Attention as a local performance:
Towards a practice-based view of attention in organizations

Abstract

Managerial attention has often been conceived as a scarce resource, which direction is shaped by the environment and the firms' procedural and communication channels. In this paper, we leverage insights from research on situated cognition and practice studies to offer a new conceptualization of attention as a local performance. This conceptualization emerges from our empirical study of managerial work in the call center of a large European electricity company. We show that operational managers pay attention to their coworkers and the firm' operational objectives through three types of adverting practices – sensory-awakening, remembering and propagating –, which involve the body and the socio-material features of the local environment. Overall, our analysis suggests that attentional processing is a performance since it shows that 'paying attention' to something is a type of work associated to socio-material and embodied practices. In addition it suggests that this performance is local, since attention is always situated and takes place during 'attentional episodes'. In conceptualizing managerial attention as a local performance, we contribute to the attention-based view by showing that attentional processing is not just structurally determined, but also implies agency (through adverting practices). We also contribute to the literature on the qualities of attention and the managerial work behaviour literature by showing that managers can extend their attentional abilities by mobilizing the socio-material features of their environment. In this way, our study reveals a degree of proactivity in their daily work rather overlooked so far.

Keywords: organizational attention; adverting practices; attentional episode; qualities of attention; first-line managers.

L'attention comme performance locale : Étudier l'attention « en pratique » dans les organisations

Résumé

L'attention managériale est souvent envisagée comme étant une ressource rare influencée par l'environnement et les procédures organisationnelles. Dans cet article, nous nous appuyons sur le concept de cognition située et les approches centrées sur les pratiques pour proposer une nouvelle conceptualisation de l'attention comme une performance locale. Cette conceptualisation émerge de notre analyse de l'activité et des pratiques attentionnelles des managers de proximité (*first-line managers*) dans le centre d'appel d'un grand groupe d'électricité européen. Nous montrons que les managers opérationnels font attention à leurs collaborateurs et aux objectifs opérationnels de leur entreprise à travers trois pratiques « d'advertance » – des pratiques d'éveil des sens*,* de mémorisation et de propagation – qui impliquent le corps du manager ainsi que les caractéristiques socio-matérielles de l'environnement. Nous montrons ainsi que le fait d'être attentif est une performance qui nécessite le recours à des pratiques socio-matérielles incarnées. En outre, notre analyse souligne que cette performance est locale car l'attention managériale est toujours située, prenant place durant des « épisodes attentionnels ». En conceptualisant l'attention managériale comme une performance locale, nous contribuons à la littérature *attention-based view* puisque nous montrons que l'attention n'est pas seulement structurellement déterminée, mais qu'elle implique aussi une capacité d'agence de la part des managers (à travers leurs pratiques d'advertance). Nous contribuons également à la littérature sur les qualités de l'attention et à celle sur le travail managérial en montrant que les managers peuvent étendre leurs capacités attentionnelles en mobilisant les caractéristiques socio-matérielles de leur environnement. De cette façon, notre étude révèle un degré de proactivité dans le travail quotidien des managers opérationnels, passé relativement inaperçu jusqu'à présent.

Mots-clés: Attention; pratiques d'advertance; épisode attentionnel; qualités de l'attention; managers opérationnels.

ATTENTION AS A LOCAL PERFORMANCE:
TOWARDS A PRACTICE-BASED VIEW OF ATTENTION IN ORGANIZATIONS

1. INTRODUCTION

Managerial attention, broadly defined as "the set of elements (events, trends, ideas…) that occupies the consciousness of managers" (Bouquet & Birkinshaw, 2008, p. 579), has been the focus of many studies (Simon, 1947; March & Simon, 1958; Dane, 2013). Presented as an important but scarce resource that is influenced by many individual- (Walsh, 1995; Beyer et al., 1997) and organizational-level (Ocasio, 1997, 2011) factors, it has been shown to impact on many organizational activities such as strategic change and adaptation (Cho & Hambrick, 2006; Joseph & Ocasio, 2012), resilience (Weick & Sutcliffe, 2006) or organizational learning following crisis (Rerup, 2009).

Thus far, organization scholars have studied two complementary aspects of managerial attention (Dane 2013). In line with the Carnegie School, a first stream of work has studied the focus (or direction) of attention and the structural factors that drive such a focus, such as the managerial level (Ireland & al., 1987), managerial function (Dearborn & Simon, 1958) or degree of centralization (Sutcliffe, 1994). The attention-based view of the firm for instance, argues that organizational attention, defined as the "socially structured pattern of attention by decision-makers within an organization" (Ocasio, 1997, p. 188), is shaped by the firm organizational structures as well as its procedural and communications channels.

The second stream of research studies the dimensions (or qualities) of attention (Dane, 2013), often through qualitative studies. It shows how the qualities of attention, such as its stability or vividness, influence various outcomes such as effective collective action, organizational learning, and reliability (Weick, Sutcliffe & Obstfeld, 1999; Weick & Stuclife, 2006; Rerup 2009). Some studies on the qualities of attention also explore the mechanisms that increase individuals' attentional quality (Dane, 2013). Together, these two streams of work have advanced our knowledge of the determinants of organizational attention, uncovered its consequences for organizational action, conceptualized the qualities associated to attention processing, as well as outlined some of the structural solutions that can be put in place to enhance the quality of organizational attention (e.g., Rerup, 2009).

