

The Management and Organization Science Puzzle: Questions from a Metaphorical Comparison of Medicine and Management

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Abstract

Management and Organizational Science (MOS) has moved rapidly from an initial focus purely on practice to a current state where it relies on a “pure science” model. A key issue for such a young field is whether it is appropriately covering the full extent of its scholarly jurisdiction. We are responding to the call to identify *grand challenge questions* in the Social, Economic and Behavioral sciences by examining the current institutionalization of the MOS scholarly field. We do so by drawing a comparison with the medical field that reveals the dangers of the existing decoupling of practice and theory. Specifically, we metaphorically explore the question: if the MOS field were medicine, could we afford scholarship to be limited only to the realm of pure science, for example biochemistry, in the absence of clinical embeddedness? Finally, we propose questions and potential solutions to make progress towards resolving such decoupling: fostering epistemological analyses to deepen the comparison with fields such as medicine and law; targeting clinically oriented problems; mixing various sub-disciplines of management and practitioners; and fostering actual research collaboration from fields with similar practice affiliation.



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Introduction

Management and Organizational Science (MOS), a pillar of the Social, Behavioral and Economic field, is a young science. Nonetheless it has moved rapidly from an initial focus purely on practice (previous to the reports by the Ford and Carnegie foundations in the 1960's) to its current state where it relies on more of a “pure science” model (Khurana, 2007). A key issue for such a young field is whether it is appropriately covering the full extent of its scholarly jurisdiction. In the context of responding to a call to identify *grand challenge questions* in the Social, Economic and Behavioral sciences, this white paper examines the current institutionalization of the MOS scholarly field. It draws a comparison with the medical field to identify a puzzling decoupling between practice and theory. Finally, it proposes a few questions that could be used to help progress towards resolving such decoupling¹.

The medical analogy is chosen because of the similarity of the fundamental objectives of medicine and management/organization sciences. Both deal with a well-defined and important human activity: in medicine, how to manage human health, for profit or not, versus, in MOS, how to manage human organizations, for profit or not. Both sciences are embodied into professional schools (medical schools vs. business schools) drawing from fundamental disciplines (for medicine, chemistry, biology, etc. versus for MOS, sociology, economy, psychology, etc.). Both sciences are supposed to produce knowledge and protocols useable by practitioners of the aforementioned activity: for medicine, useable by physicians (or other variants of medical practice) in interaction with patients, versus, for MOS, useable by managers (and other variants of organizational roles) in interaction with organization/business problems.

The Comparative Institutionalization of Medicine and MOS

In understanding the evolution of the fields of medicine and MOS, it is important to recognize that the current institutionalization of MOS follows a canonical “pure science” model. A “pure science” model often favors positive over normative science and likewise focuses on the development of theory rather

¹ Given the requirement of the contribution (for instance, limit references to a maximum of three), the exposure will remain at a conceptual level and will focus on the power of the analogy. In particular, the comparison between medical science institutionalization and MOS will focus on classical differences, even though variations exist across epistemic communities and geographies.

than the application to practice. Accordingly, the current social construction of the field (Latour & Woolgar, 1979), “serious” scientists are expected to develop and test theory whereas the lesser realm of solving problems more closely related to practice is delegated to “non-scientists”. As a result, entrance into the MOS scholarly profession consists of selecting Ph.D. students on their intellectual ability but with no managerial (a.k.a. clinical) experience. A few new comers come with substantive managerial experience, but studies suggest that this experience may indeed be detrimental to them (Glick, Miller, & Cardinal, 2007). Later stages of career selection follow a quasi-exclusive model of “publish-or-perish”, whereby the curriculum in Ph.D. programs and later career selection steps are devoid of institutionalized clinical requirement (and even penalized) and therefore few scholars develop actual managerial experience once properly inserted into the career track. As far as governance is concerned, the MOS academic profession has no institutionalized mechanism for individuals with practical experience to play a role in institutional gate-keeping, neither in the editorial boards nor in the tenure committees.

The model described above exhibits little variance from those practiced by other similar pure sciences such as physics, chemistry, or biology. However, although the fields of MOS and medicine have a priori similarities in their basic objectives and structure, they have significant institutional differences in regards to the role of practice. In most countries, medical science implies various levels of clinical practice. To start with, medical scientists are encouraged to earn both a Ph.D. and medical degree. As a result, most academics in medicine have common training with practitioners in their fields that make them technically qualified as practitioners. They also must pass through clinical requirements in their initial training, spending time in a hospital dealing with actual patients, and potentially again later during their training as part of an internship or residency. This amounts to many years of actual practice for a large part of the medical scientific community.

