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'When creativity gets you fired—why professionals tasked with innovation employ subversion when facing competing institutional demands in hybrid organizations'

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ABSTRACT

How can professionals tasked with innovation navigate institutional complexity in hybrid organizations without contesting the various institutionalized expectations about what constitutes appropriate and beneficial new ideas? This article investigates this question through an ethnographic study of pharmaceutical professionals tasked with research and development at an internationally operating life science company producing pharmaceutical innovations. There, pharmaceutical professionals must address and satisfy three institutional demands to project legitimacy of their new ideas: (1) scientific validity expected by leading members of their profession; (2) commercial value demanded by management; and (3) legal responsibility enforced by state agencies. Facing the challenge of creating legitimate novelty opposite these competing institutional demands, the pharmaceutical professionals initially design new ideas to primarily meet the jurisdictional control exerted by key opinion leaders in the field of clinical pharmacology. Yet, the resultant scientifically tailored designs regularly conflict with the institutional demands enforced by other powerful institutional referents within their organization. To resolve this issue, the professionals utilize a strategy of subversion to undermine the power and authority of these powerful referents by employing tactics of withdraw, manipulation, collusion, and ambushing. Based on these findings, the present study contributes to institutional theory and to literature on creativity and innovation management by theorizing subversive ingenuity as a distinct strategy professionals employ to navigate competing institutional demands during innovation processes in hybrid organizations.

KEYWORDS: Pharmaceutical development, Hybrid organization, Creativity and innovation management, Institutional complexity, Subversion

INTRODUCTION

Hybrid organizations incorporate multiple institutional logics to succeed in fields comprising institutional complexity (Jay 2013; Pache and Santos 2013a). In these hybrid organizations, however, it is increasingly difficult to create and implement new ideas because various dominant institutional forces impede and delegitimize novelty (Dougherty and Heller 1994; Van Dijk et al. 2011; Jay 2013; Csikszentmihalyi 2014). Moreover, professionals tasked with innovation in hybrid organizations are additionally pressured to adhere to the jurisdictional control exerted by key members of their profession to maintain legitimacy (Abbott 1988). One of the core challenges for these professionals is thus to establish a novel and valuable idea that projects legitimacy within both profession and hybrid organization. Creative approaches which aim

to simultaneously incorporate and synthesize various institutional logics (see Stark 2009; Harvey 2014) often struggle to rise to this challenge since they regularly contest some institutional demands, which in turn can cause organizational paralysis (Pache and Santos 2010). This article, therefore, aims to investigate how professionals tasked with innovation can navigate institutional complexity in hybrid organizations without contesting the various institutionalized expectations about what constitutes appropriate and beneficial new ideas?

The intent of this question is to probe deeper into the strategies professionals employ in hybrid institutional contexts and hence to add to the growing body of literature on professionals in situations of institutional complexity (see McPherson and Sauder 2013; Pache and Santos 2013b; Blomgren and Waks 2015; Andersson and Liff 2018; Suddaby et al. 2019; Ten Dam and Waardenburg 2020). The concrete emphasis on professionals facing institutional complexity during innovation processes is a valuable contribution to this body of literature since many seminal studies on the topic overemphasize the managerial macro-challenges of enduring organizational hybridity (see Stark 2009; Smith and Tracey 2016), while discounting the severe micro-challenges professionals face 'on the ground' when creating new ideas in hybrid contexts.

Empirically, the study presents and analyses the case of pharmacological professionals employed at a national research and development (R&D) department of *NewMedCorp* (name changed), one of the international top 10 pharmaceutical companies by revenue in 2020. By conducting a focused ethnography (Knoblauch 2005), the goal was to observe how new clinical study designs for one of *NewMedCorp*'s most valuable patent-protected pharmaceutical products were created, debated, and selected within R&D and in collaboration with other organizational units. An interpretivist analysis (Reay and Jones 2016) of this data revealed that the professionals engaging in innovation must address three dominant institutional demands (scientific validity, commercial value, and legal responsibility) when developing new study designs to satisfy the various pressures for conformity exerted by more powerful institutional constituents in their organization and in their profession.

To navigate these competing institutional demands, the professionals initially *create* a new idea solely based on expectations exerted by their professional 'home' logic (McPherson and Sauder 2013). Once they have established a design that subjects to the demands and jurisdictional control of their profession, they approach referents of the other competing institutional demands within their organization using a strategy denoted here as *subversion* comprising tactics of withdraw, collusion, manipulation, and ambushing. These tactics are intended to undermine the authority and influence of powerful institutional referents in their organization and thereby to *implement* their new design without directly contesting or fully meeting all competing institutional demands. Thereupon, the article argues that the R&D professionals utilize subversive ingenuity to sustain the quality of their 'craft' against managerial control (Tweedie and Holley 2016) and thus employ subversion as a form of legitimacy work in hybrid organizations (Suddaby et al. 2019). This way, the R&D professionals navigate competing institutional demands during innovation processes without escalating existing conflicts through open contestation into organizational paralysis (Pache and Santos 2010).

Based on these findings, the article makes a twofold contribution. First, it contributes to institutional theory by theorizing subversion as a distinct strategy professionals employ when dealing with competing institutional demands in situations of power imbalance not yet regarded in studies on institutional complexity (see Pache and Santos 2010). The notion of subversion offers an explanation on how professionals navigate competing institutional demands under the condition of a disadvantageous power relation without relying on compliance, contestation, or avoidance (Pache and Santos 2010, 2013a; Tweedie and Holley 2016). Thus, subversion constitutes a specific form of legitimacy work (Abbott 1988; Suddaby et al. 2019), as it allows professionals to simultaneously establish legitimacy within both their profession and in organizations ripe with institutional complexity when engaging in innovation.

Second, this article contributes to theory on creativity and innovation in hybrid organizations. While most studies emphasize the generative aspect of institutional complexity for creativity if accepted and engaged from a managerial perspective (Stark 2009; Battilana et al. 2015; Smith and Tracey 2016), this article argues that the professionals 'on the ground' who must deal with competing institutional demands experience the situation not as an invitation for creative synthesis (see Harvey 2014), but as a fundamental hurdle that they try to overcome pragmatically and efficiently. The professionals in these situations are hence not 'cultural dopes' that enthusiastically engage with institutional tension in spaces of negotiation, but rather reflexive agents that look for pragmatic solutions to competing institutional demands. Based on these contributions, the article draws conclusions for organizing innovation when facing competing institutional demands and makes suggestions for further research.

THEORETICAL BACKGROUND

Institutional theory builds on the core premise that interests, identities, values, and assumptions of individuals and organizations are embedded within prevailing institutional logics (Thornton et al. 2012). These logics are defined as 'socially constructed, historical patterns of material practices, assumptions, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality' (Ocasio and Thornton 1999: 804). In their seminal article, Friedland and Alford (1991) use the concept of institutional logics to explain human behavior neither as purely rational choice nor as determined by structure. Rather, the concept of institutional logics combines social embeddedness with reflexive and intentional agency bounded by situated identities and goals (Thornton et al. 2012: 80). Thus, by providing meanings, intentions, and rationales (or rules and resources, see Giddens 1984), institutional logics embed agency and shape how actors interpret and enact (organizational) reality (Barley and Tolbert 1997).

Institutional logics stipulate specific institutional demands, defined here as the various pressures for conformity exerted by dominant institutional referents (Pache and Santos 2010, 2013a). Meeting institutional demands is necessary to project legitimacy, a generalized perception that actions are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions (i.e. within the institutional logic) (Van Dijk et al. 2011: 1487). This is a rather straightforward connection: to project legitimacy, one must meet the demands for conformity exerted by dominant institutional referents. For instance, to be considered a legitimate scientist, one's actions must conform to the institutional demands in academia (e.g. accuracy, transparency, and restrain) exerted by the epistemic community and specifically enforced by editors and reviewers (e.g. thorough reading of existing research, proper citation of other authors' thoughts, transparent and unbiased analysis of genuine data, clear illustration of limitations and ignorance).

Institutional theory in organizational research has long followed the notion of only one (or maybe two) dominant institutional logic(s) providing the organizing principles for a field (Friedland and Alford 1991; Reay and Hinings 2009). Yet, while early conceptualizations depicted institutional logics as monolithic and coherent, recent theories highlight institutional complexity, the simultaneous existence of various (and often competing) institutional arrangements within field boundaries (Zilber 2011: 1540). This shift led to explicit and more systematic considerations of institutional complexity in institutional theory (see Reay and Hinings 2009; Greenwood et al. 2010; Pache and Santos 2010, 2013a; Zilber 2011; Besharov and Smith 2014). Projecting legitimacy, though, gets increasingly difficult in contexts of institutional complexity, meaning when more than one institutional demand must be met and agents are confronted with incompatible prescriptions from multiple logics (Greenwood et al. 2011: 317). These legitimacy issues increase with the number of institutional demands present, especially when multiple institutional logics are important (high degree of centrality), yet these logics provide competing prescriptions for action (low degree of compatibility) (Besharov and Smith 2014). Still, the compatibility of institutional logics, as Smets and Jarzabkowski (2013) explain, fundamentally depends on how involved individuals construct and relate these logics over time.