Despite all this body of work however, we still know little about *how* managers pay attention to various foci of attention, such as the organization's objectives, their collaborators, field-level issues, etc. In other words, we have little insights yet into the doings and practices

associated to the managerial work of "paying attention" to key organizational issues. This gap in our understanding of managerial attention is due partly to a focus on top manager' attention and a neglect for the study of the concrete activities enabling and sustaining attentional processing. Understanding the "how" of attention – i.e., not just the qualities of attention, but also the practices by which managers effectively attend to, and sustain their attention, on organizational issues– is nonetheless crucial to bolster our understanding of the facilitating and hampering aspects at play on managerial attention, the way structuring effects compose its nascent expression and its role in intersubjective mechanisms such as coordination. In addition, given the hectic pace of managerial work, and its fragmented nature (Carlson, 1951/91; Wirdenius, 1958; Stewart, 1967/88; Mintzberg, 1973; Tengblad, 2002), understanding how managers effectively sustain their attention on their organization' objectives, is crucial. In this paper, we therefore ask: *how does managerial attention unfold in situ, and how do managers sustain their attention to their organization's objectives*?

Building on a study conducted in the customer call center of a European electricity company – called ShinningCo. – where one of the authors shadowed two managers in their supervisory activity, we study the concrete activities that go into the work of 'paying attention to something'. Specifically, we identify three types of 'adverting practices', defined as the purposive set of activities that enable managers to pay attention to, and maintain their attention on, their firm's objectives. Overall, our work, which shows the social, material, embodied, and distributed nature of organizational attention, suggests a new conceptualization of attention as a local performance. The idea that attention is best conceived as a local performance emerged from our empirical work at ShinningCo. and combines two ideas. First, 'paying attention to something' is a type of work associated to adverting practices. In that sense, attentional processing is a performance. Second, this performance is local, since managerial attention is always situated, and takes place during 'attentional episodes', i.e., specific moments, which are made of an emergent focus of attention, and are intrinsically linked to the social and material characteristics of the local environment.

In so doing, our study makes three contributions to organizational scholarship. First, we contribute to the ABV literature by showing that the view that manager's attention is structurally determined by the firm's procedures needs to be nuanced, in order to account for the activities by which managers actively manage their attention. Second, we contribute to the literature studying the qualities of attention by unveiling adverting practices helping managers to extend their attentional capabilities; hence nuancing the conception of attention as a fixed resource. Finally, we contribute to the managerial work behavior literature by revealing that

first-line managers are more proactive in the management of their surrounding environment than what past research – which lays the emphasis on the constraints exerted on them – suggests.

The reminder of the paper is organized in 5 sections. We first review past research on managerial attention, before presenting our research setting and methods. We then present our first-and second-order findings. Finally, in the discussion, we reflect on the implications suggested by a practice-based analysis of managerial attention, and show how our work helps advance research on organizational attention and managerial work.

2. LITERATURE ON ORGANIZATIONAL AND MANAGERIAL ATTENTION

2.1. THE ATTENTION-BASED VIEW OF THE FIRM

The attention-based view (ABV) offers a renewed perspective on firms by approaching them as systems of structurally distributed attention (Ocasio, 1997, 2011). From this perspective, attention processing, which encompasses the "noticing, encoding, interpreting and focusing of time and efforts by decision makers" on organizational issues and answers (Ocasio, 1997, p. 189), is a socio-cognitive activity shaped by the environment and the firm's structure.

Specifically, the ABV considers that attention is selective and situated: actors selectively attend to some issues while ignoring others, depending on the immediate context in which they are located. The firm's procedural and communication channels play a key role in the selection of managers' focus of attention, since they create the situational contexts in which attention and action take place (Ocasio, 1997, p. 194). The ABV also considers that the structure of the organization, which includes its rules, resources, players and social positions, shape what people attend to. In essence then, the ABV anchors attentional processing in the social context in which actors are embedded, and offers a structural approach to attention allocation.

Empirical studies have provided empirical support to the ABV by showing the extent to which various structural determinants shape organizational attention. Bouquet and Birkinshaw (2008) identify two structural determinants of headquarters attention to their subsidiaries, namely the significance of the local environment, and the strength of the subsidiary within the network; while Cho and Hambrick (2006) show how three structural elements (shifts in the environment, the composition of the top management teams and incentive systems) shape the attention pattern at the industry level. Other studies have studied the consequences of top managers' attention on strategic actions, such as the timing of entry in a new market (Eggers & Kaplan, 2009), and on firms' performance indicators (Bouquet et al., 2009). Finally, some

researchers have shown how attention mediates and/or moderate firms' responses to change in their environment (Joseph & Ocasio, 2012). Overall, this body of work shows how a firm' structures and communication channels shape top managers' direction of attention; and how, in turn, the direction of attention influences organizational actions.

