LOCATION, WORKING HOURS AND CREATIVITY

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Abstract

Background. From the Industrial Revolution onwards, mass production factories and bureaucratic institutions were characterized by coordinated action which was concentrated in specific locations (factories, offices) and at set working hours. However, it is widely assumed that working together face-to-face is rapidly diminishing due to telework, geographical spread of firms, and inter-organizational collaboration.

Research aims. This paper speculates how the liquefying of location, working hours, and organizational boundaries will affect creativity, and ultimately innovation, on the work floor. Special consideration is given to the multi-sensuous and relational aspects of moments of creative insight, also known as “epiphanies”. The phenomenon of epiphany will be linked not only to individual creativity, but also to dyadic and group creativity, so as to emphasize its relational character.

Methodology. This paper furthers earlier theoretical work regarding the effects of distant work on employee self-control (Clegg & Van Iterson, 2013) and empirical research into the role of epiphany on organizational creativity (Van Iterson et al., 2017).

Keywords: physical proximity, distance, task interdependence, workplace creativity, epiphany, multi-sensuous experiences, embodied idea development.

INTRODUCTION: CONCENTRATION OF LOCATION AND WORKING HOURS AS MODERNIST ORGANIZATIONAL PRINCIPLE

The rise of the factory, as a system of production, is a feature of a wider development that is usually called the “Industrial Revolution”. This label originated by analogy with the “French Revolution” (Williams, 1976, pp.

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229–230), although the Industrial Revolution did not take place in one country and in one year, as the French Revolution did. The Industrial Revolution started in England, but soon spread to current Belgium, France, Germany, and other countries of the European continent. Furthermore, it is generally accepted that this “revolution” started around 1760 and ended only in 1830. A similar pattern can be recognized with the Information Revolution that ensued in the late twentieth century: it covered a multitude of nations – if not all – and developed over a number of decades; in fact this revolution is still going on.

The infant years of industrialisation offer a quasi-experimental setting for ever-topical management problems and challenges, such as designing and controlling large-scale productive organizations, and recruiting, coordinating, disciplining, and stimulating a vast body of workers. I label the setting of the Industrial Revolution “quasi-experimental” since these management problems and challenges were, in this form and extent, relatively new so that entrepreneurs could hardly fall back on well-tried recipes. The only models they could go by, were i) the traditional solutions in premodern production units, such as weaver shops, and ii) the established institutions of the army, the monastery, the prison, the poorhouse, and the orphanage. However, the premodern workshops and manufactories were much smaller than modern factories, and in the army, the prison etc. manufacturing products played only a minor part. Thus, the existing “models” had limited value. The “early factory masters” (to use the title of Chapman’s study on the transition to the factory system in the Midlands textile industries, 1967) largely had to create their own solutions for unprecedented labor management problems. In short, the basic condition for solving the challenges of labour-intensive mass production was sought in: concentration of work in a specific location with set working hours. This concentration of activities was the epitome of the “factory system” by which name the capitalist system of manufacturing using machinery, factory buildings and large numbers of workers has become known.

Summarizing the victory of the factory system over the putting-out system and the small manufacturing workshops, Landes writes evocatively:

No longer could the spinner turn her wheel and the weaver throw his shuttle at home, both in their own good time. Now the work had to be done in a factory, at a pace set by tireless, inanimate
equipment, as part of a large team that had to begin, pause and stop in unison – all under the close eye of overseers, enforcing assiduity by moral, pecuniary, occasionally even physical means of compulsion. The factory was a new kind of prison; the clock a new kind of jailer (Landes, 1969, p. 43).

The skilled and the unskilled, the male, female, and juvenile, the urban as well as the rural – all workers in the early days of industrialization suffered from problems of acclimatization to organizational authority, close cooperation with equals, and industrial rhythm (cf. E.P. Thompson’s famous “time-discipline”, 1967, p. 85–90).