Projecting legitimacy is especially difficult when creating novelty in hybrid contexts, for instance, in hybrid organizations which incorporate and maintain multiple institutional logics to (at least partly) address various competing institutional demands in complex fields (Pache and Santos 2013a: 973; for an overview on hybrid organizing, see Greenwood et al. 2011). The additional challenge of creating novelty in hybrid contexts derives from the various competing principles that are applied when evaluating the novelty and value of an idea (Csikszentmihalyi 2014): new ideas accepted by referents of a particular institutional logic habitually contradict other institutional demands since dominant institutional forces condition actors to what is legitimate within their institutional structure (Van Dijk et al. 2011: 1486) — a situation especially professionals experience in hybrid contexts.

Professions are defined here as 'exclusive occupational groups applying somewhat abstract knowledge to particular cases' (Abbott 1988: 8). Professionals require a high amount of abstract knowledge acquired through extensive training to carry out their work. This knowledge intensity of professions is an important base for the claims to authority professionals make over problems that fall into their area of expertise (Kroezen et al. 2013). This knowledge-based fight over 'jurisdiction' (or control over certain task areas) is a central phenomenon of professional life that links professions and their work (Abbott 1988). Since professionals regularly control and organize work within their specific area (jurisdictional control), the quality of services and products put forth is also secured by the profession itself (e.g. through peer review, see Blomgren and Waks 2015).

Thus, professions are often guided by a specific institutional logic upon which professionals draw as rules and resources to organize and interpret behavior (Dunne and Jones 2010). Consequently, every profession also exerts specific demands within its jurisdiction which are enforced by powerful referents (e.g. professional associations). This process of defining appropriate behavior based on specialized knowledge is an important part of a profession's fight for jurisdiction (Abbott 1988) and extends to defining novelty and value within the profession (Csikszentmihalyi 2014). However, other institutional logics influence and impact professions as well, especially in hybrid organizations (Svenningsen-Berthélem et al. 2018). For example, professionals under New Public Management must adhere increasingly to competing institutional demands (Breit et al. 2018). Moreover, some professions even comprise multiple institutional logics (Dunne and Jones 2010).

Existing research has already provided insightful explanations on how professionals deal with such institutional complexity (for an overview, see Thornton et al. 2012). Ten Dam and Waardenburg (2020), for instance, illustrate how frontline professionals leverage different vocabularies to assemble narratives, which in turn enable them to navigate fluidly between various logics. Bévort and Suddaby (2016) show how professionals use their own 'identity scripts' to make sense and adjust to contradictory institutional logics. Thereupon, they argue that reinterpreting competing logics is based on individual cognition and interpretive subjectivity. Another study by Andersson and Liff (2018) demonstrates how professionals and managers both co-opt each other's logics in an attempt to further their own interests in a healthcare organization. Moreover, they reveal that although co-optation is initially performed to protect the 'home' logic, the co-opted elements eventually change it (see also McPherson and Sauder 2013). Conversely, Andersson and Gadolin (2020) explain how professionals apply relational strategies to separate institutional logics within hybrid organizations, thus not 'allowing' for institutional complexity.

Besides these rather adaptive responses, professionals can also integrate and creatively synthesize competing logics to create radical innovation (see Hargrave and Van de Ven 2009; Van Dijk et al. 2011; Jay 2013). The results of such creative responses characteristically diverge from established logics and hence alter understandings of what is considered conventional and appropriate behavior. Combinatory and dissenting approaches to competing institutional demands are, therefore, theorized as creating 'game changers' (De Vaan et al. 2015), institutional changes which transform the way how things are done and evaluated (Hargrave and Van de Ven 2009)—an idea reminiscent of Schumpeter's (1942) notion of creative destruction. This emphasis on the generative and disruptive potential of embracing contradicting institutional logics is a common motive found in studies on creativity and innovation regularly denoted as productive tension or creative friction (see e.g. Stark 2009; Drazin et al. 1999; Harvey 2014; Battilana et al. 2015; Smith and Tracey 2016).

However, institutional disruption emerging from embracing creative tension is not necessarily desired in hybrid organizations which benefit from maintaining competing institutional demands to project legitimacy (Jay 2013; Pache and Santos 2013a). Moreover, creativity can even be counterproductive when trying to uphold competing institutional demands (Jay 2013) and to adhere to jurisdictional control enforced in a profession (Kroezen et al. 2013). This apparent tradeoff between creativity and legitimacy is most salient in multi-hybrid contexts because the more various institutional demands create pressure for conformity, the harder it is to create and implement a new idea that is also viewed as sensible and appropriate by all involved referents applying competing institutional logics for evaluation (Dougherty and Heller 1994; Csikszentmihalyi 2014).

Professionals responsible for innovation in hybrid organizations are hence confronted with the challenge of poly-optimization for contradictory institutional demands: while introducing valuable novelty they must satisfy various pressures for conformity exerted by, on the on hand, the logics of their profession and, on the other hand, their organization, all without (the power of) changing, avoiding, or contesting the established institutional arrangement—put simply, they must create a new idea that delights and appeases their professional peers and their organizational colleagues, although these groups employ different institutional logics in their evaluations. Creative responses to this challenge create space to discuss and pursue other institutionally available discourses (Hargrave and Van de Ven 2009; Van Dijk et al. 2011; Battilana et al. 2015). These creative responses, however, regularly lack legitimacy since various dominant institutional referents contest novelty as they condition actors to what is legitimate (Van Dijk et al. 2011: 1486). Contesting the institutional demands of these referents can hence lead to organizational paralysis or break-up (Pache and Santos 2010). The puzzle remaining thus relates to how professionals can create novelty while maintaining and satisfying competing pressures for conformity to project legitimacy. In other words: how can professionals tasked with innovation navigate institutional complexity in hybrid organizations without

contesting the various institutionalized expectations about what constitutes appropriate and beneficial new ideas?

METHODOLOGY

To answer this question, this study investigates pharmacological professionals working in a national R&D department of an internationally operating research-based pharmaceutical company. This setting is suitable to investigate the identified research question because international pharmaceutical companies are characteristically hybrid organizations incorporating multiple institutional logics. And although they require an adaptive and conforming response to some dominant institutional referents (e.g. regulatory agencies), they also rely on creativity and innovation to survive and succeed (Sundgren and Styhre 2003; Styhre and Sundgren 2011). This double burden of creating novelty yet maintaining institutional conformity is especially formative for the employed R&D professionals. The resulting tensions represent suitable boundary conditions to study how professionals tasked with innovation navigate competing institutional demands in hybrid organizations.

The illustrative case presented here describes the work of pharmacological R&D professionals (often denoted in the industry as *medical managers* or *medical advisors*) employed at the R&D department of a national branch of the pharmaceutical company *NewMedCorp* (among the top 10 biggest pharmaceutical companies worldwide as listed by revenue in 2020).[1] *NewMedCorp* is a globally active, research-based pharmaceutical company with over 100,000 employees. It is involved in medical innovation as well as the production of pharmaceutical generics. The R&D scientists are highly educated professionals with backgrounds in pharmacology or clinical medicine and with extensive additional training in designing pharmacological clinical studies. All R&D employees observed at *NewMedCorp* had a PhD in pharmacology or clinical medicine (except one trainee, who just handed in her dissertation at the time of observation—she now has a PhD) and additional certificates as pharmaceutical representatives.

Typically, data on creativity in pharmaceutical development are collected with a focus on drug discovery, covering predominantly the first 6 years of an (on average) 13-year development process (Dunne and Dougherty 2016). However, for this article, the design of Phases II–IV clinical studies is instead preferred as the context of observation. Following these later clinical stages of pharmaceutical R&D matches the aspiration to study institutional complexity since these stages involve a complex ecology of professionals and institutional demands. Furthermore, paying attention to Phases II–IV clinical studies sheds light on an important part of pharmaceutical development regularly neglected in creativity research (for an exception, see Yaqub 2017). However, observing one singular clinical study (e.g. through an innovation biography; Butzin et al. 2012) across its 3- to 5-year progression was not feasible. Instead, data were collected in a focused ethnography (Knoblauch 2005) across various clinical studies between September and November 2018. Since these clinical studies all were in different stages at the time of the ethnography, ranging from initial idea generation to post-study evaluation, it was possible to observe the lengthy process of clinical study design temporally compressed. The data material consists of 200 h of participant observations including 33 meetings between 60 and 240 min and 11 designated ethnographic interviews in addition to numerous other informal talks and ad hoc situations.

The analysis of the data and the subsequent illustration of the findings both strongly follow the perspective of the pharmacological R&D professionals employed at *NewMedCorp*. Analysis was done using an interpretivist approach based on ethnographic data collection (ethnographic interviews and observations in a suitable setting) and grounded theorizing (Reay and Jones 2016). As a result, the findings project the professionals' comprehension of the institutional demands and their interpretation of power relations, pressures, and conflicts (Smets and Jarzabkowski 2013). The goal of the analysis is hence neither to reconstruct the competing institutional demands from an objective standpoint nor to contrast professional and managerial construction of the involved institutional demands, but solely to illustrate how the pharmacological professionals involved in creating and implementing novelty interpret and realize different institutional demands, and how they construct and approach resulting institutional contradictions from their perspective (see Smets and Jarzabkowski 2013).

