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Perceptual Refinement: Art-based Methods in Managerial Education

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Abstract

Art-based methods are increasingly used to facilitate meta-level learning in management education. Such increased use suggests that these methods are relevant and offer a unique contribution, meeting a need in today's management education. Yet, the literature is not clear on what this unique contribution is, even though it abounds with suggestions of varying quality. To explore this matter, I conducted a systematic literature review focused on art-based methods, management education, and meta-level learning. I found that the unique contribution of art-based methods is to foreground and facilitate the *process of making and expressing more refined perceptual distinctions,* not to get accurate data, but as a meta-level learning process in itself. This finding is important because it implies that using art-based *methods* to facilitate other meta-level learning *processes*, e.g., reflection, critical reflection, or transformative learning, may limit the potential of such art-based methods. It is also important because it suggests that future research regarding art-based methods could focus on exploring the impact of perceptual refinement on aspects such as: managerial practice, managers' concepts of managerial tasks, or managers' competence in carrying out managerial tasks.

Perceptual Refinement:
Art-based Methods in Managerial Education

> "As business becomes more dependent on knowledge to create value, *work becomes more like art*. In the future, managers who understands how artists work will have an advantage over those who don't" (Austin & Devin 2003: 2)

Today, art-based approaches are increasingly used in management education (e.g. Taylor & Ladkin 2009; Darsø 2004; Nissley 2002, 2010). Inversely, leadership is increasingly explored as an art-form (e.g. Springborg 2010; Barry & Meisiek 2010). The increased interest in art-based approaches is visible, for example, in the creation of Centre of Art and Leadership at Copenhagen Business School, the Banff Centre in Canada, and the number of special journal issues concerning art and aesthetics over the last 15 years (*Organization* 3(2) & 14(3), *Human Relations* 55(7), *Journal of Business Strategy* 28(5) & 31(4), *Journal of Management & Organization* 14(5), *Consumption, Markets*, and *Culture* 9(2), *Leadership* 6(3), *Journal of Management Development* 30(3), and *Cutter IT Journal* 21(7)).

"Art-based approaches to managerial development" refers to a highly diverse group of teaching approaches (Taylor & Ladkin 2009; Darsø 2004; Nissley 2002, 2010). In this paper, I choose to focus on approaches where objects, methods/techniques, and/or learning processes related to art are used to facilitate *meta-level learning* in management education. I define meta-level learning as *changes in processes of perception, reasoning, and ways of experiencing that shape our current experience and learning*.

Scholars writing about meta-level learning processes in management education often use theoretical accounts of such processes drawn from psychology, e.g., "reflection" (e.g. Argyris & Schön 1974), "critical reflection" (e.g. Alvesson & Willmott 1992b, 1992a, 1996), and "transformative learning" (e.g. Mezirow 1991, 1997). However, this may be problematic because art-based methods have emerged primarily from aesthetic theory and practice (McNiff 2004), not psychological theory/practice. Furthermore, art-based methods generally place less emphasis on rational analysis and the use of language as the primary medium for exploring experience than the above frameworks. Therefore, it is conceivable that if art-based methods provide a unique contribution to management education, we may not recognise this contribution by looking at art-based methods as ways of facilitating reflection, critical reflection, or transformative learning. To take the field forward, it is, therefore, important to ask the question:

> *What are the unique contributions of art-based methods of facilitating meta-level learning to management education?*

Through a systematic literature review (Tranfield, Denyer & Smart 2003), I found that the most unique contribution of art-based methods (reported in literature) seems to be that such methods foreground and facilitate the meta-level learning process of *making and expressing more refined perceptual distinctions*. This process of perceptual refinement can be characterised by four elements.

1) Concept-creation through creating evocative symbols that highlight perceptual patterns;
2) Meta-level learning through the production of artistic objects, without the use of language;
3) Emphasis on both the importance of the nature of the medium used to explore experience and participants' skills in working with this medium;

4) Maintaining connection to any explored phenomenon through continued sensing regardless of what one may become aware of in the process (including instrumental purposes).

This process and its characteristics are explored in detail in the section on perceptual refinement.

Based on this finding, I suggest that practitioners can define and evaluate art-based methods as methods facilitating perceptual refinement, rather than as methods using art-related techniques (e.g. sketching, drama improvisation, design tools, etc.) or art-related media (e.g. paint, poetry, drama, music, etc.) to facilitate reflection, critical reflection, or transformational learning. I also suggest that future research on art-based methods could explore the effects of learning to make and express more refined perceptual distinctions on aspects such as: everyday management practice, managers' concepts of managerial tasks, or managers' competence in carrying out these tasks.

In the following, I will show how this study is grounded in the literature about facilitating meta-level learning in management education and how this is used in the field of art-based methods in management education; describe the methodology used in this study; and argue that facilitation of perceptual refinement is a unique contribution of art-based methods to management education. As mentioned above, I devote a section to describing this process of learning to make and express more refined perceptual distinctions. I will round off by considering limitations of the study and directions for future research.

Meta-level learning in management education

The focus of this paper is on the use of art-based methods to facilitate *meta-level learning* in management education. I define meta-level learning as: *changes in processes of perception, reasoning, and ways of experiencing that shape our current experience and learning*. This definition is broad enough to include most meta-level learning processes found in literature on learning in general, e.g., deutero learning (Bateson 1972), double-loop learning (Argyris & Schön 1974), accommodation (Piaget & Inhelder 1969), and deep learning (Marton & Booth 1997); yet narrow enough to exclude the corresponding forms of simple learning, e.g., proto learning (Bateson 1972), single-loop learning (Argyris & Schön 1974), assimilation (Piaget & Inhelder 1969), and surface learning (Marton & Booth 1997).