2.2. QUALITIES OF ATTENTION

In an attempt to move away from a conception of attention as a scarce resource, which puts the emphasis on the limited quantity of attention that is available, organizational scholars have also explored the qualities of attention processing (Weick & Sutcliffe, 2006; Dane, 2013),

The body of work on the qualities (or dimensions) of attention complements ABV studies, which are predominantly interested in the "what" and the "why" (i.e., the focus and triggers) of attention, by studying the "how" of attentional processing. Building on the concept of mindfulness, defined as "a capability to induce a rich awareness of discriminatory details and a capacity for action" (Weick et al., 1999, p. 37), Weick and Sutcliffe (2006) put the emphasis on two qualities of organizational attention: its stability, that is the degree to which attention is focused intently (or sustained) on a focal object; and its vividness – i.e., the degree to which attention enables a rich and complex understanding of the focal object. In a similar vein, Rerup's (2009) paper, which links effective organizational learning from crisis to attention triangulation, stresses three qualities of attention. His study suggests that firms that have a greater capability to "identify issues that have the potential of having critical consequences for the organization" (p. 876) are better able to combine attention stability and vividness with attention coherence, defined as the degree to which several teams have "similar or compatible attention to issues" (Rerup, 2009, p. 878). Ocasio (2011) complements this work by considering another quality, called attention vigilance, i.e., "the process by which individuals sustain concentration on a particular stimulus" (p. 1287).

Finally, some studies develop further our knowledge of the mechanisms that increase the quality of organizational- and individual-level attention. Metiu and Rothbard (2013) show that individuals working in a team are better able to develop and maintain a mutual focus of attention on a shared task when they use task-related artifacts. Dane (2013) identifies four mechanisms that enhance two qualities of attention. Reduced stress and automatic rule following increase the breadth of attention, which refers to the range of events noticed; while appreciating the ambiguity of an event, and building a repertoire of responses improve the integration of attention (i.e., the effective exploitation of the events that are noticed).

2.3. MOVING FORWARD: TOWARDS A PRACTICE-BASED ANALYSIS OF MANAGERIAL ATTENTION

To summarize, the literature on attention has studied the determinants and consequences of top managers' attention as well as uncovered the qualities (and underlying mechanisms) of organizational attention. Beyond these significant findings, past research has also provided two important, yet overlooked, insights. In what follows we argue that scholars could uncover a number of neglected dimensions of organizational attention by explicitly recognizing these two insights, and importantly by grounding them into advanced research on situated cognition (e.g., Clark, 2008) and a practice perspective (Nicolini, 2012).

A first insight that implicitly emerges from past research is the socially, materially and bodily distributed nature of attentional processing. Dane's (2013) study on the qualities of attention links attentional breadth to listening and observing, hence pointing to the importance of the body into informational processing. In a similar vein, Metiu and Rothbard (2013) links the ability to have a mutual focus of attention in a team to the use of task-related artifacts, hence inviting scholars to explore how team members mobilize tools to increase the quality of their attention. These authors however, do not interpret their data this way, since their interest is not in theorizing the social and material distribution of attention.

Some conceptual work also points to the distributed nature of organizational attention, but their insights have not been leveraged. The original formulation of ABV explicitly recognizes that attention processing is situated. Ocasio even builds on the work of cognitive anthropologists (e.g., Latour 1987; Hutchins 1995a) to develop the second principle of situated attention, which " indicates that what decision-makers focus on, and what they do, depends on the particular context they are located in." (Ocasio, 1997, p. 190). Yet this original formulation tends to put the emphasis on the communication channels, seen as "pipes and prisms for information processing" (Ocasio et al., 2018, p. 159), at the expense of the social dimension of communication. Further, most ABV research has predominantly built on ABV third principle of structural distribution of attention, hence putting the emphasis on the determinants that shape the direction of attention, or the consequences of CEO's attention, rather than on attention processing itself. Finally, the fact that ABV research has largely been quantitative in nature also partly explains that researchers have overlooked this aspect, since revealing the distributed nature of attention requires in-depth qualitative studies focused on the social and material activities associated to attention processing.

A second major insight that is implicit in past research refers to the activities that enable managers to direct and maintain their attention on a focus of attention. The body of work on the qualities of attention (e.g., Rerup, 2009; Dane, 2013) is especially interesting in this regard since it paves the ground for a systematic analysis of the practices associated to managerial attention. Dane's (2013) first-order data mentions verbs, such as "interpret", and points to action (e.g., having an influence, p. 54). This raw data lends to an interpretation of attention in terms of activities or 'doings'. But this interpretation is missing in Dane's paper, since this author's aim is not to uncover the practices enabling attentional processing, but to uncover the explanatory mechanisms of two quality of attention.

Other studies on the qualities of attention refer to practices. Rerup (2009) considers that "*practices* associated to attentional stability, vividness, and coherence can potentially increase the quality of attentional triangulation" (p. 879, emphasis ours); while Weick and Sutcliffe (2006) note that "when people enrich the distinction they make [a quality of attention], their effort begin to resemble *practices* associated to mindfulness meditation" (p. 517, emphasis ours). In these papers however, the use of the term of practice is anecdotal, which suggests that that authors have a "commonsensical understanding of the term practice, as simply what people do." (Sandberg & Tsoukas, 2015, p.187)

In order to develop further these insights, we suggest relying on research on situated cognition that we combine with a practice approach. Situated cognition scholars approach cognitive processes, such as attention processing, as highly interactive and rooted in the physical, material and social context of individuals (Clark, 2010). Their research shows that cognition is embedded (i.e., it occurs through physical interaction with objects), embodied (i.e., it relies on perceptual systems) and socially distributed (i.e., cognition is distributed across people). In what follows, we build on these insights, that we combine with Nicolini's consolidated view of practice which puts the emphasis on the social, material and collective of practices (Nicolini, 2012; Nicolini & Monteiro, 2017).

