Unsanctioned Practice Innovation: A Process Model

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Abstract

This paper focuses on unsanctioned practice innovations (UPIs) and how they are generated and realised by those outside the senior ranks of an organisation. Through a longitudinal in-depth qualitative study of a multinational firm between 2001-2014, we discovered how deviance from formal procedural frameworks had diverse and often creative and productive effects that countered the constraints of transparency, legitimacy and top-down planning of practice innovations. Deviants enact a range of manoeuvres, often resulting in delegitimising prescribed practices and novel solutions to problems that an organisation encounters. We provide an analytical account of these UPIs, the manoeuvres necessary in their claims to legitimacy and the implications for more formal practice innovations.

Keywords. Practice innovation, Practice, Unsanctioned, Legitimacy

Introduction

Innovations are essential to the development of new practices (Kellogg, 2019; Salvato and Rerup, 2018), strategic change (Burgelman, 1983b; Friesl and Larty, 2018), competitive advantage (Oliver and Cole, 2019) and even the very survival of the firm (Burgelman, 2002). However, not all innovations emanate from or are mandated by senior management at the strategic apex of an organisation. Indeed, some innovations in organisational structure, services, and strategy processes (Kannan-Narasimhan and Lawrence, 2018; Mirabeau and Maguire, 2014; Oliver and Cole, 2019) arise because of agential resistance among senior management (Friesl and Kwon, 2017) or even against them (Delacour and Leca, 2017; Knights and McCabe, 2000). Consequently, as is clear from our case study, innovations may derive from lower levels in the corporate hierarchy, but this does not make them any less creative or productive (Courpasson, Dany, and Clegg, 2012; Mainemelis, 2010). Because it is not a part of a strategic corporate action plan, this active agency innovates without resources or the formal

support of senior management and risks sanctions for violating organisational rules, regulations and norms. In effect, it is 'deviant' and involves diverse agential struggles to gain legitimacy and gradual acceptance throughout the relevant practice fields for which its bottom-up, 'unsanctioned practice innovations' (henceforth UPIs) were deployed.

The practice and process literature on UPIs alerts us to some of the dilemmas, such as the primacy of habitual, repetitive action (Miettinen, Paavola, and Pohjola, 2012) that constrains or impedes individual agency in pursuit of practice innovations (Emirbayer and Mische, 1998). However, because of the complexity of adoption and routinisation of practices (Yin, 1981), their justification (Boltanski and Thévenot, 2006) and legitimacy (Suchman, 1995), this literature remains limited in its analysis of the processes through which UPIs emerge and develop. By contrast, our paper seeks to advance the insights of the comparatively few empirical accounts of practice-process research focussing on bottom-up practice innovations (Friesl and Larty, 2018; Yakhlef and Essén, 2013). Given the social complexities and agency-driven yet secretive aspects of such practice innovations, UPIs are not the easiest of phenomena to research, but they do deserve more detailed attention.

Through an in-depth case study of a multinational corporation, this paper seeks to develop a process view of how UPIs emerge and develop by analysing how lower hierarchy agents manoeuvre, interpret and enact their world as they create, develop and adapt practice innovations. Our analyses uncovered the inner workings of three distinct processes of *delegitimizing* contested practices, gaining *procedural legitimacy* for new practice elements, and establishing *pragmatic legitimacy* for new practices. The inner workings of these three processes of 'legitimacy work' reflect the agency of change agents (Suddaby, Bitektine, and Haack, 2017: 459) and contribute to two bodies of literature: (1) the practice innovation literature, which has been constrained by the limitations of practice theory, by focusing on the role of agency (Emirbayer and Mische, 1998; Miettinen et al., 2012), and (2), using a practice

theoretical lens, we also contribute to research on bottom-up autonomous innovation in several ways. The remainder of this paper is organised into the following sections: first, the literature involving the practice theoretical underpinnings, the agency and bottom-up aspects of innovation. Second, we introduce the research context, the data collection and analysis, which is followed, in the third section, by the findings from the empirical research that incorporates an analysis and ends with their implications for theory and practice and some concluding remarks.

Theoretical underpinnings

Practices are culturally, socially, politically, materially, and teleoaffectively constituted patterns of interconnected actions performed by a community that shares the same concerns and aspires to achieve the same ends. Practices are *cultural* matters founded upon "symbolic structures of meaning" (Reckwitz, 2002: 244). Practices are also *social* as they neither give primacy to individual agency nor to institutions, norms, laws, rules or regulations—they are normative and thus embody how things are done appropriately but without regulatory or deterministic imperatives (Rouse, 2007). However, practices only make sense as a 'performative idiom' (Pickering, 1995: 5) when enacted within a community of individuals who share the same epistemic culture (Knorr Cetina, 1999). The social aspect of practice also necessitates a *political* aspect in that any action is charged with a consideration of what is sensible to do to oneself and others, such as minimising harm, achieving certain ends and neutralising threats (de Certeau, 1984). Put simply, individuals make considerations that demand political decisions and actions in practice (Bourdieu, 1990). Practices are also *material* in two respects; (1) their performativity is inseparable from the possibilities and limits of the human body/mind complex (Merleau-Ponty, 1962) and (2) they transpire through and from material artefacts, objects and things—natural and manufactured (Heidegger, 1962). Finally,

4

practices are *teleoaffective* in that actions are (1) habitual (informed by the past), situational (affected by the present) and projective (oriented towards future targets, goals and aspirations), and (2) also charged with emotions and affective states of mind leading the individual practitioner often to exaggerate, or even diminish the importance of what they do (Emirbayer and Mische, 1998; Schatzki, 2010).

These dimensions of practice are mutually constitutive and cannot be intelligibly separated as single causes or effects of other dimensions. Instead, their intelligibility transpires through individuals' shared understandings and performances (Schatzki, 2005). In this regard, practice denotes dynamism and opportunity for continual change (Miettinen et al., 2012) as it is neither a disposition, habit, procedural routine or some other fixed entity (Knorr Cetina, 2001: 196). This is also why practice may have local versions or individual understandings of generalised practice (Schatzki, 2006)—individual elaborations, experimentation, local tastes, and amendments can yield localised differences from the general understanding.

Practice innovation then refers to the processes through which more or less substantial elements of it are manipulated, replaced or combined to alter the cultural, social, political, material, teleoaffective and novel outcomes. As with most definitions, not all elements of an object—social or technological—have to be replaced or altered (Henderson and Clark, 1990; Miettinen, 2006b; Shove, 2012) to count as practice innovation. Though, as Schatzki (2005: 475) notes, practices may be altered even if only one part changes; "understandings might subtly change (consciously or nonconsciously), different rules might be promulgated…".

Furthermore, practice innovation may come about from internal sources of conflict, such as a breakdown (Sandberg and Tsoukas, 2011), emergent demands in existing tasks (Yakhlef and Essén, 2013), the introduction of recruits (Shove and Pantzar, 2007), technologies (Scarbrough, Robertson, and Swan, 2015) or business strategies (Demir, 2015). We acknowledge that new practices, including managerial fads and fashions (Abrahamson, 1991),

may diffuse from external actors to the organisation (DiMaggio and Powell, 1983), though the adoption process of practice innovations is not the focus of this paper.

Practice Innovation and Agency

While the practice innovation literature has been concerned with the sources of innovative actions, a crucial challenge of the role of agency remains underexplored. The problem of practice theory is significant as it has been unable to account for how "agency actually shapes social action" (Emirbayer and Mische, 1998: 963). On the contrary, many theorists view agency as complicity, reinforcement of prevailing rules and norms, or even resistance rather than transformation of practice. Hence, while practice theory "sees human agency as habitual, repetitive, and taken for granted" (Emirbayer and Mische, 1998: 963), we consider it to be simply —"*the human capacity to act*" (Ahearn, 1999: 12). This may be not only for oneself and one's desires, plans and goals but also on behalf of other people or in line with some common norms of action, or even material event.

From this view, the problem of practice theory is that it conceives actions as only incrementally or temporarily altered in response to the individual's teleoaffectivity in situ (Schatzki, 2010). Thus, as Emirbayer and Mische note, practice theory does not provide any clues to how practices can be "challenged, reconsidered, and reformulated" and suggest that individual actors are not merely reproducing past patterns, they "are also the inventors of new possibilities for thought and action" (1998: 983-984)[1]. In their view, agency can both *reproduce* practices through habit (historical orientation) and *transform* practice through imagination (future orientation) and judgment (of the present situation). Indeed, established organisational practices can exert strong feelings of interdependency and reproducibility such that even when

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[1] We would like to thank Reviewer 1 for bringing this point to our attention.

skunkworks, or informal units shaped for disruptive innovation, are formally approved, can initially constrain innovators from meeting their objectives (Oliver and Cole, 2019) and be fairly assessed by other than already institutionalised performance regimes (Adner and Levinthal, 2008).

In this regard, ignoring the role of agency raises serious concerns with extant views of practice innovation and leaves our understanding of the innovation process theoretically incomplete and empirically poorly documented. This is remarkable as extant studies focus on innovation as output (for systematic reviews, see Crossan and Apaydin, 2010; Perry-Smith and Mannucci, 2017), with some exceptions considering innovation as a process (Birkinshaw, Hamel, and Mol, 2008). This body of work, however, acknowledges that innovation "remains poorly managed and poorly understood" and "typically left to occur in an ad hoc fashion [in organisations]" (Birkinshaw and Mol, 2006: 82). As with much of this literature, the f practice theory is preoccupied with the habitual, routinised mode of everyday activity. It tends then to neglect how human actors' act affectively and creatively in changing or transforming existing practices (Knorr Cetina, 2001; Miettinen et al., 2012).

The alternative is to view practice as "transient, internally complex, signifying entities that allow for and structure the continuation of the sequence" of change (Knorr Cetina, 2001: 192). However, while a focus on agency can help resolve some of the limitations addressed in the practice innovation literature, the complex nature of organisations needs to be considered if we are to grasp the social and political aspects of practice. Previous research has demonstrably shown that such aspects as the path-dependent nature of innovation (Augsdorfer, 2005), structural (Burgelman, 1983b), resource governance (Demir and Angwin, 2021) and the selection and validation regimes of current strategies (Adner and Levinthal, 2008) can be serious constraints to practice innovation.

7

Bottom-Up Innovation and Agency

Another body of literature takes the constraints stemming from organisational bureaucracy on innovation more seriously and gives primacy to individual agency. This literature variably uses terms such as 'bootlegging' (Knight, 1967; La Porte and Wood, 1970), 'underground' (Aram, 1973), 'bottom-up' or 'autonomous' (Burgelman, 1983b), and 'skunkworks' (Quinn, 1979). This literature commonly describes individual innovators as outlaws, 'pirates' (Augsdorfer, 1994), 'homers' (Anteby, 2008), 'rebels' (Mainemelis, 2010) and 'resisters' (Courpasson et al., 2012) and socially on the fringes of any organization.

Much of this work focuses on innovators' actions to mitigate, circumvent or oppose barriers to innovation. Indeed, some scholars describe such activities as bootlegging as "illegal activity in the main" (La Porte and Wood, 1970: 279), hence 'secretly organised' (Augsdorfer, 2005: 1) and performed "under cover" (Knight, 1967: 493), mostly alone (Augsdorfer, 1994), and sometimes in small groups of specialists or engineers (Abetti, 1997). While such innovators manoeuvre their organisation in ways that grant them dedicated temporal and spatial space for innovation, it may be both morally (Anteby, 2008) and politically (Knights and McCabe, 2000) conflicting with the social norms prevailing in the organisation. While this is not the place to make a detailed review of this literature, it is important to discuss some of its central characteristics. Crucial themes are (1) that agency comes with structural constraints, (2) innovation activities are illegitimate, (3) carried out in secrecy and, therefore, often (4) undertaken informally.

Structural constraints. The literature has identified several obstacles in implementing bottom-up practice innovations relating to their ambiguity, complexity and the potential risks of failure. The complexity surrounding practice innovations stems from uncertainties associated with the potential benefits, rate of adoption and ease of adaptation across

organisations (Ansari, Reinecke, and Spaan, 2014; Ansari, Fiss, and Zajac, 2010). Consequently, bottom-up autonomous practice innovations often occur under contested circumstances and commonly emerge through iterative and gradual managerial consent and support (Burgelman, 1983b; Mirabeau and Maguire, 2014). For example, Friesl and Kwon (2017: 106) found that top executive resistance to structural changes at the DuPont corporation triggered "managers to 'go underground' and gradually recruit commitment *upwards* from the top management team and also *downwards* from other functional heads". Indeed, structural constraints can engender identity crises in skunkworks units that are gradually resolved by showing progress in innovation activities to gain managerial acceptance (Oliver and Cole, 2019). Structural constraints may also involve quasi-external boundaries, such as franchise managers' actions to loosen knowledge stickiness in formal processes of reversed knowledge flows from franchise units to the corporate centre (Friesl and Larty, 2018), and the institutional environment. These may trigger skunkworks to be performed in a balancing act between institutional ambiguity and industry standards in pursuit of contested business models (Demir and Angwin, 2021).