Not all theories of meta-level learning have been used in the literature on management education. The four most commonly used theoretical frameworks of meta-level learning found in this literature are reflection, critical reflection, transformative learning, and mindful learning/presencing. *Reflection* focuses on surfacing assumptions managers operate from and evaluating whether these are in line with present organizational reality (Schön 1975; Argyris & Schön 1974). *Critical reflection* focuses more specifically on analysing power structures underlying our knowledge and social practices (Reynolds 1998; Reynolds 1999b; Reynolds 1999a; Alvesson & Willmott 1996). This can help managers "develop more collaborative, responsive, and ethical ways of managing organizations" (Cunliffe 2004: 408). *Transformational learning* focuses more broadly on "transforming frames of reference through critical reflection of assumptions" (Mezirow 1997: 11) and through this develop "autonomous, socially responsible thinkers" (Mezirow 1997: 8). *Mindful learning* focuses on paying careful attention to one's moment-to-moment experience in a neutral, non-judgemental way (Langer 1997; Fielden 2005; Carmody 2009). Through this, managers can learn to sense their own and their organization's "highest future potential" (Pavlovich 2010: 197) and bring it into the present (Senge, Scharmer, Jaworski, and Flowers 2004).

As can be seen in the previous paragraph, there is a clear notion of what the described meta-level learning process helps managers be aware of and deal with/achieve in each of these four theoretical frameworks (i.e., change, ethics, autonomy/social responsibility, and highest future potential). By contrast, in the field of art-based methods for facilitating meta-level learning, there are many suggestions of what such methods contribute to management education, but there is no clear notion of any unique contribution. Scholars working in this field have mainly asked how art is used in management education (e.g. Nissley 2002, 2010) or what learning processes occur during art-based interventions (e.g. Taylor & Ladkin 2009, Darsø 2004). The question of what the *unique* contributions of art-based methods to management education has not been addressed directly.

Many of the suggested contributions of art-based methods to management education have been derived indirectly by understanding art-based methods as methods for facilitating reflection, critical reflection, transformational learning, and mindful learning and, thus, "borrowing" the claimed contributions from these frameworks. However, it is unlikely that any of these theoretical frameworks can reveal any *unique* contribution of art-based methods to management education because none of them has emerged from aesthetic theory and practice from which art-based methods have emerged (McNiff 2004). Reflection, critical reflection, and transformational learning have essentially emerged from psychology. For example, Argyris & Schön's double loop learning was adapted from Bateson's deutero learning that, in turn, was developed from findings in Gestalt psychology and experimental psychology. Critical reflection builds on Critical Theory, and the early Critical Theory of Adorno, Horkheimer, and Marcuse draws on Freud's psychoanalysis, the later Critical Theory of Habermas draws on Object-Relation Theory. Mindful learning and presencing, on the other hand, draw on spiritual traditions, mainly of Buddhist and Native American origins.

Furthermore, contrary to reflection, critical reflection, and transformational learning, art-based methods do not necessarily focus on rational analysis, and, contrary to all the above frameworks, art-based methods often use alternatives to language as the medium through which experience is explored, e.g., paint, music, dance, etc. Therefore, it cannot readily be assumed that looking at art-based methods through these theoretical frameworks will bring our attention to the unique (or even the most important) contribution of art-based methods to management education. On the contrary: James (2007) has criticized the theoretical framework of reflection for ignoring the learning processes occurring when working with wordless media; e.g., when fashion students assemble look books or draw sketches. Similarly, Austin and Devin (2003) have pointed out the need for using art-based terminology when describing art-based methods for facilitating innovation processes. Their argument is equally applicable to the use of art-based methods for facilitating meta-level learning in management education.

It is, therefore, possible that art-based methods provide contributions to meta-level learning in management education that are not recognised when they are considered through the theoretical lenses of reflection, critical reflection, transformational learning, and mindful learning. To understand the relevance of art-based methods to management education better, it is, therefore, important to ask:

> *What are the unique contributions of art-based methods for facilitating meta-level learning to management education?*

Methodology

The method used in this study is a modified version of systematic literature review (SLR). SLR was developed as a response to a perceived lack of rigour in traditional literature reviews and aims at ensuring that research is based on the "best available evidence" (Tranfield et al. 2003; Denyer & Tranfield 2006; Denyer, Tranfield & van Aken

2008; Rousseau, Manning & Denyer 2008). It was developed in the field of medicine and later adapted in other fields, e.g., management studies.

A full methodological discussion is beyond the scope of this paper, but a few remarks are useful. Unlike in medicine, it is common in social science to find the same concept used differently by different authors and, inversely, that different concepts are used to refer to the same or very similar phenomena. This is particularly true for the various concepts of meta-level learning processes (e.g. Visser 2007). Furthermore, the relevant literature is often spread across many different fields of research and even disciplines. Due to such factors, for the present study, it would not be feasible to take a traditional SLR stand of aiming at creating replicability, transparency, and an exhaustive literature search and, through this, minimizing researcher bias (Tranfield et al. 2003). However, the SLR procedure can still be used to identify a large body of diverse and relevant literature and subsequently extract the knowledge contributions from this literature that the researcher, given his or her personal and professional history/bias, *is able to conceive* as relevant to a particular review question. Doing this without a preconceived idea about the final argument will most likely facilitate a differentiating process through which one can make many relevant distinctions before engaging in the integrating process of creating an argument. It is with this shift of philosophical stance in mind, I describe the method, used in this study, as a modified version of SLR.