3. METHODS AND DATA

3.1. RESEARCH SETTING

We conducted an empirical field study at ShinningCo., the commercial unit of a large European company operating in the energy sector. Within this unit, we focused on two teams of online counselors selling energy-related products and services to individual and professional customers. Online counselors spend an average of 6 hours a day answering and giving calls to customers (i.e., *front office* activities). They are expected to meet predefined

targets associated to their phone productivity, customer satisfaction and the selling of services. The remaining working hours are dedicated to *back office* activities, such as processing customers' electronic files and written complaints. Each team of online counselors comprises about 12 online counselors and is supervised by a first-line manager, whose job is to oversee the running of the phone call activity, ensure that online counselors respect their phone and sales ratios and process customers' files.

Online counseling teams are especially relevant to study managerial attention since team-members work together in an open space, which resembles a cockpit (e.g., Hutchins & Klausen, 1998), and are under the supervision of one manager who is located in the same room. This specific feature of their work environment makes the study of the unfolding of managerial attention easier (e.g., Heath & Luff, 1994, 1998).

3.2. DATA COLLECTION

In order to study how managerial attention unfolds in situ, we used *shadowing* – a method that consists in following one actor in his/her daily activities (Czarniawska, 2007) and allows for the study of microprocesses, as well as actors' dynamics of action, and their relation with artifacts (Bruni, 2005; McDonald, 2005; Czarniawska, 2007).

One of the authors of the paper shadowed the first-line managers of two online counselors teams at ShinningCo.– Kate and Helen – in their daily activities for two weeks each, with a specific interest for their supervisory activity (supervision being "the proximal an immediate direction, monitoring and control of operational work", Hales, 2005, p . 474). This period of observation allowed habituation from the part of organizational actors, thus reducing possible biases due to their modification of behavior and was enough to collect huge amount of data. The author who conducted the fieldwork took note of the managers' behaviors and talks – two behavioral markers of cognition in situ (Hutchins, 1995b; Heath & Luff, 1994, 1998; Hutchins & Klausen, 1998; Yu, Engleman & Van de Ven, 2005). She also recorded the environmental features and physical layouts, as well as managers' interactions with their coworkers and the environment (who/what/why/how). When she was unsure about what the managers were doing, she had a short conversation with them, after completion of the action to avoid disturbing their workflow (Murchison, 2010; Bernard, 1994).

One interview inspired from the *interview-to-the-double method* (Clot, 1995, 1999; Nicolini, 2009) was also conducted with each manager at the end of the observation period. In this specific interviewing method, interviewees are asked to do "as if" the interviewer were about to replace them in their daily work. Interviewees' main task is to give the necessary

details allowing the interviewer to behave like they do in their daily working situations so that nobody discovers the substitution. This interviewing method gives access to interviewees' tacit knowledge mobilized in action. In our case, we use the interview-to the double method to understand the hidden aspects of attention expressed in practice by revealing what managers are sensitive to in their environment, and importantly, to ensure that we did not miss any important focus of attention.

Finally, we also collected *secondary data* such as power point presentations for team meetings and e-mails written to their team members as well as other internal documents which are written markers conveying attention (e.g., D'Aveni & MacMillan, 1990).

3.3. DATA ANALYSIS

Before delving into data analysis, the author who collected the data first read the whole observation material several times in order to make sense of her shadowing notes, and note possible recurring elements, with a specific interest for: managers' foci of attention, their behavioural moves (raising hands, frowning, walking, etc.), and the artifacts used (e.g. computers, headphones, post-it notes). In a second step, this author selected moments where managers' attention was directly associated to their supervisory activity. She wrote thick descriptions of these moments.

In a third step, she read these moments and the transcripts of the interviews several times in order to identify Kate and Helen's main foci of attention; i.e., the foci that were recurrent and repeated over time. She identified that managers pay special attention to five foci of attention, namely their collaborators' activity, as well as four activity ratios – sales objective, phone productivity, customer satisfaction and complaints. These foci of attention, which we present in the first-order findings section, are contingent to the setting in which this study took place: in a call center, managers do not have any direct operational task to accomplish; their main role is to supervise the activity of their team members, who are responsible for meeting pre-defined operational targets.

Fourth and finally, both authors analyzed together the thick descriptions of these moments. We searched for repetitive patterns (Eriksson & Kovalainen, 2008) in managerial behavioral moves in relation with the socio-material environment (e.g. do they use in a repetitive way certain artefacts? How? Why? Etc.). In addition we also characterized the related impact on managerial attention. We progressed in our analytical induction (Bansal and Corley 2012) by identifying the sets of "doings" enabling managers to maintain their attention to these five foci of attention (i.e., what do managers do to maintain their attention of these

foci?), which we then associated to three types of "adverting practices", as presented in our second-order findings.

4. FINDINGS

The goal of this study was to understand how managerial attention unfolds in situ, and specifically, how managers maintain their attention focused on the organization's main objectives. Our first-order findings show the importance of the firm's procedures and communication channels in directing and maintaining managers' attention on the firm's operational objectives. Our second-order findings move beyond this structural view of attention by showing how managers rely on three types of adverting practices to maintain their attention on their firm's objectives.

