

Middlesex University Research Repository

An open access repository of

Middlesex University research

<http://eprints.mdx.ac.uk>

Melrose, Susan (2017) Running in circles, with “music” in mind. In: Artistic Research in Music: Discipline and Resistance: Artists and Researchers at the Orpheus Institute. Impett, Jonathan ORCID: <https://orcid.org/0000-0002-6525-2095>, ed. Orpheus Institute Series . Leuven University Press, Leuven, pp. 187-210. ISBN 9789462700901, e-ISBN 9789461662323. [Book Section] (doi:10.2307/j.ctt21c4s2g.13)

Published version (with publisher’s formatting)

This version is available at: <https://eprints.mdx.ac.uk/23042/>

Copyright:

Middlesex University Research Repository makes the University’s research available electronically.

Copyright and moral rights to this work are retained by the author and/or other copyright owners unless otherwise stated. The work is supplied on the understanding that any use for commercial gain is strictly forbidden. A copy may be downloaded for personal, non-commercial, research or study without prior permission and without charge.

Works, including theses and research projects, may not be reproduced in any format or medium, or extensive quotations taken from them, or their content changed in any way, without first obtaining permission in writing from the copyright holder(s). They may not be sold or exploited commercially in any format or medium without the prior written permission of the copyright holder(s).

Full bibliographic details must be given when referring to, or quoting from full items including the author’s name, the title of the work, publication details where relevant (place, publisher, date), pagination, and for theses or dissertations the awarding institution, the degree type awarded, and the date of the award.

If you believe that any material held in the repository infringes copyright law, please contact the Repository Team at Middlesex University via the following email address:

eprints@mdx.ac.uk

The item will be removed from the repository while any claim is being investigated.

See also repository copyright: re-use policy: <http://eprints.mdx.ac.uk/policies.html#copy>

Running in Circles, with “Music” in Mind

Susan Melrose
Middlesex University, London

PREAMBLE

Fundamental to [the] areas [of research integrity and openness] is the need to encourage and support a shift in how research is conducted: both research integrity and the openness agendas need to “get inside” the day-to-day practice of researchers in order that the results of that practice are openly available [for] use by, and scrutiny of, others. The significance of this shift—and the difficulties in encouraging it [to] happen—cannot be [over]estimated. (UK Council for Graduate Education 2016)

What might be some of the implications—for practitioner research into composition, music-making, and performance—of my dogged insistence over the past decade that expert-intuitive process is a vital *knowledge practice* in art-making? I am aware that some readers, researchers, students, and art-makers might find that observation itself, and/or some of its parts, not only taxing but irrelevant to her or his own practices and objectives. Some of the terms included in my observation can seem rebarbative, especially to creative practitioners: Why this insistence on “expert,” as in “expert-intuitive”? What should be made of my unadulterated use of the verb “to be”—described by others as “ontologising” (see, for example, Osborne 2000), or to assert existence or being (in place of perception, hypothesis, argument)? And what of “knowledge practice” (or epistemics) when surely what many artists are more concerned with is creativity? Finally, why this insistence on the intuitive—or rather the hyphenated “*expert-intuitive*”—when research into the nominalised “intuition,” at least, in the late twentieth century, has revealed that uses of the term tend to bring into play notions that are judged to be prejudicial to the pursuit of a reasoned, systematic, and rigorous research undertaking (upon which many judgements of research “quality” and “value” are based)?

Plainly *I have problems with writing* in research-appropriate registers; or—to turn the problem around—communicating and disseminating research into creative practices from the expert-practitioner perspective has and has always had “a problem,” to the extent that the mainstream means of research communication in the Arts and Humanities¹ has tended to be a writing in complex registers that has been pursued from the perspective and point of view of the

¹ In this chapter, I capitalise the names of research disciplines to distinguish between academic disciplines and the same terms in general usage.

“non-practitioner.” In this chapter, I pursue a number of threads identified above, through an auto-reflexive writing that trips and stumbles on its way. I ask what an artist-centred or practitioner-centred writing might look like, and what it might be able to do, in research terms.

INTRODUCTION

Intuit (v.): to know or understand (something) because of what you feel or sense rather than because of evidence: to know or understand (something) through intuition. (Merriam-Webster 2016b)

Intuition (n.): mid-15c., *intuicioun*, “insight, direct or immediate cognition, spiritual perception,” originally theological, from Late Latin *intuitionem* (nominative *intuitio*) “a looking at, consideration,” noun of action from past participle stem of Latin *intueri*. (Merriam-Webster 2016c)

Each of us has, and uses every day, a power of intuitive intelligence that enables us to understand, to speak, and to cope skilfully with our everyday environment. We must learn what this power is, how it works, where it fits into our lives, and how it can be preserved and developed. (Dreyfus and Dreyfus 1986, xiv)

Intuition in the broadest of terms means “immediate apprehension.” “Apprehension” is issued to cover such disparate states as sensation, knowledge, and even mystical rapport, while “immediate” has as many senses as there are kinds of mediation. “Immediate” may also be used to signify the absence of interference, the absence of cause, the absence of justification, the absence of symbol, or the absence of thought. (Zoka Zola 2007)

In the mid-1990s, in the preface to my enquiry into analysis of theatre-making (as distinct from theatre spectating), I asked *how we know* whether creative decisions taken will “work”? (Melrose 1994). It did not seem to me, at that time, that the different analytical “apparatuses” available to me in the academic research context, most deriving from research traditions that were linguistic/literary-theoretical in operation and writing-based, were capable of dealing with creative efficacy (or its opposite) in fields other than the linguistic or literary. Yet I knew—intuitively—at that time that the development of expertise in the performance-maker depended, in large part, on her or his growing ability to exercise those judgements of taste and value upon which a work’s *working* (or not), in the public arena, in turn depended.² I was aware that, in the conservative tradition at least, training programmes are calculated, implicitly or explicitly, on developing that sort of discernment. In the case of many of the advanced students—and indeed, researchers—concerned, developing that discernment depends upon the growing mastery of the practices of intuitive knowledge and understanding, which seems in large part to depend upon “what [they] feel or sense, rather than because of evidence” (Merriam-Webster 2016a).

