine how individuals and groups will respond to changes in how the workplace is organized to encourage to innovate or share ideas.

The role of workplace culture in ideas generation is studied in recent work within the context of a civil service bureaucracy in a developing country: Ghana. The study combines qualitative and quantitative evidence from a field experiment to understand the process of ideas generation and sharing in these bureaucracies – often considered the archetypal setting in which incentives are hard to design because the objectives of bureaucrats and their organizations are not clear cut, and the day-to-day work of bureaucrats often does not generate output measures that are comparable across individuals or over time.

The qualitative evidence highlights these organizations have strong hierarchical cultures, where juniors feel unable to raise incremental but innovative ideas. Examples of such simple innovations include streamlining work processes such as noticeboards for room bookings and to avoid meeting clashes. As a result, the typical view that bureaucrats express is that a lack of resources from central government and systemic Civil Service-wide issues are key bottlenecks for improving organizational productivity. The field experiment trains bureaucrats how to break down day-to-day problems at work into simple solutions and raise these new ideas with colleagues. This training is implemented either at the individual level, or at the group level to bureaucrats working together day-to-day.

The study finds that individual trainings are more effective in new ideas being generated and shared, and this nudges forward the quality of administrative processes and public service delivery. Group training is argued to be less effective because groups tended to fall back towards pre-existing hierarchical norms that stifle bottom-up incremental innovations and instead revert back to unrealistically aiming for resource intensive civil service-wide change. Lessons from the study were taken to heart by the Office of the Head of the Ghanaian Civil Service - the new training was integrated

into the permanent promotion training curriculum for senior civil servants, and they paused plans to roll out group-based training more widely.

This highlights that aiming to push forward innovation in organizations at speed by encouraging groups to foster new ideas might be ineffective. The extent to which larger groups are better at innovating depends critically on dynamics within groups – whether voices are allowed to be raised, or group dynamics lead back to everyone reinforcing pre-existing bad norms.

What does all this mean for the organization of scientific research in universities – another difficult setting in which to design clear incentives given the range of activities that academics engage in. Academic cultures can be hierarchical – perhaps reinforced by tenure incentives in place and penalties for pivoting away from one's own traditional research field. Yet at the same time, academics typically choose which problems to work on, whom to work with, and it is a context in which ideas that ultimately better help explain the world around us tend to win in the long run. Better understanding interactions between incentives and cultures in the workplace, and understanding exactly which dimensions of workplace culture beyond hierarchical norms matter for ideas generation, can go some way to helping ensure innovation is not stifled in organizations, strengthening a key pillar of our shared societal prosperity.