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Sciences en Marche:

An Active Experimentation in Entrepreneurship Education in a Social Movement

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Introduction

My goal here is to explain why I have now adopted a different perspective on the role and purposes of EE. This change is the result of my experience as part of the social movement called “Sciences en Marche” (SeM). Created in 2015 and still active to this day, it defends public science. This truly entrepreneurial experience taught me a lot in terms of intention to act, power to acts and limitations. I realized that part of the reason why EE may need reconstruction is due to a general ignorance about the obstacles one encounters in an ever-changing context especially because we believe we know about it as we keep making discourses about it. I entice my peers to engage into an active experimentation in probing the field of science and innovation. Before suggesting how I think educators and researchers may learn from activism for the future of EE, I describe my initial (deficient) vision and some of the most outstanding situations I went through, changing my perspective.

EE Seen from My Office: The Current Challenges of EE

To begin with, I find it important to present the challenges for EE pointed out by Loi and Fayolle (this issue), as I would see them if I still believed EE were essentially a question of means toward an end: enhance entrepreneurs as successful individuals and entrepreneurship in society to achieve progress. In their previous research, both authors (Fayolle, Verzat, & Wapschott, 2016; Loi, Castriotta, & Di Guardo, 2016) have insisted that increased attention needs to be paid to EE, its appropriateness and its results. They insist it is not just a question of method (the means), but also a question of ends: What are we trying to accomplish with

EE? Therefore, they maintain that there are three basic challenges to address with this mission: newness, diversity, and ethics.

One of my early concerns, since I started as an EE professional, was to be credible in terms of knowledge. I wanted to know about and master the new teaching methods and the new contents to feel I was being a proper teacher. The key learning methods today, as far as I can see, still are the study of business cases and the making of business plans (Fayolle & Riot, 2015). Although it was mostly formatting ideas with the business plan mimetism (Honig and Karlsson, 2004), entrepreneurs still had to take a stand for their project (Honig, 2016). Still, it proved smore reflexive than the best online business games one could find as part of the large set of innovative teaching tools. However, what I mostly tested was a form of personal power of conviction rather than the commitment (Fayolle, Basso and Tornitoski, 2011) needed in real, sustained action, especially to implement one's intention when facing a completely new reality.

A more recent concern of mine was diversity, more specifically, the soft skills needed to deal with university students as opposed to the "happy few" of the European Ivy League I used to teach. More was at stake for them as many came from Campus France (in line with "Francophonie"). Although it would be too normative to identify them as "necessity entrepreneurs" (Marti & Fernandez, 2015), the role of EE was more focused on teaching them how to deal with the presentation of self (Salusse, Verzat and Lamy, this issue) rather than deal with their dilemmas caused by their ongoing experiences.

Ultimately, a serious challenge that I faced with EE was ethical dilemmas. As many others before me (Nabi, Liñán, Fayolle, Krueger, Walmsley, 2017), reading scholarly literature about the accomplishments of EE did not help me gain clarity on the issue. Recurrent prompts to take (radical) action, encouraging us to "burn the business plan" (Schramm, 2018) and "shut up the business schools" (Parker, 2018), indicate that no clear

response had dealt with earlier critiques urging a profound reform. I tend to agree with Dewey (1919) when he calls for a “reconstruction” in the philosophy of our actions. This is especially true for EE. Thus, looking back at the past four years, I can say the experience I engaged in when I joined SeM made me aware of that urgent necessity.

EE Seen from the Street: Four Entrepreneurial Situations in a Social Movement

In the course of the past five years, I have engaged in situations acting as an entrepreneur discovering my own field, its key actors, and its institutions. In a sense, as an activist in a social movement, my goal was to drive a radical change in the field of research and education, based on Yates’s (2015: 7) political concept about “prefigurative politics” involving “collective experimentation”, “imagining” and “the diffusion of ideas, messages and goals to wider networks and constituencies” in relation to collective direct actions.

This collective endeavor partially succeeded to this day, and I will explain why I think that, through four transformative moments. To me, they are like milestones in the movement.