² *Judgement*, a concept that has a long history—in, for example, writers as historically different as Kant and Bourdieu—is relational, by which I mean that it requires external validation if it is to be assimilated within growing expertise. We cannot identify it within the practitioner’s decisions and actions without understanding the impact of others’ responses.

The caveat added by Zoka Zola (2007), to his quotation above, is worth noting: “We must sharply differentiate between intuition that is used in media production (by painters, film makers, dancers, etc.) and intuition that is used in media perception (of viewers, listeners, readers, etc.)” (ibid.). This distinction between the intuitive as a production tool, linked to the development of mastery or professional expertise, and the intuitive used in reception, by spectators or listeners, is an important one, which I have tried to signal in my use of the term “*expert-intuitive*.” Nonetheless, because I am particularly interested here in *making processes*, I would prefer to strike out the noun “intuition” that Zoka Zola uses four times in these two brief quotations, replacing it with the verb “to intuit” and/or the qualifier “intuitive.”

What might be at stake, for research into expert creative decision-making, in the suggestion, above, is that intuitive decision-making depends upon “what we feel or sense, rather than . . . evidence” (Merriam-Webster 2016a)? In the pages that follow I propose to demonstrate that, in research terms, the *expert creative practitioner-researcher* (I am aware that this is quite a mouthful) makes decisions based not only upon what he or she “feel[s] or sense[s]” in the creative processes themselves, but also upon what he or she can evidence, reflect upon, work with and—if the reasons for this are valid—write about in research-appropriate registers. I propose to return to the issue of creative *judgement*, arguing that in the development of an *expert* creative process, the creative practitioner similarly acquires what might seem to others to be an ease and a rapidity of judgement of *what works*, upon which her or his expert or professional status significantly depends, but that both ease and rapidity are likely to derive from an a priori analytical engagement, already bound-in to expert judgements of taste and value.

PART 1: MAKING THE RESEARCH CASE FOR THE EXPERT-INTUITIVE

In the performing arts, at least, the combination of apparent ease and rapidity, which takes sensing and feeling into account, is not necessarily divorced from critical judgement. It operates in writing coming from certain sources: from certain practitioners (particularly when funding applications are composed), from critical reflection by theatre critics, from researchers in Performance Studies, and so on. However, the texts that emerge suggest, in general, that these writers rarely focus on creative decision-making processes themselves—largely because they tend not to have access to them. Instead they tend to focus on creative product or outcome, and their perspective tends to be spectatorial—that of what I have called the expert spectator. But there is another source of critical reflection and consequent action: the generally collaborative making processes in the performing arts tend to mean that the expert practitioner is likely to have to reflect constructively upon decisions already made intuitively, testing them against the views and input of other expert practitioners (including performers, designers, and sound designers, among others). What this suggests to me is that in creative decision-making of a collaborative kind, expert intuitive input

is likely to be followed by a process of multi-participant critical deliberation, largely verbal in kind, leading then to a further stage of creative judgement. These combined factors play a significant role in practitioner deliberation on creative choices. For the moment, however, and in order to explore some of the implications of this development in time in the expert-intuitive, I want to turn briefly to the peculiar and difficult history of both the intuitive and the expert in the later decades of the twentieth century, noting, as I do so, the extraordinary burgeoning of research into both notions, marked by the turn of the millennium.

The difficult (hi)stories of the intuitive/the expert in the later twentieth century

Any careful review of writing published over the past few decades from a number of research fields that tend to collocate around theories and practices of knowledge and creativity in the disciplines of Psychology and Education—rather than the Performing Arts *per se*³—will acknowledge what seems to me to be a remarkable shift between the later decades of the twentieth and the first decades of the twenty-first centuries, in the ways researchers have approached the role of the intuitive in general and in expert decision-making in particular. Up until the late 1970s, according to the educationalist Tony Bastick (2003), the omission of the notion of the intuitive from and/or its trivialisation in twentieth-century approaches to knowledge was so striking that it merited its own research enquiry: in a computer-aided study (carried out in 1978) of published articles from a number of fields of human knowledge, Bastick (*ibid.*, 7) advises, researchers looked for uses of the noun “intuition” in 592,000 US doctoral theses, 276,000 articles from Psychology, 50,000 articles from Information Services and Mechanical Engineering, 1,470,000 articles from Biology and Bio-research—and so on. Of the total tally of 2,692,000 articles and theses published up to 1978, the researchers concerned found only 91 uses of the noun “intuition”; of these only 24 were found in studies of intuition itself; the remaining 67, Bastick writes, used the noun “in a casual [or everyday] sense,” which, I would argue, tended to trivialise the term and what it was taken to stand for.