Common to these studies is that agency is confined within the social mechanisms that constitute organisational and institutional structures, hence providing a limited understanding of the complexity of, including the cultural, political, material and teleoaffective arrangements constituting, practice.

Legitimacy. The concept of *legitimacy* rests on the "assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions" (Suchman, 1995: 574). At the organisational level, however, legitimacy is understood as "the acceptance or normative validation of an organisational strategy through the consensus of its participants, which acts as a tool that reinforces organisational practices and mobilises organisational members around a common ethical,

strategic or ideological vision" (Drori and Honig, 2013: 347). This definition gives primacy to individual agency, transpiring through bottom-up emergent processes rather than the top-down focused institutional approach to legitimacy commonly ascribed to the concept.

Knight (1967) suggested that deviants engage in bootlegging activity until it is ready to be introduced. "At that time", he added, "it may be impossible for the organisation to reverse itself" (Knight, 1967: 493); although the activity itself might be illegitimate, once the viability of innovation is proven, the resulting solutions are supported (Knights and McCabe, 2003), legitimised (Kannan-Narasimhan, 2014) and even rewarded by management (Mainemelis, 2010). Sometimes, however, legitimacy claims are discarded at the bottom by change recipients, limiting top management's attempts to introduce practice innovations (Kameo, 2017).

Prior studies of bottom-up innovation consider legitimacy outside the deviant's control, resting solely on the timing and adequacy of the innovation for the organisation. For example, Kannan-Narasimhan (2014) found sequential variability in gaining legitimacy: innovators gain legitimacy *ex-ante* by demonstrating a viable alternative to the use of resources, or *ex post facto* when success is demonstrated. Hence, favourable legitimacy valuation of innovation is critical for organisational adoption (Kannan-Narasimhan and Lawrence, 2018). Thus, once bottom-up innovation activity renders certain benefits to the organisation, its value is judged by the measures of legitimacy, in terms of "valued, albeit invisible, ends" (Suchman, 1995: 580). Practice innovation must, therefore, be considered safe, acceptable and non-threatening to the values and mindsets of corporate elites to gain legitimacy and final approval for development and implementation (Kelley, 1976).

According to this view, individual agency is contingent on the political processes surrounding the innovation and hence limit its performativity in the political and social

domains. In this regard, practice innovation is merely an outcome of the organisation's 'regularist presuppositions' (Rouse, 2007), built to conform rather than reform status-quo.

Secrecy. While occurring in situations where an organisation exhibits loose internal controls (Abetti, 1997), bootlegging activity is usually performed in secrecy due to management's disapproval (Knight, 1967). Secrecy enables actors to elaborate immature ideas (Augsdorfer, 2005), engage in activities outside the formal field of work, or reduce the negative consequences of failure (Koch and Leitner, 2008). Secrecy may further be necessary among managers and staff to resist the formal constraints of bureaucracy and the control of senior executives (Knights and McCabe, 2003; Mintzberg, 1975) despite, or because of, the apparent risks of failure (Vaughan, 1996). In such cases, secrecy becomes the means by which deviants normalise contested work as a socially constructed referent for the group or organisation's local culture (Vaughan, 1996). While these findings pose some challenges to viewing bottom-up innovation as an underground, illegitimate activity, they also reveal a potential to shift organisational legitimacy in favour of unsanctioned innovation.

Implicit in these views is that practice innovation is already situated in a culture of secrecy (Courpasson and Younes, 2018) as an idiomatic programme pursued as ritual deviance from the norm. Hence, practices emerging from this culture are also carriers of the same culture (Costas and Grey, 2014) and hence agency, while certainly performed, is already embedded as a collective rather than an individual capacity to act.

Informality. A final observation in the literature pertains to the assumption that reduced formal procedures for innovation are fertile grounds for skunkworks (Burgelman, 1983a; Quinn, 1979). Toshiba's first laptop emerged as a bootlegging activity supported by managers dissatisfied with the company's bureaucracy and its slow response to major challenges (Abetti, 1997). Indeed, while bootlegging activity emerges in organisations with loose internal controls (Abetti, 1997), the very nature of informality also leaves deviants left to innovation activity

with limited resources. However, when such teams or individuals face resource constraints, they tend to tap into their organisational peers' knowledge through informal consultation (Kannan-Narasimhan, 2014), draw on their private networks (Koch and Leitner, 2008), or even reach out to external partners (Demir and Angwin, 2021). As such, bottom-up innovation is liable to certain degrees of informality and, therefore, carried out in a non-programmed fashion (Augsdorfer, 2005).

According to these studies, practice innovation is bound to occur in informal environments with limited control and bureaucratic procedures. As such, practice innovation is temporally and spatially situated in 'resource residues', serving the projects with critical opportunities for success. From a practice perspective, such resource residues offer transformational power extending practice into new strands but devoid of the historical and cultural glue that acts as a performative mechanism to carry over practices to future generations (Knorr Cetina, 2001).

Unsanctioned Innovation and Agency

Combined, prior studies of bottom-up, skunkworks and bootlegging depict innovation as a way of providing "employees with practical and psychological opportunities for engaging in creative deviance" (Mainemelis, 2010: 566). However, while most of these studies indicate a certain degree of structural constraints and informality, legitimacy evaluations and acts of secrecy are negotiated collective capacities to act at the expense of unnegotiated individual agency. Indeed, in the context of practice innovation, agency takes many shapes, including the form of non-criminal "tricks" or acts of "doing things on the side" (Ditton, 1977) and "fiddles" (Knights and McCabe, 2000) that operate at the interface of managerial resistance and compliance.

To this end, agency is a matter of satisfying one at the cost of the other and creating a moral and emotional dilemma for the deviant. Individual innovators may fiddle not only to look after their interests but also to avoid being disciplined for misbehaviour, forcing them into 'moral grey zones', or "areas in which workers and supervisors together engage in officially forbidden yet tolerated practices at work" (Anteby, 2008: ix). Thus, although fiddling is a solitary act of agency, employees may be well aware of middle management's complicity (e.g., Friesl and Kwon, 2017), which constitutes a cross-hierarchical collective resistance to what are often seen as unreasonable or dysfunctional demands from top management (Knights and McCabe, 2000). Following these arguments, the bottom-up innovation literature acknowledges individual agency to protect the autonomy of innovation projects and agency bound to solidarity with peers across hierarchical ranks. Sustained through camaraderie with peers (Heilbronn, 2013), concealing and hiding unsanctioned innovation (Anteby, 2008: 29) is seen as a purposeful act of exercising dissent from existing norms while maintaining the current social order.

From an agency perspective, individual deviants use their practical evaluative judgment for "in the face of considerable ambiguity, uncertainty, and conflict" (Emirbayer and Mische, 1998: 994), the conditions underlying the performativity of practice may be contradictory particularly during periods of change. In such constraining environments, it is then expected that individual deviants act covertly in pursuit of projective ends. In this regard, a better understanding of unsanctioned practice innovation is a direct response to prior calls for attention to agency in bottom-up innovation (Burgelman et al., 2018; Salvato and Rerup, 2018). While the literature has offered insights into this process, the findings remain scattered and disconnected and provide an inconclusive picture of how such unsanctioned practice innovations emerge. The question that begs an answer is then: How are social practices created in contested organisational environments?

Research context and methods

To address this research question, we conducted a multiple case study design of the emergence of UPI at a multinational company named Alfa (pseudonym). Case studies are particularly appropriate for studying practice innovation processes as the individual processes are difficult to separate and tend to span multiple levels of analysis (Birkinshaw and Ansari, 2015). Our initial interest in studying Alfa began in 2001 when the firm expanded into the Chinese market and started implementing practice innovation initiatives. However, during these early discussions, anxiety about unsanctioned work within Alfa was apparent. The former CEO (#1) of the Chinese site repeatedly raised his suspicions that "people develop their solutions without paying heed to our policies, processes, routines and already existing solutions to their problems". Alfa seemed genuinely committed to questioning existing norms and thus exhibited a willingness to improve taken-for-granted practices, several indications of the presence of unsanctioned work in the Chinese plant were uncovered. For example, one informant (#6) said:

> I always try to find the root cause of the problem…When I have a solution to the problem,
> I will tell my boss, *not before*! He would ask to read our guidebooks or some other things.
> It's very complicated.

The interviews revealed both systematic and ad hoc deviations from common practice. Alfa's culture is characterised by a strong entrepreneurial mindset among employees at all levels, based on decentralised management and governance, a high tolerance for failure, and local ownership of unique solutions. For example, each year in Sweden, Alfa handles more than 4,000 new product inquiries with no prior specifications. This is only possible if the employees have an "innovative focus" that allows them "to identify intelligent solutions to problems and opportunities based on an innovative and creative work environment" (Strategy Document). In 2007, however, Alfa faced several "operational challenges, disrupting its

entrepreneurial spirit" (#1). In response, Alfa developed three strategic initiatives to leverage its scale and 'bridge the remaining gap to target' (Investor Presentation, 2010), including continuous improvement to achieve world-class operations, which is the focus of this study. While these measures challenged Alfa's culture, it seemed as if employees' strong entrepreneurial spirit was challenging to control or 'frame', as with each attempt, it would tend to 'overflow' (Callon, 1998) or 'leak' into other domains. For example, from the perspective of the Chinese R&D manager, employees at the Swedish site were "incurable innovators", like "curious students" who "always try new solutions".

These initial observations from the Chinese site provided valuable insights regarding the corporate culture of Alfa, but there was some reluctance to share details about the emergence of UPIs, perhaps apprehensive of being in the 'moral grey zones of work' (Anteby, 2008). However, we were intrigued to understand how employees at Alfa were developing UPIs in the face of changes and challenges and with what improvements. With the Chinese subsidiary CEOs support, we were approved a closer inquiry into the emergence of UPIs. This co-occurred with introducing a continuous improvement initiative called 'Perfection' that Toyota's Lean manufacturing philosophy had inspired. Perfection was implemented to improve administrative and organisational processes, spanning several functional areas, including logistics, procurement, sales, and material planning, among others.

There were at least three reasons why Alfa proved to be a valuable research site for studying UPIs. First, despite the increasing standardisation that followed from the Perfection programme, its organisational culture was still profoundly characterised by individuals' entrepreneurial and innovative attitude at most levels. This had become its 'paradigm' (Johnson, 1988), legitimised by the control systems and preserved through the symbols and stories spread across the organisation. For example, when interviewed for Alfa's employee newsletter in 2011, the new CEO said, "there is a strong tradition of independent thinking with relatively

few guidelines. Freedom to act is part of Alfa's culture of entrepreneurship, something that attracted me to the company when I started six years ago". However, while this 'freedom to act' permeated the organisation, Perfection was introduced as a measure, not against, but to control the entrepreneurial spirit of Alfa. As one informant (#12) noted: "… you must not be too creative and entrepreneurial in solving your problems because we've clearly instructed everyone that we will do it in this way". The Perfection programme was aimed to discipline, formalise and increase the transparency of practice innovation by indicating that a) "All activities must support the company's strategy and overall goals"; and b) "Managers at all levels should be able to discover deviations from the goals and take actions quickly" (Introductory Presentation).

Second, while the introduction of management fashions is generally considered 'progressive', the aim to "empower the employees" (Perfection Training Material) proved unsubstantiated. In a post-implementation survey, a historically unprecedented percentage of employees—28% vs 5–10% in previous years—reported an "inability to influence [their] work", despite the President and Group CEO's claim that employees had "an increasing openness to changes that strengthen [their] competitiveness" (Corporate Magazine). These effects seemed to prompt employees to engage in unsanctioned work.

> Our current culture has created many good reasons to be a little more secret with some
> improvements, especially those that may cause organisational changes and the like... it is
> worth keeping some things a little more secret. (Informant #25)

Finally, the morally dubious space (Anteby, 2008) of UPIs means that timing and variable proximity (being up close, immersed, and at a distance interchangeably) to the research field is of great importance for eliciting valuable insights. Our early interactions with the CEO of Alfa in 2001 had provided us with knowledge of the context, conditions, and contestations

16

surrounding the emergence of UPIs. During the years Alfa was studied, we could follow significant developments and outcomes within the organisation in real-time, providing some invaluable insights into the antecedents and outcomes of UPIs. Combined, these unique features of our research design granted an appropriate setting (Yin, 2009) to analyse the contextual conditions of different individual UPI cases.