4.1. FIRST-ORDER FINDINGS: THE STRUCTURAL SHAPING OF MANAGERIAL ATTENTION

Through our data analysis, we found that Kate and Helen – the two ShinningCo. managers we observed – were especially attentive to the behaviors of phone counselors. This constant focus on counselors' behavior is consistent with their role, which is to supervise their team members and ensure that they reach their performance objectives. We also found that Kate and Helen's attention was focused on four operational objectives that are especially important for ShinningCo.: sales (number of products and services sold), phone productivity (number of counselors' phone calls per day), customer satisfaction (the objective being 100%), and complaints (number of complaints answered and respect of the deadline to answer a call).

Importantly, as we reflected on these main foci of attention, it became clear that Kate and Helen's attention was strongly influenced by ShinningCo.'s communication channels and procedures, hence confirming Ocasio's idea of structural distribution of attention. For instance, ShinningCo. directs Kate and Helen's attention toward phone productivity by sending, every afternoon, an automated email about their team phone productivity ratios. Kate and Helen's attentional engagement towards ShinningCo.'s operational objectives is also achieved through formal rules and procedures. Kate and Helen are constantly reminded to pay attention to customer satisfaction since they must sign every customer complaint form filled by their team members. They are also asked to organize on a regular basis a "challenge day", during which phone counselors compete against each other to reach the highest number of sales on products and services. Winners with the highest sales ratio win goodies or cinema tickets. Performance reviews are another powerful mechanism that focus managers' attention to ShinningCo.'s objectives: during these individual reviews, managers discuss performance

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results with their counselors by indicating which types of sales can be improved, communicating average phone productivity, etc.

In addition, ShinningCo.'s formal procedures channel the attention to the firm's objective throughout the hierarchy line of command. Attention to phone productivity for instance, is echoed at all level in cascade thanks to the "double hearing" system. Routinely, Kate sits near a phone counselor and puts a headphone on. While she listens to the call, she assesses the quality of the counselor's performance using a grid that prompts her to spot discrepancies between the required speech (defined by ShinningCo. in order to maximize customer satisfaction and sales objectives) and the counselor's speech. These double hearings are commented on during informal discussions between managers, as the discussion between Kate and some colleagues, including her manager Françoise, illustrates:

> Françoise: 'there is one message to convey during your double hearings: telling coworkers to schedule an appointment with the customer.' [e.g., by letting them enough time to think about the proposed product and service and call back later on].
>
> Kate: 'No one in my team reaches the objective for the direct debit service.'
>
> Françoise: 'You have to center your double hearings on it.' (Field notes, 8ᵗʰ April 2013)

As we analyzed our data further, we noted that Kate and Helen's sustained level of attention towards ShinningCo.'s objectives also resulted from 'doings' or activities that were not related to the firm' official procedures. Challenge days offer striking illustration of some of the doings that enable managers to maintain their attention on operational objectives. Kate for instance uses a flipchart during challenge days, on which she asks counselors to report sticks signaling their sales. The flipchart, located in the middle of the room, is an artifact that constantly calls Kate's and the counselors' attention. The sticks provide a visual representation of the sales and help Kate and her team members focus their attention on this objective. They catch Kate's eyes, and prompt her to make some comments aloud on the team's performance, when she is satisfied with the number of sticks: 'It's beginning to work' said Kate, standing in front of the flipchart and looking at the sticks (Field notes, 8ᵗʰ April 2013). As this example suggests, managers purposefully perform a number of activities, involving artifacts, as well as their senses, in order to be attentive to the firm's objectives. In the next section, we provide a richer description of Kate and Helen's adverting practices, i.e.,

the sets of purposeful activities that managers engage in order to pay attention to, maintain their attention on, their firm's objectives.

4.2. SECOND-ORDER FINDINGS: ADVERTING PRACTICES

Sensory-awakening *practice* refers to the active mobilization of the body (e.g., walking) and the senses (e.g., hearing) to catch cues in the immediate environment. As Helen mentioned during the interview to the double, when we asked if she needs at times to get closer to the phone counselors:

> 'And well, you have to walk through the tables to see…when a counselor does not feel well, because of his/her behavior, his/her face and all that stuff.' (Interview to the double with Helen, 19th April 2013)

The open-space configuration of the room makes it easier for managers to sense socio-material elements with their vision and hearing. However, this environment can be pretty noisy, and because of the configuration of the room, Kate and Helen cannot see when seated at their desk, what counselors working at the remote tables are doing. This prompts them to engage into two types of sensory-awaking activities: changing the socio-material setting and walking through the open-space.

Both Kate and Helen prepare the socio-material setting surrounding them in order to be able to sense elements in their environment which are related to the operational activity they supervise (e.g., coworkers actions and speeches to customers) and spot possible problems (e.g. inappropriate discourse, problem with the processing of a customer file). Coworkers' actions and speeches to customers are two key drivers to reach ShinningCo.'s objectives, since they directly influence customers' level of satisfaction and number of complaints and can impact on phone productivity and sales objectives. When Peter, a new and inexperienced counselor, joined the team, Kate, who wanted to be able to keep an eye on him, changed the setting around her desk to allow him to sit next to her at an unoccupied desk. As she was checking if the computer on this desk was working, she told us "[Peter] is someone who needs supervision from a manager", and added "there is a need to be close to some people". As she was saying so, she left a post-it note on the desk saying: "*Peter, please, have a sit in front of John*" [John is another counselor sitting in front of this left table]. Both Kate and Helen purposively change the material setting in order to be physically closer to the counselors, and therefore to be able to hear and see what they are doing without having to make an effort.