This paucity of recorded later twentieth-century research enquiries into the intuitive (before 1978), in at least a reasonable range of disciplinary fields, seems to me not only to signal researchers’ lack of formal interest in this field, but might well be taken to indicate a widely shared *attitude* to the intuitive and the expert, from the perspectives both of research and of more general enquiries into knowledge. Researcher attitude is relatively easy to identify in written material—see for example Bastick’s reference to a “casual sense” and my own use of the verb “trivialise,” above—but I am as interested here in what, given

3 In Performance Studies, typically low in its count of positive references to the intuitive in the final decades of the twentieth century, Jon McKenzie’s *Perform or Else: from Discipline to Performance* (2001) reveals an attitude that tends to transcend the individual researcher: McKenzie references intuition only three times, in generally negative terms linked to the qualifier “nonrigorous” (111) or in the clause “we must rely heavily on intuition and use methods which are not particularly rigorous” (112).

his and my own explorations, might be called a “research *attitude*” that is manifested in choices made and not made within the larger research context and situation and its set-ups, especially where observational research strategies apply.

I tend to *sense* “attitude”—a “mental position with regard to a fact or state,” and/or a “feeling or emotion toward a fact or state” (Merriam-Webster 2016a)—in everyday human practices, rather more than I am able to define the traits of human “behaviour” (or actional detail) upon whose basis I *infer* its existence and/or operations. Inference, besides, always involves a “working through” of indices, on the part of the observer. I do find it interesting in the present context that attitude tends to be defined in terms of sensing, feeling, and positioning, *with regard to something else*. Attitude, from this perspective, operates relationally, and tends to be reactive,⁴ although attitude can equally operate proactively: the attitude of figures of academic authority to the notion of intuition can dissuade others from identifying it as a suitable case for research enquiry. Perhaps I should add at this point that some of the ways “attitude” is defined are similar to those applied to “intuition,” in terms of the place of the one and the other in knowledge.

Later twentieth-century pragmatism and the intuitive

“Intuition” (in the noun form) proved to be of considerable interest to the European philosophical tradition in the twentieth century,⁵ but of a different order of interest to the American pragmatists of the later twentieth century:⁶ reflecting on pragmatism, the philosopher Sandra Rosenthal (1986, 204) argued in the mid-1980s that a speculative pragmatism⁷ “grows precisely from common intuitions of . . . a pulse of existence, common intuitions that shape the pragmatic character of the several paths via which they enter and articulate the various dimensions of a common vision.” In the final two pages of her *Speculative Pragmatism*, “intuition,” Rosenthal (ibid., 203–4) argues (employing what seems to me to be a striking number of attitudinal markers and metaphors), is the starting point of a philosophical system precisely because “intuition . . . is not something clear and distinct but something vague and inarticulate.” It “wells up,” Rosenthal (ibid., 203) writes, but intuitions can be “made articulate and precise through the structure of a philosophic system”; they can only persuade, however, “if others, through such a system, find that it throws into focus intuitions that were [previously] vaguely inexpressible or submerged through the weight of distortive structures.” “Rationality,” she adds, as an “articulated sec-

4 When a phenomenon like “attitude” is addressed in relational terms, it presents particular challenges for research writing because it combines at least two variables, one of which may not actually be present.

5 Early twentieth-century French philosopher Henri Bergson was concerned with what he called an intuitive method in philosophy. His work ranges widely, and includes reflections on the creative; it is widely known, some hundred years later, for its focus on time or duration (see Bergson [1911] 1988; [1946] 1992). Intuition in Husserl’s phenomenology is reviewed in Levinas’s *Theory of Intuition in Husserl’s Phenomenology* (1995).

6 Pragmatism derived from the early twentieth-century writings of Charles Peirce (Philosophy, Mathematics, Semiotics), William James (Philosophy and Psychology) and John Dewey (Education and Social Reform), among others.

7 On the speculative, see Bryant, Srnicek, and Harman (2011).

ond-level reflection, emerges in philosophy as an attempt to render intelligible imprecise, tentative, often initially inarticulate intuitions” (ibid., 204).

The intuitive and spatial metaphor

According to Rosenthal (1986, 204), “the uncovering of such intuitions requires a deepening to a primordial level that grounds the alternative possibilities for their formal articulation.” Setting aside for the moment the curious fact that the term “intuition” only figures in the two final pages of her 204-page study, I want to point out some of the *problems of writing* (with which this chapter began), including uses of spatial metaphor in what Rosenthal describes as an attempt to render the inarticulate articulate. That a professional philosopher, educator, and writer in the mid-1980s argued that intuitions are located at “a primordial level,” that she supposed that they might “well up,” that they are “submerged through the weight of distortive structures,” and that their articulation through a philosophical system necessarily changes their level, seems to me to be telling in the sorts of terms I have set out above. If intuitive practices are central to expertise and its development, in, for example, professional dance artists, jazz improvisers, composers and choreographers, then we need to argue, first, that intuitive processes operate *within* the situation/s and set-ups that prevail in workshops, rehearsals, and performance spaces, and, second, that within those situations and set-ups, expert-intuitive processes are *already informed by* the circumstances specific to the discipline concerned and its modes of expert production.

Key late twentieth-century texts

Between the year 1978, identified as significant by Bastick, above, and the publication of his *Intuition: How We Think and Act* (1982), the most notable instances of published research into the intuitive and expertise that I have found are Hubert Dreyfus and Stuart Dreyfus’s *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer* (1986) and Donald Schön’s *The Reflective Practitioner* (1983). The reflective medical practitioner, in Schön’s widely acknowledged and seminal work on professional practice and its developing mastery, “reflects in action,” bringing to that situation her or his “knowing-in-action”: she or he pays attention to phenomena that apply in what is both a recognisable and a unique situation (a particular patient but a known medical condition) and brings “to the surface” (note once again the use of a spatial metaphor of upper and lower levels here) her or his “intuitive understanding.” Experimentation for the medical practitioner, in those precise circumstances, was viewed in the mid-1980s as exploratory and hypothesis-testing.