In addition, much research occurs in university hospitals, where practitioners and scientist mingle or even just change hats from one activity to another. As far as incentives and resources are concerned, the field leverages resources flowing from practice, i.e. hospitals and pharmaceutical industry, to the point where often institutional actors, such as the NSF, sometimes attempt to counterbalance the focus on

practice by funding basic science out of fear such questions would be underexplored. As far as institutional governance is concerned, medical science journals and tenure boards include practitioners. Finally, one can publish papers in top medical journals not so much by proposing any new “theory” but by solving an important practical problem of the field. For example, the top recognitions such as Nobel price are even warranted based on solving practice-related problems (e.g. in 2010, Nobel was attributed for a significant breakthrough in the practice of fertility treatments).

What is the fundamental question?

Based on a rough comparison between medical scholarship and management/organizational scholarship, one can draw an interesting metaphor: MOS has reached a stage where it is institutionalized like a pure science, somewhat *like if medical science was conducted only through the lens of a pure science, for instance biochemistry*. This situation is probably logical considering the relative youth of MOS compared to medicine. Where medicine has had centuries of fine tuning of its institutional mechanisms to balance abstraction and practice (Abbott, 1988), MOS has only gone through one round of pendulum movement: before the 1950’s, the science was primarily practice oriented whereas after the Ford and Carnegie reports, the field rushed toward the pure science model that characterizes it today.

The first and foremost question we propose is therefore metaphorical: *if Management and Organization Science were medicine, could we afford scholarship defined only through the eyes of biochemists?* Two positive questions arise from this metaphorical approach: first, what are the scientific consequences of such possible bias? Second, what could be done about it?²

What are the implications for advancing the domain?

Metaphorically, we can consider that the current institutionalization of the field has led to an evolution of the MOS discipline equivalent to substituting biochemistry for the actual practice of medical

² We acknowledge the approach we take here—from the analysis to the questions and to the metaphoric comparison below—are only stylization. We also acknowledge that the state of the field has many nuances impossible to cover here, that the areas that could be challenged by the questions are do not lack quality nor scientific value, and that indeed various other scholars have already debated these questions and even tried already to address it in various ways.

science. This implies that a wealth of very valid questions that could be scientifically addressed (i.e. warranting the rigor of academia) are currently neglected primarily because they are related to trying to help practitioners. One reason is that following Abbott's (1988) logic, professions tend to value abstraction and delegate relationship with clients to lower subordinate professions. MOS underwent such a similar transition as it attempted to establish academic credibility, focusing on legitimization of the field by moving away from practice. Hence, an MOS scholar attempting to engage into practice related science may face stigma, because practice-related issues are disassociated with scholarship and attributed to practitioners or intermediate professions such as consulting: either one engages into science, or one solves practical problems...but it then cannot be considered as serious science.

Metaphorically again, solving practical problems is somewhat associated in MOS with the image of "faith-healers" in medicine, the naïve-scientist practitioners that do not have the training nor the legitimacy of actual medical scientist. The dichotomy is so entrenched that those interested in trying to use scientific approach to address significant practical problems will not only have their colleagues look down on them but also often suggested to leave academia and become practitioners. In many ways, scholars who wish to tackle practical problems are treated by their academic colleagues much like "faith-healers" in medicine—with disdain and skepticism.

This scientist vs. healer/practitioner model would probably be very problematic if it were medicine. It would imply an academia staffed nearly exclusively with biochemists and other pure scientists, who would never meet patients; they would also not allow for promotion in their ranks of those motivated to apply the scientific minds to address important practical problems such as curing patients. To give an example, MOS is currently not institutionalized to allow scientific work that would require a large scientific team, composed of scholars coming from various disciplines. In medicine, this would imply preventing large and complex studies work accomplished by teams leveraging competences from fundamental scientists (biologists, statisticians, biochemists) to more applied ones (computer scientists, epidemiologists, etc) to clinical specialist embedded in top of level practice (such as top practitioners-researchers in university hospital). Hence, MOS may lack the ability to progress on large management

problems that might require a holistic scientific approach that is often used to solve large medical problems.

As far as incentives and resources are concerned, the field is in a paradoxical situation where research has been institutionalized to imply little expenses, and most resources are academically controlled (i.e. mainly salary of researchers, plus research budget raised collectively at business school level) and practice would rarely consider bringing practical problems to scholars. This arrangement was stabilized by the concomitant emergence of an intermediary industry of “consultants”—during the exact period when MOS academia moved to pure research in the decades between 1950s and now. The boom in management consultancy practically allowed the strong decoupling between “pure academia” and “practice”, making scholars three steps away from their practice constituency: scholars teach MBAs; MBAs become consultants; consultants try to conceptualize practice problems.