Walking through the open space is another type of activity that both Kate and Helen often perform in order to make their sense awake. By walking between the phone counselors

desks, Kate and Helen can see what counselors are doing and listen to their conversations – and related possible difficulties – with customers. They do not have such sensory access to counselors' actions when they sit at their desk. In this way they make it possible for their attention to spot difficulties coworkers are encountering or possible mistakes they are making, and make their attention open for counselors' disruption. For example, as Helen was *walking across* the open space and Steve, a counselor, told her: "A customer asks for a rise in power." As her attention was drawn by this solicitation, Helen asked Steve about the customer's project, what has been done, what is left to do. Steve replied that he "told [the customer] to buy the electronic device by himself". This device is useful to monitor electricity consumption and ShinningCo. has a dedicated department that is in charge of buying and installing such devices for customers. By telling the customer to buy the device himself, Steve lost a possible sale as Helen remarks: "No, we are going to help him. Tell him: we have a service for you." Helen explains the steps to follow and adds: "There is business to do here".

Changing the physical setting, and walking between the desks both create greater physical proximity between the managers and the counselors. These activities help the managers keep their attention to ShinningCo.'s objectives – and, when needed help their team members reach their objectives – by enabling their senses to notice unusual or inappropriate behaviors. Sensory-awakening practice takes advantage of the fact that attention is not a "pure" cognitive activity, but is exerted by (and through) the body and senses, almost inadvertently, by purposively designing the immediate environment so that any strange behaviors are necessarily spotted.

Remembering practice encompasses the doings by which managers create socio-material reminders in order to maintain their attention on the organization's objectives. For example, Helen, during a phone conversation with another manager, told him she will ask for his software to be cleared before his arrival on the 18th of March and wrote (for her own use) a post-it note saying "clearance before 18". Both Kate and Helen make extensive use of artifacts (e.g., post-it notes) as reminders. Occasionally, they also put in place another type of remembering mechanism consisting in asking counselors to remind them what they have to focus their attention on. Following an interaction with Rosemary [novice counselor], during which Kate helped her to solve a customer problem, Kate told her to make a double hearing tomorrow with Fanny [experienced counselor], and added, looking at Fanny sitting nearby: 'Could you remind me of it?'

These reminders, which inscribe the focus of attention into artifacts and people, create an 'attention web' that helps managers maintain their attention focused on ShinningCo.'s

objectives. Interestingly, the inscription of managers' focus of attention into artifacts and people, which is a form of socio-material distribution of attention, also achieves a temporal form of attention distribution: the focus of attention, once inscribed in the artifact or in coworkers' mind, will spontaneously come to their mind later during the day or the week. Overall, the remembering practice suggests that managers overcome cognitive limitations (e.g., limited mnemonic abilities) by creating an automatic recall mechanism: through the inscription of a focus of attention into the immediate socio-material environment, they ensure that this focus of attention will effortlessly come to their mind later.

Propagating practice refers to sets of doings through which managers spread their attention focus among team members so that they focus on the organization's objectives.

Kate and Helen ensure that phone counselors keep ShinningCo.'s operational objectives in mind by translating the firm's global objectives into individual-level objectives that they then communication individually, and by using visual illustrations (pictures, drawings) that put the emphasis on what matters.

The personalization and translation of ShinningCo.'s global objectives into easily understandable and individual-level goals is a first activity that Kate and Helen realize in order to propagate their focus of attention to their counselors. ShinningCo.'s managers regularly receive a table summarizing their team's overall performance. While this level of details is useful at the organization level, it does not have the level of granularity that counselors need in order to perform well. Managers hence propagate their focus of attention to their team members by subdivising this table into smaller individual results corresponding to each counselor's performance. For example, every week, Kate extracts, from the aggregated team results table, the result of each counselor that she reports into an Excel table. She then uses this Excel spreadsheet to communicate individually to the counselors their weekly results, to keep them up to date with their individual-level performance, as well as to make them understand how the monthly objective translates into a weekly one. As Kate explained during the interview to the double:

> 'Why do I give counselors their individual-level results on their computer as I did with Rosemary and Melany? It's because you always have to give them sense. You always have to give them information again, by saying: "beware!, this is the performance level you have to reach during one week! This is how much you have to reach! This is your quota to reach the expected objective!" You always have to say that again and again. Always, always, always.'

Managerial attention paid to organizational objectives thus becomes a myriad of fined-grained attention foci that are communicated to team members.

ShinningCo.'s managers also propagate their focus of attention to their counselors by communicating clearly what matters to them. They organize meetings during which they explain what they value, and what they are especially attentive to. For instance, during a team meeting, Helen propagated her attention to customer requests – an important focus of attention – to her team members by putting a smiling sun on one of the slides of her power-point presentation (see Figure 1). In this way she signals their good performance regarding the number of customers requests answered. On another slide, she put a danger signal next to the number of customer complaints not processed on time, thus marking that this negative result is especially important for her and directing her team members' attention to it.