Alongside the significant notion that the knowledge practices engaged in expertise include experimentation, terms like “situation”—or the more recent “set-up”—are interesting here because the “situation” itself, from the view of the practitioner, is “constructed from events that are puzzling, troubling and uncertain” (Schön 1983, 72). I would add that “situation”—or “set-up”—is not simply material or inert: in his work, French writer Jean-François Lyotard (1994) accounts for the “*dispositif*” (or set-up) as productive. It plays its role in

triggering certain sorts of actions, in arousing certain sorts of expectations; it tends to organise and regulate those actions in temporal and spatial terms ("rehearsal time," "workshop space"), and in this sense the set-up has a performative function.

In terms of my "problem with [research] writing," with which I began this chapter, I might need to indicate at this point why what I have called the *spatial metaphor of levels* is problematic: it carries with it and can connote not simply attitude but judgements of value. In the peculiarities of theatre tradition, the highest level of spectator seating is called "heaven" and the lowest level "hell." In Freud, the "id" or "unconscious" is not only "submerged" but also characterised as "the dark, inaccessible part of our personality," recalling Rosenthal's reference to the intuitive and the primordial: "we call it a chaos, a cauldron full of seething excitations" (Freud [1964] 1965, 91). In contrast, the language of networking and the Internet, ubiquitous in the second decade of the twenty-first century, tends to be able to avoid the up/down system and the different values accruing to different "levels."

The title of Dreyfus and Dreyfus's text published in 1986 acknowledges not just technological change and its impact on ways human individuals were viewed in the mid-1980s, but also, in its subtitle, "the power of human intuition and expertise in the era of the computer," it draws explicitly into the equation the notion of a historically-specific expertise. The history of research interest in expertise is constrained by the fact that the term did not enter into general usage until the mid-1800s (the term "expertness" was however used from the mid-1660s). According to the authors, the "immediate intuitive situational response is the [primary] characteristic of expertise" (Dreyfus and Dreyfus 1986, 42); this recalls my suggestion above that expert-intuitive processes "are *already informed by* the circumstances specific to the discipline concerned and its modes of expert production" and, second, that "situation"—or "set-up"—is itself performative, able to trigger certain sorts of action, judgements of disciplinary value, and certain sorts of expectation. On the other hand, while the intuitive, from the perspective of Dreyfus and Dreyfus, is "fluid" and "ongoing," they also suggest that it operates "unconsciously," that it is "automatic," and that it is "non-reflective" (*ibid.*, 32). They argue that "analysis and intuition work together in the human mind": whereas "intuition is the final fruit of skill acquisition, analytic thinking is necessary for beginners learning a new skill. It is also useful," they add, drawing freely on spatial metaphor, "at the highest levels of expertise, where it can sharpen and clarify intuitive insights" (*ibid.*, xiv). The intuitive, from this so-called "five stages from novice to expert" perspective, is approached as central to and indeed constitutive of expert practice.

The emergent "meta-practice" in the learning practitioner

Two years later, in 1988, Jean-François Lyotard published a volume similarly concerned, in part, with the implications of technological change for the ways we understand the human. His view however differs markedly: a growing auto-reflexivity is a vital aspect of the acquisition of expertise. According to

Liotard (1991, 52, my emphasis), *remembering*, in the context of the acquisition of expertise, “also entails the engagement,” in the practitioner, “of a *meta-practice*,” which transcends the immediate situation of experimentation, experience and recall.⁸ It is the practitioner’s mastery of the developing meta-practice itself that signals the development of expertise: the learning practitioner does not “simply” react to present stimuli, but her or his engagement includes a degree of delay, an awareness of the existence of a whole system of possible responses, in which terms the preferred and apparently immediate reaction is rapidly tested before it is applied.

The learning expert practitioner’s intuitive engagement, Lyotard argues, is not “unconscious,” nor is it “automatic”; instead, it is aware of and grasps her or his own reaction to the given stimulus auto-reflexively. Hence there is not only a brief delay, in that practitioner’s reaction to present stimuli, but also a simultaneous awareness of the options available, even when they turn out not to be pertinent to the present situation (Lyotard 1991, 51). In other words, the practitioner learns from *experience* (in a technical as well as an everyday sense) and stores that learning despite it being acted upon or not at the time. The recently popular notion of transferable skills depends upon this retention and recall (the skills are stored “somewhere,” and called back in changing circumstances and set-up), and on this brief, auto-reflexive delay. Expert memory, in other words, is a present factor in decision-making. Such a process, Lyotard (*ibid.*) argues, “implies . . . the intervention of a [growing] meta-agency [in the maker] which inscribes on itself, conserves and makes available the action–reaction pair independently of the present time and place.”

Mastering the “technicity” of expert practice

In this approach to learning, expert practice “is *itself immediately grasped as technique*” by the expert practitioner, a technique that is specific to the types of expert situation involved, and it is “a technique of a higher rank, a *metatechnique*” (Lyotard 1991, 52, my emphases). (“Higher,” plainly, recalls my difficulties with spatial metaphor. I should prefer to suppose that the technique concerned runs “parallel to. . .”) For Lyotard (*ibid.*), in the learning practitioner, practice-memory “implies [the acquisition] of properties unknown to habit”—it thus requires ongoing testing and experimentation—as well as the “recursivity . . . and self-reference” that permit deliberation and self-critical reflection. To my mind, this diversion into late-1980s French philosophical thought is useful if we propose to return to the issue of judgement—of what works and what doesn’t work (for me and others)—that I raised in the first few lines of this chapter. Judgement of the intuitive—of its quality and indeed its aptness in prevailing circumstances—is involved in, conditions, and is conditioned by, all creative decision-making, and degrees of mastery are evidenced in part by the practitioner’s judgement as to the potential efficacy of decisions made. What

⁸ Experiment, experience, expertise: I have previously pointed out the interesting morphological links between these three nouns, in order to argue that “expertise” may well develop from experimentation—evaluated by others to be positive or negative—and experience (see Melrose 2015).

this means is that the expert-intuitive is already informed by discipline-specific retained knowledge and the ability to rapidly recall the systemic choices available to the field or fields of expert practice involved.