To better understand how the factory workforce was controlled by entrepreneurs, overseers, rules, and regulations, Merchant’s typology of control mechanisms (1985) is helpful. Following Ouchi’s classification of market, bureaucratic and clan control (1979), Merchant distinguishes results controls, action controls, and personnel controls. Because results control is control through output (for instance piece-wages as an incentive to work hard), and therefore only applicable when output can be somehow measured and attributed to the efforts of individual workers, only the latter two mechanisms – action controls and personnel controls – can be discerned in the factory system. After all, the production organization in modern factories is characterised by high sequential work-flow interdependencies (cf. Thompson, 1967). Action control is applied “to ensure that individuals perform (or do not perform) certain actions that are known to be beneficial (or harmful) to the organization” (Merchant, 1985, p. 29). The most important action controls in the factory system were: i) action accountability (holding workers accountable for their actions through, for instance, defining which desirable actions and physically monitoring what happens on the shop floor) and ii) “behavioral constraints (do’s and don’ts restricting workers’ discretion). Action controls are the most appropriate control mechanism if management’s ability to measure outputs is low, but if management understands “the means-ends relationships involved in the basic production or service activities” (Ouchi, 1979, p. 843). In practice, however, personnel controls were also applied, on which managers have to rely if both the ability to measure outputs is low and the knowledge of the transformation process imperfect. This extra control makes sense if one considers again the newness of the factory system and the consequent problems of habituation to the industrial rhythm. With personnel controls, the management seeks to promote
goal congruence: “common agreement between members on what constitutes proper behavior” (Ouchi, 1979, p. 838). Employees are fostered – sometimes forced – to share the values and beliefs which are considered beneficial to organizational success. Here, Merchant distinguishes five instruments, of which selection and placement, training, and cultural control (internalisation of firm-specific values) were most applied in the formative years of industrialization in order to learn workers to obey, collaborate and work at a steady pace.

Thus, since the rise of large-scale manufacturing workers typically shared the same physical location during the same time slots, with eight-hour and twelve-hour shifts in factory halls as the clearest illustration of that principle. As we have seen above, the reason for this concentration of effort in a specific location with set working hours is essentially to be found in task interdependence: “the extent to which the items or elements upon which work is performed or the work processes themselves are interrelated so that changes in the state of one element affect the state of the others” (Scott & Davis, 2007 pp. 126–127). Especially when task interdependence is sequential (when one person/unit in the overall process produces an output necessary for the performance by the next unit), reciprocal (when the output of one person/unit becomes the input of another, in a cyclical way) (Thompson, 2007 pp. 54–55), or when it is team-based (when employees perform specific duties in project teams) (Van de Ven et al., 1976) workers need to be in proximity to perform their bodily-embedded tasks. Clearly, this is much less the case when task interdependence is pooled: when persons/units perform their own separate functions and need not necessarily interact with other persons/units because they are not directly depend on other units, although what they contributes to the performance of the entire organization.

Monge and Kirste (1980, p. 110) define physical proximity as “the probability of people being in the same space during the same period of time”, whereby organizational proximity is “the extent to which people in an organization share the same physical locations at the same time providing an opportunity or psychological obligation to engage in face-to-face communication” (Monge et al., 1985, p. 1133). Thus defined, face-to-face interaction is a crucial outcome of proximity. And face-to-face interaction may have a valuable and perhaps even irreplaceable impact on workplace creativity, as is the central assumption of the current paper.
To recap the argument so far: with the emergence of factories and related activities central to the Industrial Revolution, such as mining, workers were systematically concentrated and coordinated in a specific location for a longer period of time. In contrast to the putting-out system, in which carders, spinners, and weavers produced at their own home, and at their own pace, work in the factory system of late eighteenth-century England (e.g. Pollard, 1965) became organized and controlled under one roof, at fixed working hours, by “hired hands” with, as we say now, specialized tasks and very limited discretion.

The early years of the factory system were marked by a new scale and intensity of human interdependencies (Newton, 1999). A rapid growing number of people worked together, under conditions of increasing interconnectedness. They saw, heard, smelled, talked with, and touched each other. All human senses were involved when it came to working in the factory hall. As we have seen above, the challenges of these ever-increasing interdependencies in the early decades of industrialization were dealt with by coercing workers through orders, rules, and sanctions. But they were also “controlled” by stimulating motivation (Bendix, 1956). Thus, while social control by supervisors was ubiquitous, ranging from fines and the docking of pay to actual physical violence, there was also considerable effort applied to stimulating appropriate behaviour through encouraging self-regulation and ultimately self-expression on behalf of employees (Van Iterson et al., 2001; Van Iterson et al., 2002; Van Iterson, 2009; these publications are based on Elias, 2000, who studied the developments from social controls to self-regulation and self-expression mainly at French imperial courts). It was especially self-expression that helped producing creative ideas with regard to products, services, technologies, and organization proper – creative ideas emanating at the individual, dyadic, group, and eventually organizational level.