A detailed account of the methodological procedure is also beyond the scope of this paper. Thus, I will here give a brief outline of the methodological procedure. See Springborg (2011) for a full account. Three search-strings indicating a focus on the *phenomenon* of meta-level learning, the *means* of art-based methods, and the *context* of managerial education were developed and used in database searches. Further relevant literature was found in reference lists, special issues on art and business, past reading, and by consulting a number of scholars in the field. All publications were evaluated for relevance and quality (Pawson 2006; Wallace & Wray 2006). The final list of selected literature contained 89 publications. Data extraction sheets were used to extract both descriptive data (e.g. type of publication, publication year, location of first author, research design, unit of analysis, art-form considered) and conceptual data (e.g. main contribution/claim, evidence, context, definition of meta-level learning).

The extracted data was coded in order to categorise papers according to the phenomena they focused on. For example, this could include a particular effect of a particular approach to facilitating meta-level learning or a particular institutional factor's effect on a particular approach to facilitate meta-level learning. The first level of the coding scheme focused on the publications' "unit of analysis":

1. **Methods:** Step-by-step *methods* for facilitating meta-level learning. This includes course design.
2. **External factors:** *Factors* that are not a part of the described methods but, nonetheless, facilitate or block meta-level learning.
3. **Effects:** *Effects* of engaging in a particular meta-level learning process (mainly benefits). This includes arguments of relevance.
4. **Processes:** Descriptions of the facilitated meta-level learning *processes.*
5. **Categories of art-based methods:** meta-analysis focused purely on the field of art-based methods.

For categories three and four, a second level of categories was developed in the coding scheme to distinguish further between various claimed effects of meta-level learning interventions (category three) and various meta-level learning processes these interventions were claimed to facilitate (category four). These subcategories are presented in analysis sections on effects and processes, respectively.

For each of the categories/subcategories in the coding scheme, papers about art-based approaches to meta-level learning were compared with papers about analytical approaches (i.e. reflection, critical reflection, or transformative learning). This made it possible to identify contributions unique to art-based methods by asking very specific questions, such as, how similar/different are the actual step-by-step *methods of facilitation*? Are there particular *institutional or societal factors* which support/block the success of one type of approach, but not the other? Are there any *effects* that can be produced by art-based approaches and not by analytical approaches? And are there *learning processes* that are particular to art-based approaches?

Analysis and conceptual findings

The unique contribution of art-based methods to managerial education seems not to be found in the kind of step-by-step facilitation methods they suggest or in their relationship to factors outside these methods that may enable/block meta-level learning. The unique contribution seems to be found in that art-based methods can facilitate the meta-level learning *process* of *making and expressing more refined perceptual distinctions*. This process is discussed in detail in the section on perceptual refinement below.

In the following four sections, I contrast what has been written about art-based versus analytical approaches at the level of each of the above-mentioned units of analysis. I do not use the fifth unit (categories of art-based methods) because this is a meta-analysis focused purely on the field of art-based methods.

Methods

When looking at papers describing concrete step-by-step ways of facilitating meta-level learning, the most immediate difference between analytical approaches and art-based approaches is that the latter use objects, techniques, and/or media related to art (e.g. Nissley 2002). However, in spite of appearance, this difference may be relatively insignificant.

The concrete methods used to facilitate meta-level learning are very diverse. They include, simply being exposed to foreign ideas (Bredin 1991), writing learning journals, critical incident analysis, collective story-telling (Gabriel & Connell 2010; Hansen, Barry, Boje, Hatch 2007; Argyris & Schön 1974), meeting moments of surprise with design tools (e.g. thumbnailing, figure ground analysis, and edge and gestalt analysis) and appreciative inquiry (Johnston & Kortens 2010), collage making and group dialogue (Vann 2000; Backenroth, Epstein & Miller 2006), prototyping/model building (Austin & Devin 2003; Kerr & Lloyd 2008b; Kerr & Lloyd 2008a; Vann 2000), creating parody/cartoon strips (Bathurst, Sayers & Monin 2008), performing, directing, or watching/discussing theatre (Beirne & Knight 2007; Buswick 2005; Grose 1999; Boal 1985), discussing novels (Czarniawska-Joerges & Guillet de Monthoux 1994) or films (Champoux 1999), or other pieces of art (Cowan 2007), sometimes created by the participants themselves (Backenroth et al. 2006; Bathurst et al. 2008), as a basis for exploring theoretical concepts and coupling these with one's personal experience.

However, the various methods described in texts about analytical approaches and in texts about art-based approaches are highly overlapping. Part of Argyris and Schön's (1974) practical method for facilitating reflection is *co-writing stories*. However, Gabriel and Connell (2010) and Hansen et al. (2007) see *co-writing stories* as an art-based method. Having such stories dramatized through theatre may be a difference in degree, rather than a difference in kind. Furthermore, cognitive mapping and creation of art-objects are very similar processes. In both, artefacts are created in dialogue with some medium of choice resulting in increased awareness in the creator of how he/she constructs reality. James (2007) argues that sketching and assembling look-books is

similar to writing learning journals as both facilitate reflection – the only difference being the presence or absence of language. Finally, Springborg (2010) argues that art-creation can occur in any media, including those more familiar to managers, not usually considered artistic media.

Therefore, the selected publications do *not* support that art-based methods provide unique step-by-step methods of facilitating meta-level learning in management education.

External factors

Some papers identify factors that are not directly part of any method of facilitation but, nonetheless, either enable or block meta-level learning in management education.