Expert decision-making and its acquisition, according to the brief array of late twentieth-century writers quoted above, is significantly intuitive. In Lyotard’s terms, it involves practice memory brought into the present situation but not exhausted by that situation, which in turn is likely to involve already known and unknown factors, immediately articulated as a problem needing to be engaged with. If in twentieth-century terms that intuitive engagement *floods forth* from a *submerged unconscious*, in twenty-first-century terms the intuitive does not seem to be so readily localisable (and, as a consequence in this case, negatively connoted). Lyotard’s reference to a brief delay suggests that increasing mastery does not render intuitive engagement “automatic,” despite its apparent rapidity. Instead, it is better characterised by its mode of operation *in time*, as we see below, rather than by its supposed source—that is, spatially.

Expert creative decision-making—within which I argue that intuitive processing is key—participates in a complex mode of practice that is likely to be inflected in particular ways by the disciplinary field concerned. As we shall see, what I have called “complex modes of practice” themselves eventually elicit their own theorisation in the late 1990s, in what is called “practice theory” or “theories of practice”; in my own terms, it leads to the development of a “practice-theoretical” research approach that has seemed to me to be particularly pertinent to the fields of Practice as Research (PaR) and Practice-led Research in the Performing Arts and related disciplinary fields.⁹ The actual circumstances and the nature of these developments, however, are less clear than my observations above might seem to suggest, leading to my suggestion, in my preamble, above, that, as far as practitioner-researchers in fields of creative practice are concerned, some of us are running in (knowledge or epistemic) circles, with expert practices in mind.

The emergent meta-agency of the practitioner-researcher

It is on the basis of my concern for difficulties in research writing that I want to make a case for a developing meta-agency with regard to the practices of writing in the context of Practice as Research, and particularly in the case of a doctoral programme that includes development of “academic” writing as a key component. Lyotard’s notion of the emergence of technique and of informed judgement in the learning practitioner, and of the role of a growing meta-agency in that same practitioner, need not be limited to approaches to the practitioner’s own area of creative decision-making. A critical self-reflexive “practice-theoretical” approach to the practices of writing, which some of us use to “write up” research materials—to document certain aspects of creative decision-making, to explore written accounts of creative practices in particular disciplines, and to disseminate research findings so that “the results of that practice are openly available [for] use by, and scrutiny of, others” (as the UK Council for Graduate

⁹ See various papers included on my website, *Confessions of an (Uneasy) Expert Spectator* (2008).

Education put it, above)—seems to me to be both painful for some of us and unavoidable.

Surely we cannot, in what continue to be called “new knowledge fields,” assume that the habits of everyday language use suffice, any more than we might decide to admit an inexperienced cellist to a Practice-as-Research doctoral programme. The inexperienced cellist might well lack the technical mastery that is engaged in expert creative practice as research at doctoral level, and, in Lyotard’s terms above, the possibility of an emerging meta-agency; similarly the inexperienced writer, within the framework of a doctoral enquiry—which tends to be characterised by an engagement of greater and greater complexity—may well lack the means to activate, in the time allowed, the linguistic and discursive meta-agency that Lyotard identified.

If, in Lyotard’s (1991, 52) words, the project of mastery of the languages of research requires that language to be “immediately grasped as technique,” specific to the types of expert situation involved, then it needs to involve “a technique of a higher rank, a metatechnique,” which is likely to include experimentation (see also Hallam 2001b). What this means is that practice-memory, in the expert practitioner and her or his writing, “implies [the acquisition] of properties unknown to habit” (Lyotard 1991, 52).

Two “pre-millennial” advances: Gregory Ulmer and T. Schatzki et al.

Two texts emerging in or from the mid-1990s differently engage with the notions of creative invention, expert-intuitive process, and/or practice theory. Gregory Ulmer, writing under the beguiling title of *Heuretics: The Logic of Invention* (1994), took up aspects of Bastick’s (1992) own enquiry into the intuitive, but from the perspective of *practising the theoretical* in the higher educational context, while Schatzki, Knorr Cetina, and Savigny’s *The Practice Turn in Contemporary Theory* (2001) explores approaches to the notion of practice, from a number of disciplinary perspectives.

Ulmer’s (1994, xi) aim was to “find forms appropriate for conducting cultural studies research in relation to the electronic media.” “Realizing that learning is much closer to invention than to verification,” he sought to locate his enquiry “on the side of *wanting to find out* (of theoretical curiosity)” (*ibid.*, xii, my emphasis), instead of simply recording and reiterating the already known.

I do have certain anxieties about drawing here on a theoretical apparatus that explicitly takes Cultural Studies student work on inventing the theoretical as its focus, rather than developing expert invention in qualified participants in the so-called creative industries (indicatively, Ulmer refers to experimentation, but not to the expert, nor to expertise). However, Ulmer was keenly interested in what were hypotheses, in the mid-1990s, regarding intuitive processes and the human brain (as distinct from the brain of the expert practitioner). In addition, his work explicitly draws affect (or human emotion) into the intuitive framework.¹⁰

¹⁰ Massumi (2002) raises the issue of the affects, taking up and developing aspects of the writing of Deleuze and Guattari (e.g., 1994). See also Gregg and Seigworth (2010).