In the fall of 2014, as I had just started in a tenured position at the university, I realized we were bereft of resources and joined the SeM social movement. Its founder, Patrick Lemaire, a biologist co-organized a “Tour de France” with all members joining up in Paris for a final demonstration. A very low budget caused staff overwork: researchers kept experiencing red tape, and more and more Ph.D. graduates could not get tenure. About one-third to one-half of the workforce is working as “temps” while acting as pillars of key research projects in well-endowed institutions.

Seeing things New : SeM Marches in Paris

The arrival of the march in Paris on October 15 was a great moment in a congenial atmosphere. On this occasion, I realized how narrow my perspective was on such issues as

science and innovation, as I exchanged experiences with researchers from all disciplines. What was a stake was suddenly completely new.

The then Secretary of State for Higher Education and Research soon reacted in the media to a letter of SeM, co-signed by the French Academy of Sciences, which was made public that day. She claimed the jobs created by private firms compensated for the losses in public institutions as part of the national system of innovation (Lundvall, 2010). She also noted that funds were dedicated to promote public-private partnerships so the 5.8 billion tax break to firms could also help public researchers become more entrepreneurial, contributing to French competitiveness and economic growth. I had to see education and science anew: as a truly political issue.

Part of the SeM Group: Testifying before the Senate Committee

Did private research really yield better results for society than public research? A wave of indignation drove us to actively document the case. The second situation I found myself in had quite a comic streak: one is seldom summoned by the Senate to give testimony and I imagine it is even rare to eventually do so before empty chairs. My two colleagues and I had to solemnly swear to tell the truth with one hand raised before a Senate committee on March 19, 2015 about the status of French research.

The summon to the hearing was the direct consequence of a report we had produced and issued challenging the use of public money for research and innovation in private firms rather than in public institutions (Métivier, Lemaire & Riot, 2015). It had had a considerable echo. Yet this day, only five out of 22 senators, members of the commission, were present and only half of them were listening to what we said (they all left after the previous testimony, that of the CEO of Sanofi). Empty seats were ominous: on June 9, the Senate Investigative Committee voted against its own report, an event that had only one precedent in the history of the French Fifth Republic (1958). It proved we had struck a nerve. The debate

on the role of research, innovation, and science in society is one all forms of interests compete in. Yet, to many decision-makers in politics, “endogenous growth” (Romer, 1994) is like a car engine. It justifies EE keep things rolling, no one really needs to know how or even why.

Learning new Worlds: Venturing into Business

As I kept investigating my own field, I experimented with various structures supporting entrepreneurship in relation to research and development. I soon realized our project, as part of a social movement, did not fit the format. One of my conversations with a consultant proved illuminating. This was my third transformative experience and it provided me with a picture of the academic world as seen by highly skilled and well-informed outsiders. This senior consultant began by confessing that, in her opinion, public researchers were scandalously underpaid, which also made them a good resource for firms (cheap supplies). The French Treasury confirmed this too (Demenet, 2018).

I asked why a Ph.D. would accept to do research only paid by the hour on open innovation platforms. To this, she replied: “I am just flabbergasted by your naivety: how dare you patronize me about researchers’ rights when I know most of the teaching hours in universities are done by temps. Most public laboratories rely on temps too, but at least we pay them on the spot.” This remark triggered a shocking self-reflection for me: How could we lecture private actors as we were equally part of a system playing on global competition in the “market for talents” (Petriglieri, 2019) increasing inequalities and dysfunctional pressures on results causing ethical breaches (Johnson & Ecklund, 2016). This situation trapped temporary workers in a double bind: being entrepreneurial and absorbing all forms of entrepreneurial constraints (Kunda and Barley, 2004) into an Olympic Village of Sciences. I was one of their teachers with the safe jobs. I had to learn more about real business issues.

At this stage, after a few months, many colleagues had stopped committing to the movement and so I had to look for practical solutions to secure the rights of scientists, instead of the auto-entrepreneur status they are forced to adopt (Pereira & Fayolle, 2013) as “temps”. I noticed that the cooperatives I supported failed to provide a more stable work situation because all participants must first generate revenue to go cap in hand with the group. I find EE is part of a system characterized by strategic silence (Carlos & Lewis, 2018) about social justice for people when they venture and lose their stakes.