Such self-regulation and self-expression were based to a large degree on a sense of propriety in situationally defined behaviours. Such “good manners” were usually expressed in terms of notions of craft, skill, and local social standing. The essence of these forms of self-regulation and self-expression, here, is a concern for others, who are known face-to-face, with whom one interacts frequently, and who form a community of lived experience. The effects of this sociability, facilitated by proximity, on self-regulation and self-expression, and finally on work floor creativity,
however, have been largely overlooked by organization scholars. This also applies to the question of what will happen if such sociability no longer has the opportunity to develop and express? In so far as research has addressed the effects of reduced working in the same location at set hours, attention typically has gone to issues of communication (Nardi & Whittaker, 2002), attribution (Cramton, 2002; Cramton et al., 2007), self-control (Clegg & Van Iterson, 2013), and conflict (Carmel, 1999; Hinds & Mortensen, 2005; Hinds & Bailey, 2003). In addition, perceptions of proximity in virtual work have been addressed (Wilson et al., 2008) as well as, obviously, individual and group performance of distributed work arrangements (Ahuja et al., 2003; Maznevski & Chudoba, 2000; Shin, 2004). Studies of the removal of physical barriers in organizations through “open plan” style offices and hot-desking have also considered their effects on communication and interaction (e.g. Hatch, 1987). But the impact of reduced proximity on creative breakthroughs is unexplored terrain. The current paper is meant as a first appeal to fill this void.

LIQUEFYING OF LOCATION, WORKING HOURS, AND ORGANIZATIONAL BOUNDARIES

The Information Revolution is the great successor to the Industrial Revolution, implying a shift of emphasis from the traditional production factors – land, capital, labour – to a fourth one: information. The Information Revolution is often equated with the Digital Revolution: the transformation from mechanical and analogue electronic technology to digital electronics which commenced in the late 1950s and received momentum in the late 1970s. This adoption and proliferation of digital computers and digital record keeping continues to the present day. Globalization is a phenomenon that has emerged much earlier, in the premodern era – in fact it facilitated the advent of the Industrial Revolution, mainly via creating an export market for Western manufacture. An early example of a globalized enterprise is the Dutch East India Company, one of the first public limited companies, with widely dispersed shares, and the largest multinational trading firm in the seventeenth century. But globalization really took on as the key characteristic of societal development in the late twentieth century, in conjunction with digitalization.
As a result of the prodigious combined effects of the Information/Digital Revolution and globalization, the above-sketched situation – in which organizational bureaucracy went hand in hand with worker respectability and sociability – has changed in recent decades. No longer the concentration of work activities in a specific location at set working hours is the supreme precondition of capitalist production of goods and services. The Information/Digital Revolution and globalization allow for such recent phenomena as off-location work, more specifically working from home (e.g. Felstead & Jewson, 2000), from a neighbourhood work centre (e.g. Felstead et al., 2005), mobile working (e.g. Felstead et al., 2005), hoteling (using meeting rooms and workstations in near hotels), gatherings at clients’ locations, and distance learning (for an overview of types of telework see also Kurland & Bailey, 1999, and Bailey & Kurland, 2002). Globalization and the Information Revolution also have led to the emergence of (globally) distributed teams and virtual teams (Cascio, 2000). Interorganizational phenomena such as geographical spread of units, outsourcing, strategic alliances, and other forms of inter-organizational cooperation cause a partial dissolving of the boundaries of organizations proper (e.g. Santos & Eisenhardt, 2005). These trends also loosen the salience of confines of place and time (e.g. Santos & Eisenhardt, 2005). In virtual organizations, the very absence of spatial and temporal concentration becomes the defining characteristic (Anand & Daft, 2007). Virtual organizations celebrate their relative lack of “face-time”. Finally, various types of meta-organizations such as open communities (e.g. Wikipedia) and managed eco-systems (e.g. Android Operating System) are typified by having open boundaries: in principle everybody can join – from home or wherever (Gulati et al., 2012).

A vital aspect of these technological and socio-economic trends is thus that an ever larger number of people can or must collaborate at a physical distance. The question, then, which this paper poses: how will the structural change toward distant work affect workplace creativity? How will the liquefying boundaries of location, working hours, and organizational boundaries impact the chance for creative moments to occur and develop? The question is pertinent at the level of individual creativity as well as at the level of organizational creativity. However, the current paper will focus on the creativity as an outcome of and at the level of face-to-face work, or the absence thereof. Therefore, the emphasis will be on individual creativity – novel ideas that originate
“in” an individual but which are partly stimulated by prior close contact between two organizational members. But dyadic and group creativity – novel ideas that originate during close contact between two or more organizational members – are also touched upon. But first, in the next session, an overview will be presented of the phenomenon of epiphany which is chosen as a focal instance in the process of work floor creativity and innovation.