Figure 1. Slides projected by Helen during a team meeting*
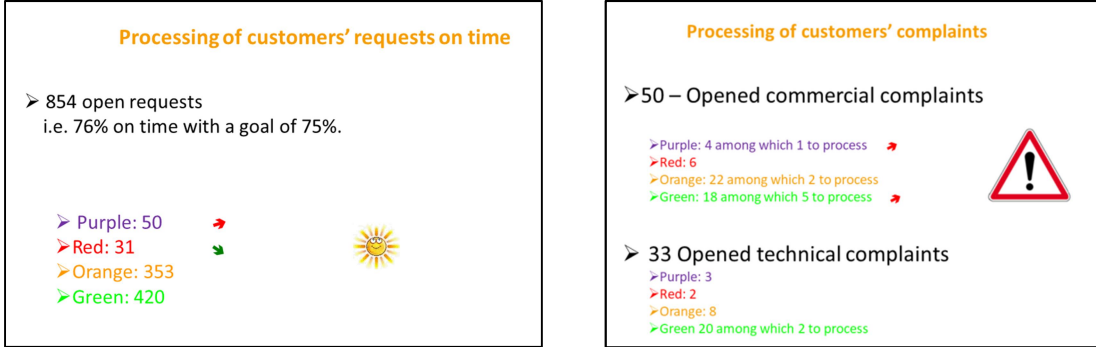
* The figures on the slides have been changed for confidentiality reasons

Generally, managers use visual symbols to complement their verbal communication, and lay the emphasis on the aspects of work they particularly value. These remarkable symbols also help coworkers to see immediately where they have to improve their performance (since they point to gaps with the objectives) or where their performance meets expectations. It helps them to keep in mind what is good and what needs improvement in their performance.

5. DISCUSSION

5.1. ADVERTING PRACTICES AND ATTENTION AS LOCAL PERFORMANCE

This paper explores how ShinningCo.'s managers focus and maintain their attention to their organization's objectives. In line with ABV (Ocasio, 1997; 2011), our study first provides a neat illustration of the situated attention and structural distribution of attention principles. We found that ShinningCo.'s procedural and communication channels, such as daily-automated

emails reporting performance indicators, challenge days or performance reviews, effectively direct Kate and Helen's attention towards the firm's key operational objectives (e.g., phone productivity). They act as powerful structuring mechanisms that distribute and regulate the attention, not just of top managers – as argued by ABV – but also first-line managers (such as Kate and Helen) and operators. Overall thus, our study supports the view of the firm as a system of distributed attention by showing that a firm's structure shapes attention processing even at lower levels in the organization.

Importantly, our study goes beyond providing a striking illustration of the structural distribution of attention by documenting the activities that first-line managers perform (above and beyond the activities inscribed in ShinningCo.'s procedures) in order to maintain their attention focused on organizational objectives. We gathered these activities into three types of adverting practices: *sensory-awakening* practice (the active mobilization of the body and the senses to catch cues in the immediate environment); *remembering* practice (the doings by which managers create and use socio-material reminders in order to maintain their attention on organizational objectives) and; *propagating* practice (sets of doings through which managers spread their attention focus among their team members). Adverting practices show that managers actively distribute and regulate their attention by purposively intervening in their immediate socio-material environment. They therefore suggest that managerial attention is not just a limited resource that is passively shaped by top-down firm-level procedures, but is exerted through materially mediated doings and sayings (i.e., practices).

Generally, in showing that managers rely on adverting practices to keep their attention focused on their organization's objectives, our study suggests that attention is a ***local performance***. By this we mean two things. First, actors actively 'manage' their own attention through adverting practices; hence 'attending to something' (i.e. attentional processing) is a form of performance expressed in socio-material practices. Second, this performance is always local, as attention is a situated achievement that takes shape in its socio-material entanglement. Even if ShinningCo.s' procedures shape Kate and Helen's attentional sensitivity and set of attention foci, the exact focus of their attention always emerges in situ, depending on the features of the situation. This suggests that managers' attention focus even if it belongs to a repertoire of foci inscribed in the firm's procedures, only reveals itself in its socio-material surrounding. Besides, adverting practice shows that organizational actors actively manage their attention: managers, who are aware of their limited stock of attention, and of the situated nature of attention, intervene in the socio-material environment to create the local settings (or encounters) that ensure the maintenance of their attention on the firm's

operational objectives. They extend their attentional capability by creating a web of attention, i.e., distributing socially, material and also temporally, their attention foci.

Finally, the view of attention as a local performance that emerges from our study, points to the notion of attentional episode. The usual definitions of attention, which adopt a narrow definition of cognition as located in the mind, fail to account for the very distributed nature of attention. Our study shows that attention, as exerted in practice, is distributed in three ways: it is socially distributed – since one individual's attentional processing can mobilize other individuals' attentional resources; but it is also embodied – since it is grounded in motor actions and perceptions – and; finally it is also embedded, since it emerges and is exerted in practice through the manipulation of material artifacts. These three features of attention point to the notion of *'attentional episode'*, namely an episode made of a managerial focus of attention, expressed at a specific point in time, and the related socio-material aspects with which it is created (e.g., phone counselors and surrounding artifacts).