Therefore, data analysis was not performed with the intent to identify or recreate ideal types of institutional logics and demands. Instead, the analysis followed a 'pattern-inducing' technique to create grounded insights based on the interpretivist standpoint, that the way to understand social phenomena is to look at them from the inside (Reay and Jones 2016: 9). This analysis, as Reay and Jones (2016) explain, is based on the development of categories through reflective engagement with the data. The development of these categories followed to guiding questions: (1) Which institutional demands must the pharmacological scientists address when developing new ideas and how might

these demands collide? (2) How (and why) do the scientists approach these (competing) demands when developing new ideas?

These questions were answered following a three-step process of open coding, axial coding, and selective coding (Gioia et al. 2013; Corbin and Strauss 2015). This process started during the fieldwork at *NewMedCorp* and was constantly refined. Moreover, analysis was embedded in an iterative movement between analysis, theory, and data collection to establish robust categories. Open coding was conducted to construct a basic data structure. Several first-order concepts were established in a wide array in close connection to the data. As with many other intensive fieldworks, there was a lot of 'noise' in the data, that is, additional information not directly relevant to the proposed question. For instance, the gender ratio at professional and managerial level or the global distribution of offices both seemed to lead to fruitful research topics not covered by the proposed questions. Nonetheless, open coding was helpful to sort the data around first concepts. These first codes were organized and aggregated into more abstract second-order themes. In this second step, the open codes were separated into themes concerning (1) internal demands regarding new projects and (2) approaches by the professionals to navigate these demands during development. Finally, second-order themes were distilled into an overarching theoretical dimension and assembled into a comprehensive data structure (see Fig. 1) (Gioia et al. 2013: 26).

FINDINGS

Competing institutional demands at NewMedCorp

The task given to the pharmacological professionals at the observed R&D department at *NewMedCorp* is to generate novel and valuable scientific evidence that illustrates the specific advantages of *NewMedCorp's* therapies to other professionals in the field of clinical pharmacology and medicine using Phases II–IV clinical studies: '*We try and shape the scientific discourse in our favor—that is our task: to keep pace in the dynamic world of pharmaceutics*' [18-10-25/1]. Consequently, the R&D professionals, from their perspective at least, take on the role of 'innovators' at *NewMedCorp*. In their quest for innovation, they aim to meet three central institutional demands: (1) demands for scientific validity expressed by the epistemic community and enforced by other pharmacological (and medical) professionals working in academia, (2) demands for commercial value necessitated by company shareholders and enforced by management, and (3) demands for legal responsibility stemming from compliance departments internally and regulatory agencies externally (see Table 1).

First, to have a successful impact in the field of clinical medicine and pharmaceutics, new studies need to pass positive evaluation from key opinion leaders (KOLs) within academia who assert a high amount of jurisdictional control. Accordingly, every new study must conform to the scientific demands exerted by the profession of clinical pharmacology, like transparency, robustness, and objectiveness. Failing to meet these scientific demands does more than discrediting the study in academia—it directly lessens the value and revenue of the product because other professionals (e.g. clinical physicians) responsible for prescriptions and price negotiations orient their behavior to the judgment of the KOLs asserting jurisdictional control. Hence, biased and lop-sided clinical studies are unfeasible to create value. Instead, peer-reviewed scientific studies are necessary to convince these key 'gatekeepers' within the profession who apply the specific knowledge of their 'domain' for evaluation (see Csikszentmihalyi 2014). As one R&D professional at *NewMedCorp* said[2]:

> Actually, we here are much more sales and distribution than research and development. We need to convince key opinion leaders that our therapy is better than all others, yet, we cannot do this with normal marketing, but to do that, we must do research and development. We convince them with good science [18-9-27/Area-manager-R&D].

Because convincing studies must be created following the 'scientific code', every new study is developed by professionals from the field of clinical pharmacology and can moreover hardly be convincing when created by nonprofessionals without the required knowledge and credentials. Some of the pharmacological professionals at *NewMedCorp* are even habilitated and/or work as part-time professors in universities. They take on this extra responsibility within the profession because they feel like they need credentials in pharmacological academia for their work to be taken seriously. That is also the reason why *NewMedCorp* hires pharmacological professionals, as they need legitimate scientists 'speaking the professional language' to adhere to the jurisdictional control of leading professionals when creating new clinical studies.

However, new studies designed at *NewMedCorp* must also conform to what is here denoted as corporate demands building on a corporate logic to be approved internally. The most crucial departments involved in approving clinical studies are *Business Franchise* considering alignment with *NewMedCorp* overall managerial

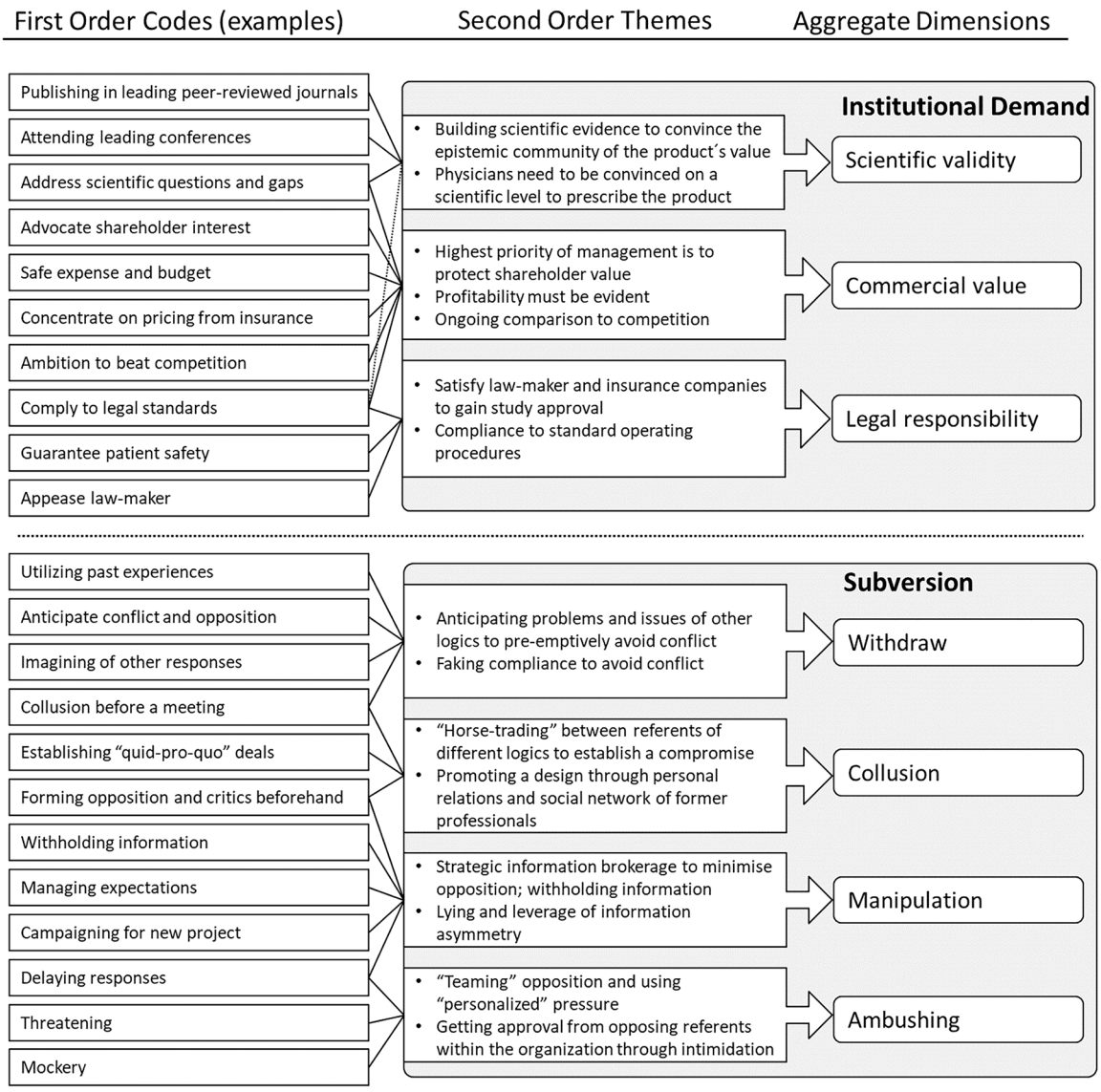

Figure 1. Overview data analysis.

strategy, *Finance* considering budget concerns, and *Market Access* considering estimated value and pricing. These departments are considered management from the perspective of the R&D professionals, and they evaluate novelty and value not on scientific principles, but based on profitability, commercial value, pricing, marketing potential, and ultimately shareholder earnings. Therefore, every new project designed by the professionals must not only exhibit scientific validity, but also project commercial value:

> I just can't go to them [Marketing] and tell them something about the patient, because they don't care at all. I need to know, what is important to them, and that I must elaborate on. Otherwise, it does not matter [18-10-1/Head-bodyology].