**EPHIFANIES IN EVERYDAY WORKPLACE CREATIVITY**

Research on creativity in organizations has typically focused on individuals (Sternberg & Lubart, 1999), and surveys have been deployed as a dominant research tool (Anderson et al., 2014). Only in recent years, the notion that creativity is also a group effort has gained popularity (e.g. Paulus et al., 2011). Furthermore, Bucic and Gudergan (2004) have called for process oriented and practice-based studies that could help to better understand the everyday activities that produce breakthrough insights and ideas (Hargadon & Bechky, 2006; George, 2007; Carlsen et al., 2012; Sawyer, 2006; Sonenshein, 2014). Arguably, process oriented and practice-based studies will profit from experimental and survey research only in a limit way.

Epiphanies are thought to precede and mark creative breakthroughs. As we will see, the notion of epiphany legitimates the intimate and very personal experience of individuals, steeped in the romantic myths of individual genius (Sawyer, 2006; Weisberg, 2010). But the current paper aims to emphasize the embeddedness of epiphany in everyday work activities of people in organizations, work that is presumably proximate and relational in character. What is the relationship, if any, between proximate work activities and epiphanies? How do creative ideas emerge from the work of the many rather than just from the sovereign genius – the many that profit from being proximate? How will the rise of distant work affect such relationally embedded breakthroughs? Can one assume that creativity is endangered when face-to-face contact shrinks?

Novel ideas often seem to come as unexpected gifts. Such surprising insights can then be regarded as instances of chance or serendipity (Cunha et al., 2010; de Rond & Morley, 2009). Little action seems needed for these unexpected insights to occur. However, these sudden and
transient manifestation of insight and discovery are rarely so private. Several scholars have demystified the notion of lonely creative genius (Hargadon, 2003; Johnson, 2010; Sawyer, 2006; Weisberg, 2010), though the myth still surfaces in creativity research. This paper rejects the dominance of cognitive and individualistic perspectives on epiphanies, both as a tradition of research (Sawyer, 2006) and in recent exemplars of research (Tregloan, 2011; Weisberg, 2010; Zhong et al., 2008).

Exploring the philosophical and literary origins of epiphany – therewith responding to the proposed rapprochement between the social sciences and the humanities (e.g. Zald, 1996) – is one way to get out of the notion that epiphanies are uniquely individual occurrences, and purely cognitive in nature. Very interesting, in this respect, is the notion of epiphany as imagined by the Irish author James Joyce (e.g. 1963; 1966). Joyce’s epiphanies are characterized by a) their mundane, if not trivial, origins with b) an essential aspect being the conjunction of different human senses (seeing, hearing, smelling, tasting, touching). It is especially the second characteristic – the multi-sensuous aspect of epiphany – that is relevant with regard to the proximate-distant work debate, introduced above.

Joycean epiphany stands in a long metaphysical and literary tradition (e.g. McDonald, 2008). The Greek *epiphaneia* (manifestation) refers to a sudden appearance of a deity, as in the apotheosis of a play. The Christian feast of Epiphany celebrates the revelation of God to the Magi. The romantic poets typically imagined moments of revelation as sources of imaginative power (Bidney, 1997; Langbaum, 1983). Art historian Beja (1971, p. 16) follows Joyce in the latter’s accentuation of the mundaneness of epiphany (cf. Tigges, 1999; Hayman, 1998). Beja advocates that the “criterion of insignificance” be applied when deciding whether a manifestation can be seen as an epiphany. Easily overlooked, an illuminative moment, at the time seemingly insignificant to the person experiencing it, may qualify as epiphany. In line with this criterion, Beja defines a Joycean epiphany as “a sudden spiritual manifestation, whether from some object, scene, event, or memorable phrase of the mind – the manifestation being out of proportion to the significant or strictly logical relevance of whatever produces it” (Beja, 1971, p. 72–73). Such epiphanies should be sought among men and women, especially in “casual, unostentatious […] moments” (Ellmann, 1982, p. 83). Epiphany is an everyday phenomenon (Paris, 1997) which thus also occurs in daily work practice.
For the thrust of this paper, the fact that Joyce regarded epiphany as a combination of different physical senses (McLuhan, 1962; Valente, 1996) is most relevant. Moments of revelation are facilitated by the concurrence of two or more sensual stimuli, such as a visual and a hearing sensation. In the short story collection *Dubliners* (1966), epiphanies usually include a confrontation of the eye with another sense: often the ear and, to a lesser extent, the nose. In the story *The Sisters*, the narrator, a knowledgeable boy, struggles to acknowledge that Father James Flynn, who tutored him in history, religion and literature, is dead. Father Flynn had suffered from a stroke and it was rumored that he had died. The boy visits Father Flynn’s house, where his carers, the sisters Nannie and Eliza, wake besides his bed. Even when he is on his way to the house of the deceased, the boy still hopes to once again see his warm smile: “The fancy came to me that the old priest was smiling as he lay there in his coffin. But no. When we rose and went up to the head of the bed I saw that he was not smiling. There he lay, solemn and copious, vested as for the altar, his large hands loosely retaining a chalice”. The narrator finally accepts the fact of the priest’s death. He feels free rather than mournful. That is his epiphany: a flash of awareness and an all-inclusive moment of realization and ensuing growth of the boy-narrator.