First, it has been found that if facilitators experience teaching and performing his/her own professional practice as two integrated activities, this enables students' meta-level learning. In contrast, if they experience this as two separate activities, it may block such learning (Davenport 2006; Shreeve 2010). Facilitators' ways of experiencing creativity have been found to play a similar role (Kleiman 2008). However, these studies do not show any difference between analytical and art-based approaches. Second, managers may avoid engaging in critical reflection because doing so may reveal moral dilemmas complicating the achievement of the performance goals on which they are evaluated (Harback 2000; Learmonth 2007). A parallel argument could be made for art-based approaches. These too may not function as (short-term) performance enhancers and may, therefore, not be valued in performance-driven organizational cultures. Third, both analytical (e.g. Sambrook & Stewart 2008) and art-based (e.g. Cowan 2007; Kester 2007; Wicks & Rippin 2010) approaches seem to need strong framing to help learners connect the activities in the "class room" with their managerial practice. Fourth, both analytical (Alvesson & Willmott 1992b) and art-based (e.g. Beirne & Knight 2007; Boal 1985) approaches can be used for manipulation and ideological control while pretending to serve emancipatory goals – blocking meta-level learning.

Hence, these external factors seem to enable/block meta-level learning facilitated by analytical and art-based approaches alike.

Effects

In the selected publications, it is widely agreed upon what effects make analytical approaches relevant to managers. As mentioned, reflection enables managers to deal with constant change by analysing discrepancies between taken-for-granted assumptions about and actual experience of organizational reality (Argyris & Schön 1974; Schön 1975; Nystrom & Starbuck 1984). Critical reflection enables managers to "develop more collaborative, responsive, and ethical ways of managing organizations" (Cunliffe 2004: 408). In contrast, the benefits of art-based approaches described in the selected publications are much more diverse. To evaluate whether any of these claimed effects are unique for art-based methods, subcategories in the previously mentioned coding scheme were developed grouping these claimed effects. This coding began without predefined categories because no predefined categories could be found in the literature. In the following, I will argue that only subcategory five and six seem to be unique to art-based methods.

1. Enhance analytical approaches (e.g. Johnston & Kortens 2010; Cowan 2007; Beirne & Knight 2007).
2. Create beneficial learning culture (e.g. Barbera 2009).
3. Enhance creativity (e.g. Darsø 2004; Kerr & Lloyd 2008b; Kerr & Lloyd 2008a; Kerr 2010; Lloyd 2011).
4. Increase sensitivity (e.g. Buswick 2005).

5. Connecting with context, re-finding grace (e.g. Reason 2007) and creating a personal relationship to text (e.g. Backenroth et al. 2006) or audience (e.g. Buswick 2005).
6. Learning to *make and express more refined perceptual* distinctions (e.g. Dewey 1934; Langer 1951, 1953; Arnheim 1969; Heron 1999; Eisner 2002; King 2008; Seeley & Reason 2008).

1) Enhancing analytical approaches is not unique to art-based methods. Any analytical method would necessarily claim to do the same. This kind of claimed benefit may primarily serve to legitimize art-based approaches by coupling them with learning processes whose relevance has already been argued extensively. 2) Creating a beneficial learning culture may also be a valuable effect that can be used to argue the relevance of art-based methods, but this benefit could also be achieved without the use of art-based methods. 3) Enhancing creativity is a very popular claimed benefit of art-based methods – probably due the intuitive appeal of coupling art and creativity. However, since there is no commonly agreed upon definition of creativity (Sternberg & Lubart 1999), this line of argumentation only substitutes one ill-defined term (art-based approaches) for another (creativity) without pinpointing what the unique contribution is. 4) Claiming that art-based methods increase sensitivity opens the question: sensitivity to what? Analytical approaches also increase sensitivity, e.g., sensitivity to taken-for-granted assumptions embedded in our actions.

5) Connection with the context, re-finding grace, and creation of personal relationship to text or audience all point to an increased ability not only to be sensitive to, but also to relate positively to context. Critical reflection increases our sensitivity to our context, but has also been criticised for its inherent tendency towards fostering disruption (Reynolds 1999b) and putting the learner at odds with his/her organizational context (Learmonth 2007). In contrast, it has been claimed that art-based approaches to meta-level learning help learners both be acutely aware of *and* connect with their context (Reason 2007). Thus, facilitating both sensitivity and *connection* to the context may point to a difference between art-based and analytical approaches. I will return to this in the section "instrumental purpose limits perception" below.

6) Finally, the ability to *make and express more refined perceptual distinctions* seems to be the effect most distinctive to art-based approaches. I will elaborate further on this effect in the section on perceptual refinement as a meta-level learning process. It is not surprising that an approach to facilitation of meta-level learning emerging from aesthetic theory has a unique emphasis on developing learners' perceptual refinement. It is far more surprising that this emphasis has not been the explicit rational for introducing art-based methods in the first place.

Hence, the ability to *make and express more refined perceptual distinctions* (category 6) and an increase in both sensitivity toward and ability to connect with one's context (category 5) seem to be the types of effects that are unique to art-based approaches.

Processes

The selected literature contains many descriptions of learning processes that fit this paper's definition of meta-level learning. To evaluate whether any of these facilitated learning processes are unique for art-based methods, subcategories in the previously mentioned coding scheme were developed in order to group these processes. I began this coding with the first four categories predefined, as they are well established in the literature.

1. Reflection (e.g. Argyris & Schön 1974)
2. Critical reflection (e.g. Alvesson & Willmott 1992b)
3. Transformational learning (e.g. Elkins 2003)
4. Mindful learning/presencing (e.g. Pavlovich 2010)

5. Perfection of action (Chia 2003)
6. *Making and expressing more refined perceptual distinctions* (Dewey 1934; Langer 1951,1953; Arnheim 1969; Heron 1999; Eisner 2002).