Ethics in Politics: Convening Science Academies

Finally, the fourth and most recent experience that made a significant and lasting impression on me occurred during a meeting of 49 societies and academies of sciences that SeM organized on September 6, 2018 in the Paris Faculty of Medicine. 48,000 members were represented, and these representatives were gathered for the first time ever. We were still a far cry from the US Academy of Science and its 2,350 member academies managed by a staff of 1,100, but we were on that path. For once, my drive to pursue action was not urgency or rage but a form of allegiance to what we had achieved so far.

This was the consequence of our building an international network of scholars intent on being heard about their scientific work. For instance, the March for Science Committee for France involved SeM. 1.07 million people demonstrated around the globe on April 22, 2017. The initiative targeted the Trump administration and its budget cuts: 100,000 demonstrated in Washington where the initiative had been launched. In France, the academic field seemed dormant in comparison whereas ethical choices were also at stake.

In this regard, the most striking moment occurred when the representative of the Parliamentary Office of Evaluation of Scientific and Technological Choices made her speech. She represented 36 members (senators and deputies) who define the national policy as part of the national system of innovation. She might have been thirty at most, and before becoming a

deputy, she was a realtor. Her speech was short and to be short she demanded scientists made it short as well. Politicians, she noted, had many laws to pass. In a pirouette, she left, going (other) places. This left us agape then we talked (a lot). What if science and research must now be as stern and concise as an entrepreneurial pitch? Yet, is it not what EE judges, in the end? In retrospect, I would refrain from paying too much attention to people who are just here for the pitch and who believe no one has time for more.

Lessons for EE from an “Active Experience” in the Streets

Direct action in a social movement is very much like an entrepreneurial venture and so a learning experience for someone involved in EE. I had to act as an entrepreneur and so I used my EE background as a reference. If many members of SeM can now claim they know what it means to be entrepreneurial in terms of intention, implementation and commitment, my experience led me to see better what EE support might prove appropriate, relevant, coherent in situations of public conflict, when social usefulness balances efficacy. As part of SeM, we stopped being in the audience: we came full circle with the perspectives of action. This does not mean we assumed more control, though. For many, engaging in action was highly emotional and short-term. For others like me, realizing that researchers can engage in prefigurative action (Dimov and Pistrui, this issue) in an age of great transformation was a path full of surprises. I would analyze it as four steps in a long journey, reflecting on the four transformative experiences I mentioned before.

Newness of the Unknown: Step One

Instead of rushing to well-identified “forms” in EE, I learnt I had to start with the nature of the situation at stake. Problem-based learning helps pay more attention to the dimensions we know nothing about yet matter. This takes time: just ponder the role of sciences in innovation and the difficulties to use them to solve practical dilemmas. So, instead of relying on our

business school culture, we have to move from idealized views of successful entrepreneurs (Riot, 2013) to more accurate accounts of entrepreneurial ventures and pay more attention to the role of inventions and innovations when they are still uncertain (Refai, Higgins, Fayolle and Haloub, this issue), not when they are recognized as such. Broaden the scope of our scientific culture means we should organize not as experts in our field but as the *ignoramus* in need of help.

The Infinite Surprises of Diversity: Step 2

Once you realize what you ignore and what you cannot do alone, teamwork becomes essential, with its good and bad surprises. For instance, Jones (2010) identifies five attributes of the “reasonable adventurer” in reference to EE and students, focusing on soft skills:

. . . intellectuality, close friendships, independence in value judgments, tolerance of ambiguity, or “the ability to view life as a series of interruptions and recoveries” (...), the breadth of interest and “a balanced sense of humor . . . making him or her good company” (p. 505).