In *Dubliners* nearly every figure suffers from a deficit that results from depending solely on the sense-data available through eyesight, except in those rare moments that comprise a confrontation of the eye with one or two other senses (often hearing) that lead from unawareness to awareness. In fact, the boy-narrator’s epiphany, in *The Sisters*, includes all five sensory modalities at once – i.e. visual, auditory, olfactory, gustatory, and somatosensory. The two sisters trigger the transformation: they activate the boy’s senses of touch, smell, taste, hearing and sight. After Nannie allows him to see the dead priest such that his real “whatness” (not as a smiling person but as one deceased) becomes evident, the metamorphosis is set in motion. Father Flynn’s hypnotic spell begins to break. The boy is no longer able to recite his memorized prayers but is distracted by an old woman’s muttering (hearing) and the heavy odor of the flowers (smell). The boy becomes entirely aware of his predicament through the acoustic revelation of Eliza. With her flawed grammar and silly misuse of words, she comes from an oral rather than a literate, visual world. The epiphany is complete, in terms of the five senses, when
the boy, kneeling before the corpse, has also touched the ground and tasted the wine. Through the switch into these other senses the boy realizes that the priest now dead had constituted his world: a literate world that relied on the books of the church for information, thus using the eyes framed only by the Church’s teaching to navigate the world. Like all the other citizens of Joyce’s Dublin, the narrator lives in a world of sterile fragmentation, of isolation of the senses.

The eye, as a sense, has been most closely linked to the cognitive aspect of human functioning; hence its primacy in philosophical accounts of knowing through sense data (Russell, 1910). Epiphanies can help to overcome the problem of sole dependence on visual sense data (Valente, 1996). This corresponds with Langbaum’s (1983) claim that an epiphany is an experience that must be physically sensed, implying that the revelatory moment is not purely cognitive.

Despite Joyce’s turn towards the mundane, his whole conception of epiphany resonates with romantic mysticism, notably when it concerns the unique role and calling of the receiving author. Later, especially via philosophy and scientific research, the insight grew that moments of insights leading to creativity, are much more relational. Summing up: Epiphanies can be characterized as emerging from daily activity, occurring suddenly, being delicate, evanescent, and multi-sensuous. There are gains to be made by moving away from individualistic mysticism that still surrounds epiphany, and to adopt a more relational and processual approach. The next section will explore this newer and broader concept of epiphany, after which the question will be posed if and how distant work might threaten relational epiphany and thus organizational creativity and innovativeness.

**EPIPHANIES AS EMBODIED, FELT QUALITIES IN EXPERIENCE**

Mark Johnson (2007), combining insights from pragmatist philosophy and neurophysiology, argues that humans receive ideas and insights, learn, and produce meaning through patterns of feeling arising from organism – environment interactions. First, there are stimuli from bodily movement and sensory-motor engagement in situational interactions that occur within ongoing experience (such as a team meeting, a serendipitous encounter, or the boy-narrator in *The Sisters*). Some of
these stimuli elicit complex neural, chemical, and behavioral responses, which may be registered as a felt pattern capturing the essence of the moment or the situation. Such felt patterns come to us as unifying wholes. Most examples of these breakthrough moments, given by Johnson, occur in face-to-face work situations: workshops, meeting, conversations. Following Johnson’s approach, it can be argued that epiphanies often emerge as feelings from collective, proximate practice. Breakthrough ideas, resulting from such practice, being sensed and seized as embodied feelings, precede discrimination into cognitive concepts and thought patterns, which then require public utterance.