It is important to mention that different authors use the same established terms differently. For example, James (2007) uses the term "critical reflection" for what Reynolds (1998) calls "reflection" and which is different from what Reynolds calls "critical reflection". The term "triple loop learning" may refer to "reflection" (Groot, van Djik, Jiggins, & Maarleveld 2002), "critical reflection" (Nielsen 1996), or "mindful learning" (Torbert & S.S. Taylor 2008). The term "double-loop learning" is also used in a variety of ways (Visser 2007). To determine what kind of meta-level learning process a particular publication focuses on, it is necessary to look at descriptions of the learning process and at what theoretical texts are referred to. For example, if surfacing of assumptions is the main concern, the meta-level learning process is probably "reflection". If Mezirow is heavily referenced, the meta-level learning process of concern is probably "transformational learning".

In the following, I argue that only process six is unique to art-based methods.

Learning process 1, 2 and 3: Authors writing about analytical approaches refer to the learning processes of reflection (e.g. Schön 1975; Argyris & Schön 1974; Nystrom & Starbuck 1984), critical reflection (e.g. Alvesson & Willmott 1992a, 1992b, 1996; Reynolds 1998, 1999a, 1999b; Grey 2004), and transformational learning (Elkins 2003). Authors writing about art-based approaches also refer to these processes: reflection (e.g. James 2007; Cowan 2007), critical reflection (e.g. Barbera 2009; Beirne & Knight 2007), and transformative learning (Kerr & Lloyd 2008a). Since both analytical and art-based approaches are seen to facilitate these processes, they are not unique to art-based approaches.

Learning process 4: Mindful learning and presencing foreground the process of sensing the whole directly, rather than constructing it as a synthesis of its parts (Senge et al. 2004). Authors writing about both art-based approaches (Darsø 2004) and more analytical approaches (e.g. Schmidt-Wilk, Heaton & Steingard 2000; Pavlovich 2010; Reason 2007; Senge et al. 2004) refer to this process. Therefore, it is not unique to art-based approaches.

Learning process 5: According to Chia (2003), Western academic circles favour *knowing why* over *knowing how* and see written knowledge as the necessary basis for action. He claims that by taking "written knowledge as the only reliable basis for effective action" we miss out on "the possibility of attaining a form of direct unmediated knowing through the relentless perfection of action" (Chia 2003: 953). Unlearning some of the *knowing why* and reconnecting to pure experience is central to learning through perfection of action. Chia is the only author in the selected literature that refers to this learning process, and he does not mention art-based methods. There is, therefore, no basis for claiming that this process should be unique to art-based methods. However, the following learning process can be seen as a subcategory of the process of learning through perfection of action.

Learning process 6: Langer (1951, 1953), Dewey (1934), Arnheim (1969), and Eisner (2002) all describe meta-level learning processes specifically related to art-creation and art-appreciation. Their theoretical accounts of meta-level learning processes - involving making and expressing more refined perceptual distinctions - have all been referred to in publications on art-based approaches (e.g. Bathurst et al. 2008; Wicks & Rippin 2010), but not in publications on analytical approaches. Therefore, the facilitation of the meta-level learning processes described by these authors may be a unique contribution of art-based approaches to managerial education. This learning process is described in the following section.

In the light of the above analysis, only the meta-level learning process of making and expressing more refined perceptual distinctions (category 4, subcategory 6 in the coding scheme) and the related effects of perceptual refinement and increased connection with context (category 3, subcategories 6 and 5 in the coding scheme) seem to be unique to art-based approaches. In the following section, I will elaborate on this finding.

Perceptual refinement as a meta-level learning process

The individual descriptions of art-creation and art-appreciation in the works of Langer, Dewey, Arnheim, and Eisner are all unique and rich in details. However, core to all of their work is the meta-level learning process of *learning to make and express more refined perceptual distinctions*, i.e., the process of discovering perceptual patterns/qualities that are present across various life experiences and learning to evoke these perceptual patterns/qualities through an artistic medium. For example, Eisner (Eisner 2002: 10) writes that "a Monet landscape … makes possible a new way of seeing: Monet's shimmering colour gives us a new way to see light". The painting evokes and highlights a certain quality of light that we may never previously have been aware of. However, after seeing it intensified in the painting, we may subsequently recognize this quality of light whenever it is present in our everyday experience. This will, in turn, enable us to learn about this particular kind of light from our day-to-day experience, e.g., learn when and where we encounter it. If we were not able to perceive it when it's present, no such learning would be possible.

It is reasonable to assume that Monet himself learned to recognise the above-mentioned kind of light by repeatedly evoking the experience of it through paintings. Thus, we may learn to notice particular perceptual patterns/qualities present across many experiences through the process of learning to create artistic objects that evoke these perceptual patterns/qualities (or through engaging with such objects created by others). It is in this sense that art-creation can be said to be a process of learning to make and express more refined perceptual distinctions.

This process can be used in managerial development to facilitate learning about phenomena, such as, leadership (Wicks & Rippin 2010), service (Bathurst et al. 2008), workers' perceptions of workplace atmosphere (Warren 2002), and visioning, improvisation, reflection, and inclusion (Cowan 2007). For example, a service manager may create a cartoon strip that evokes the feeling of hopelessness and frustration resulting from being rendered defenceless in the face of severe customer abuse by a company service policy (Bathurst et al. 2008). Subsequently, this may enable the service manager to perceive this feeling when it is present in his or her complex day-to-day organizational experience, even in subtle ways and with significant experiential "noise". Once they can recognise it, they can learn from their daily experience when and where it occurs and, in time, learn to react in order to avoid possible consequences like heightened absenteeism and turnover rates. If they cannot perceive this particular feeling, such learning is not possible. Similarly, within the field of organizational ethics, scholars have suggested that when managers do not react to ethical issues, it is (at least in part) because they cannot perceive these issues (Moberg & Seabright 2000; Waddock 2010).