Hyperbolic intuition and invention

In terms that recall some of those used above by Lyotard, the “eureka experience” (or Aha! moment of hyperbolic intuition¹¹), Ulmer (1994, 141) observes, “results from a repetition between quotidian and disciplinary experience (it is a kind of memory). . . . The moment of sudden insight has been described in terms of ‘psychophysical emotion.’” That sudden insight might well involve the feeling, with which I began, that “it *works!*” Time, too, is more important than place, it seems, in the intuitive operations that interest Ulmer and Bastick: “In a eureka intuition, the materials of a disciplinary problem are brought into sudden, unexpected relationship with other areas of a [practitioner’s] experience” (ibid., 142). Ulmer attributes these apparently “accidental” insights to “the peculiar way memory stores information in ‘emotional sets,’” gathering ideas not in terms of logical properties “but [in terms of] common feelings . . . based in eccentric, subjective, idiosyncratic physiognomic perceptions” (ibid.). Hence, apparently accidental, hyperbolic insight is likely to be felt, by the expert practitioner, to be personal rather than a matter of disciplinary adequacy or conformity: “it feels right” has seemed to me, in working with expert practitioners, to be the more likely response to the experience of sudden insight in the processes of creative decision-making.

Now, Ulmer’s orientation to intervention by students in Cultural Studies programmes in the “invention” of the theoretical might not preclude us from finding pertinent some of these observations—the ones that regard insights that might equally emerge in the expert practitioner’s own engagement with one or another “difficult” situation that confronts her or him. Ulmer proceeds to quote Bastick (1982) at some length, and I judge it to be useful in the present circumstances to reproduce that extract here—despite the fact, once again, that Bastick’s own disciplinary field is Education, which may well have different goals (“best practice,” for example, rather than “my creative practice”) from those of the Performing Arts, and that his “intuitive practitioner” is a teacher. Second, this is a largely hypothetical account, rather than one that may remain valid in terms of the fast-changing field of neurological research. However, Ulmer’s account of the entry of affect into the equation is vital, when the expert practitioners who interest me here are artists, whether in the academic disciplines of Dance, Music Performance or Composition, or Theatre and Performance.

11 Mangan (1993, 97) has suggested that strong feelings of rightness are central to aesthetic experience: “Aesthetic phenomenology appears to have at its core an especially intense experience of rightness. It is this feeling that gives aesthetic experience its phenomenological profile: the sense of immediate correctness, of an especially well-integrated or ‘right’ relation of parts, of a primary and metaphysical YES! of cognitive disclosure.”

The intuitive, affect, and emotional sets

Ulmer, quoting Bastick (1982) once again, notes that

When an emotional set occurs which is similar to the original “problem” emotional set, i.e. has the same “feel,” then a new link is made. The pathway is opened up and the present “solution” emotional set is combined with the “problem” emotional set to produce recentering insight with its recognition of the present emotional set as the solution. This is often triggered by some slight kinaesthetic experience giving that final similarity of feeling causing recentering. (Bastick 1982, 73)

Ulmer proceeds to identify the apparently accidental emergence of insight here as a “kinaesthetic thinking”—such as might occur when an expert performer takes up her or his violin, or a Rambert dancer enters the studio space and time, controlling her or his breathing, use of energy, position, spatial orientation, and expectations, in ways that are different from her or his everyday experience. Such a complex bodily action, within the set-ups specific to expert practice, and with some kind of “practice problem” in mind, is likely, in Bastick’s (1982, 284) terms, to trigger a “mental feeling of the texture, contours and consistency of the environment.” “It is as though,” Bastick (*ibid.*) writes, “the ‘mind’s hands’ feel the composition and the spatial relations among objects in the environment,” within which actions will occur and expert-intuitive processes might well emerge. But how might they “emerge,” and with what degree of regularity, in the contexts and set-ups specific to creative decision-making in the Arts?

With regard to the emergence of the apparently accidental insight in this complex situation, Bastick (1982, 142–43) adds that “it is not that the solution [emotional] set has no logical consistency with the problem set (intuitions may turn out to be ‘wrong’ when this is the case) but that this consistency may go unnoticed until a ‘feeling’ calls attention to it.” “Intuition uses emotion,” he goes on, “to encode information redundantly *across all the perceptual modes*” (*ibid.*, my emphasis). What this means is that an expert practitioner may never, in fact, need to use language to account for it—until and unless, plainly, he or she needs to engage in and with academic writing.

What happens when an intuitive process emerges, Bastick (1982, 143) adds, is that there is a “cross-modal transfer and transposition across emotional sets that occurs because information is duplicated by different senses . . . and [t]he sudden recognition of this redundancy produces a strong feeling of certainty . . . a feeling of ‘knowing,’” which Bastick names “judgment.” It entails a “release in tension, anxiety and frustration” in the practitioner.

From “mind” to practice theory

The second text of particular interest here is Schatzki, Knorr Cetina, and Savigny’s *The Practice Turn in Contemporary Theory* (2001), which contains a collection of papers that emerged at an interdisciplinary conference, “Practices and Social Order,” held at the University of Bielefeld in 1996. “Practice accounts,” Schatzki (2001, 2) writes, “are joined in the belief that such phenomena as knowledge, meaning, human activity, science, power, language, social institutions, and historical transformation occur within and are aspects or compo-

nents of the *field of practices*”—among which we should include the diverse set of practices involved in the formal rehearsal and the improvised piano session, and also in the doctoral research programme.