Based on Joyce and Johnson four qualities of epiphanies in everyday work can be discerned. Epiphanies:

1) typically follow a history of preparation and persistence in face-to-face interaction;

2) are not solely concerned with the arrival of breakthrough ideas but can involve ideas of doubt, movement, opening up, disconfirmation, and even disgust;

3) may be retrospectively tied to one discrete moment but are a typically manifest as a series of multi-sensuous occurrences in which the field of perception is expanded from visual sense data alone to including sensory modalities of the auditory, olfactory, gustatory, and somatosensory;

4) are inherently relational both in the events leading up to and after these occurrences as well as, sometimes, when they happen, notably in dyadic and group epiphanies. All these aspects are fundamentally impacted by the fact whether people in dyads or groups work concentrated in place and time or rather on a distant basis.

Let us zoom in a little on these four qualities. The first one concerns the fact that epiphanies usually do not come to people without prior engagement with questions, hunches or existing knowledge that are combined into new insight. Rather, epiphanies are a consequence of most often collective preparation in inquiry, sometimes after years of trials and errors. Epiphanies typically follow from intense bouts of preparation and persistence. Thus, one way to think about epiphanies is to see them as demarcating a particular moment of creation. Graham Wallas (1926), a pioneer in creativity research, distinguished the following stages in the creative process: Preparation, incubation, illumination, and verification. Research efforts on the preparation and
verification stages of the model are accumulating, but they are still limited (Hélie & Sun, 2010; see also Mainemelis, 2001). Broadening our understanding of active collective and individual preparation for revelatory moments is vital to be able to facilitate epiphanies in the workplace. In this respect, epiphany is a close relative to serendipity: the unsought but valuable discovery of a solution to a given problem while looking for the answer for a different problem (Fine & Deegan, 1996; Merton & Barber, 2004; Cunha et al., 2010). Serendipitous discoveries are also anything but a purely passive process. Van Andel (1994, p. 631) defines serendipity as “the art of making an unsought finding”. One has to have the capacity to make unintentional discoveries and to be able to value them for what they offer. It takes knowledge, experience, vision and phantasy, argues Van Andel, to know what one can expect if a new solution “befalls” one. Erdelez (1999) describes epiphanies as something one actively does, a way of actively seeking out and encountering new input and information, paralleling prepping for epiphanies. Epiphanies in organizations, too, can be seen as typified by “effort and luck joined by alertness and flexibility” (Denrell et al., 2003, p. 978).

The second aspect, in close parallel to Johnson (2007), is that epiphanies are not solely about the arrival of breakthrough ideas. Epiphanies may not only be the illuminating highlight of inquiry but also start or change its process. Epiphanies may also mark an arrival at decisive questions, feelings of frustration, doubt and even disgust (cf. Bjørkeng, 2011). Think also of the sense of gloom and being stuck that pervades Joyce’s *Dubliners* – until an epiphany shows the way out of that predicament. Or to give an example from a business project. Lé and Jarzabkowski (2011) report of a breakthrough which only occurred after months of analytic efforts and scrutiny of 25,000 pages of data. They literally touched data on a whiteboard, using “colored pens to capture thoughts, themes and patterns, iteratively organizing data into temporal phases and ultimately explanatory processes” (Lé & Jarzabkowski, 2011, p. 130). Thus here too, the moment of epiphany came about through bouts of physical engagement, sketching, mapping and using post-it notes and other artifacts – initially seemingly in vain, and then suddenly leading to a moment of great insight.

The third aspect relates to epiphanies as multi-sensuous occurrences. In organizational practice, preparing for epiphanies may include
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putting oneself in a position where more than one sense is activated, such as walking, listening to music while writing, taking a bath, and other activities that are often labeled as “indirect”, even organized as “refreshing breaks” (Kono & Clegg, 1998). The importance and significance of slack moments, of spaces for reflection rather than streamlined processes of productivity cannot be underestimated in the generation of epiphanies. As it is erroneous to think about multi-sensuous epiphanies as discrete, single moments such activities should also be given room in the other phases of the creative process: that is, in the preparation phase as in the sense-making and sharing phase. Especially in the prepping phase, sensory engagement also seems to trigger collective playfulness (Mainemelis & Dionysiou, 2015; Sandelands, 2010) perhaps because epistemic objects like sketches and maps signal a level of unfinishedness that invites play (Kelley & Kelley, 2013; Turkle, 2009). In this sense, both emotive utterances and physical recordings like scribbling, respond to the “intense care” demanded of the literary author of epiphanic moments, the author who, in Joycean idiom, has to be “humble before the laws of things”.