Because perceptual refinement in this way influences our current and future experiencing and learning, it is a meta-level learning process according to the definition used in this paper. Four claims can be discerned in the work of the above-mentioned authors that distinguish this process from other meta-level learning processes, e.g., those described in analytical approaches.

1. Creation of art is creation of a concept;
2. "Thinking" and "perceiving" are one process;

3. The symbolic medium influences what can be perceived;
4. Instrumental purpose makes recognition the endpoint of our perception, limiting the meta-level learning process of perceptual refinement.

Creation of art is creation of a concept

Langer defines a concept as a structural pattern that many different experiences fit/contain as perceptual patterns. Many different symbols can embody the same concept, but the concept is not any of the symbols. For example, the concept of a house can be embodied in symbols, such as a child's drawing of a house, a photograph of a house, a diagram of the house, a pictogram of the house, a list of inclusion and exclusion criteria defining what counts as a house, or any actual house. All these symbols point to (i.e. fit/contain) the perceptual pattern we call "a house", but none of them *is* this pattern. Yet, even though the concept is not any of the symbols embodying it, no concept can exist without a symbol (Langer 1951, 1953). Based on these ideas, Langer (1951) claims that what is created in art-*creation* is not merely an artistic object/event. What is created is a concept, i.e. a particular perceptual pattern this object/event embodies, evokes, and may teach us to perceive. Eisner writes, in a similar way, that we may discover and make public the "content of consciousness" (i.e. concepts/perceptual patterns) through "forms of representation" (i.e. symbols) (Eisner 2002: 8). Dewey formulates this by writing that art is "refined and intensified forms of experience" (Dewey 1934: 2) (i.e. concepts/perceptual patterns), rather than the objects that evoke these experiences (i.e. symbols).

Thus, developing concepts involves learning to recognise perceptual patterns, and for this to happen, symbols which embody the concept are needed. As kids we develop concepts such as "house" by seeing many examples of what people call houses. These examples are symbols of the concept "house". In music school, we may develop other concepts, such as, "sound of oboe" by listening to many examples (i.e. symbols) of oboes playing solo. As mentioned above, once we have developed these concepts, i.e., learned to perceive these perceptual patterns; we can learn about houses and oboe sounds from our day-to-day, moment-to-moment experience only if we can use our senses to perceive them when they occur in our lived experience.

Unfortunately, many concepts of relevance to managers, e.g., service, leadership, visioning, improvisation, and ethics, do not occur in isolation in daily experience. They are abstract and, thus, less bounded in time or space. Therefore, it is difficult to point to examples (i.e. symbols) of such concepts in the same way that examples of houses or oboe sounds can be pointed to. In other words, it is more difficult to find "ready-made" symbols for these concepts. Fortunately, because art can evoke intensified perceptual patterns, it allows us to point to examples of a particular kind of perceptual pattern in a different way. For example, the painting by Monet evokes a very specific kind of light, and the cartoon about service evokes an emotional state – both phenomena that are difficult to point to in everyday experience.

Finally, Langer (1951, 1953) claims that when we create a work of art we create a symbol for a concept, and because no concept can exist without a symbol, we also create the concept. It is therefore, possible for art to point to perceptual patterns that have never before been named, or even perceived by anyone other than the artist. Thus, it is conceivable that art can create concepts that are not only new to the individual themself, but to their society as well (thus inviting meta-level learning at the level of society).

The focus on *concept creation* through creating evocative symbols that highlights perceptual patterns may well distinguish this kind of meta-level learning from, for instance, analytical kinds of meta-level learning.

Thinking and perceiving are one process

Relating to the above, "thinking" and "perceiving" are often claimed to be one process. Arnheim writes that: "artistic activity is a form of reasoning, in which perceiving and thinking are indivisibly intertwined. A person who paints, writes, composes, dances … thinks with his senses … the remarkable mechanisms by which the senses understand the environment are all but identical with the operations described by the psychology of thinking. Inversely … truly productive thinking in whatever area of cognition takes place in the realm of imagery" (1969: v). Therefore, "perceptual and pictorial shapes are not only translations of thought products but the very flesh and blood of thinking itself" (Arnheim 1969: 134). Others have come to similar understandings by studying the processes of a professional artist creating a sculpture (Henrik Scratz quoted in Barry & Meisiek 2010), children creating choreography (Giguere 2011), fashion students designing cloth (James 2007), and MSc students creating dolls to learn about themselves as leaders (Wicks & Rippin 2010). Langer formulates this in the following way: "Our merest sense-experience is a process of formulation … The eye and the ear must have their logic – their "categories of understanding," if you like the Kantian idiom ... An object is not a datum, but a form construed by the sensitive and intelligent organ, a form which is at once an experienced individual thing and a symbol for the concept of it, for this sort of thing" (Langer 1951: 83).

Thus, refinement of perception *is* refinement of "the flesh and blood" of thinking. Therefore, it is possible to think simply by working with perception – without using language. For example, James (2007) claims that fashion students can reflect on and learn about their craft through assembling look books and drawing sketches. Thus, it seems possible that the meta-level learning process of perceptual refinement can occur solely through the production of artistic objects, without the use of language. This also distinguishes perceptual refinement from the analytical meta-level learning processes.

The symbolic medium influences what can be perceived

The symbolic medium is claimed to influence what can be perceived. In other words, the medium in which symbols are created is in itself evocative and, thus, influences the perceptual patterns a symbol created in a particular medium can embody and evoke. Eisner writes that the choice of medium in which we create our representations influences "which aspects of the world will be experienced … because people tend to seek what they are able to represent. If your camera is loaded with black-and-white film, you look for shadows, for light and dark" (Eisner 2002: 8). Similarly, Langer (1951, 1953) systematically examines painting, dance, poetry, music, drama, and even academic language as different symbolic media with distinct evocative properties. Langer writes that language is a "picture of human experience" (Langer 1951: 76). Just as a diagram of a house shows a form, i.e., concept, into which the experiences of various houses fit, so a sentence shows a form into which the experience addressed by the sentence fit.