Such an internal competition between professionals and managers is not unique to *NewMedCorp* (see Drazin et al. 1999), but nonetheless creates a substantial challenge for the R&D employees who must satisfy professional and corporate demands in their new designs. This challenge increases in difficulty because, as the R&D professionals perceive the situation, management at *NewMedCorp* does not get involved in designing new studies, but purely evaluates what is presented to them by R&D.

Table 1. Institutional logics and corresponding demands as perceived by R&D professionals

Institutional logics at *NewMedCorp*	Professional	Corporate	State
Institutional demands to project legitimacy of new ideas	Scientific validity	Shareholder value	Legal responsibility
Requirements to fulfill these demands	Objectiveness, accuracy, transparency	Profitability, superiority (compared to competition), efficiency	Patient safety, product efficacy
Approach to innovation	Scientific approach to create new insights based on empirical findings	Corporate approach to increase product value without committing too many resources	Regulated approach to conduct innovation without diverging from already established SOPs
Key institutional referents	Leading academics, leading clinical physicians	Shareholder, investors	Regulatory agencies, Public health insurance companies
Representatives involved in the innovation process	R&D members	Finance and marketing managers	Compliance managers
Role in innovation process (as perceived by R&D members)	Innovators ('Creatives')	Evaluators ('Supervisors')	Administrators ('Pencil pushers')

Therefore, just as R&D employees see themselves as the only 'creative' department representing their profession at *NewMedCorp*, they regard management as dominant institutional referents of the corporate logic, acting as their evaluators and supervisors who provide budget and control, but no further input or initiative:

> We are the creative department, which means we have the ideas, and it is our task to make these ideas fit. To show management why they help the corporation [18-10-1/Head-bodyology].

This apparent differentiation between innovators (R&D professionals) and evaluators (management) leads to a perceived power differential. The R&D professionals strongly believe that management 'holds all trumps' because management is in the 'comfortable' position of evaluating rather than creating. They further argue that although pharmaceutical companies need new clinical studies to compete, and although these studies partly represent the key technology of the organization (see also Yaqub 2017), managers will cancel scientifically convincing studies that do not fit their specific corporate demands, which often means that '*for positive evaluation the projected increase in sales Y must outweigh the planned budget X*' [18-10-08/MA4-bodyology]. Consequently, the professionals constitute management as a powerful institutional referent of the corporate logic who primarily follows shareholder interests. And, as the professionals believe, innovative science is too risky to adhere to these corporate demands:

> [Management] is just very opposed to any risk. They never want to do those things, because they all fear that something goes wrong which has their name on it. (…) That is, as I mentioned, the topic of low willingness to take risks. Any good projects, I mean those that are really innovative, those which can change things, they are much too risky to be financed by management [18-11-05/Head-Clinical].

While this friction between professional and corporate demands is not surprising in pharmaceutical organizations (see Powell and Sandholtz 2012), the extent to which this conflict shapes the creation of novelty is noteworthy.

The following example is intended to illustrate the conflict between these two institutional demands [18-09-28/1]. It also emphasizes the power disadvantage as experienced by the R&D professionals. It starts with pharmacological scientists employed by *NewMedCorp*, who realized by working through scientific publications that the very successful compound [hit-compound] might have additional, previously unattested,

therapeutic benefits for patients suffering from secondary diseases of adiposity. Following up on their 'hunch', they designed a scientifically robust study that (again from their point of view) would provide valuable data convincing more physicians to prescribe their product. Yet, the study was not approved by management despite a high chance of illustrating patient benefits and good projection of sales increase because the price paid per milligram might drop as overweight patients require a higher dosage for a similar price. This concern primarily expressed by managers in charge of price development was enough to cancel the study, regardless of significant academic value otherwise—the R&D professionals had no further option to enforce or conduct their study. Eventually, the project was indefinitely canceled due to these pricing concerns.

Additionally, the compliance departments of *Legal*, *Regulatory Affairs*, and *Trial Monitoring* enforce regulatory demands necessitated by public agencies. Even if projecting scientific validity and commercial value, new studies must adhere to regulatory and compliance demands posed by state, national, and international agencies. The patient safety during clinical trials is an important ethical and legal aspect not necessarily covered by scientific or commercial aspects. While some legal concerns are part of commercial and scientific considerations, others contradict them. For instance, it is virtually impossible to create new studies intended for pregnant women due to legal hurdles and compliance issues regardless of scientific plausibility or commercial potential, as most insurance agencies, ethical boards, and public drug authorities do (understandably) strongly hesitate to allow pharmacological testing with pregnant women.

Therefore, the R&D professionals regard the regulatory departments as rigid and stiff '*pencil pushers*', '*robots*', or '*shaved monkeys*', which do not fruitfully contribute to the creation of new ideas, but only care for addressing standard operating procedures (SOPs). The following statement not only underlines this point, but also relates to the conflicts between professionals (in this case a physician) and members representing legal demands:

> The other departments, legal, trail monitoring, those are robots, they execute what we say. But only within SOPs, everything else they do not care about. It does not matter how stupid an action is, if the SOPs say so, they do it. And then, sometimes, a physician or somebody like that comes and says: what kind of crap is that? Then, the guy from Trial Monitoring says, I know, it makes no sense, but it says so in the SOPs, and you signed those, therefore you must comply [18-10-1/Head-bodyology].

To summarize, in order to satisfy all present institutional demands, a novel clinical study at *NewMedCorp* needs to be scientifically convincing and objective (professional), yet biased toward the own product (corporate), exploring new options for therapy (corporate), yet safe in processing (legal), and expanding therapeutic options (professional), yet conform to SOPs (legal). The challenge for the professionals is: how to create valuable novelty under these conditions? How to make something novel that still adheres to all these demands? As the professionals see the problem, if they create something 'too scientific', it is canceled by management, if they create something 'too commercial', it is not accepted by their professional community, if the create something 'too daring', they risk legal cancelation, and if they create something 'too safe', they risk standstill. To complicate matters for the professionals, these three demands are structurally implemented in an organizational cross-unit responsible for greenlighting all new projects. Within this cross-unit diverse organizational branches are involved in the approval of clinical studies:

> Well, we have an idea for a study but there [in admission] are countless other departments involved, like, legal, biometrics, finance, monitoring, marketing, you name it. And none of those departments is hierarchically superior, instead they are all on the same level. And they all want to put their oar in [18-10-1/Head-bodyology].

These cross-units must reach unanimous agreement to approve any new study design. That means every participant of the cross-unit has the right to veto any proposal and, as mentioned above, the diverse organizational branches exert various competing institutional demands. Openly contesting these demands, therefore, is not a functional response, if your goal as a R&D employee is to increase your key performance indicator based on budget volume and not risk organizational paralysis (Pache and Santos 2010).

Navigating institutional complexity during innovation processes

The pharmacological professionals at *NewMedCorp* navigate this problem arising from institutional complexity when tasked with innovation using a two-step approach: first, when beginning to design any new study the professionals initially follow their professional 'home' logic (McPherson and Sauder 2013). They start design with the demands of their profession because they strongly believe that they are the only organizational members that possess the expertise and knowledge to satisfy the

demands asserted by key professionals in the field—thus, the only internal referents of an institutional logic necessary for success in the field of clinical pharmacology. Hence, when designing new clinical studies, the starting point for the professionals is formed by scientific cues emerging in academia, like recent publications, conference presentations, and discussions with KOLs. Based on this information, the R&D professionals create novel clinical studies that are supposed to address the scientific concerns, questions, and problems specific to *NewMedCorp*'s most valuable patent-protected products. The following excerpt from the observations emphasizes this re-centering on their profession when initially creating and discussing new study designs. It was noted during an internal R&D meeting on past and future clinical studies:

> In succession, all present employees go through their current and planned studies, slowly and in detail. The study design is explained again, and also why it came to some decisions, which problems occurred on the way, how things are as matters stand. In most cases, they report on sicknesses, typical symptoms, specific patient-groups, therapeutic options, and so forth. Then, they present which publications resulted from their studies and how they were and are discussed in the scientific community. (…) I am reminisced about discussions I have in my own research institute, about discussions with peers and colleagues, about reviews I received and wrote, as a scientist myself [18-9-27/2].

The data resulting from these clinical studies contribute theoretical and empirical insight to the medical and pharmaceutical community and is eventually used to improve the perception of *NewMedCorp* products within the profession. Their studies must, as they say, '*make non-believer into believer, and make believer into advocates for our cause. Take the KOLs on track with us'* [18-11-06/1]. Since this important evaluation by the KOLs is based on scientific principles, another central question arose during my observations: How to communicate with professionals in the field when a study is cancelled or otherwise fails to deliver convincing results?