Data Collection

The research consisted of 55 interviews with 35 informants at two different sites (China=10, Sweden=25, see table 1), representing multiple levels and functional areas within the organisation. Given our early observations of unsanctioned work in China, we were encouraged to conduct semi-structured interviews with middle managers of the Chinese subsidiary, including two other CEOs (during the study, the former CEO was replaced by a new one). Because the initial interviews in China revealed that business process groups (BPGs) were the loci of entrepreneurial activity within the corporation and provided evidence that resembled Burgelman's (1983a) observation of entrepreneurial skunkworks, we took the opportunity of studying the activities leading to the emergence of UPIs at Alfa's Swedish site. This procedure of moving between data analysis and focused data collection helped to give "voice to the informants in the early stages of data gathering" (Gioia, Corley, and Hamilton, 2013: 17). Interviews averaging 1.5 hours (range: 0.5–3.5 hours) were conducted with 19 out of 21 members of the Swedish plants three core BPGs. In addition, people in other positions (CEO, Head of Product Development, Head of Business Development Supply, Lean Coordinator Manufacturing, Area Sales Manager, HR Assistant) were interviewed to understand better the culture of the local firm, how it operates, and contextual aspects of the Perfection programme. More importantly, this allowed us to understand the tensions between specialists and middle management (commonly the people engaging in unsanctioned work) and top management

17

leading to UPIs. Our interviews also helped us discover UPIs and the people behind them, mainly using a snowballing approach by asking deviants, "who else is or has engaged in unsanctioned work leading to new practices?". Interviews tended to be longer (2-3 hours) with deviants engaging in unsanctioned work, and some were interviewed repeatedly, and their work was observed frequently.

<< TABLE 1 ABOUT HERE >>

The interviews focused on understanding practices and how they were affected by the Perfection programme, what inspired them to develop UPIs, if at all, and the process through which the UPIs emerged. Out of the 35 informants (including those in China), 11 informants provided detailed, in-depth descriptions of what prompted them to develop UPIs, their effects, and how the process unfolded. While we were particularly interested in understanding the activities enacted "underground", our interviews revealed the more important process of bringing the UPIs to light. This helped us develop a more comprehensive view of the entire process from going underground to complete disclosure and diffusion among relevant groups of individuals. We were able to compare and contrast multiple UPIs while, at the same time, developing a granular understanding of they came about. At the time of the study, several UPIs had already reached the stage of diffusion among peers. Retrospective accounts of these UPIs proved to be particularly useful as they helped us reveal other UPIs, some of which at the embryonic stage.

However, understanding the social dynamics enabling UPIs to materialise, work practices, process meetings, and a quarterly top management meeting (15.5 hours total; range: 0.5–3 hours) were also observed. Informants' work practices and activities were observed at an arm's length distance—far enough not to disturb their ongoing work but close enough to hear and see their actions. Observations were documented through extensive notes and

18

photographs when appropriate. To capture the significance of actions, we triangulated observations with the interviews and extensive materials accessed on the company intranet (e.g., process maps, routine descriptions, guidelines, Perfection programme documentation, strategy documents) during the study and retrospectively.

Most of the interviews (404 single-spaced pages) and observations (~100 single-spaced pages) were recorded and transcribed in real-time to capture as much as possible of the contextual richness of the data (Miles and Huberman, 1994). We documented four observations in extensive field notes and enriched them with additional comments and photographs during the analysis phase. These documents helped us understand the historical trajectory of certain work practices, the Perfection programme, the firm's strategies and facilitated relevant questions and appropriate data analysis (Charmaz, 2006).

We collected data during several field visits in China and Sweden over 13 years and continuously analysed the transcribed data, field notes and company materials such as internal reports and surveys. While data from the Chinese plant was crucial in identifying UPIs as a topic and giving context to the study, the results reported here are mainly based on the in-depth study of the Swedish plant. The multiplicity of data sources, however, helped reveal both the context (Knights and McCabe, 2003) and the unfolding process of practice innovation "to avoid problems of retrospective sensemaking bias" (Birkinshaw et al., 2008: 840).

Data Analysis

Because unsanctioned practice innovation is poorly understood and conceptually unsubstantiated, we employed an abductive approach (Peirce, 1955), seeking to generate the most plausible explanations and actions representing UPI. Simultaneously, we moved back and forth between empirical observations and various literature to ground our emergent findings in theoretically rigorous concepts and link them into a process model. We did this in three

recursively intertwined steps (Eisenhardt and Graebner, 2007); elucidation of *drivers* underpinning unsanctioned work based on the contextual conditions for unsanctioned work, distinctions of the activities *constituting* UPIs and, finally, the *process* through which UPIs emerged.

First, we systematically identified drivers underpinning unsanctioned work. We engaged in a detailed reading of the extensive data gathered from China and Sweden, including observations and interview transcripts and material evidence such as documents, PowerPoint slides, photos, and the company's intranet. In doing so, we generated a large dataset of in vivo codes on unsanctioned work. We coded the entire UPI process in discrete activities described in deviants' terminology (Charmaz, 2006) and appearing in material traces such as documents and PowerPoint slides. We reviewed each component of practice comparing our initial findings with evidence in blueprints, guidebooks and other task and role specifications to assess the novelty of UPIs. In making these considerations, we identified 17 UPIs (table 2). This list was not meant to be exhaustive, given the difficulty of observing unsanctioned practices.

<< TABLE 2 ABOUT HERE >>

Following implicit voice theory (Detert and Edmondson, 2011), we distinguished explicit mentions of the use of practices from implicit ones. In the context of organisational improvements, implicit voice is an essential behavioural aspect enacted by employees who suspect their voice may harm their careers or put them into an unfavourable situation. Hence, because unsanctioned work may or may not be received well among peers and managers, we coded both observed actions (essentially representing implicit use of practice) as well as "positively and negatively valenced descriptions" (Detert and Edmondson, 2011: 466) as representative of enacted practice. For example, one of our informants noted, "well… *previous measures consistently failed us*", denoting adopting a UPI. In this respect, being attentive to

20

specific expressions in informants' language also helped identify agency (Ahearn, 1999) and discursive evaluations of UPIs constituting pragmatic legitimacy (Suchman, 1995).

In a second step, we sought to identify the process through which each UPI emerged based on our understanding of social practices. At this stage, we returned to our *in vivo* coding of actions as the constitutive elements of social practices (Schatzki, 2006) to be able to distinguish "sequences and making connections" (Charmaz, 2006: 136) to enable processual analysis. Our coding structure is presented in table 3. Our focus on unsanctioned actions revealed that deviants enacted different practices to manage the tensions arising from adopting the Perfection programme and a range of new practices, on the one hand, and developing their solutions without the consent of top management, on the other. Thus, we coded all instances in the data linking each UPI with actions taken to realise it, thereby revealing different practices enacted to balance coercion and deviance from common practice (Canato, Ravasi, and Phillips, 2013). We iteratively reduced redundancies in the codes and gradually consolidated our in vivo codes into first-order categories (Gioia et al., 2013).

<< TABLE 3 ABOUT HERE >>

To better make sense of our data, we returned to some of our initial references to corroborate our findings. We used these conceptual terms and expanded the search beyond an initial set of literature to exhaust our second-order analysis. In doing so, we found that some practices resembled phenomena observed in the broader literature. We, therefore, returned to the initial *in vivo* codes (first-order categories) and engaged in this iterative analytical process, moving back and forth between the coded data and theory matching (Miles and Huberman, 1994) to uncover different practice patterns involved in developing UPIs.

We reviewed this initial set of codes until we found similarities and distinctions between them. This step led to six second-order concepts (see table 2) with family resemblance of other

21

concepts in the literature. These are: denouncing (Anteby, 2008), discrediting (McGrath, 2007), prompting (Clark, 2005; MacDuff, Krantz, and McClannahan, 2001), demonstrating (Clark, 2005), enacting individually and collectively (Weick, Sutcliffe, and Obstfeld, 2005). We next turned to assess whether, how and why these six practices were linked as bundled practices (Demir, 2015; Schatzki, 1996). We found that in developing UPIs, denouncing and discrediting interplayed in delegitimising contested practice (McGrath, 2007), prompting and demonstrating were used in building procedural legitimacy (Suchman, 1995), and finally, enacting individually or collectively secured pragmatic legitimacy (Suchman, 1995). The following section will present the six practices under the three headings – delegitimising, procedural, and pragmatic legitimacy, illustrating the specific activities pursued and how the practices were performed interchangeably. For analytical reasons, we will keep each practice separate from the other, and for reasons of parsimony, we do not delve into the processual nature of delegitimising and legitimacy work (Dougherty and Heller, 1994; Suchman, 1995).

Findings

UPI activities related to three core processes: generating business (GB), preparing new items and changing items (PNICI), and order-to-payment (OtP). For each business process, a committee was charged with improving process shortcomings. Each of these BPGs had a business process owner (BPO), a business process leader (BPL), and business process representatives (BPRs). These roles sometimes overlapped (e.g., BPL and BPR), and two of the BPGs also had sub-business process representatives (SBPRs).

The ordinary procedure for changes or the introduction of new practices is that BPGs scrutinise viable solutions before they are developed and tested. The BPGs had to decide collectively to implement a solution before SBPRs could "make decisions about improvements within [their] own organisation" (Role Description Manual). Each of the three core BPGs met

monthly to discuss current issues, new issues, problems and potential solutions. The purpose of the meetings was to ensure that the Perfection program was fully animated throughout the organisation and that business processes followed the "standardised agenda" (#12) to avoid deviance from common practice.

Employees at Alfa were informed that any deviations from practice would be considered unsanctioned even though the rationalised sequential model imposed on employees via the Perfection programme stimulated some employees to deviate by exploring alternative routes of action in secrecy. However, while the initial developmental process was enacted in secrecy, making it difficult for outsiders to fully grasp the initial process dynamics in the formation of UPIs, the findings show that the gradual introduction and enactment of UPIs was carried out in three overlapping phases: delegitimising, procedural legitimacy, and pragmatic legitimacy. These phases, however, were not bounded as, in practice, unsanctioned work was an iterative process.

Delegitimising

Challenging top managements' general preference for Perfection required "more and stronger arguments" (#19), forcing deviants to 'go underground' and to consider how their actions were the "same or different" (Weick et al., 2005: 414) from everyone else's. Most deviants believed their unsanctioned work was "incongruent" with the widely held assumption that Perfection "is a better alternative to the entrepreneurial spirit of the firm" (#16). However, being aware of the difficulty of conducting unsanctioned work, deviants engaged in two practices— *denouncing* and *discrediting*—to *delegitimise* (Pettigrew, 1977) the contested practice of the Perfection program. In doing so, they aimed to reduce the performative power of Perfection and introduce an alternative practice. Table 2 illustrates the explicit and implicit uses of these two practices for each UPI. Our findings show that denouncing and discrediting were

recurrently and explicitly enacted practices that operate recursively in delegitimising the contested practice regime. We will now illustrate how they were enacted in isolation for analytical reasons. Later, we will show how their mutual enactment had consequences for legitimising UPIs.

Denouncing

Actions taken to denounce contested practice were targeted to critique or otherwise express misconduct or failures among peers to meet specific ends but not, as in Anteby (2008), focusing on whistle-blowers who discovered misconduct, denounced it. Like other examples (e.g., Oliver and Cole, 2019), critiquing emerged naturally from dissatisfaction with both past practice and present behaviours. Most commonly, however, deviants denounced practices that, despite being dysfunctional, gained morally undeserved credibility for delivering results by fitting in with existing key performance indicators (Adner and Levinthal, 2008). While most employees engaged in such symbolic performances, addressing problems only to the extent that they fit the paradigm of Perfection, deviants considered this culture inimical to sound practice and a basis upon which to develop UPIs,

> Some people are not aware of what kind of information they need for our business [department] to work fast, and they do not care about how fast we work either. But, we are very dependent on each other's information... but that allows me to collect as much information and requirements as possible in order to develop a better system. (Informant #34, UPI#12)

Triggered by this laissez-faire attitude, deviants operated at the fringes of contested practices to denounce weaknesses. Once detected, they allowed institutionalised defects in practice to happen without correcting them or reporting them to BPG or departmental peers.

24

However, in engaging in the sustenance of institutionalised defects, deviants denounced systemic errors at quite a detailed level. Consider the following example, relating to UPI#9,

> The problem is that when you register an order, you can place it with a customer every day of the week, but our truck delivers only some days of the week. This means that you must place the order on the days the truck goes to that country. If it takes three days to deliver, you must place the order on a Monday, Tuesday, or Friday … These are the types of systemic errors that I've uncovered. (Informant #18)

Indeed, uncovering systemic errors in practice helped deviants develop expertise, contributing to refining their UPIs. Deviants reported that understanding compliance mechanisms were critical for refining how UPIs could be implemented and on what grounds to undermine contested practice. The following quote illustrates this interplay between denouncing and discrediting, as explained by a deviant reflecting on UPI#16:

> To be able to deliver changes in the system, I had to disprove its general applicability by recurrently denouncing the flaws, the problems… (Informant #31)

Discrediting

Discrediting was particularly important in delegitimising contested practice. The findings reveal that discrediting involved negative rhetoric and criticism against common practice (McGrath, 2007). Deviants discredited contested practice based on rigidity, complexity, and cost. Discussions about rigidity were explicitly concerned with the firm's entrepreneurial legacy and the extent to which Alfa had drifted away from its 'entrepreneurial spirit' by introducing Perfection. During an observation, the first author witnessed the following dialogue between a deviant (#31) and a BPO (#12), arguing about the implication of the order to payment (OtP) process regarding UPI#11.