Langer notes that every medium we may use to symbolise the patterns abstracted from our experience (our concepts) will inevitably distort this experience, and, therefore, not every medium is equally suitable to "picture" every kind of experience. For example, flat maps of the earth make Greenland appear the size of Australia. Similarly, language makes experience look like strings of discreet objects because sentences consist of strings of discreet words – nothing happens simultaneously. Thus, the properties of the medium of language itself evoke/highlight certain perceptual qualities of experience – even before anything is said or written. By contrast, paintings make all elements of experience appear to occur simultaneously. Music can represent both simultaneous and sequential aspects of experience since several instruments can play over an extended period of time. Because emotions rarely come as beads on a string, but can be simultaneous and contradictory, Langer suggests that music is a better medium than language for "picturing" the experience of emotions. It is interesting to consider how

managers' most commonly used symbolic media, such as statistical reports and balance-score cards, distort the experience they are used to depict. However, to speculate further about this is beyond the scope of this paper.

Based on this, one could conclude that to map experience, we should use a medium well suited to mapping experience. However, Eisner points out that "artistry requires, in part, the ability to conceive of the emotional quality desired *and the technical ability* to compose a form capable of evoking the feeling or emotion desired" (Eisner 2002: 18 italics added). Thus, the mapping of experience is not only influenced by the qualities of the particular medium used, but also by the individual's ability to work with this medium. Therefore, when using art-based methods to develop managers' concepts of organizational experience, the facilitator may need to weigh possible benefits of an artistic medium against possible disadvantages of managers' lack of skills in working with this medium. Scholars drawing on psychological theory, e.g., art therapy (McNiff 2010) or psychoanalysis (Wicks & Rippin 2010), often argue that skills in manipulating artistic media are of lesser importance. For example, well developed musical skills are not needed to engage in music-therapy. Scholars with artistic backgrounds (e.g. Taylor 2008; Taylor & Carboni 2008; Hansen et al. 2007; Rippin 2011; Eisner 2002) often argue that a certain level of skill in working with the artistic medium of choice is beneficial and maybe even necessary to benefit from art-based approaches.

Such considerations about the medium in which managers work when engaged in meta-level learning and their skill in working with this medium also distinguish perceptual refinement from analytical meta-level learning processes.

Instrumental purpose limits perception

Eisner claims that the presence of instrumental purposes limits our perception by making recognition the endpoint of our perception. "Most of our so-called seeing is instrumental in nature. We see in order to recognize, and recognition, according to Dewey, is completed as soon as a label is attached to what we have seen. In such "seeing", seeing is aborted. It is stopped well before the qualities of the visual field are explored" (Eisner 2002: 12). By contrast "[w]hat we are after in the arts is the ability to perceive things, not merely to recognize them" (Eisner 2002: 5).

If instrumental purpose aborts perception in favour of recognition, development of new concepts is also aborted. In this way, instrumental purpose can become a block to meta-level learning. If we stop sensing, we lose the possibility of discovering new perceptual patterns in our experience. If we keep sensing, we keep having the possibility to notice new patterns in our experience. We keep having the possibility to develop a more fine-grained and richer perception of the context we are a part of. The moment we define a purpose, there is a risk that we stop sensing and loose this possibility of further perceptual refinement.

This may explain why increased contact with the context could be an effect particular to art-based methods as mentioned in the analysis section dealing with effects. For example, Learmonth (2007) tells a story about how he as a manager was asked to manipulate statistical data on public funded hospital's waiting lists so they appeared in line with national politics. This was done to avoid unwanted interference of politicians whose reputation depended on such statistics. He goes on to write: "Not only was I troubled by the obvious ethical problems, I started to feel that my job was less about doing something worthwhile — more about protecting others from embarrassment." (Learmonth 2007: 110). Learmonth's story shows his emerging awareness of a new perceptual pattern in his daily experience (protecting others from embarrassment). It is very possible that becoming aware of such ethical issues in one's everyday work, e.g., through critical reflection, is a shocking experience and that one will react by either trying to rationalise and justify one's actions (pretending they are not unethical) or by

deciding to remedy such issues. Taking the first path puts one at odds with one's self, taking the latter may well put one at odds with one's context (Learmonth 2007, Reynolds 1999b). The interesting thing to notice is that both justifying and remedying ethical issues are instrumental purposes. And just like the "default" instrumental purposes of *achieving organizational or personal success* may disconnect us from perceiving unethical conduct, so the instrumental purposes of *justifying* or *remedying* such unethical conduct may disconnect us from perceiving further relevant patterns – even those we need to become aware of to deal with ethical issues.

In other words, *our sustained open-ended sensing is our connection with our context*. However, any pattern we may become aware of through this sensing can potentially make us define an instrumental purpose that can disconnect/limit our further sensing (i.e. our connection with our context) by framing what is and what isn't relevant to pay attention to. It is in this sense that perceptual refinement as a meta-level learning process not only sensitises us to our context by allowing us to perceive new patterns, but also connects us with it through its natural focus on maintaining on-going sensing regardless of what patterns (including instrumental purposes) we become aware of. This distinguishes perceptual refinement from analytical meta-level learning processes.