> Well, it sucks, but we must be transparent and honest when it [failure] happens. It just happens in clinical medicine, and everybody is aware. In fact, it can sometimes be an advantage. When you communicate the mistake openly, it can happen that a good KOL gets motivated, and that he gets creative and tries to fix your problem, or at least thinks about where the problem lies [18-10-25/1].

There was a similar response from the national Chief scientific officer (CSO) when asked about how the corporate demands enforced by management should shape how to approach new study designs. He argues that blindly following these demands enforced by other members of the C-suite would result in inappropriate science unsuitable to convince KOLs in the field:

> That is a problem from what we call here "American management". But we must try and stay true to our values. And sometimes you rely on civil disobedience. Otherwise, we become part of something we do not want to be a part of [18-9-27/3].

These differences in institutional demands create the core challenge for professionals at *NewMedCorp*, as they must adhere to pressures from their professional peers and from some of their organizational managers. Due to this double bind, the R&D professionals strongly perceive that scientific creativity and innovativeness, while vitally important to convince referents in their profession, is detrimental to a career at *NewMedCorp*. During my first initial meeting with the national CSO, he declared that '*the company does not support us in any way to be scientifically innovative* (..) *here, it is not governance of creativity, but governance against creativity*.' Similarly, the R&D professionals repeatedly stated that generating creative and novel solutions based solely on scientific insights labels you as a 'clockstopper' at *NewMedCorp* and is generally considered career suicide. In fact, the R&D employees regularly argued that daring and creative proposals provoke discussion and dissent internally, which in turn take time and resources.

> Creativity? That is a good approach to get fired! If you want to get things done you come with solutions, not with conflict. And every creative solution has conflict potential (…) Honey, if you want to accomplish something here at NewMedCorp, you must play the game [18-10-1/Head-bodyology].

The issue, again, is that creative proposals from the standpoint of professionals are conflicting and dissenting with the corporate and regulatory demands, which can cause organizational paralysis ('clockstopper') (see Pache and Santos 2010). Their solution to this problem is to take a scientifically creative study that they initially designed following their professional logic and then to 'slim it

down', even if not much of the initial creative spark can be maintained:

> You look for the smallest common denominator and that is often not very exciting or innovative. And you only approach the other departments after the plan is already hatched. (…) In the effort to place such an idea internally, you start with something big and innovative, but piece by piece you make the idea smaller, always more suitable, until it meets the demands of all departments – but often there is not much left of any innovation [18-11-05/Head-Clinical].

Hence, while the R&D professionals initially create new studies based on their professional perception of value and novelty to convince their peers, they try to implement these new studies internally without openly contesting the other institutional demands. Yet, while they must simplify the design to some degree, they also want to keep some of the scientific inventiveness necessary to convince their professional peers:

> That is the biggest part of our work, the core of our work: We take projects, scientific notions that arise and come to us from the scientific community and we translate them into the different logics of our company. Into all the standard operating procedures, all the different requirements and demands [18-10-8/MA4-bodyology].

The core finding in this article is that the professionals accomplish this challenge of implementing scientific projects into a corporate logic using a strategy denoted here as *subversion*. The strategy of subversion is intended to undermine the authority and influence of more powerful institutional referents from within the organization to implement ideas primarily intended to meet professional demands. The R&D professionals opt into subversion because although they represent and produce the key technology of the company, they also (feel like they) are at a severe power disadvantage within the organization. Thus, in the case of *NewMedCorp*, the professionals aim to subvert the organization in the sense that they try to establish and implement ideas that are primarily intended to satisfy an institutional demand of their profession which is not represented by another powerful referent within their organization.

Altogether, four tactics of subversion were identified: *withdraw, collusion, manipulation*, and *ambushing*. These tactics of subversion are described in the following and illustrated using empirical vignettes from the fieldwork. Prior to this illustration, however, a short reflection on the selection of the rather 'martial' words chosen to describe this strategy and the comprised tactics: the R&D professionals at *NewMedCorp* regularly use metaphors of warfare and battle. They also frequently describe themselves as a para-military group fighting the leading authoritarian system without any leverage for open defiance. One employee even referred to '*Star Wars*', thinking of themselves as the Rebellion (professionals) fighting against the Empire (management) for what is 'right', which in their case is behavior in line with their professional identity. Their own evaluation of their work and of creative study design strongly hinges on this professional identity, which they feel is vital to succeed in the field of clinical pharmacology, yet powerless and underrepresented at *NewMedCorp*. Thus, they feel like they cannot convince the powerful constituents of other institutional logics in their organization based on scientific value. Consequently, they resort to subversion (someone mentioned 'guerilla tactics') to, as they say, 'fight the system from within'. The chosen notion of subversion is an attempt to draw attention to this perspective.

Withdraw is employed by R&D professionals to convince referents of other institutional logics to approve their study design using prior experiences with these referents and imagining their responses. The professionals showcase a high degree of reflexivity as well as anticipatory obedience. They reflect on past solutions and utilize this knowledge to create agreeable proposals through an anticipatory and somewhat feigned implementation of the other departments' institutional demands (a similar 'fake obedience' is done by hybrid organizations in complex fields to satisfy external referents; see Pache and Santoś (2013a) notion of a 'Trojan Horse'). Withdraw is employed to remove the biggest conflict potentials from any design. Hence, most study designs entail a form of imaginative co-optation (Andersson and Liff 2018), in which the R&D employees try to include competing demands without fully co-opting them. The following example of withdraw highlights the pre-emptive (and somewhat feigned) obedience when designing novel clinical studies to avoid escalating conflicts. It also reiterates on the idea that the professionals start any design from the perspective of their profession, yet eventually change this focus in order to implement the idea in the organization:

[Field note excerpt; 18-9-27/2]: It is around 09.00 and eight members of the R&D department sit in an internal meeting regarding a new study design for [hit-compound]. The goal of the meeting is to draft a novel study concept that can bring scientific evidence to introduce [hit-compound] for a previously untargeted [indication] in [bodyology]. The initial idea to target [indication]

came during a scientific conference on [bodyology] a few weeks earlier (…).

Everybody seems to agree very fast that the general scientific notion is solid and relevant, and moreover, that a corresponding study has a very high chance of evidently illustrating new and unknown patient benefits. However, after the scientific value of the concept is collectively accepted, the tone of the discussion shifts. Suddenly, the meeting feels like a—for lack of better words—exercise in guesswork. Although the department head is present, I do not get the impression that anybody here has a decisive authority or final word. Most sentences start with 'I assume …' or 'I think …'. Before, I thought decisions at pharmaceutical R&D are based on facts. Now, I am not so sure. The debate feels more like collective speculation on what other departments, or even specific organizational members, might like or dislike:

> [MA1-bodyology]: 'Do you think [Business Franchise] will be convinced by this proposal?'
>
> [MA2-bodyology]: 'I suppose we should implement another thing for them. Something that they like.'
>
> [MA1-bodyology]: 'Maybe we should add more on [topic] just for them. They do not like it when [topic] is unanswered. It might safe us some trouble.'
>
> [MA3-bodyology]: 'Or what about more on [indication]? I got the feeling [indication] is getting pushed from [global R&D]. Like it's gonna be the next thing.'
>
> [MA1-bodyology]: 'Yeah, I think so too. They would probably like it when we add something in that area as well. I think we should meet with an expert. Get the inside scoop. But that brings some problems with [Compliance].'
>
> [MA2-bodyology]: 'I have no idea how they are going to react. But they probably don't like it. Anybody got an idea what we can do about that?' (…)

A few days after the meeting is finished, I ask 'my' department head [Head-bodyology] why they do not just take the scientific design into meetings with the other departments. After all, they unanimously agreed that they can prove extra patient benefits with a scientifically sound study design. [Head-bodyology] starts laughing and tells me [18-10-1/Head-bodyology]:

> You know, it is like fishing: the bait has to attract the fish and not the fisherman. And every department has its own taste. (…) You must make it clear for everybody, for every individual, what their benefit is if they release budget. And the reason [for them] cannot be because we will find something amazing. (…) [End of excerpt].

Collusion denotes the tactic of conspiring with former professionals now in managerial positions to implement new study designs leveraging personal relations and social networks. To work around the challenges of multiple institutional demands as much as possible, study developers heavily partake in in-house politics to strengthen support for their design from referents of other institutional logics:

> If you want to accomplish anything, you need to understand the logic of this place. You need to understand all the processes, who is important, who is allied with whom, where are friendships. And this knowledge you use. Actively. Otherwise, you have no chance. Before every meeting, you should have already assessed your critics [18-11-06/Area-manager-R&D].