Interestingly, the depth of the consequences of this situation is difficult to evaluate since fundamental science is often driven by practical problems. However, the thesis of the current paper is that the institutional mechanisms allowing the identification and legitimization of such problems is damaged at its root. We would therefore be at a loss to properly identify them at this stage since first we genuinely feel we lack the tools to do so, and even if we could propose a list of problems, they would—by nature—lack apparent legitimacy.

To ground our reasoning in a very limited illustration, let us provide one example of such questioning. Most individuals taking a management position face challenges ranging from allocating time, to organizing oneself and others, to balancing stress, complexity, emotions, interruptions and so forth. However, the identification of a compact and practical set of rules/approach to make transition into management is still a very difficult question that does not have strong scientific answer. To be clear, and leveraging the medical metaphor, one would hope that some sort of “protocol” (i.e. a set of stylized steps and rules) would be scientifically validated and communicated to practitioners.

Unfortunately, this issue has not been addressed in top MOS scholarship literature for decades. A few excellent theoretical contributions have been made *separately* for instance on emotions or time. However,

the need for a bottom-up and integrative solution is still crucial to practitioners that can only seek answers from non-academic actors, such as the press, consultants or business book writers. For instance, the very popular “Getting Things Done” approach has been proposed in the practitioner press (Allen, 2001); yet, whether this protocol is efficient, whether there are alternatives and contingencies to it, all those questions have not even been considered in any of the noble areas of the MOS scholarly community.

How to address the issue: actual questions to advance the agenda

The persistent divide between theory and practice in MOS is not only serious for the successful practice of management, but by extension competitiveness of regions and nations. This failure is likely only to become worse over time, as academically-trained scholars are rewarded only for “pure science” leaving the most impactful questions for the practice of management unexamined or treated only in the “popular press” where questions are often addressed in an anecdotal manner that leads to the persistence of many management “myths” that are damaging over time.

Given the institutional analysis conducted above, one could consider directly addressing core institutional mechanisms. However, this may constitute highly debatable propositions that are probably not the spirit of the call for white papers on the big questions of the Social, Behavioral and Economic (SBE) sciences. We therefore chose to modestly not review here possible actions on the clinical requirements of the profession, changes in governance mechanisms, etc., and in particular those that would aim to make MOS academia closer to other academia such as medicine or law. Rather, we suggest a few angles of questioning that might play a role to further clarify the issue and if possible foster interesting areas of research:

1. **Meta-research about the current state of the MOS field** could explore further the current institutional mechanisms around scholarly activity that were very briefly evoked above. For example, one could further study this paper’s implicit hypothesis that the field is in a prisoner’s dilemma state whereby scholars may be frustrated with the lack of relationship with practice but cannot express it since dissent expression could be labeled as deviant to the ideal of pure science

and therefore see one's status reduced. Such meta-research could be directed to collaborate with epistemologists in order to further study the comparison with similar sciences such as medicine and law, and hopefully foster cross-pollination with fields that have accumulated centuries of institutional improvements.

2. **Research fostering clinical questioning**, in particular exploring the actual problems that the management field encounters that are not yet addressed or not legitimized, and drawing on field-oriented sciences such as field sociology or ethnography. More examples of rigorous research, such the one by Clayton Christensen on disruptive innovation, could have a positive impact on scholarship as well practice.
3. **Research implying multi-disciplinary and down-to-practice integrative scientific problem solving**. Some research questions could be framed to explicitly force research over long period, in a clinical setting, with a broad range of disciplines involved.
4. **Research actually forcing cross-pollination with other practice-sensitive sciences**: one can consider that some scientific fields have had either much longer time to mature—or much higher constraints to retain—their clinical embeddedness. Example of such fields include not only medicine, but also law, aviation, military, diplomacy, etc., all valid scientific fields that have evolved in radically different ways to deal with the research-practice tension. Hence, research questions could be framed to suggest exploring management scholarship problems with a perspective / method drawn from those fields. Suggesting actual collaboration with their scholars could benefit by cross-pollinating the approaches to theory-building, and to the building and validation of instruments of action that are based on hard science. For instance, similarly to “checklist” coming from aviation having recently made great impact on medicine (Gawande, 2007), the transfer of such tools could be explored by management scholars, in particular conducted by a team mixing management scientists, aviation scientists, and management practitioners.

Overall, most of the above propositions may appear at odds with the possible perception that the call

for white paper is only about “fundamental science”. However, considering the current state of each field may imply that—in some cases—fundamentals might require a return to basics. In medical science, incentives towards fundamental research may be needed because the pendulum has settled after many centuries in relatively balanced position between research and practice, with a significant bent towards practice (because otherwise people die and because big pharmaceutical firms pay for applied research). However, in Management and Organizational Science, the recent and rapid swing towards pure science, and radical decoupling with practice suggests that “unlocking a new cycle of research” might require incentives rather be paradoxically oriented towards practical problems inquiry.

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