The fourth aspect is the social one. By now it may be clear that epiphanies are not as individual as we believe them to be. Present others are directly part of producing the epiphany. Epiphanies are relational in their groundwork and subsequent sense-making and sharing. Ideas are prepared collectively and only escape private oblivion when articulated, materialized, shared and developed with others. An epiphany not told and retold never enters into contact with the ideas of others: it is akin to a hermit experience (Thompson, 2008). To sum up: epiphany is much more a social process than is generally assumed, which necessitates us to seeing creativity more as relational processes than as individual efforts and stable qualities of actors (e.g., Hargadon & Bechky, 2006; Glăveanu & Lubart, 2014; Marotto et al., 2007; Sawyer, 2006). Future research could perhaps address the question whether epiphanic moments can also be relational themselves. One can imagine that breakthrough moments are experienced collectively: by two or more people. Especially teams, with their shared purpose and mutual accountability of members, may be fertile collectivities for epiphany to happen. Dyadic and group epiphanies deserve to be placed on the research agenda.
CONCLUSION: THE POSSIBLE IMPACT OF DISTANT WORK ON THE CHANCES OF WORK FLOOR EPIPHANY (AND THUS CREATIVITY)

The process of work floor epiphany comprises three stages that, again, can’t be demarcated too strictly. With Sawyer (2006) and Napier (2010; Napier et al., 2009) this paper takes the position that epiphany should be seen as a series of small steps — a series of creative synthesis (Harvey, 2014) rather than a sharply demarcated stage in linear processes. Nonetheless, the following distinction can be made to clarify the diverse weight of the social and embodied aspects of the creative process. The phase before the actual moment of revelation is the preparation phase, simply: prepping. Then comes the epiphany proper, so to say, followed by the third stage: sense-making, translating, and spreading the received insights to others within the unit or organization, or outside of it.

The prepping phase is evidently both relational and multi-sensuous. It is relational in its collective effort, and these preparatory activities are facilitated when more than one sense is involved. Think of colleagues working together on the development of a new product who, in doing so, touch and smell prototypes to arrive at breakthrough ideas of how they should finally look like. Epiphany as the revelatory moment proper is extremely multi-sensuous, but mainly individual, non-relational. Having said that, the possibilities of experiencing dyadic and group epiphanies, as said, must certainly not be excluded. Marotto, Roos and Victor’s (2007) study of peak performance in a music orchestra analyzes collective virtuosity in organizations. This research is not typically focusing on epiphany, but may inspire further work into epiphanies that are simultaneously experienced by two or more people leading, perhaps, to insights at higher level even than individual epiphanies.

Finally, the sharing phase is again relational, by definition, while the multi-sensuous character diminishes. Surely, sharing can be done using more than one sense, e.g. via having others literally touch, smell, or taste a new idea, or further prototype, but a substantial part of the sharing can also be done via coded visual communication. Codification, being explicit, tends to rely on information that is considered non-ambiguous, whereas multi-sensuous communication thrives on ambiguousness.
Moments of epiphany are typically seen as synchronous experiences. If one, however, looks at the entire process of creative breakthroughs in everyday work life, including the preparation, sense-making, and sharing phases, epiphany is rather diachronic. Epiphany, as conceptualized in the paper, is then the confluence of synchronous and diachronic experiences. Abbott (2007) has developed a concept of lyrical sociology which he opposes to narrative sociology. With narrative sociology, Abbott refers to qualitative sociology with a story-like approach to social interaction, but also, remarkably, to quantitative research with its “narratives” of variables. Lyrical sociology, on the other hand, is typified by an emotional engagement with the sociologist’s object of analysis and by a momentary conception of social time. Whereas the narrative aspect of epiphany is clearly relational, the lyrical aspect is as a rule individual, but, as has been pointed at, might also be relational when revelation occurs to pairs or teams. In any case, the current paper has extended the understanding of epiphanies as feelings from collective practice rather than reserving the concept for the cognitive revelations of individuals. Furthermore, when looking at the epiphanic creativity process, the importance of its multi-sensuous aspects has been underscored. Epiphanies stand a better chance of emerging when people engage physically (Carlsen, et al., 2012; Doorley & Witthoft, 2011; Kristensen, 2004) and visually (Ewenstein & Whyte, 2009; Meyer et al., 2013) in preparatory interactions on ideas, in some cases stretching to the moment itself.