In most creativity theory, contradictory institutional demands should challenge the involved participants to create a unique solution by integrating the contradictions into a novel framework (Stark 2009; Harvey 2014). However, during the observations at *NewMedCorp* that was not the case. Instead of emergent new solutions through interaction, participants talked in advance of important meetings to find some form of compromise or concession. These compromises were often unspecific to the problem at hand but rather customary solutions from the past. In common quid-pro-quo-fashion members of the different departments established functional solutions and arrangements. Particularly, the R&D professionals often rely on former members of their group who 'made it' into management to help greenlight their proposals since these hybrid professionals (Blomgren and Waks 2015) have a 'soft spot' for the professional perspective and are more willing to accept designs with a strong scientific appeal. The following vignette illustrates the intend of the tactic to gather support using former members of their profession to convince powerful referents of other institutional logics to approve of a new proposal without engaging in costly negotiations or risking cancellation:

[Field note excerpt; 18-10-15/2]: I am by chance present at a cross-unit meeting on additional clinical study possibilities for [hit-compound] in [bodyology]. There are three departments involved in this meeting, R&D, Market Access, and Business Franchise. Altogether ten participants are present. (…) I quickly realize that this meeting is significant for greenlighting

the proposals since a key institutional referent of the corporate logic, [Business-franchise-head], is present. (…) It appears as if the goal of the present R&D member [Head-bodyology] is to get approval for a primarily scientific approach from [Business-franchise-head]. (…) The situation feels much more tense. It is the first time during my ethnographic observation that I am asked if I really belong here—and it happened twice before this meeting started (…).

The meeting takes about 90 min and follows a repeating formula. First, a certain member of Market Access called [MA-X] addresses some problems concerning a product or therapy. He seems to be the moderator of the meeting, although he is clearly not in charge. Then [Head-bodyology] makes a witty remark or joke just to put on a serious face and say something like: '*luckily, we have some ideas how to tackle the problem.* [MA-X] *had a good initial thought, we would suggest* [short pitch of a study idea].' Thereupon, [Head-business-franchise] ponders for a moment and finally agrees to the general notion of the study, however, with some concerns, limitations, or additions. This cycle repeats, with the occasional veto from [Business-franchise-head]. (…). As I understand it, an agreement with the [Business-franchise-head] in this meeting secures funding for a study (…).

After the meeting is finished, while I was writing up my notes, I see [Head-bodyology] and [MA-X] in a conversation. I immediately get up to catch some dialog, however, I am only able to hear the end of the conversation: [Head-bodyology]: '*To have you in Market Access is just the best.*' [MA-X]: '*Yeah, we will make it work. See you soon.*' (…) Later during the day I had the chance to ask [Head-bodyology] what he thought about the meeting and how he could get such smooth agreements and so little opposition from [Business-franchise-head]. He answered [18-10-16/Head-bodyology]:

> The truth: I went to [MA-X] in advance and told him what to talk about, what he should mention. And he did the same. So, we both could get something out of it. After all, we worked together for a long time. There is trust. Such a deal with allies – that is your only chance [End of excerpt].

Manipulation is employed by tactically withholding information, using known oppositions, leveraging informational asymmetries, and other trickery (e.g. lying). The overall goal of manipulation is to get a new project approved or supported although its design might contradict other institutional demands. Through manipulation, the R&D professionals try to gather enough support to ignore any contradicting demands coming from other institutional logics without open contestation. In doing so, they are able to maneuver their proposal through the contradictory organizational demands. Eventually, manipulation can lead to project approval although other departments still take issue with the current design since the overall support is large enough to suppress any remaining opposition. The following excerpt demonstrates how R&D members employ manipulation to advance their proposals, even when these proposals were initially cancelled. It occurred during a global R&D meeting on [hit-compound] at *NewMedCorp* headquarters:

[Field note excerpt; 18-11-06/2; 07/01]: Approximately 22.00, sitting at a dinner during the business trip to headquarters, quality restaurant, 30 people present, lots of wine. A R&D employee from another national branch [Overseas-colleague] tells his table of peers (and me) about a problem he is having: He was working hard on a study proposal concerning [data-type] for [hit-compound], but somebody working for management in his 'home' branch cancelled everything. Apparently, while the person in question supported the general notion of [data-type], he was concerned about some compliance issues in [Overseas-colleague]'s proposal. '*Well maybe I get lucky tonight*', he adds '*maybe I can place it here at global and it comes back the other way*' Shortly after, a senior manager from global R&D, [Senior-R&D], joins the table for some drinks. After some small talk about wine and food, [Overseas-colleague] seizes the opportunity to start a conversation about his cancelled project with [Senior-R&D]:

> [Overseas-colleague]: 'Hey [Senior-R&D], I got a question. You were saying earlier that you are interested in some more [data-type]. Is that right?'
>
> [Senior-R&D]: 'Yeah, absolutely! Again, for everybody at the table, we really need some more [data-type]. That is a top priority.'
>
> [Overseas-colleague]:'Oh okay, because I had an idea. A proposal concerning [data-type]. [Proceeds to talk about the cancelled proposal but leaves out the compliance issues].'
>
> [Senior-R&D]: 'Well that sounds perfect. Go ahead; you have our blessing with thisidea! It's good.'
>
> [Overseas-colleague]: 'Lovely! Could you do me a favor? Tomorrow during our meeting, could you just announce I will do something in that area – just so the others will know what I do. Just in case there is gonna be some overlap.'
>
> [Senior-R&D]: 'Sure thing. You are probably right; otherwise we might have some overlap.'

The whole conversation lasts 2 min. Afterward the conversation topic goes back to small talk and off-work subjects (…).

The next day during the global R&D meeting on [hit-compound] the agenda comes to proposals concerning [data-type]. Promptly, [Senior-R&D] stands up and announces: '*We have a good proposal from* [Overseas-colleague] *in that direction, so everybody, take an example! But try not to do something too similar.*' (…) After the meeting, during the coffee break in a small group, [Overseas-colleague] looks around, sighs, relaxes and says: '*Dear Lord, that was lucky. He actually publicly announced it. Now I am set. No way they oppose me at home when the proposal has had such public support from global. Thank god, my work is saved*' [End of excerpt].

Ambushing denotes tactics intended on getting approval from competing institutional referents without convincing them on a content level, but by using social pressure. Thus, ambushing can take different forms, for instance, mocking, ridiculing opposition in larger meetings, intentionally delaying responses, or even forms of physical intimidation:

> If somebody is difficult, you must drive them into a corner, like we say. Until he agrees. And you can use different registers, maybe go over say hallo, and eventually even get a little bit louder. (…) you have to think of a suitable measure [18-10-1/Head-bodyology].

What all forms of ambushing share is the notion of approaching referents of competing institutional demands neither through compromise nor through charm, but through (social) pressure. As such ambushing is heavily based on informal power structures and utilizes the social dynamics at *NewMedCorp* to get approval despite opposition. This last example is meant to illustrate *ambushing* using the 'war' between the R&D department that was at the focus of the ethnographic observation and another department head located at another national branch advocating corporate logic to cancel their proposed design for a new study.

Over the course of a larger company-wide project on [hit-compound] two different R&D branches led by [Home-branch-leader] and [Overseas-branch-leader] respectively, started disagreeing again and again over the right course of action. While [Home-branch-leader] advocated a daring scientific proposal, [Overseas-branch-leader] was put into its position by the global corporate management and instead advocated for cancelation due to financing concerns. However, these two branch leaders had no direct influence or authority over another. Therefore, they started to try and outmaneuver each other politically in talks with other departments and attacked another in various ways, for instance, by not handing in relevant reports. This is how the topic was discussed during an internal R&D meeting on a [hit-compound] study I observed [Field note excerpt; 18-10-2/3]:

> [Head-bodyology]: 'Now, most important: [Home-branch-leader] is going to war on [Overseas-branch-leader] – and we are going to help her. [Overseas-branch-leader] already complained with [CSO] because he says he does not get all reports. And he is right. That is on purpose. (…) Now, please, literally for the protocol: You do everything as usual, but you will send a copy to [Overseas-branch-leader] to "keep him informed" – but no other involvement! And you safe the mail you sent. Then you are protected from collateral damage. But nothing more.'

With their basic strategy cleared (withholding information; see *manipulation*), the R&D professionals further think about ways to support [Home-branch-leader] in her quest for war and talk about 'weapons' to use in this fight, meaning possible persons to involve to weaken [Overseas-branch-leader]'s position through social pressure. Thereupon, one participant of the meeting suggested involving [Head-Clinical], a senior manager at R&D overseeing clinical research. Under laughter, they tell the story of how [Head-Clinical] is their nuclear weapon and hence not suited to oppose specific persons.

> [MA2-bodyology]: 'The funniest thing was when [Head-Clinical] got involved because he is more of a neutron-bomb than a scalpel. He needed to contact somebody, unsuccessfully so, because lunch took too long or something. Therefore, he called the boss of the person and tells him off, who tells his employee off, who calls me and asks me what is going on, she has no idea what this is all about?! [laughing] After that, any further collaboration was much easier [laughing]. Way less opposition.' [End of excerpt]

DISCUSSION

The R&D professionals at *NewMedCorp* navigate competing institutional demands when tasked with innovation in two steps: they initially create a new study to adhere to the demands of their profession, which is crucial for positive evaluation in the field, and then aim to implement that design internally by undermining and subverting the other dominant demands present at *NewMedCorp*. Although they state that scientific

creativity and inventiveness is not appreciated within the organization when developing studies, they argue that their studies still need these attributes to convince the KOLs within their profession. Moreover, the R&D professionals state that they need a specific kind of communicative and socio-pragmatic creativity to get internal approval for their designs: '*it* [creativity] *here within R&D and within NewMedCorp means to circumvent the hurdles—which increase daily'* [18-10-16/2]. This communicative and socio-pragmatic creativity involved in getting approval is denoted here as *ingenuity*, a 'quality of being clever, original, and inventive (…) that allows someone to solve problems' through 'exceptional political, social, and communicative abilities' (Lampel et al. 2014: 467).