5.2. IMPLICATIONS FOR THE STUDY OF ORGANIZATIONAL ATTENTION

Our study contributes to the attention-based view literature by offering a renewed understanding of the situated nature of attention. In the ABV literature, the principle of situated nature of attention refers to the idea that attention of organizational actors is "situated in the firm's procedural and communication channels" (Ocasio, 1997, p. 192), hence pointing to the organizational determinants of attention. Our study also points to the situated aspect of attention but in a different way since our findings illustrate that managerial attention is also the result of an active form of attentional work, associated to specific practices that we called adverting practices. Hence attentional processing is not just shaped by the environment, it actively mobilizes the socio-material features of the immediate environment. Specifically, when we look at how attention unfolds, we see an "attentional episode": through adverting practices, managers actively create an attentional episode, made of three elements (i.e., emergent focus of attention, and the surrounding social and material elements). This view of attention as local performance together with the related notion of attentional episode complement the ABV in showing the active role of managers in designing the socio-material elements that shape their attention focus.

In addition, our study, which puts the emphasis on managers' agency in relation with their attention, suggests that the principle of a structural distribution of attention is not enough to fully comprehend the phenomenon of attention in practice. Managers' attention is not just passively shaped by the firm's attention structures; it is also actively managed through what

we called "adverting practices". Our study hence suggests we rethink the link between agency and structure in relation with attention. In the attention-based view the structure prevails, thus giving the impression that managers are passive, their attention being limited and fully driven by structural determinants they do not master. On the contrary, averting practices reveal the active facet of managerial attention: managers actively manage their own attention to make sure it stays focused on organizational objectives. This dynamics in the allocation of attention is present in the ABV, with the notion of 'attentional engagement' (i.e., "the process of intentional, sustained allocation of cognitive resources to guide problem solving, planning, sensemaking, and decision making", Ocasio 2011, p. 3). However, 'attentional engagement' refers to the way information is cognitively processed (e.g., a form of top-down or conceptual processing, vs. a form of bottom-up processing) without considering the socio-material doings actively exerted by manager.

5.3. IMPLICATIONS FOR THE STUDY OF THE QUALITIES OF ATTENTION

Our results also enrich the literature studying the qualities of attention (e.g. Weick & Sutcliffe 2006; Dane 2013) as they reveal how managers can switch between focus of attention stemming from themselves and the environment (i.e., a 'balancing' quality of attention) and still stay focused on organizational objectives thanks to the use of the socio-material setting. Managers are able to develop their own attentional abilities by extending their sensitivity to environmental cues (through sensory-awakening practice), their mnemonic abilities (through remembering practice), and by communicating their focus of attention (through propagating practice). The active balance between the cognitive focus of attention and the sensitivity to socio-material elements in the environment is taken into account with the notion of attentional episode: an episode in which attention arises from individual cognitive focus and the simultaneous encounter with socio-material elements (in the present study: coworkers and varied artifacts present in the open-space).

5.4. IMPLICATION FOR THE MANAGERIAL WORK BEHAVIOR LITERATURE

Finally our study contributes to the managerial work behavior literature (e.g. Mintzberg 1973, 2009; Stewart 1967/88; Kotter 1982). In showing managers' leeway in the organization of their own attention, we complement this literature that lays the emphasis on the constraints exerted on managerial work and shows among other things, that managerial work is fragmented (Mintzberg 1973; Tengblad 2002), occurs at an hectic pace, is full of ambiguous requirements, and is characterized by a high variety of activities to realize (e.g., Jackall, 1988; Hannaway, 1989; Mintzberg, 2009).

Specifically, our research resonates with Noordegraaf (2000), which is one of the few studies in the managerial work behavior literature that explicitly looks at managerial attention. Noordegraaf studies the work of public managers (i.e., form and content) as well as the behavior and working conditions of public managers. He distinguishes three types of attention – actor attendance (attending to something), actor attention (paying attention to something) and issue attention (acting upon an issue) – helping him to characterize how public managers work in their ambiguous and temporally constrained working environment. Our study, which identifies three types of adverting practices, features first-line managers as more proactive, and less frozen by organizational constraints, than the managerial literature. Besides, the notion of fragmented managerial work – which is a key topic of the managerial work behavior literature – is associated with a lack of efficiency as it leads to the dispersion of attention (Datchary 2011). Adverting practices instead reveal that managers achieve it to stay focused on organizational objectives even with a balancing of their attention between varied attentional foci and related socio-material aspects. There is in fact coherence in the allocation of attention behind the appearance of fragmentation. We however, do not lessen the possible unease generated by such fragmentation likely to engender stress at work.

6. CONCLUSION

To conclude, this paper challenges the existing conceptualization of attention as a scarce resource passively shaped by the environment and the firm's attention structures. Building on a study of managerial work in a call center, we offer a practice-based conceptualization of managerial attention. Specifically, we show that attentional processing is best conceived as a local performance: through adverting practices, managers create attentional episodes, and in so doing enable their attention focus to emerge, in situ, and in tight interrelation with socio-material encounters. This practice-based view of managerial attention enriches our current understanding of attention focused on the structural determinants of attention, or its qualities, by enlightening how its concrete unfolding happens. Our study calls for further ones complementing the study of the work of 'paying of attention'.

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