BPO: My job is to ensure that the process [OtP] becomes effective and efficient, and flexible, meets its goals, and sets new goals.

Deviant: Well, I don't think we can achieve that if we're asked to motivate improvements before we have even tested them out… the process is way too rigid; it's not designed for the way we're used to working.

Following this discussion, the deviant developed a graphical illustration (see figure 1) of the rationale underlying the development of UPI#11 without revealing too much information yet highlighting the malfunction of the OtP process itself. He then handed over the chart to "make sure the point was made clear". In distributing his critique to the PowerPoint slide, the deviant intended to spread the word among colleagues, thereby gaining further support in anticipation of the release of his UPI. As shown, the graph lists several potential causes of delays to customers but highlights lack of knowledge as the major one. The deviant used this to discredit the rigid structure of meetings, which did not allow valuable information to be shared across BPMs, limiting their understanding of the importance of delivery security.

<< FIGURE 1 ABOUT HERE >>

Observations revealed that BPG meetings were conducted in a highly ritualistic, almost ceremonial way without due attention to urgent matters and creative ideas and, since rigidity was considered "the enemy of innovation" (#9), it was discredited partly for causing "confusion among members" (Informant #13).

Also, deviants discredited contested practice because of its complexity. For example, as part of the firm's strategic initiatives, Alfa used Perfection tools to improve its strategic sourcing practice and meet its target of increasing profitability. Convinced of its prominence, Alfa spread the new procurement practice to all sites across the world. However, as one

informant (#10) in China noted, Alfa's business was significantly different from most competitors making the new practice too complex:

> We have to make sure logistics <u>deliver on time and R&D to en</u>sure the <u>quality is good</u>. On-time delivery also means the <u>correct quantity</u>. Often, it is not easy to secure the right quantities since the <u>product is tailor-made</u> ... This also makes our <u>lead-times relatively more extended</u> than the offers made by competitors in China.

The Swedish site was not an exception. The same rhetoric of discrediting contested practice in terms of complexity was recurrently repeated by deviants and substantiated through internal statistics showing that delivery dependability shifted between 78.1 and 88.6 per cent during 2011—significantly below the strategic target of 95 per cent. One reason for these low figures was that sourcing practice, notably the delivery process, was managed through manual systems, subject to human error.

> It [Delivery dependability] requires much <u>manual labour</u> to manage as it is done in <u>various "subsystems"</u> that are based on [MS] <u>Excel</u>. Most of these activities, I think, should be possible to carry out more automatically, so that you do not <u>spend hours</u> on something that should really be completed more accurately in a keystroke. (Informant #21, UPI#8)

Later, the same informant noted:

> If we take delivery dependability, I cannot say we are good at it because if you want to improve the routines, you need to measure lead-times in different ways on such fundamentally different components as simple [made to stock] and complex [engineered, made to order]. <u>Complex components</u> have <u>complex customer requirements</u>, <u>complex engineering</u>, <u>complex input and output variables</u>… this can be simplified.

Discrediting contested practice for its complexity was a vital rhetorical tool as it addressed an observable inconsistency between strategic targets and measurable activities.

Having said this, employees understood that most activities and routines were complex and vulnerable to failures. As indicated above, employees at Alfa were well aware of the strategic targets and deviants took advantage of discrediting contested practice by cost during the time of the study. As assured by the Head of Business Development (#20), most activities had to focus on costs of production:

> Here, as elsewhere, we focus on doing things either in less time or less effort or with greater leverage in what we do. Everything is about this [showing image], the *delicate triangle*: cost, time, quality.

Strategic targets were constantly checked against different output measures. Most recent KPIs constantly replaced old ones and physically displayed around the office premises, affording employees to take necessary measures to keep or achieve goals set for each department and unit. However, this also allowed the deviants to discredit them. As one informant said:

> Well, you see, the metric is qualitative and based on how technically advanced a problem we've solved. Internally, we say, "That's a great piece of component!" but I'm not impressed… I've told people "It's pretty, but it's too expensive, and we don't even get the publicity as far as I can see." So, it's wasted. (Informant #17)

Compared to the complexity rhetoric, the cost rhetoric had an uneven reception among peers, capturing management's interest but not others. Hence, many deviants (see table 2) only discredited contested practice implicitly, using terms such as "much time" or "lots of resources" instead of being explicit about the cost or price of the activity. As such, the cost rhetoric was the weaker argument compared to rigidity and complexity. However, while only a few deviants (see table 2) were explicitly keen to evoke management's interest and sympathy, most deviants were concerned about the cost rhetoric as this could put their peers in a defensive

28

position. As one informant (#25, UPI#4 and 14) noted, discrediting practice based on costs is a delicate balance between "gaining support or gaining enemies", as the cost argument was integral to the performance regime embedded in Perfection. While unclear if deliberate or not, a key outcome of discrediting practice was that deviants had created a sense of drift away from the entrepreneurial spirit, which had long been considered "a key success factor of the firm" (Informant #1).

The interplay between denouncing and discrediting

In delegitimising contested practice, deviants did not use denouncing and discrediting in a sequential, linear fashion. The analyses revealed the contrary—they were both used interchangeably and did not follow a specific action sequence. Surprisingly though, the analysis reveals that in interchangeably denouncing and discrediting contested practices, it increasingly helped deviants reveal habituated practice among themselves and their peers:

> There's no routine or instruction for how we handle these situations...people have done these
> things in different ways, wrong ways… far too long, even so long as it has become a habit.
> (Informant #21)

Deviants' attempts at denouncing and discrediting helped neutralise potential threats to evolving UPIs by minimising the possibilities of comparisons with habituated practices. The common purpose was to disrupt contested practice by bringing into peers' attention the limitations contested practice had on opportunities for action or affordances (Gibson, 1982). In this way, deviants attempted to disrupt the 'procedural rationality' (Simon, 1976) of contested practice in referring to rigidity, complexity, and cost—aspects that passed unnoticed in normalised, everyday actions. In elaborating the malfunctioning aspects of contested practice, deviants found an opportunity to collect ideas and feedback relevant to their UPIs. In their deliberations of "what works and what does not", in pursuit of delegitimising, deviants

could "see new opportunities for action that had not been taken into consideration" (Informant #23). This helped them in two ways. First, such information directly fed into their individual UPI projects, helping them to advance their ideas and refine "the basic selling point [of a UPI]" (as noted during an observation). Second, deviants could also use such information and feedback to bring to the attention of peers a direct awareness of the limitations of contested practice and thereby pass onto them a critical stance against "how we do things around here", encouraging them to reflect on their daily routines rather than taking them for granted.

As illustrated above, when discrediting contested practice, some deviants contrasted the weaknesses of the Perfection regime with the strengths of the emergent practice (UPI), which at this stage were seldom revealed to others. In those cases, deviants were often tempted to provide clues as to viable alternatives to gain procedural legitimacy for their UPIs. For much of the rhetoric around denouncing and discrediting helped deviants develop valuable expertise for UPIs to the extent that some deviants felt they were "mature for trying [UPIs] in real-life situations" (Informant #18). However, in disrupting practice, deviants detached themselves from ongoing interactions related to the maintenance and development of BPG goals and targets and instead actively deliberated on "unwanted habits" as they searched for alternatives.

Procedural Legitimacy

Delegitimising contested practice occurred when contested activities and assumptions were gradually disrupted, weakened, and eventually replaced by new practice elements. Our analyses revealed that deviants engaged in two practices—*prompting* and *demonstrating* (Clark, 2005)—in the piecemeal introduction of UPIs. Prompting and demonstrating interplayed in pursuit of creating solicitations with new practice elements introduced to peers. Creating such *solicitations*, that is, feelings of being drawn to act in specific ways assumed proper (Dreyfus and Kelly, 2007), proved to be critical for building *procedural legitimacy* for

new practices (Suchman, 1995). The process of social acceptance of tools, techniques, and procedures constituting UPIs required prompting users to pay attention to specific means and ends and demonstrate to users proper ways of using or understanding the new practice elements to create value in work. While prompting may or may not include demonstrations to enforce users to solicit practice in specific ways, it was often carried out to maximise desired outcomes (MacDuff et al., 2001).

Figure 2 illustrates the UPIs in which prompting and demonstrating were used and the extent to which they were enacted explicitly or implicitly. The interplay between prompting and demonstrating UPIs reveals three different patterns (A, B, C) worthy of specific attention in how deviants established procedural legitimacy. Figure 2 reveals that deviants only implicitly used prompts and demonstrations (group D) or focused solely on prompting (the bottom ones in group B). As will be shown later, these UPIs followed a different path in the legitimacy process.

<< FIGURE 2 ABOUT HERE >>

Prompting

Prompting occurred in one-to-one encounters with peers (seldom management), addressing the '*what'* aspect of UPIs. Deviants used a variety, and often a combination of material (Demir, 2015), embodied (Yakhlef and Essén, 2013), and discursive (Ayala, 2016; Clark, 2005) prompts to solicit peers to specific features of UPIs. *Material* prompts were commonly prepared to generate ideas, elaborate on solutions, and test receptiveness among peers. However, material prompts often conferred interpretations by peers and initiated in-depth elaboration of UPIs. For example, during a workplace observation, a deviant was encountered drawing on a whiteboard, asking one of the authors, "May I use you as a test person before I

meet with [peer]?" Using her drawing, she explained *what* issues her new "digital manual" (UPI#2) addressed for the sales support staff:

> The production side provides this much information [85-90%] in our IT systems, but we on the business side [pointing at the whiteboard] cannot access it properly as we do not have the right tools to search and select the information that is useful in customer interactions. (Informant #16)

Shortly after, a peer arrived, and the prompting was repeated with the deviant asking if she could think of "any way in which this can be solved?" after which an intense discussion took place and elaborated the UPI (#2) the deviant had in mind. As the discussion continued, the deviant and the peer increasingly agreed; as the peer put it, "We need this… but how is this going to be realised?" Using textual prompts was used by deviants to help them tease out feedback for improving their UPIs and create an interest for their use.

Material prompts were often used in-situ, directing peers' attention towards partially disclosed elements of UPIs during encounters. Drawings and gestures were used to achieve specific ends, such as acknowledgement and reinforcement of procedural or material elements of a UPI. For example, the 'pulse board' (UPI#8), a procedural action tool for strategic projects, was uncovered in incremental steps to select members of the sales team using combinations of drawings and gestural prompts. As explained by the deviant (Informant #21):

> There is no natural way of actually communicating the status of our tasks when working with a project that needs to be completed at a specific date. So, I brought them [peers] here [to coffee lounge in the middle of an open office landscape] and pointed [demonstratively] in each direction of the landscape to give them a physical feeling for how far we are from each other. I then picked up a sheet of paper [from the copying machine next to us] and drew [demonstrates] an example of a board and physically placed it here [points at a mobile office

screen]… and most of them reacted positively, they'd go; "Yes, that would be great!", "Visible and clear…", or "It'd be inevitable".

However, the challenge for most deviants was to align prompts with Alfa's material culture to take advantage of peers' already existing behavioural patterns. Because the introduction of Perfection and other initiatives had exhausted the organisation to the extent that employees had the minimal latitude to "change or adopt alternative tools" (Informant #35), deviants were challenged to find innovative ways to integrate their UPIs into the existing practice bundle. Being aware of these challenges via their attempts at delegitimising contested practice, deviants prompted their peers to engage with UPIs by incorporating elements of familiar practice elements into the UPIs. For example, when prompting peers to the new logistics calculation model (UPI#17), one deviant used graphical elements and colours to prompt behaviours.

> This screen compares the last four weeks' total material turnover over the past 12 months; it's rolling data that updates all the time. Here [pointing], you can see that the trend is still positive. Importantly, everyone…decided that if the trend has levelled off, it should be yellow and red if the trend deviates. So, when I introduced the tool, it had to be there so that everyone could recognise it directly—the colours were the same. It was the most important thing. (Informant #31)

However, although soliciting behaviours by incorporating familiar material elements (e.g., colours) into UPIs was necessary, it was not sufficient (especially in UPIs belonging to group C, figure 2). Deviants often reinforced solicitations through *embodied* and *discursive* prompts; they would touch the screen and use positive rhetoric to overshadow potential flaws whilst encouraging commitment to the UPIs. In some cases, deviants used gestures and graphics as complementary cues for verbal prompts, allowing them to engage peers in contemplating over ways in which UPIs could be integrated into existing practice. Because

33

deviants were aware of the high threshold for accepting change in practice, UPIs had to become part of the "user's language" (Informant #31). Discursive prompting, therefore, served as a means of user-developer procedural legitimacy, such that it engaged users in making sense of and justifying their actions using coalescing habituated elements of practice with UPIs. Consider the following explanation relating to UPI#16.