One can imagine that the worldwide trend towards dispersed work, as analyzed in the first part of the current paper, will bear significantly on the chances on epiphany, and thus also on workplace creativity. Clegg and Van Iterson (2013) have discussed the possible impact of distant work on self-control and self-expression. Employees who telework and/or participate in various cross-functional work groups might experience fragmentation and distancing of social relations – think of the state of anomaly to which urban society may lead, as Durkheim (1947) had it. Instead of having a fixed set of near and familiar equals, with whom one daily interacts face-to-face in the same location, dislocated workers cooperate with many co-workers without, however, meeting them in person, or at least on an irregular basis only. Thus, proximity is ephemeral: it happens less frequently and ends altogether much sooner. Clegg and Van Iterson hypothesize that the loss of proximity will lead to a diminishing of worker sociability and consideration for
one another. Why bother about other people’s sensibilities if you never see, hear, etc. them? Self-control will decrease; self-expression might become more self-centred. In a similar vein, one can wonder what the effect of the liquefying of space and time will hold for creativity, in general, and epiphany, in particular.

No doubt, distant work is still relational, although perhaps less so than proximate work. Dispersed workers still need to cooperate with peers, superiors and others, although, again, the extent to which work is coordinated might diminish somewhat as those things that can be done alone will more and more be done alone – leading to more personal disinterest. Nonetheless, the relational feature will remain essential even under conditions of liquid work conditions, to allude to Zygmunt Bauman’s central notion of liquidity. It is, however, the multi-sensuous character of creative preparation, inspiration and exchange that is endangered in distant work. If one works physically remote, due to dislocation (space) or flexitime (time), the only way left to communicate is – James Joyce would see the irony – the visual modality: letters, mails, texting, reports, databases, etc. Admittedly, via Skype, videoconferencing etc., one can also see each other’s face, therewith increasing the senses involved, but this form of communication is suboptimal: many people still “feel” the real physical distance when seeing the other’s shakily moving face.

Thus, especially during preparatory actions towards breakthrough as well as when collective revelation does actually occur, be it in dyads or in teams, the benefits of multi-sensuousness will be severely limited, or even absent, in case the work is done at a distance in time or place. This will impact the chances on epiphany drastically, very likely leading in turn to a lower level of creativity in the workplace. This is the pessimistic conclusion which this paper draws on the basis of its analysis of the trend towards liquefying of space, time and organizational boundaries as well as of the embodied, felt nature of the creative breakthroughs called epiphanies. But the pessimism might be alleviated if one considers that this paper has not undertaken empirical research to test the overall hypothesis. Another conclusion of this paper, therefore, is that the effect of physical distance/proximity on work floor creativity warrants inclusion in organization studies, particularly in the organizational creativity literature.

But assume the hypothesis will find support, what to do? What would be the managerial implications? Of course, one can’t make
a plea to reverse the trend towards physically dispersed work activities and to withdraw into the physical confines of the factories and offices. That would be silly and naïve. Technology and globalization have set irreversible trends in motion. But one could, as far as technically, financially and organizationally is possible, bring dispersed employees and other contributors together when and as long as they are working on new things. Companies should institutionalize intense head-on communication in one place scattered over periods of distant communication (cf. Maznevski & Chudoba, 2000) when they venture into explorative activities. The message of this paper, therefore, can be expressed in four words: Spend more time together.

REFERENCES


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**LOKALIZACJA, GODZINY PRACY I KREATYWNOŚĆ**

**Abstrakt**

_Tło badań._ Od czasów rewolucji przemysłowej masowe zakłady produkcyjne i biurokratyczne instytucje charakteryzowały się skoordynowanym działaniem, które koncentrowało się w określonych lokalizacjach (fabrykach, biurach) i określonych godzinach pracy. Jednak powszechnie przyjmuje się, że współpraca twarzą w twarz szybko traci na wartości z powodu telepracy, geograficznego rozproszenia firm i współpracy międzyorganizacyjnej.

_Cel badań._ W tym artykule spekuluje się, w jaki sposób upłynnienie lokalizacji, godzin pracy i granic organizacyjnych wpłynie na kreatywność, a ostatecznie na innowacje w miejscu pracy. Szczególną uwagę przywiązuje się do wielu zmysłowych i relacyjnych aspektów momentów twórczej pracy, zwanych również „epifaniami”. Zjawisko epifanii będzie wiązało się nie tylko z indywidualną kreatywnością, ale także z twórczością diadyczną i grupową, aby podkreślić jej relacyjny charakter.

_Metodologia._ Niniejszy artykuł stanowi kontynuację wcześniejszych prac teoretycznych dotyczących skutków odległej pracy nad samokontrolą pracowników (Clegg & Van Iterson, 2013) oraz badań empirycznych nad rolą objawienia się w kreatywności organizacyjnej (Van Iterson, Clegg & Carlsen, 2017).

_Słowa kluczowe:_ bliskość fizyczna, dystans, współzależność zadań, kreatywność w miejscu pracy, epifania, wielowymiarowe doświadczenia, ucieleśniony rozwój pomysłów.