These qualities can thrive in a group when in a well-defined setting such as a classroom or a tour package, but when do you really have a chance to be “a reasonable adventurer” in real life ? Dealing with tensions or conflicts in action is trying, especially when for you, a lot is at stake. The people that help you more at times can be your best enemies, the ones you fight with as soon as you catch your breath. I find this collective dimension is important because, similar to activists, entrepreneurs appear to be engaged in a form of struggle, which Schumpeter identified a long time ago (Riot, 2019): although everyone praises entrepreneurs on paper, in real life, they are just disruptive forces. They may also go in all directions, which means disturbing the status quo and putting asunder well-established norms. Tensions build up and you provoke that. It is easier to play that part when you are not alone.

Acceptance that Things will not (ever) Fall in Place: Step 3

A life journey is long. EE programs are short. They encourage a form of casualness, despondency about the results. Yet I find in entrepreneurship it is essential to know where

you stand, where you want to go and where the journey leaves you. Contrary to Hildwein (2019) who claims it can be a form of success for social movements to bring participants a feeling of empowerment or Cavaretta (this issue) who prefers effectuation to causation, I assess my actions in reference to a clear goal I set on. In this case, I wanted more public funding for research and education. So did my peers. Although we had that goal in common and all agreed on the strategy to pursue, it was not enough. So far, we failed. The next annual budget is always lower than the previous one although (hypocrisy is a tribute that vice pays to virtue), on paper, it looks higher. Now that we realized that most researchers agree with us even if they remain quiet, we know that if we bring them to take action, in time, we should succeed. This means that to find it in me to remain actively involved, I have to be inquisitive and keep seeking solutions, whereas I expected this would be only the beginning, after that, I would know. Instead, I keep learning.

Ethics and the Educator Role. Step 4

For months, I hoped someone would help me make sense of the absurd of situations experienced as “business as usual” by many parties familiar to the institutions. For me, it made each task look like the labors of Hercules. Then I realized that although the absurdity is real and it seems very important when you hit the fact, it really is not unless it interferes directly with your freedom of action. I thought I was helping my entrepreneur students by being empathetic but now I realize it added to their confusion that I remained so equivocal in the face of the absurd. As Anteby (2013) pointed out, business schools and business education indulge in such form of neutrality toward the goals of action under the false pretext of tolerance. EE, on the other hand, is about people who accept to misbehave when they think it is ethically required. These people fight and argue so to work along, they need both harder and softer soft skills. Fortunately, public universities are under no pressure to sell programs to a global elite. Educators like me are free to tell entrepreneurs what they think of their

projects both in terms of strategic intent and in terms of political economy (Honig, 2016). We just cannot practice a form of epistemic abstinence (Raz, 1990) because we know innovation involves scientific notions in reference to truth (Blackburn, 2005), and this truth is not just any one's interpretation of the situation. I believe this independent examination is the task and the responsibility of educators. In fact, it may be our excuse for being slow. It is not an excuse for acting non-committal on such issues as science and innovation. This points at next steps I know little about given the present state of affairs.

Conclusion

This contribution took its form as part of dialogue that took place during a workshop in the Ecole de Management de Lyon (EM Lyon) last April (2019) in an attempt to contribute to building “a professional community sharing the same values and objectives” (Fayolle, 2013, p. 700).

I realize my contribution emphasizes the need for both dialogue and action in the fields of entrepreneurship, science and innovation. I only wish I had been capable of doing more in that regard, as the present epidemic situation reminds us of the importance of public science and innovation (Ghebreyesus, 2020). This contribution is limited. My experience is only mine and that it belongs to a specific time and place. Yet the results of my experience are easy to share. Professionally, it makes projects and work with students easier to deal with : I know where I stand and I make that clear. In public life, it makes it more difficult to “pass” when debates open on science and innovation. I am more exposed. Before that, I was theoretically aware yet practically unaware of the environment I was in, one where most decisions involve uncertainty. To make a choice, you have to know what you stand for: there is no self-evident truth. For a long time, I waited for that truth. Other people made strategic choices about the society of organizations we are all in (Barley, 2010): I watched in a

distance. After walking the first four steps I just mentioned, I only hope to get closer to where the wild things are.

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