Schatzki goes on: “A central core . . . conceives of practices as embodied, materially mediated arrays of human activity centrally organized around shared practical understanding” (ibid., 2). The “skilled body,” he observes, “commands attention in practice theory as the common meeting point of mind and activity and of individual activity and society” (ibid., 3).

The fourteen essays included in *The Practice Turn in Contemporary Theory* do indeed concern themselves with “materially interwoven practices centrally organized around shared practical understandings” from a number of disciplinary orientations (Schatzki 2001, 3); however, while there is an ongoing interest in “culture as practice” (ibid., 14n3), in “practices in interaction with discourse” (Swidler 2001, 75), and in “practices that anchor constitutive rules” (ibid., 81) that particularly interest me here, there is no specific concern with creative practices, despite the fact—as we will see, below, in the instance of research by Bangert, Schubert, and Fabian (2014)—that rehearsal practices in the higher education context might well provide a particularly interesting set-up for description and analysis.

Knowledge-centred practices and invisibility

While frustratingly (in my view) *The Practice Turn in Contemporary Theory* makes no specific reference to the intuitive or the expert-intuitive in this context,¹² it does approach the notion of what are now widely called knowledge-centred practices. Let’s suppose for the moment that expert-intuitive process itself is engaged in more complex “cross-modal” and “knowledge-centred practices,” which are vital to creative decision-making: only some of those complex practices, in research-methodological terms, turn out to be available for capture in a research economy that is strongly observational in its ideology as well as evidence-based in its claims to validity.

Here’s the rub: both expert-intuitive process and whatever we may take to be its short-term “outcomes” tend to be invisible to an informed observer, however vital the practice might be to the expert-practitioner’s invention—her or his ways of doing things in performance-making. While researcher-practitioner moments of so-called hyperbolic intuition might be inferred by the informed observer, its “cross-modal” nature is such that the inference is likely to depend on another’s observation of facial and bodily symptoms or “indices,” in Peircian semiotic terms.¹³ The languages of “mind,” with which researchers might choose to interpret what is perceived, tend to be richly metaphoric as well

12 Schatzki, Knorr Cetina, and Savigny’s (2001) book is not alone in this omission or erasure: Davide Nicolini’s *Practice Theory, Work, and Organization* (2012) similarly entirely omits reference to intuition and the intuitive from its index, as though Dreyfus and Dreyfus and other key researchers into decision-making in professional practices had never existed.

13 Charles Sanders Peirce (1839–1914) was the American founder of Pragmatics and of Semiotics; the study of semiotics is concerned with signifying systems and semiotic practices. For an edited selection from his work, see Peirce (1998).

as inferential; and, despite advances in psychology and neurology, Hammond (2007, 126), in his *Beyond Rationality*, has pointed out that terms like “cognitive continuum,” readily identified in the literature, is an abstraction that “no one has ever seen . . . and, of course, . . . [n]ever will.”

The research dilemma

My point regarding the “invisibility” of expert-intuitive process itself, the apparent lack of material manifestation of its immediate or short-term outcome, is revelatory in terms of some of the “difficulties for writing” with which I began: where research rules and regulations reasonably require that “everyday” research processes themselves be “open to scrutiny,” expert-intuitive processes *misbehave*. Their constitutive invisibility *as such*, and/or lack of material manifestation, necessitates a research-methodological *meta*-engagement on the part of the researcher into creative decision-making. He or she needs to make it clear that what follows upon intuitivity’s “happening” cannot be substituted for it without the accompaniment of a carefully composed meta-commentary. The apparent rapidity and “accidental” status of these vital processes means that, in research-methodological terms, they need “something” to “stand in” for them. But what might take their place? Expert writing? And, if so, in what sorts of register? Whose expert writing, besides, should the intuitive practitioner-researcher draw upon, if the philosopher or cultural theorist is positioned outside, rather than within, expert creative decision-making?

“Mind” as complex metaphor

I want to add a further observation to my supposition regarding the “cross-modal” and “knowledge-centred” status of the expert-intuitive, which some of the writers in *The Practice Turn in Contemporary Theory* seem to me to underline: whereas Ulmer and Bastick have both used the term “mind,” and I have tended to conceive of the expert-intuitive as a “mental process,” practice theory in *The Practice Turn* provides, instead, a focus on “actual” practices, which tend to be able to be evidenced. Rich commentary, coming from a number of qualitative research studies, is already adept at seeming to stand in, in research terms, for practices that operate outside language; but we need not suppose that this commentary is anything other than a verbalisation, positioned as such, in its own terms, outside others’ expert practices. Schatzki (2001) equally observes, with regard to what I have called invisible mental processes, that “practices . . . displace mind as the central phenomenon in human life” (11), while “practice thought . . . joins other contemporary currents in undercutting individual subjects as the source of meaning and normativity (value too)” (12).

Given these sorts of precisions and accompanying uncertainties, this “millennial” collection (1996 to 2001) begins to indicate why many of the later twentieth-century approaches to the expert-intuitive were both enabled and hampered by the “thinking set-ups” (*dispositifs*, in Lyotard [1994]) within which they emerged and were then articulated. Above, I suggested that, according to a number of researchers, the expert-intuitive may well seem to be accidental, to emerge suddenly, and to be experienced as strongly personal, but that it is also

likely, first, to emerge within the set-ups that govern or at least organise some aspects of certain sorts of disciplinary activity and, second, to take its place in the creative practices that ensue and develop. But “to emerge” . . . how, in what form, and from where?—not least if terms like “mind” and “mental feeling” are in fact metaphors that both illuminate and conceal gaps in knowledge of what might seem to cause or indeed to enable complex human actions, including creative decision-making.