Thereupon, *subversive ingenuity* is understood as a strategy to implement new ideas into systems comprising contradictory institutional logics using exceptional political, social, and communicative skill. Professionals employ the strategy of subversion when they are otherwise unable to navigate innovation processes facing competing institutional demands: in the case of *NewMedCorp*, the professionals cannot passively comply to institutional demands enforced in their organization as that would be considered illegitimate within their profession—a profession that has crucial jurisdiction about the value and novelty of their ideas. Simultaneously, if they avoid or contest these demands, the professionals risk organizational paralysis ('clockstopper') (see Pache and Santos 2010) since they rely on managerial and legal approval to finance and conduct their study proposals.

Based on these findings, this article contributes to research on professions and institutional theory. There is detailed research how professionals respond to and cope with institutional multiplicity (Pache and Santos 2013b; Bévort and Suddaby 2016; Andersson and Liff 2018; Ten Dam and Waardenburg 2020). However, little attention was so far given to professionals' approaches to competing institutional demands during innovation processes. This aspect is important, not only because professionals are typically responsible for innovation in organizations relying on technology and science, but also because professionals are trapped between institutional demands of their professions and their organization. Moreover, professionals are rarely in the position to contest or change institutional arrangement in hybrid organizations without risking organizational paralysis (Drazin et al. 1999; Pache and Santos 2010), but instead depend on managerial benevolence when presenting new ideas (Dougherty and Heller 1994).

The notion of subversive ingenuity offers an explanation how professionals can innovate without dissolving institutional complexity and without escalating conflict causing organizational paralysis (Pache and Santos 2010, 2013a). Thereby, subversion appears as a different kind of co-optation of institutional logics (Andersson and Liff 2018). Co-optation can explain the coexistence of competing logics without any party being suppressed or dissolved. Through co-optation, professionals are neither 'cultural dopes' trapped by institutional arrangements nor 'institutional entrepreneurs'. Subversion entails aspects of co-optation (especially regarding withdraw), but also suggests that R&D professionals collude, manipulate, and ambush referents of competing demands to push their new proposal into a space of acceptance within hybrid organizations. Hence, subversion mirrors the concept of a 'Trojan Horse'—a strategy of hybrid organizations to feign adherence to other institutional logics in complex fields to project legitimacy (Pache and Santos 2013a). Yet, instead of an organization 'faking' obedience to certain institutional demands important in a complex field, subversion suggests that professionals 'smuggle' a new idea primarily based on their professional logic into a hybrid organization. This notion of subversion is also evocative of craftworkers efforts to undermine and subvert managerial authority to protect the quality of their work (Tweedie and Holley 2016)—subversion hence explains how professionals can ensure the quality of their 'craft' despite a managerial drive for efficiency contradicting key principles in their professional logic.

That way, subversion can service as a twofold from of legitimacy work (Abbott 1988, Suddaby et al. 2019): by initially following their professional logic and subverting the powerful referents within their organization, professionals can maintain quality of their work and thus keep legitimacy within their profession when engaging in innovation, even if their work is embedded in competing institutional demands. Moreover, this strategy empowers hybrid organizations to survive and succeed in fields ripe with institutional complexity because it results in innovations that resonate within the profession exerting jurisdictional control, while also satisfying other institutional demands crucial for organizational success. Simultaneously, professionals employ subversion to maintain legitimacy within their organization since it enables them to circumvent continuous contestation of other dominant institutional demands present—the professionals thus utilize subversive ingenuity to escape the label of a creative, yet ultimately unserviceable 'clockstopper'.

Thereupon, the article also contributes to research on creativity and innovation in fields comprising competing institutional demands (Stark 2009; Van Dijk et al. 2011; Harvey 2014). Generally, acceptance and embrace of

contradiction is very positively connoted in creativity and innovation literature (Stark 2009; Smith and Lewis 2011). Yet, the anticipated effect of acceptance of competing institutional logics—an induction of collaborative creativity based on synthesis and institutional work (Van Dijk et al. 2011; Harvey 2014)—does not occur at the observed R&D department at *NewMedCorp*. On the contrary, creative solutions based on divergence or synthesis are regarded as high-conflict potential. Instead, the case points to the reflexivity and mindfulness of professionals concerning their work environment and the tasks they are given without engaging in spaces of negotiation (Battilana et al. 2015). The R&D scientists at *NewMedCorp* articulated very precisely that they experience the institutional constraints under which they are supposed to create novelty as detrimental to 'real' creative solutions from the standpoint of their profession and thus strategically aim to subvert the established systems to further their professional notions of value and novelty. To implement novel projects, hence, they resort to political, social, and communicative ingenuity. While this is an important and useful talent for the R&D professionals to achieve their key performance indicators and 'keep their jobs', it does not result in radical innovation (Van Dijk et al. 2011) or creative reframing (Harvey 2014). Rather, it leads to pragmatic consensuses to satisfy and sustain competing institutional logics.

CONCLUSION

Indulging in friction from competing institutional demands is not something professionals seek or enjoy. Rather, the professional's approach to institutional contradictions leverages exceptional communicative and social skills as to not engage in conflict or lengthy negotiations with members of their profession or with managers of their employing organization and thus risk being a 'clockstopper' responsible for organizational paralysis (Pache and Santos 2010). Thereby, professionals employ subversion as a distinct form of legitimacy work (Abbott 1988; Suddaby et al. 2019): they try to establish workarounds to subvert dominant institutional demands present in their organization and hence dodge obstacles presented by institutional complexity, while maintaining both their professional legitimacy and convictions of quality (Tweedie and Holley 2016). The necessities of institutional complexity are hence not the mother of invention, but rather of pragmatism and in-house politics. Thereupon, this article argues that implementing and sustaining competing institutional demands in a hybrid organization is not sufficient to instigate radical innovation or collective creativity (see Stark 2009; Harvey 2014; Smith and Tracey 2016) since managerial intent and employee response frequently diverge (see Tweedie and Holley 2016). Instead, management practitioners striving to increase creativity and innovation should give their professional employees incentives to embrace the productive tensions resulting from competing institutional logics in hybrid organization (see Battilana et al. 2015). Without any managerial effort, however, the potential for creativity provided by institutional multiplicity turns into severe pragmatic obstacles for professionals to maintain their legitimacy.

These practical implications lead to promising avenues for further research: how can managers preserve organizational hybridity even if R&D professionals develop radical innovations contesting some institutional demands? Such an approach would take the burden of addressing institutional multiplicity away from professionals and onto managers, which in turn could enable the professionals tasked with innovation to engage with competing demands in creative ways. Deeper investigating the interaction of managers and professionals during innovation processes in hybrid organizations is hence an interesting starting point for further research. This prospective for further research also points to the limitations of this study, which primarily aims to reconstruct the perspective of the R&D professionals and therefore has little to say about the managerial responses to subversion. Moreover, as most single case studies, the insight from *NewMedCorp* has clear limitations concerning generalizability. The findings and contributions made in this study should primarily be generalized in the context of complex, large, and high-tech organizations. The peculiarities of creating clinical studies for already established products could also make the case quite specific to the field of pharmaceutical and biotechnological development. Accordingly, further research in other empirical fields is necessary.

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CONFLICT OF INTEREST

The author declares that he has no competing interests.

ENDNOTES

1. All names, locations, and indications have been rendered pseudonymous. Since pharmaceutical development is highly secretive and corresponding data highly sensitive, the country in which the observation took place was redacted as well.

2. All meetings and conversations were attempted to be documented in stenographical fashion to create thick descriptions for focused ethnography. Therefore, I created abbreviated literal transcripts in my field notes, which were then fully formulated in the evenings. Any literal repetition of quotes is a result from this process and not a verbatim transcript of recorded data, which was not permitted by *NewMedCorp*.

REFERENCES

Abbott, A. (1988 [2014]) *The System of Professions: An Essay on the Division of Expert Labor*. Chicago, IL: University of Chicago Press.

Andersson, T., and Gadolin, C. (2020) 'Understanding Institutional Work through Social Interaction in Highly Institutionalized Settings: Lessons from Public Healthcare Organizations', *Scandinavian Journal of Management*, 36/2: 101107.

Andersson T., Liff R. (2018) 'Co-Optation as a Response to Competing Institutional Logics: Professionals and Managers in Healthcare', *Journal of Professions and Organization*, 5/2: 71–87.

Barley S. R., Tolbert P. S. (1997) 'Institutionalization and Structuration: Studying the Links between Action and Institution', *Organization Studies*, 18/1: 93–117.