> The tricky part was to explain why you'd want others to register that information here [points at the screen, the upgraded part of the system] … instead of me trying to disrupt peoples' practice… I was trying to ask questions… those questions make people start hesitating and searching for features [in the system] implied by my questions. (Informant #31)

As illustrated above, prompting served to allude to users' justifications of UPIs. The greater the potential that could be demonstrated to peers, the stronger a UPI could be justified and thereby, the less it was considered a threat to contested practice.

Demonstrating

Demonstrating practice occurred in one-to-one encounters and collective communication to peers (including management), involving *modelling* (i.e. personally performing) and *instructing* (MacDuff et al., 2001) of UPIs. In demonstrating, deviants revealed '*how'* to use UPIs, providing their peers with a "taster of how to solve the problem differently" (Observation). Deviants in group A (figure 2) were vastly engaged in demonstrating UPIs to peers, inviting them to take "demo-tours" (Informant #25) and providing "personal guidance" (Informant #34). However, while deviants in group A acted as models, group C relied more exclusively on formalised instructions communicated to groups of people, to which UPI would make a difference if adopted. Although both groups engaged in different forms of demonstrating, the differences are more accentuated as to the extent to which this was accompanied by explicit prompting.

34

Deviants engaged in *modelling* had established a sense of action possibilities of UPIs through material and embodied prompts, "building on some rough ideas about the solution" (Informant #25). While modelling was essential for providing some cues for soliciting with UPIs, they also required demonstration by the deviants themselves. As one informant (#14) put it, "As much as it was important to see [Informant #31] a physical demonstration, I had to embody the experience, to see and feel my way around it [UPI#16]". When modelling, deviants aspired to engage peers, allowing them to understand how a UPI could help improve their day to day work. As one deviant put it: "I found it very important to let colleagues test and experiment and to ask questions…" (Informant #24). In doing so, modelling evoked a certain degree of inclusiveness in UPIs. Deviants involved in UPIs in group A were particularly keen on inclusiveness as it was considered significant for establishing procedural legitimacy and minimising resistance among peers.

Deviants in group A further offered *participative instructing*, offering peers not only to watched deviants demonstrating UPI elements but also participating in making use of UPIs. More specifically, deviants placed their solutions for individual elaboration, allowing peers to test select elements of their UPIs rather than directing them to specific specified uses. Indeed, such individual elaboration was accompanied by discursive prompts, such as asking questions to help them orient their attention to specific functions and features of a UPI. Consider the following example of how one deviant demonstrated UPI#4.

> My questions have been quite open: "What delays did you have last week?" And then they
> tell me: "We had these delays." "These orders were late." And then I ask, "Why?" and then
> they tell a bit about that, and then I ask, "What are you going to do about it so that it will not
> happen again?"... From these three questions, they have shown me how they find the
> information. Some of them have not had access to what delayed orders we've had, while

others do… Irrespectively, I then show them how to find the information more effectively. (Informant #15)

Some deviants in group C followed the same example, inviting peers to participate in their UPIs, allowing them to test and experiment. However, these examples were scant and did not build on the same types of prompts. Instead, as reported by one deviant, UPIs were used as experimental, "unfinished projects":

The solution [UPI#9] is partly a routine and a tool…It's an Excel worksheet. However, I didn't demonstrate *all* parts. I'm not right there yet. I've involved colleagues in some specific workshops to <u>test</u> things out, allowing them to <u>elaborate freely</u>… (Informant #18)

In these UPIs, deviants instructed peers on potential UPIs "in bits and pieces" (Informant #16) and collected feedback, which they used for elaboration and further refinement.

However, contrary to group A, deviants in group C generally relied on *textual instructions*. Textual instructions were used to explicating the procedural logic of UPIs. Instructions were commonly distributed to peers via email messages or posted digitally within the interface in which the UPI had been developed (IT system or MS Excel worksheet). The procedural logic was not only considered to be effectively communicated via instructions but also to effective use among peers.

I have written an instruction and a working method, which means that the orders are now taken care of by a person within sales support, which now <u>evidently costs less</u>. (Informant #16)

Nevertheless, in both modes of demonstrating, deviants faced the challenge of balancing participation and exclusion of peers, which was considered imperative for increasing the adoption of UPIs and reducing the risk of failure. Being too selective had the disadvantage of slowing down the speed of adoption and the risk of creating "groupings or clusters of people

36

who would be seen [by neglected peers] as more valued than others" (Informant #15). However, including too many adopters could cause confusion and miscommunication. To avoid this, deviants embedded legitimacy work in an elaborate nexus of social discretions. In developing procedural legitimacy, deviants in groups A and C had to be inclusive enough to create a sense of participation among peers. While necessary, this was not sufficient without also demonstrating that UPIs were designed with most stakeholders' interests in mind. As one deviant noted, "…you cannot satisfy everyone, but you cannot ignore someone either, because even the slightest reference to that person can help you gain support, or at least set you both in a conversation rather than a controversy" (Informant #32). Because most UPIs operate across practice bundles and business processes, *soliciting* was contingent on peers' social embedding and inclusiveness.

Surprisingly, demonstrating was important for soliciting UPIs and considering UPIs as means of elevating one's competitiveness internally.

> You may not always disclose the most innovative stuff because there is always some competition, so to speak, between different practices, as we are liable to show results. However, when I started to realise it, I understood it is vital to demonstrate part of the solution such that it clearly showed the advantage of using [UPI#16]. (Informant #31)

However, not all deviants engaged in demonstrating their UPIs (see figure 2, #1, 5, 7, 14). In these cases, deviants were quick to jump to conclusions about how their UPIs would be applied by peers, leaving its legitimation to chance or luck. However, while ignoring the participation of peers, some UPIs (#2, 8, 13, figure 2) were more deliberate on the inclusiveness criteria, mindful of "giving everyone a fair chance" (Informant #21) to have a say about the UPIs.

The interplay between prompting and demonstrating

Although deviants aspired to create new value to the organisation through UPI, such aspirations built mainly on their personal 'value rationale' instead of how the organisation measured performance. While prompting and demonstrating UPIs were already expressions of deviants' preferred values, they were contextualised as organisational value preferences. For instance, the use of material prompts and textual demonstrations followed a pre-ordered communication style with peers; the tone and narrative of texts used an existing order and style of intra-organisational or departmental communications. Similarly, embodied prompts did not emerge de novo with UPIs but were instead enacted by deviants to augment the link between potential action, which is 'already there', and the presence of a UPI.

Given this contextual embeddedness of prompts, demonstrating either via instruction or modelling signified the action potentialities of UPIs by way of performing them. However, as described above, demonstrating was inseparable from prompting in performing certain features of UPIs in group A (figure 2) but tended to fade out earlier for some UPIs (group B) and occurred only implicitly for some (group D) or were not used at all for others (bottom part of group B). Equally, prompting tended to fade out earlier for UPIs in group C and its presence was only implicit in UPI#13. Unlike UPIs in group A, UPIs in group B and C had a general attitude among deviants that the UPIs were 'less complex', 'self-explanatory', and 'needless to promote'. However, this attitude was less derived from the properties of the UPIs themselves. Rather, deviants in group B and C developed UPIs based on embodied familiarity with what was afforded by the UPIs, their action possibilities and how to realise them. As one deviant in group A noted, "You cannot be a specialist at one particular thing. You need to understand how the processes and routines work as a system" (Informant #24, UPI#10). Because these UPIs were not taken for granted, as an expression of the deviants deep understanding of a specific but malfunctioning domain to which UPI offered a solution, deviants devoted more effort into

the selection and retention of a UPI by prompting what they afford doing and demonstrating how to achieve those ends. By contrast, when UPIs emerged from deviants' specific area of expertise, they put less effort in soliciting support with peers in terms of prompting or demonstrating.

While there was only some indicative evidence for this tendency, two critical points follow. First, because deviants engaged in unsanctioned work, they would put their UPI projects at risk should they engage intensely in demonstrations. As one deviant noted, "for each feature I showed, they [colleagues] would ask more questions… I guess that most of them suspected that something was going on, but few asked upfront" (Informant #32). Second, while some UPIs (notably those at the bottom of group B, figure 2) involved prompting, these prompts were highly contextualised within deviants' existing domain of expertise, hence ignoring the few opportunities available to demonstrate to others what they had done. On the contrary, deviants drew heavily on resources already available to them in shaping the UPIs in this category and expected value to follow accordingly.

Pragmatic Legitimacy

While establishing the procedural legitimacy of UPIs, deviants often found themselves challenged on pragmatic grounds (Suchman, 1995). To be able to gain traction against the increasingly entrenched practices of Perfection, deviants realised that UPIs had to be embodied in the practice repertoire of their peers—pragmatically, through their value and viability (Miettinen et al., 2012), and corporeally, through their fitness with already embodied repertoires of action (Yakhlef, 2010). However, the findings show that despite the level of authority and credibility deviants enjoyed among their peers, some UPIs remained as merely individual solutions while others were more widely enacted due to the potential resources revealed to them via demonstrations.

Individual enactment of practice

In attempts to gain pragmatic legitimacy for their UPIs, some deviants found their efforts ineffectual among peers. When innovators do not show how innovations can generate value, adoption fails (Kannan-Narasimhan and Lawrence, 2018). Indeed, like skunkworks (Oliver and Cole, 2019), collective adoption of UPIs tended to fail when there where a lack of congruence between deviants' and adopters' needs, or simply when those needs were inconsistent or misrepresented in UPIs.

Although sometimes considered "plausible alternatives" (Informant #32) to contested practice, some UPIs (#1, 5, 7, 14 – the ones at the bottom of category B in figure 2) failed to become pragmatically legitimate among peers because they were not considered "indispensable enough" (Informant #17), such that it was worth embedding them into their practice repertoire. This was partly due to some deviants engaging poorly in procedural legitimacy, but notably more often because they provided their peers with few opportunities to attune their 'perceptual system' to the solicitations exposed through demonstrating (i.e. instructing and modelling) ways of using UPIs. As noted earlier, because these UPIs were relatively domain-specific, deviants made few efforts to recognise the need to enrol peers into their projects by demonstrating the value to be generated by adopting them. Consequently, it often remained abstracted from peers' perceptual system, providing few cues to consider, let alone select and retain, a UPI for everyday use. As one informant noted on the reluctance to adopt UPI#5:

> I was a process leader [for PNICI] at the time, and we thought we had great benefit from the
> previous routine… but it also received resistance within [hesitates] the order-to-payment
> process [where the deviant belongs]. They thought it did not generate much value to them,
> "We know what we're doing", they said. (Informant #29)

As indicated, deviants in this category had failed to gain procedural legitimacy. Peers within the same departments and related processes were attuned to their habituated routines and tools and could not recognise the potentially exceptional opportunities offered by UPIs. From deviants' points of view, gaining pragmatic legitimacy for a UPI is also a matter of peers' expectations. Once enrolled in a practice paradigm, organisation members expect problems and solutions to reside within the embodied practice domain, as indicated in the quote above, "We know what we're doing". This does not necessarily mean that individuals are not flexible enough to find more than one means to reach the same end. Instead, as noted by one deviant, once recognised as a carrier of practice, contested or not, the social community within which those practices are embedded expects reciprocity in the choices made and actions displayed. Solicitations with new practices required a mutual recognition of valued ends and relatedness to existing repertoires of action. As one informant (#16) said:

> It's difficult developing one's solutions to problems because the expectation bar is constantly raised… improvements, so to speak, tend to be acknowledged jointly by everyone, and people will assume you follow the guidebook, and any deviation will draw attention.

However, while none of the UPIs identified as individually enacted (#1, 5, 7, 14), mainly by the deviants themselves, had at the time of this study been widely adopted, some evidence suggests that deviants reengaged in procedural legitimacy in anticipation of gaining support on the arrival of a new management team. Despite the difficulties faced by some deviants, most of them managed to convert their UPIs into productive alternatives to contested practices. Table 2 (Outcome) reveals that UPIs were enacted and although only individually or by a clique of people, they resulted in performance and efficiency gains.

Collective enactment of practice

As noted earlier, a critical step for pragmatic legitimacy (Suchman, 1995) and enactment among peers was that UPIs were demonstrably viable and had sensibly integrated with deviants' as well as adopters' practice repertoire. This condition was important for gaining managerial consent, although not always formally.