Finally, it is worth mentioning that Dewey (1934: 9) claims that perception of the aesthetic is a "necessary ingredient of happiness". Eisner elaborates on this by pointing out that: "The sensory world is a source of satisfaction, and imagination a source of exploratory delight" (Eisner 2002: 5). Therefore, excessive focus on instrumental purpose and "the relentless impact of 'serious' academic schooling'" (Eisner 2002: 5) have the unfortunate effect of disconnecting us from the sources of satisfaction and delight found in refined perception that goes beyond mere labelling and recognition. Thus, making recognition and labelling the purpose of our sensing may limit the happiness and satisfaction we experience in everyday life.

Summary

In the above, I have argued that the unique contribution of art-based approaches to facilitation of meta-level learning in management education is their natural potential to foreground and facilitate the process of *making and expressing more refined perceptual distinctions*. Such perceptual refinement is a meta-level learning process because perceptual refinement allows us to become aware of new perceptual patterns in our experience, i.e., new concepts that we can subsequently learn about. Perceptual refinement can be distinguished from analytical meta-level learning processes by 1) its focus on concept creation through creating evocative symbols that highlight perceptual patterns, 2) the possibility of meta-level learning solely through the production of artistic objects without the use of language, 3) its emphasis on both the importance of the nature of the medium used and participants skills in working with this medium, and 4) its focus on maintaining connection through continued sensing regardless of what we may become aware of in the process (including instrumental purposes).

Discussion and conclusion

If the unique contribution of art-based methods is facilitation of perceptual refinement, then we must consider why scholars generally seem to have advocated the relevance of art-based methods to management education *without* referring to their most unique (and strongest?) contribution. Some reasons may be located in the influence of rationalism, Christianity, modern aesthetics, and cognitivism as it developed in the mid-20th century. Western philosophy has been sceptical of the senses ever since Plato's rationalism marked them as distractions preventing individuals from perceiving the eternal Forms (Arnheim 1969; Eisner 2002). Similarly, various Christian doctrines have conceived the senses as something leading us astray and coupled them with sin. Furthermore, Shusterman (2007: 137) claims that there is a "wilful neglect of the body

in Baumgarten's founding text of modern aesthetics, an omission reinforced by subsequent intellectualist and idealist theories (from Kant through Hegel and Schopenhauer and on to contemporary theories that emphasize disinterested contemplation)". Finally, cognitivism, as it developed in the mid-20th century, saw perception as a channel of input with no significant influence on cognitive processes (Barsalou 2008). However, the emergence of the research field "embodied cognition" (e.g. Varela, Thompson & Rosch 1991; Damasio 2000; Johnson 2007) has made it easier to imagine thinking and perceiving as a unity, without "recasting" the nature of the process of perception in the image of rationality. Thus, I believe this "redemption" of the body and perception is an important factor in why the contribution of this systematic literature review can be made at this point in time.

Limitations

A number of limitations need to be mentioned. First, most of the selected publications examine art in general. Thus, specific art-forms may have unique contributions in their own right that this review has not touched upon. Second, many of the empirical publications are based on case studies and interviews. This makes the research context specific, and it is possible that considering other contexts would modify the findings of the review. Third, I have drawn a clear line between art-based approaches and analytical approaches to facilitating meta-level learning. However, the boundary is not clear-cut. For example, Schön is himself an accomplished musician (clarinettist), and his concept of reflection-in-action (Schön 1983) holds a critique of "technical rationality". Hence, Schön does not claim that reflection-in-action is either verbal or rational/analytical in nature. On the contrary, some of Schön's ideas are similar to Eisner's (2002). Furthermore, critical reflection is based on Critical Theory, and "Marcuse (1955) … identified human instincts as a possible drive against the totalizing control of advanced society" (Alvesson & Willmott 1992b: 441). Hence, not all Critical Theory is placed squarely in a rational/analytical domain either. Finally, Grabov (1997) describes transformative learning as a process involving intuition and emotions complementing Mezirow's rational/analytical version.

However, in spite of these limitations, the meta-level learning process of perceptual refinement can still be seen as the "speciality" of art-based approaches. In other words, the use of art-based approaches counters the tendency of analytical approaches to overlook the need to refine our perceptual distinctions and focus too much on refining our conceptual distinctions. This is the way in which *making and expressing more refined perceptual distinctions* can be said to be the unique contribution of art-based methods to management education – and thus be an answer to the review question.

Implications

This is important for researchers because it suggests that future research could focus on describing the effects perceptual refinement may have on everyday management practice, managers' concepts of managerial tasks, or managers' competence in carrying out these tasks. Although the selected literature does not give clear answers to such questions, some clues can be found:

- Reason (2007) notes that today we need, not merely to manage change, but to manage *sustainable* change through sensitive connection with our context.
- Bohm (2000) claims that paradoxes inevitably develop in thought and that we avoid feeling the pain these paradoxes cause in us by desensitising ourselves through "sustained confusion". However, to dissolve such paradoxes and create higher coherence in thought, we need to increase, rather than decrease, our sensitivity.
- Klein (personal conversation) suggests learning to make and express more refined perceptual distinctions can be understood as "digestion of experience" particularly of "emotional congestion".

- Understanding thinking and perception as one unified process may simplify thinking because we don't have to make an effort to deny the role of perception.
- Both Dewey (1934) and Eisner (2002) claim that sensing is not merely practical, but also a source of satisfaction and happiness.

This review also has important implications for practitioners. First, it provides a way of defining and evaluating art-based methods, namely, as methods for facilitating perceptual refinement. Second, and most importantly, it provides a way of arguing the relevance of art-based methods to management education. It does this by demonstrating that art-based methods enable managers to stay in touch with the on-going process of perceptual refinement and also refines their concepts, it connects them to their organizational context, and helps them avoid getting caught in limited perceptions like those created by conscious purposes.

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