Battilana J., Sengul M., Pache A. C., Model J. (2015) 'Harnessing Productive Tensions in Hybrid Organizations: The Case of Work Integration Social Enterprises', *Academy of Management Journal*, 58/6: 1658–85.

Besharov M., Smith W. (2014) 'Multiple Institutional Logics in Organizations: Explaining Their Varied Nature and Implications', *Academy of Management Review*, 39/3: 364–81.

Bévort F., Suddaby R. (2016) 'Scripting Professional Identities: How Individuals Make Sense of Contradictory Institutional Logics', *Journal of Professions and Organization*, 3/1: 17–38.

Blomgren M., and Waks C. (2015) 'Coping with Contradictions: hybrid Professionals Managing Institutional Complexity', *Journal of Professions and Organization*, 2/1: 78–102.

Breit, E., Fossestøl, K., and Andreassen, T. A. (2018) 'From Pure to Hybrid Professionalism in post-NPM Activation Reform: The Institutional Work of Frontline Managers', *Journal of Professions and Organization*, 5/1: 28–44.

Butzin, A., Rehfeld, D., and Widmaier, B. eds. (2012) Innovationsbiographien: Räumliche Und Sektorale Dynamik (1. Aufl.). *Innovation, Raum Und Kultur*, Vol. 1. Baden-Baden, Germany: Nomos.

Corbin, J. M., and Strauss A. L. (2015) *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 4th edn. Los Angeles, CA: Sage.

Csikszentmihalyi, M. (2014) *The Systems Model of Creativity.* Dordrecht, the Netherlands: Springer.

De Vaan, M., Vedres, B., and Stark D. (2015) 'Game Changer: The Topology of Creativity', *American Journal of Sociology*, 120/4: 1144–94.

Drazin, R., Glynn, M. A., and Kazanjian, R. K. (1999) 'Multilevel Theorizing about Creativity in Organizations: A Sensemaking Perspective', *Academy of Management Review*, 24/2: 286–307.

Dunne, D. D., and Dougherty, D. (2016) 'Abductive Reasoning: How Innovators Navigate in the Labyrinth of Complex Product Innovation', *Organization Studies*, 37/2: 131–59.

Dunn, M. B., and Jones, C. (2010) 'Institutional Logics and Institutional Pluralism: The Contestation of Care and Science Logics in Medical Education, 1967-2005', *Administrative Science Quarterly*, 55/1: 114–49.

Dougherty, D., and Heller, T. (1994) 'The Illegitimacy of Successful Product Innovation in Established Firms', *Organization Science*, 5/2: 200–18.

Friedland, R., and Alford, R. R. (1991). 'Bringing Society Back in: Symbols, Practices, and Institutional Contradictions'. In: Powell W. W., DiMaggio P. J. (eds) *The New Institutionalism in Organizational Analysis*, pp. 232–66. Chicago, IL: University of Chicago Press.

Giddens, A. (1984). *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley, CA: University of California Press.

Gioia, D. A., Corley, K. G., and Hamilton, A. L. (2013) 'Seeking Qualitative Rigor in Inductive Research', *Organizational Research Methods*, 16/1: 15–31.

Greenwood, R., Díaz, A. M., Li, S. X., and Lorente, J. C. (2010) 'The Multiplicity of Institutional Logics and the Heterogeneity of Organizational Responses', *Organization Science*, 21/2: 521–39.

Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E. R., and Lounsbury, M. (2011) 'Institutional Complexity and Organizational Responses', *Academy of Management Annals*, 5/1: 317–71.

Hargrave, T. J., and Van de Ven, A. H. (2009) 'Institutional Work as the Creative Embrace of Contradiction'. *Institutional Work: Actors and Agency in Institutional Studies of Organizations*, p. 120. New York, NY: CambridgeUniversity Press.

Harvey, S. (2014) 'Creative Synthesis: Exploring the Process of Extraordinary Group Creativity', *Academy of Management Review*, 39/3: 324–43.

Jay, J. (2013) 'Navigating Paradox as a Mechanism of Change and Innovation in Hybrid Organizations', *Academy of Management Journal*, 56/1: 137–59.

Knoblauch, H. (2005) 'Focused Ethnography [30 Paragraphs]', *Forum Qualitative Sozialforschung/Forum: Qualitative Social Research*, 6/3: 44.

Kroezen, M., van Dijk, L., Groenewegen, P. P., and Francke, A. L. (2013) 'Knowledge Claims, Jurisdictional Control and Professional Status: The Case of Nurse Prescribing', *PLoS One*, 8/10: e77279.

Lampel, J., Honig, B., and Drori, I. (2014) 'Organizational Ingenuity: Concept, Processes and Strategies', *Organization Studies*, 35/4: 465–82.

McPherson, C. M., and Sauder, M. (2013) 'Logics in Action: Managing Institutional Complexity in a Drug Court', *Administrative Science Quarterly*, 58/2: 165–96.

Pache, A. C., and Santos, F. (2010) 'When Worlds Collide: The Internal Dynamics of Organizational Responses to Conflicting Institutional Demands', *Academy of Management Review*, 35/3: 455–76.

Pache, A. C., and Santos, F. (2013a) 'Inside the Hybrid Organization: Selective Coupling as a Response to Competing Institutional Logics', *Academy of Management Journal*, 56/4: 972–1001.

Pache, A. C., and Santos, F. (2013b). 'Embedded in Hybrid Contexts: How Individuals in Organizations Respond to Competing Institutional Logics'. *Institutional Logics in Action, Part B*. Bingley: Emerald Group Publishing Limited.

Powell, W. W., and Sandholtz, K. W. (2012) 'Amphibious Entrepreneurs and the Emergence of Organizational Forms', *Strategic Entrepreneurship Journal*, 6/2: 94–115.

Reay, T., and Hinings, C. R. (2009) 'Managing the Rivalry of Competing Institutional Logics', *Organization Studies*, 30/6: 629–52.

Reay, T., and Jones, C. (2016) 'Qualitatively Capturing Institutional Logics', *Strategic Organization*, 14/4: 441–54.

Schumpeter, J. A. (1942). *Capitalism, Socialism, and Democracy.* Urbana, IL: University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship.

Smets, M., and Jarzabkowski, P. (2013) 'Reconstructing Institutional Complexity in Practice: A Relational Model of Institutional Work and Complexity', *Human Relations*, 66/10: 1279–309.

Smith, W. K., and Lewis, M. W. (2011) 'Toward a Theory of Paradox: A Dynamic Equilibrium Model of Organizing', *Academy of Management Review*, 36/2: 381–403.

Smith, W. K., and Tracey, P. (2016) 'Institutional Complexity and Paradox Theory: Complementarities of Competing Demands', *Strategic Organization*, 14/4: 455–66.

Stark, D. (2009). *The Sense of Dissonance: Accounts of Worth in Economic Life*. Princeton, NJ: Princeton University Press.

Styhre, A., and Sundgren, M. (2011) 'Management Regimes in Science-Based Innovation: Control and Uncertainty during Early Phases of New Drug Development', *Technology Analysis & Strategic Management*, 23/5: 567–81.

Suddaby, R., Bévort, F., and Strandgaard Pedersen, J. (2019) 'Professional Judgment and Legitimacy Work in an Organizationally Embedded Profession', *Journal of Professions and Organization*, 6/2: 105–27.

Sundgren, M., and Styhre, A. (2003) 'Creativity - A Volatile Key of Success? Creativity in New Drug Development', *Creativity and Innovation Management*, 12/3: 145–61.

Svenningsen-Berthélem, V., Boxenbaum, E., and Ravasi, D. (2018) 'Individual Responses to Multiple Logics in Hybrid Organizing: The Role of Structural Position', *M@n@gement*, 21/4: 1306–28.

Ten Dam, E. M., and Waardenburg, M. (2020) 'Logic Fluidity: How Frontline Professionals Use Institutional Logics in Their Day-to-Day Work', *Journal of Professions and Organization*, 7/2: 188–204.

Tweedie, D., and Holley, S. (2016) 'The Subversive Craft Worker: Challenging 'Disutility' Theories of Management Control', *Human Relations*, 69/9: 1877–900.

Ocasio, W., and Thornton, P. H. (1999) 'Institutional Logics and the Historical Contingency of Power in Organizations: Executive Succession in the Higher Education Publishing Industry, 1958–1990', *American Journal of Sociology*, 105/3: 801–43.

Thornton, P. H., Ocasio, W., and Lounsbury, M. (2012). *The Institutional Logics Perspective: A New Approach to Culture, Structure, and Process*. New York, NY: Oxford University Press.

Van Dijk, S., Berends, H., Jelinek, M., Romme, G., and Weggeman, M. (2011) 'Micro-Institutional Affordances and Strategies of Radical Innovation', *Organization Studies*, 32/11: 1485–513.

Yaqub, O. (2017) 'Testing Regimes in Clinical Trials: Evidence from Four Polio Vaccine Trajectories', *Research Policy*, 46/2: 475–84.

Zilber, T. B. (2011) 'Institutional Multiplicity in Practice: A Tale of Two High-Tech Conferences in Israel', *Organization Science*, 22/6: 1539–59.