> If someone has a creative solution to things and it keeps them happy…I mean, in the end,
>
> what matters is that we can respond to customer needs in the best possible way. (Informant
>
> #12)

These UPIs were typically shaped to fit the collective needs of the domains of practice in which they were embedded. For collective pragmatic legitimacy and enactment, UPIs had to be considered a *plausible* alternative to contested practice. During the conversion from contested practices to UPIs, deviants created various process documents, ensuring that the new solutions were inevitable, such that UPIs were considered *comprehensive* and their outcomes *predictive* by peers. Deviants commonly expressed these conditions in terms of UPIs reflecting peers' "conditional understanding of the tools" (Informant #31). Taking these measures proved to be necessary for converting UPIs into Alfa's practice repertoire.

While these measures aimed to augment the chances of adoption, they were equally important for ensuring collective performance "with minimum effort and hassle – simply reducing the learning effort" (Informant #21). Indeed, speed and reduced failure rates were typical measures of this habituation or routinisation of practice (Yin, 1981). As one adopter noted, "My new Excel tool reduced the order placement process from 20 minutes down to 5 minutes, and with minimal mistakes" (Informant #31). In making UPIs comprehensive, predictive and plausible, deviants' UPIs gained the pragmatic legitimacy required for collective enactment.

Towards a model of unsanctioned practice innovations

How deviants enacted different practices to maintain the secrecy of their unsanctioned work and successively gain legitimacy for their UPIs is a processual endeavour. This section presents a processual model (Figure 3) that builds on the findings to theorize how UPIs emerge. The present study recognizes deviance as an effective response to dissatisfaction with an adopted management fashion program (Perfection). The Perfection program had created a laissez-faire attitude among employees, leading them to perform activities superficially and disengaged from sensible interventions. These contested practices were the context for deviants to *go underground*, engaging in *unsanctioned work*. However, merely unsanctioned work should not be seen as equivalent to UPI; rather, it should be seen as the context in which ideas and "*fiddles*" (Knights and McCabe, 2000) take place and eventually may develop into UPIs (figure 3, a). For example, besides often being an instrumental pursuit of material self-interest or pleasure in "beating the system", fiddling is a rational performance (Ditton, 1977) that can be energized by the desire to offer a solution to contested practice that is yet to be revealed and possibly result in UPIs. In other words, fiddling helps innovators downplay the importance of their innovations in the early stages of the adoption process (Kannan-Narasimhan and Lawrence, 2018) to derogate threats posed by peers superiors to their innovations.

<< FIGURE 3 ABOUT HERE >>

As indicated in figure 3, part of the process of elaborating and developing UPIs was to *delegitimising* (Pettigrew, 1977) contested practice by *denouncing* (b) flaws. Denouncing balances the quest to understand the underlying logic of contested practice, yet simultaneously builds from engagements in others' work practices to be able to surface practice malfunctions and flaws, bearing the risk of misbehaving (Anteby, 2008). Bottom-up innovation is bound to

criticism by management and peers (Koch and Leitner, 2008) and can sometimes express dissatisfaction by deviants (e.g., Oliver and Cole, 2019).

However, denouncing flaws in practice is also a performative tool for agency to locate oneself clearly in a morally advantageous position vis-à-vis normalised behaviours of others. While denouncing and critiquing are primarily cultural and discursive expressions of agency (Ahearn, 1999) and justifications of action (Boltanski and Thévenot, 2006), denouncing is also resourced from various forms of embodied agency such as 'infiltration' of contested practice: "I cannot improve something unless I *engage*… I have to understand what people are doing; otherwise it [UPI#8] won't be good" (Informant #21). Hence, delegitimising practice requires some degree of embodied familiarity with the contested domain.

Embodied understanding and familiarity with contested practice also provide deviants with powerful arguments to discredit and undermine contested practices' broadly held viability (Maguire and Hardy, 2009). However, because the process of delegitimizing is contingent on actors within a field offering consistent and plausible arguments (McGrath, 2007), discrediting is a matter of negative discourse founded on solid and reputable evidence (Maguire and Hardy, 2009). Hence, discrediting is effectively justified based on accurate observations of technical or functional flaws, a form of 'functional pressure' (Dacin and Dacin, 2008) towards contested practice. Deviants target functional flaws of contested practice, such as functional rigidity, complexity and cost. Discrediting functional domains of practice is at once undermining and invalidating the existing performance regime of the organisation to avoid being unfavourably evaluated by it, as assumed in the context of skunkworks (e.g., Adner and Levinthal, 2008).

Denouncing and discrediting are not only expressions of agency; they also help augment the deviant's capability to create UPIs in two ways. First, practice innovation is founded on a *teleoaffectively structured* rationale (Emirbayer and Mische, 1998; Schatzki, 2010) where the *current* practice paradigm is contested based on *past* performance, *future* improvement

opportunities of UPIs, and present examples of misfit, or incongruence between contested practice and organisational aspirations of specific social behaviours (e.g., being entrepreneurial). The interplay of denouncing past performance and discrediting examples of incongruence proved to be effective means of delegitimising the current practice paradigm and grant deviants the advantage to create legitimacy for their solutions.

Second, the process of delegitimising contested practices is also founded upon a *political* rationale (Pettigrew, 1977) by strategically balancing different and often conflicting goals and demands (de Certeau, 1984) in practice innovation. In denouncing and discrediting contested practice, even if considered ritualistic relative to the secretive unsanctioned work enacted simultaneously, deviants appropriate political power (Bourdieu, 1990) to act at the fringes of contested practice while innovating. As such, the political rationale of delegitimising contested practice also becomes the foundational spirit, or the "values and goals underlying a given set of structural features" that underpin the "legitimation" of practice (DeSanctis and Poole, 1994: 126). Hence, it follows; the better deviants manage to delegitimise the inner workings of contested practices, the more they increase their capability to launch UPIs.

The bottom-up autonomous innovation literature typically oversees this critical step of delegitimising the current practice paradigm. Instead, *legitimacy* work is considered, which focuses on framing innovations in ways consonant with the existing strategy (Mirabeau and Maguire, 2014), operating system (Burgelman, 1983b) and resource portfolio (Kannan-Narasimhan and Lawrence, 2018). Further, from a practice theoretical point of view, delegitimising current practice would seem like a breakdown in practice (Sandberg and Tsoukas, 2011), disrupting one's cognitive orientation towards the present task (Kudesia, 2019) and only then a possibility for restoring or improving practice (Yakhlef and Essén, 2013). However, in introducing an agency perspective, we advance the understanding of the sources of intentional disruption of contested practice in pursuit of practice transformation, which is a

central objective of delegitimising (see step b) contested practice. Delegitimising existing practices and performance regimes is a crucial manoeuvre for gaining procedural legitimacy, as new practices built on "good faith effort", as shown in our study, tend to gain procedural legitimacy despite clear outcome measures (Suchman, 1995: 580).

Deviants engaged in procedural legitimacy through the gradual introduction or *partial disclosure* (c) of UPIs to selective groups of people. As illustrated in figure 3, partial disclosure may occur due to the temptation to breach the social barrier (Simmel, 1906) created between peers and deviants through secret engagements in unsanctioned work. However, as illustrated in the previous section, it is more likely that partial disclosure occurs during procedural legitimacy (as indicated by the overlap between practice paradigms) since instances of prompting and demonstrating by deviants to enrol peers involves using fragments and partial features of the developed UPIs. Indeed, because legitimacy is created piecemeal and subjectively (Suchman, 1995: 574), deviance from the norm can help create 'productive voids' for practice innovation without being sanctioned or even noticed by larger groups. In effect, disclosing secret elements of practice during these 'productive voids' conditions the flow of procedural legitimacy and the likelihood of feedback (as discussed below).

Procedural legitimacy (d) is gradually formed through *prompting* and *demonstrating* elements of UPIs. Prompting serves as an essential means of agency in directing peers' attention towards UPIs using material, embodied and discursive means. However, prompts are most effective when gradually decreasing as adopters internalize the prompts into their practice repertoire (MacDuff et al., 2001). Our analyses reveal that prompts are most effective when enacted with instructions and modelling (demonstrating) as the combined effort of offering cues (the 'what' aspect of UPI) and demonstrating (the 'how' aspect) jointly establish solicitations with new practice elements. Indeed, the interplay between prompting and demonstrating helps direct peers' perceptual system, allowing them to consider new ways

46

(offered in UPIs) to reach strategic ends (Demir, 2015). In this way, demonstrations create new prompts and ways of using the UPI features, thereby generating valuable *feedback* (e) for refining UPIs. This particular revelation in unsanctioned work is a significant extension and refinement of prior studies that have highlighted the importance of conversations and narratives in gaining adoption among peers and superiors (e.g., Kannan-Narasimhan and Lawrence, 2018; Yakhlef and Essén, 2013).

Prompting and demonstrating were effective practices for procedural legitimacy as they jointly helped to solicit or afford (Gibson, 1982) opportunities for action mirrored in both human and material agency. Such affordances were necessary for both 'selection' and 'application' (Jarzabkowski and Kaplan, 2015) of UPIs, triggering the 'beginning' of the enactment process (step 'g' in figure 3) by which deviants and their peers select UPIs and retain them in their practice repertoires. Our analyses reveal two important contributions to theory in this part of the process. First, similar to some prior studies of skunkworks, we reveal the importance of resources (Burgelman, 1983b; Kannan-Narasimhan, 2014). However, unlike studies that emphasise the need for reframing new resources vis-à-vis existing resources to gain legitimacy (Kannan-Narasimhan and Lawrence, 2018), we show that practice innovations require other strategies to gain legitimacy and become embedded within the ordinary practice repertoire of peers. Specifically, we detail the process through which deviants' agentic actions of prompting (via material, embodied and discursive means) and demonstrating (via modelling and instructing) mutually help shaping solicitations with new practice elements. While the social arrangements are essential constitutive elements of practice (Schatzki, 2006), we show that their material affiliates are indispensable for creating purposive action possibilities (Dreyfus and Kelly, 2007) and adoption of UPIs (Demir, 2015). To our knowledge, this is one of few examples that detail the performativity of these elements in generating procedural legitimacy by deviants in practice innovation.

Second, prior studies of bottom-up innovation have detailed the possibilities of deviants to counter sanctions by management and peers through completion and quality assurance of innovations (Kelley, 1976) and strategic delays in their introduction (Knight, 1967). Our study reveals an alternative strategy. Deviants introduced *elements* of UPIs in a piecemeal fashion rather than revealing complete, often premature solutions to organisational peers. Using partial disclosure generated further feedback on specific elements of UPI, helping peers to keep the focus on minor matters that seemed practically relevant but socially unthreatening. Instead of delaying introductions of UPIs, deviants engaged peers, including them into the process rather than seeing them as potential threats (Knights and McCabe, 2000). Deviants could, therefore, gain procedural legitimacy of UPIs not because of their fit with existing schemes of action, strategic plans or resources, but because they could effectively communicate an alternative value-rationale, or social rules of proper behaviour (Suchman, 1995), rooted in a common culture and history (Knorr Cetina, 2001), yet at the same time incompatible, and sometimes even inimical to the organisation's selection, valuation and performance regime (Adner and Levinthal, 2008). In contrast to prior studies of practice adoption (Canato et al., 2013) and adaptation (Ansari et al., 2010), our findings suggest that procedural legitimacy does not necessarily increase fidelity (Ansari et al., 2010) or resemblance of UPIs with prior practice, but is significant for making them fit the practice repertoire of adopters. However, as our model suggests, procedural legitimacy is necessary but not sufficient for UPI adoption.

New practice adoption can only take place when deviants completely *disclose* the UPIs (f), which up until this stage, remain more or less underground activities. However, while disclosure is gradual and iterative, some UPIs remain in the personal realm of deviants' practice repertoire. From a practice theoretic perspective, practices are shared by a group of people with a common epistemic culture (Knorr Cetina, 1999). As with many other innovations, UPIs do not always gain traction among peers, and hence their adoption and diffusion are limited to

their innovators (Rogers, 1962). Our study reveals that such deviants had managed procedural legitimacy poorly, achieving partial sensemaking among peers but could not entirely convey the value-rationale (Suchman, 1995) of UPIs to their peers. More specifically, deviants that focused the innovation process on their personal needs and value-rationale provide few clues to "normalize the breach" (Weick et al., 2005: 415) and, therefore, failed to reduce the equivocality (Weick et al., 2005) surrounding their UPIs. Hence, these UPIs remained stigmatized in the prevailing epistemic culture in which the focal deviant is embedded. Our analysis reveals that such UPIs tended to be *enacted individually* or by small cliques within the organization (g).

However, although UPIs can be stigmatized, deviants tend to co-opt arguments concerning their cultural context and identity in many creative ways (Oliver and Cole, 2019), allowing themselves opportunities to remain "unthreatened in their identity beliefs" (Goffman, 1963: 121). Indeed, when deviants find pleasure in their inventions using 'artistic achievements' (de Certeau, 1984: 28), as some of our deviants did, their satisfaction may outweigh any moral judgment about breaching rules (Yakhlef and Essén, 2013) and convention in the workplace (Anteby, 2008). This suggests that when deviants' morality and identity beliefs are solid, they will tend to continue or return to unsanctioned activities, thus performing their innovative projects without top management's formal consent (step "h", figure 3). In this regard, deviants demonstrate an unequivocal sense of agency as their desire to breach commonly held beliefs and shared practices.

Our analyses add to prior studies that show that not all innovations are successfully adopted by organisations (Kannan-Narasimhan and Lawrence, 2018; Mirabeau and Maguire, 2014) by showing that while tenable, adoption of their UPIs is conditioned upon pragmatic legitimacy. While deviants can use their capacity to exercise agency to withdraw from the social (Bourdieu, 1990) and cultural constraints of practice (Reckwitz, 2002), they also need

to offer some value to adopters of their UPIs to be able to "mobilize affirmative commitment" (Suchman, 1995: 575). Pragmatic legitimacy, however, is likely not to be fully realized when practices are conflicting. When peers are not liable to struggles with understanding the value of UPIs and justifying them based on discursive (Yakhlef and Essén, 2013), cognitive (Suchman, 1995) and corporeal 'fit' (Yakhlef, 2010) with their practice repertoire, they are unlikely to adopt the new practices. For this to happen, the requisite affordances of UPIs have to be established, making UPIs *plausible* solutions to adopter's specific problems and issues, their functioning *comprehensive* to peers' existing practice repertoire, and the outcomes considered *predictive* for specific action sequences.

These conditions further the view of sociocultural definitions of innovation, giving primacy to the appropriateness of innovation. While appropriateness is a measure defined by a given social group, plausibility, comprehensiveness and predictive values ascribed to innovation are the social antecedents to the appropriateness of UPIs. Peer acceptance of some parts of practice is different but not incongruent with performance measures and goals. Accordingly, for deviants to make their UPIs fit, they are likely to employ additional efforts to link their practice with general practice.

When pragmatic legitimacy is realized among a given group of people who *collectively* act as carriers of a general understanding of practice, UPIs can serve as tenable grounds for a new practice paradigm (as indicated in figure 3). To the extent that this holds, collective enactment of UPIs will conflict to a lesser degree with the contested practice paradigm as the contested paradigm is gradually abandoned by adopters of UPIs. These arguments suggest that the extent of practice enactment is dependent on the level of fit with organizational strategies and goals such that (1) collectively enacted practices are unsanctioned by top management but fit with the organization's goals and approach, and (2) individually enacted practices are both

inimical to both managerial plans and aspirations *and* in conflict with the organization's goal and approach.

Implications for theory and practice

Indeed, bringing innovation activity 'underground' could be a barrier for adoption and diffusion (Knights and McCabe, 2000) beyond the immediate epistemic culture (Knorr Cetina, 1999). From a practice perspective, unsanctioned innovation takes place in an incremental though continual expanse and diversification of activities rather than a sequential series of adjustments to habitual schemas in specific contexts (Bourdieu, 1990; Schatzki, 2010). Nonetheless, because practices are socially dispersed, there is a spontaneous agreement of a spectrum of normatively favoured or sanctioned actions to which practitioners subscribe. Insofar as there is disagreement, actors would need to elucidate the conditions that signify a practice for what it is and how it makes sense to carry it out (Schatzki, 1996). However, prior accounts of practice innovation and change have been limited (Miettinen et al., 2012) as they tend to disregard the importance of agency (Miettinen, 2006a) and improvisational practice resistance (Yakhlef and Essén, 2013).

Further, while prior studies of unsanctioned innovation acknowledge the importance of bottom-up autonomous innovations, their introduction may generate legitimacy conflicts resulting from disrupting processes across functional units and between different hierarchical levels that do not share the same interests. We, therefore, contend that in studying practice innovations, it is necessary to consider (a) multiple, embedded and sometimes conflicting practices and processes, (b) diverse *levels* of agency, and that (c) *agency* is embedded in cultural, social, political and material properties of practice.

This approach advances extant views of practice innovation by and contributes to the emergent literature on productive resistance (Courpasson et al., 2012) and creative deviance

(Mainemelis, 2010) by showing how various engagements in unsanctioned work may result in practice innovations of benefit to the focal organization.

As such, we have established a conceptual bridge between the practice innovation literature and the analysis of unsanctioned work—the former lacking an understanding and analysis of agency and the latter being inattentive, or broadly indifferent, to the dynamics of social practices. In doing so, the findings advance the understanding of practice innovation through considering material agency by indicating the importance of soliciting UPIs for aspired ends. Such affordances are the essential constitutive elements for embodied routinization of practices among users (Jarzabkowski and Kaplan, 2015). To that end, we have contributed to the refinement of processual views of practice innovation by showing how deviance from official strategy and policy can secure acceptance. We have attempted to address these issues by reintroducing agency, which has gained limited attention in practice theoretic accounts of innovation (Miettinen et al., 2012; Yakhlef and Essén, 2013). In doing so, we have addressed practice innovation as a set of iterative subprocesses constitutive of and constitute cultural, social, political, material, and teleoaffective dimensions of everyday activity. Consequently, the model presented here reflects practice innovation as a stream of legitimacy activities of which agency and deviance are integral parts for both acts of delegitimising (Dacin and Dacin, 2008; Pettigrew, 1977) and legitimacy work (Drori and Honig, 2013; Suchman, 1995; Suddaby et al., 2017), notably procedural and pragmatic legitimization of unsanctioned practice innovations.

Concerning deviants' proclivity to return to or maintain unsanctioned work, this model provides a viable, non-linear processual view of practice innovation previously missing in the scholarly literature. Notably, we contribute to advancing the emergent practice-process paradigm of management scholarship by considering the triggers, enablers and constraints that underlie the mutual constitution of practices and processes (Burgelman et al., 2018). As such,

the framework offered here elaborates Birkinshaw et al.'s (2008: 833) observation that individual agency in practice innovation responds to the failure of "the market for management fashions", such as the Perfection programme reported here.

Concluding remarks

Our research sought to complement prior views of bottom-up innovation with a processual understanding of how unsanctioned practice innovations (UPIs) are created despite conflicting, inconsistent or incompatible interests among organizational actors (e.g., Shin, Taylor, and Seo, 2012; Sonenshein, 2010). With this in mind, our study has adopted a practice theoretic lens and addressed its inability to account for practice transformation by re-invigorating the concept of agency in pursuit of developing a model of practice innovation in an unsanctioned fashion.

The findings reveal a new understanding of why and how organizational members (i.e., deviants) develop UPIs without formal managerial consent. Building from an in-depth qualitative study of an industrial firm, we have developed a model of unsanctioned work comprising three interconnected processes: delegitimising, procedural legitimacy, and pragmatic legitimacy. The findings show that deviants cannot take any part of the legitimacy process for granted, nor can they rely on the availability of resources (Kannan-Narasimhan, 2014) or interventions such as "activation tactics" by top management (Kellogg, 2019). Instead, unsanctioned work remains secret when deviants actively challenge the existing practice paradigm by delegitimizing contested practice. However, once UPIs gain procedural legitimacy and offer productive solutions that are considered plausible, comprehensive and predictive for the outcome of business processes, they are likely to be collectively enacted.

Practically, such an understanding may help locate and support new management practices, for there is a significant lack of organizational expertise in facilitating practice innovation processes. In the comparative absence of other studies, we provide an initial analysis

of how practice innovations are developed where managerial and organizational support is

scant and outcomes are unclear.

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TABLES

Table 1: Overview of data

Research participants	Tenure, Years (Mean / Median)	# Informants	# Interviews	Observations (transcribed pages)	# Documents	# UPIs
Alfa China	7.5 / 7.5	10	17	629	55	NA
CEO (former), CEO, Process Manager, Export sales Manager, Rolling Manager, Planning Manager, Workshop Manager, Domestic sales Manager, R&D Manager, Account Manager						
Alfa Sweden	17.4 / 13.5	14	16	20	100	NA
CEO, Supply Chain Director, Area Sales Manager, Sweden South, Head of Product Development, Purchaser, Head of Business Development, Group Leader Sales Engineer, Controller Supply, Quality Manager Sales, Marketing Director, Sales Director, Head of Business Development Supply, HR Assistant, Lean Coordinator Manufacturing						
Alfa Sweden - Innovators	12.5 / 12.0	11	22	98	230	17
Delivery Service Coordinator, Head of Material Preparation, Chief Planning, Quality Manager, IT Services Engineer, Workshop Coordinator, Logistics Developer, Lean Coordinator Manufacturing, Sales Support Coordinator, Head of Internal Logistics, Material Planner Sales and Logistics Support						
Total:		**35**	**55**	**747**	**385**	**17**

Table 2: Unsanctioned practice innovations and unsanctioned actions (● = indicates explicit observations, ○ = indicates implicit observations)

#	Unsanctioned Practice Innovation	Functional Area	Outcome	UNSANCTIONED ACTIONS				
				Denouncing	Discrediting	Prompting	Demonstrating	Enacting
1	Analyses of service level compliance	Logistics / Delivery	NA (but efficiency improvements are expected)	○	●	●		○
2	Online user manual	Sales support	Extensive use among sales support staff	●	●	●	○	●
3	EDI invoicing	Sales support	Invoicing efficiency (~20 min shorter time per invoice)	●	○	●	●	●
4	Small-customer order handling	Sales support	Order handling efficiency (from 20 to 5 min per order)	●	○	●	●	●
5	Customer complaint/ product recall handling	Sales support	NA (but handling time reduced; customer relations improved)	○	○	●		○
6	Analyses of service level compliance on first orders	Material preparation	Improved planning capacity; reduced failure rate	●	●	○	●	●
7	Breakdown reporting procedure	Material planning	NA (but problem detection to recovery time expected to improve considerably)	○	●	●		○
8	Workflow planning	Sales & logistics planning	Deliberate use among sales & logistics planning staff	●	○	●	○	●
9	Material stock calculation	Logistics planning	Shortened lead times, annual savings of 750 KSEK	●	●	○	●	●
10	Inquiry process for logistics	Sales & logistics planning	Saved 1 workday per week	●	○	●	●	●
11	Work process slack	Production	Reduced the work process by ~20 minutes; annual cost saving of ca. 4M SEK	●	●	●	●	●
12	Local adaptation of single-minute exchange of die (SMED)	Production	Reduced the work process by ~30 minutes; annual cost saving of ca. 700K SEK	●	○	●	●	●
13	Analyses of order inquiries	Production	Improved the throughput speed in production	●	○	○	○	●
14	Electronic delivery status reporting	Logistics planning	NA (but, service level compliance gains are expected)	○	●	●		○
15	Customer deliveries	Packaging & delivery	Significant reductions in product delivery damages	●	●	○	●	●
16	Delivery specification	Sales support	Deliberate use among sales support staff	●	○	●	●	●
17	Delivery planning and logistics	Logistics planning	Deliberate use among delivery planning staff	●	○	●	●	○

Table 3: Data structure and key findings

Representative evidence	First-order concepts	Second-order concepts	Process
"A salesperson may have a prospect customer or think it might be of value. You'd expect him to tell the manufacturer that we have something going on here that is not listed in our systems and therefore we may need to keep that in mind as we plan the [machine] shifts. If you don't get such soft comments, then it's very hard to know… I had to point this problem out." (#18)	Pointing out problems		
"I am looking at the list and ask myself "Why do we always encounter such problems?" It's obvious that there's a trend. If you look at the list, you'll notice a certain type of problem with a person. So, I made a remark on this during one of our process meetings, without telling any names or so, just highlighting a fact, "There's a problem and it needs fixing"." (#17)	Remarking on malfunctions	Denouncing →	
"I talked to those who work with development, or [software] programming, about how things work according to these principles [Perfection]. But unfortunately, they are not alone in thinking it's stifling. Management does not really understand what these techniques mean and therefore there will be no change… they'll work as they'll have always done and solve the problems when they arise. When I criticized this attitude, most people agreed and wanted IT to become a little more flexible, but nobody would deal with the issue earlier." (#34)	Using negative rhetoric about *rigidity* in contested practice		Delegitimising
"We also have what it called "Complex businesses" ... here's a picture of it. We call it "complex sales" because it requires another type of people, those who have more collaborative ability over different functions and who see opportunities in the deal. They make fewer visits to customers, but they do bigger business. The third type is "Distributed business", which is basically a joint venture, a very complex operation with too many decision makers and it runs as a whole project group, and that is a bit of a pain. A salesperson may, for example, dedicate mornings to traditional sales... and in the afternoon, he will be in an extremely complex business with [Customer] running calculations and dealing with complex coordination processes... This is a pure disaster... Sales should be efficient and smart. That's how I see it." (#16)	Using negative rhetoric about *complexity* in contested practice	Discrediting →	
"They may have done a very good solution, but it's too expensive. It must get down in price! There should be "other eyes" on the product to find an optimal... It needs to be sensible in its development that it becomes producible, that it does not get too difficult to produce. It's important!" (Note from meeting observation)	Using negative rhetoric about *cost* associated with contested practice		

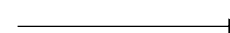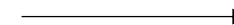| Data	First-order code	Second-order theme	Aggregate dimension
"I cannot agree with what you claim [bad KPIs] have drifted away the activities every time. We simply cannot continue digging down our heads in the sand anymore." (Note from PNICI meeting observation)	Verbalizing inadequacy of contested practice	Disrupting Practice	
"After I have sent out an [MS Excel] sheet, I have received some comments, like "but we are not good at cutting lengths [on aluminium components]" and then I correct the formula here [shows in the calculation template]. But they like to see component prices on the articles [shows] and what the tool price is [showing on screen again]. So, I have used one sheet at a time to test the reaction... because you can see how they respond to it." (#30)	Using *discursive means* to help discovering value in UPI		
[Informant #21] stands behind a peer moving his index finger vertically along the "relevant column" shown on a reduced version of UPI#8 and printed on an A4 sheet. He goes on noting, "one progresses from one stage to the other [points with his finger rhythmically] by placing different icons in the boxes until the job is done"	Using *embodied means* to help discovering value in UPI	Prompting	
"Then we just made a drawing, had to think about what is appealing about it and then present it, "Could this be something?". We started with a sketch, because we knew that there would be changes. Then, when the sketch was reviewed and confirmed that, "This is how *we* are going to do it", then we knew we could progress with the development." (#25)	Using *material* means to help discovering value in UPI		Procedural Legitimacy
"Most of the time, it's very difficult to introduce new things. You have to justify it quite much, why it should be implemented and we knew that after three months, when it's introduced, it's worthless [laughing] and nothing works and that's usually when there's a problem. We avoided it by sitting down with people and demonstrating different pieces of the system, especially with [key user] because he's like a, what should I say, bottleneck. He knows everything about the rest of the system because people always ask him about it, so he learns more and more—and so did we [laughing]." (#25)	Justifying UPI by demonstrating to key people		
"There are some people who understand that without improvements, we have no future. Even though I think most people realize that, I still have to show and instruct the solution for those who are naturally engaged, those who are curious, who like to "roll up their sleeves" and like to add something to what you come up with. These are the people I have continued to encourage all the time..." (#31)	Accounting for user preferences in demonstrating UPI	Demonstrating	
"In this case, I think it was enough with a written instruction and at the detailed level we would like to have it described in our process guidelines somehow…" (#21)	Providing *reified instructions*		

"Some people caught on the idea straightaway, following the instruction and [building from their] routine. Though, others, I had to show it, quite hands-on, where to click in the computer, so to speak, that they had to login, and I had to show, "Here's where you'll find your delayed orders…". They weren't always very clear about why they had a certain percentage in delivery security, so I had to explain to them that the co-suppliers add one third of the complexity. I had to repeat this, re-visit them every week, basically drill them, and tell of the importance and create more and more awareness about it [UPI#1]." (#15)	Acting as a model through *embodied interventions*		
"If you look at this level [points at UPI], where we plan at the first stage… Because we create the orders in this way, it creates a possibility for manufacturing in different units and it provides a very efficient process, and it makes it right as well. In this way, we made a major change in the way we think about orders, in the mindset, of how to work.…" (#17)	Creating familiar features in UPI to influence or incite to action	Soliciting	
"I created an Excel sheet with what requests we receive, how many inquiries the various workshops receive, how many orders have received… at what price and such things. It is data that they'd want and do elaborate on daily but in a much more complicated way. Then I send the Excel file to the sales technicians plus our own workshops so they can see what kind of orders our competitors have received ... This way they get the facts, the knowledge they need to understand which inquiries go to which competitor and whether they are involved or not in the bidding."	Inscribing desired data for competitive actions		
"When I realized that they did not have standardized forms, I started investigating the matter and found that there are several people who have their own working methods for how to gather the information and how to analyse it. So I felt there was a need to standardize this, that people could use a standardized form. But most do not use the solution even if they initially thought my arguments were reasonable. For me, it's not so important that they use my form. The most important thing is that they arrive at the same measures to be taken." (#15)	UPI considered as a *plausible* alternative to contested practice	Enacting individually	
"I try to propagate, or at least inform people that I have this presentation system. Instead of taking screenshots, one would be able to use virtual 3D information, which can be embedded into documents so that you can get a 3D animation in a Word or Excel document showing how to assemble a part or how it is picked apart or how you can deal with it. So, now this 3D presentation is increasing hugely among colleagues. We have all switched to this format." (#34)	UPI considered as a *plausible* alternative to contested practice	Enacting collectively	Pragmatic Legitimacy

5

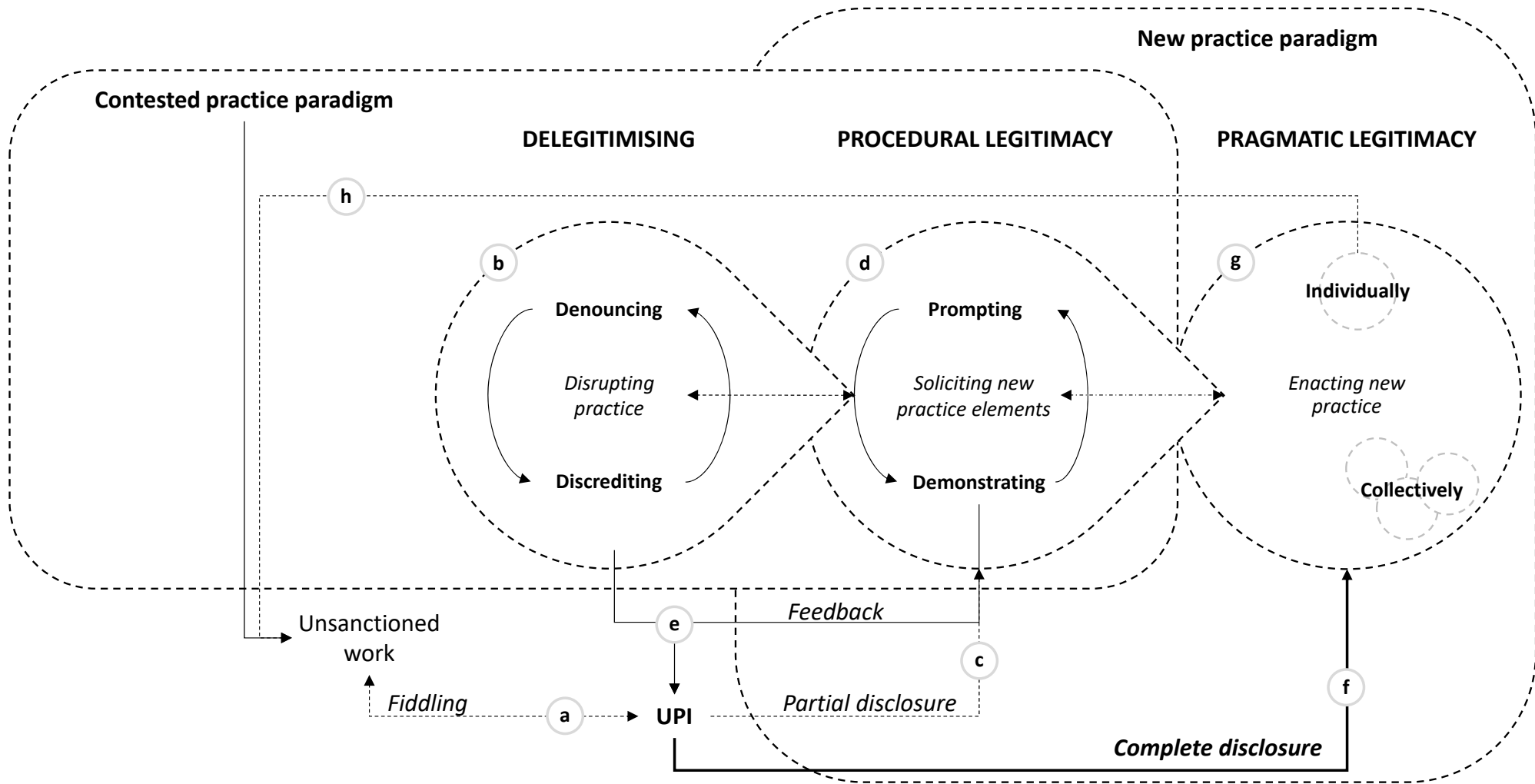|			
Data is sent in an Excel file directly to the logistics department by <u>all</u> sales technicians. This file is then sent back with additional information to complete the sales tender. (Author's note)	UPI considered *comprehensive* enough to replace contested practice		
"When we discuss the advantages of the new method, everything is very clear. I can show that every switch saves us 30 minutes and costs 10,000 [SEK] and we save 700,000 per year." (#31)	UPI use by peers creates *predictive* outcomes		
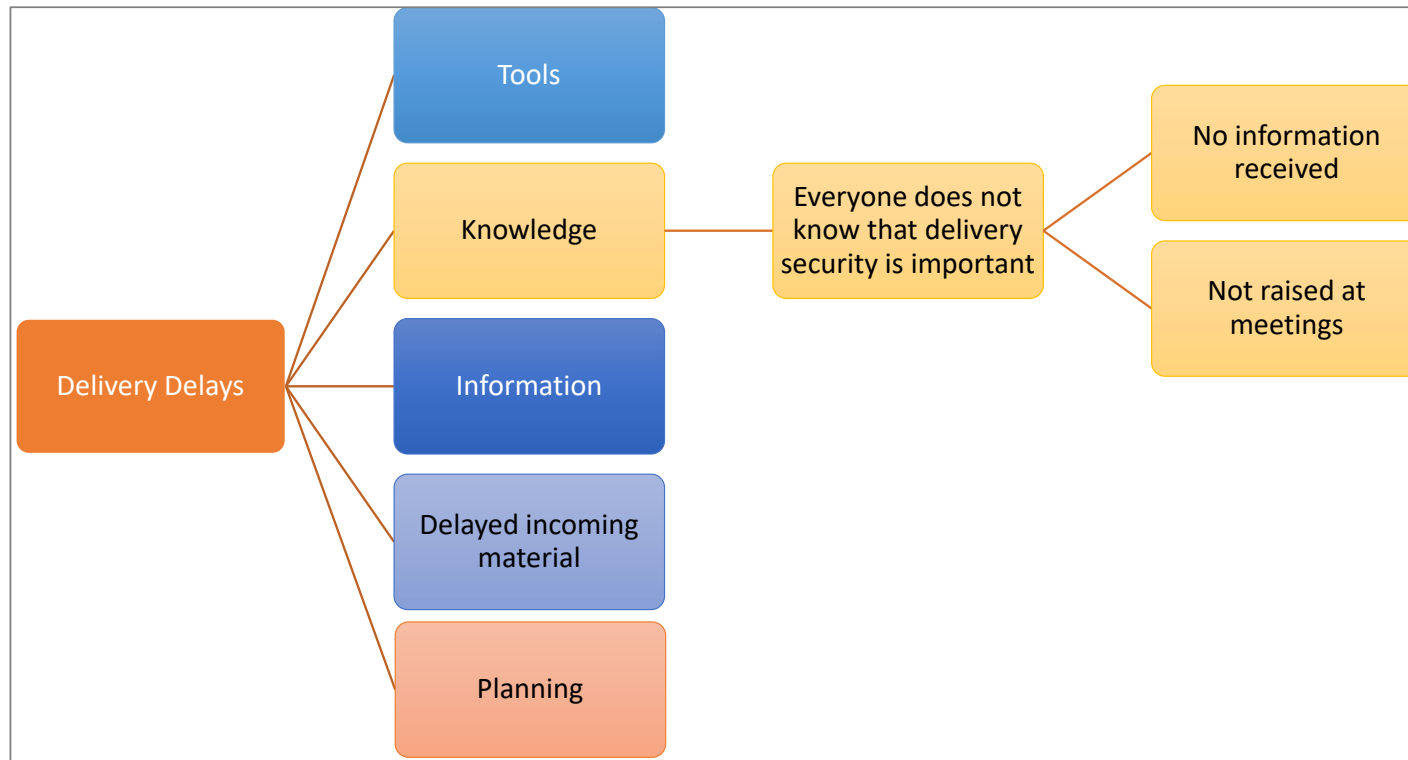
Figure 1: Deviant's graphical illustration, discrediting OtP based on rigidity (ref. UPI#11). Author's translation to English.

Figure 2: The co-occurrence of prompting and demonstrating (numbers refer to UPIs listed in Table 2)

Figure 3: A process model of unsanctioned practice innovation (UPI)