Mind constituted within practices

In Schatzki’s (2001, 10) introduction to what he calls “posthumanist challenges” to established humanist understandings of practices, he notes that, for certain millennial writers, *mind* is constituted within practices. On the basis of this sort of observation, we might suppose that “mind” and “mental process” are complex notions that are subject to inference through our processing of “actual practices,” that cannot be represented directly, and that need, then, to draw on language production in the researcher if they are to be thematised. Human activities, when these are expert—a dance rehearsal, improvised jazz piano—are not fully “mastered by the self-conscious subject of modernist lore” (ibid., 11) even if that “self-conscious subject” (the self, myself, yourself) *feels* that what we experience in expert practice is both subjective and “our own.”

Constituted within practices, in certain situations, and in relation to specific (performative) set-ups, for the posthumanist practice-writer, *other-than-human agents* intervene to enable that *feeling*; those agents are incorporated into “humans with activities, minds, identities and genders” (ibid.), alongside expertise and professional orientation. In this occurrence, in posthuman terms, there is a gap between the *feeling*—and/or the everyday intuition—of self, of self-mastery, and the fact of that incorporation of other-than-human otherness.

Incorporation of the other in the one

Perhaps for the expert cellist, the instrument itself—its material reality as well as its histories of practice, and what taking it up can enable the artist to perform (and to know through practice)—provides a clear example of the virtual incorporation of external agency in individual mastery; but the argument might be harder to grasp in the case of the expert dance practitioner. In the posthumanist understanding, the cello and its traditions also *play the cellist*; dance *dances the dancer*. In this case, the *techniques of the self*¹⁴ that cellists or dancers also expertly deploy in their music or dance practice derive in significant part from, and will be appraised on the basis of, an external system and its codifications that they have incorporated; and this to such an extent that their apparently individual choices belong both to them and to the larger realm of music or dance—includ-

14 This notion derives from the work of Michel Foucault ([1985] 1992, 10–11), in which the “techniques of the self” or the “arts of existence” are defined as “those intentional and voluntary actions by which [humans] not only set themselves rules of conduct, but also seek to transform themselves, to change themselves in their singular being, and to make their life into an *oeuvre* that carries certain aesthetic values and meets certain stylistic criteria.”

ing their audience members. In both these examples, decisions experienced as personal are also enabled by factors external to the human practitioner.

Music plays the musician

In his essay that concludes *The Practice Turn in Contemporary Theory*, Charles Spinosa (2001, 200, my emphasis) suggests that “practices *tend* toward their own elaboration. . . . regardless of our explicit intentions.” Expert-intuitive activity, then, springs in part from human and in part from extra-human and extra-individual agencies. Practices have an “autonomous tendency,” Spinosa (ibid.) argues: once skills become a habitual aspect of practice, the practitioner’s developing mastery means that he or she recognises processes specific to the expert practice that previously he or she might not have recognised, and is likely to seek to incorporate them. Thereby the core practice develops *in practitioners* (ibid., 201) and in the intuitive decision-making they exercise. In terms of the expert-intuitive, then, it is likely to be the case that expert practitioners *intuit* the usefulness or appropriateness of aspects of practice they will then incorporate (or not) on the basis of that judgement, and—where they have incorporated them effectively—they will also pass them on to other practitioners, in the name of the discipline.

PART 2: THE MILLENNIAL “TURN” IN RESEARCH WRITING

Perhaps it is the exponential development of information technologies and in particular artificial intelligence that has prompted in some researchers an accelerated research enquiry into “mind” or “mental process” and what is specific to these that IT has not yet been able to replicate in other-than-human terms. Ironically, in the terms I set out above, the intuitive—dependent as it appears on the individuality of experience and what we retain from it—does seem to figure significantly here. It might also be the case that the increased research interest in Professional Practices and the Professional Doctorate, in the changing UK and European university system, has provided an impetus to the funding and publication of research in a number of fields, which include training in the creative arts. Even so, much research into the role of intuitive decision-making and its relationship to the question of expertise has tended over the past decade to be published under the disciplinary headings of Psychology or Education, rather than Music or Dance.

While a cluster of disciplinary fields has taken up the question of the intuitive and the expert more generally, it may be the case that some PaR practitioner-researchers will find both their research methods and the registers of writing adopted to be rebarbative. The issue of research methods, in the fields of Music, Dance, and Theatre, among others, remains key to certain questions as to what other researchers judge to be the *quality* of research: explicitly identifying the research method itself, and critical assessment of it in terms of other established research methods, is part of the emergence of technique in the researcher’s own developing research meta-agency.

In the context of recently burgeoning interest in intuitive processing and expertise, the notion that what are called “dual-process theories of cognition” might readily transfer across these disciplinary fields is plainly itself of some interest in meta-research terms, but I would argue that their potential contribution to knowledge *in the Performing Arts research disciplines* may well be limited. A number of articles¹⁵ from a range of academic disciplines signal the extent to which concern with the expert and the intuitive has entered the wider research discourse; however, the disciplinary focus, the explicit reference to research methods involved in each instance, and the technical vocabulary used may well mean that the possibility of transfer, from those disciplines, to PaR researchers in the Performing Arts is constrained.

Modelling musical decision-making

Despite these obstacles, in 2014 three researchers in Music, Daniel Bangert, Emery Schubert, and Dorottya Fabian, published an article entitled “A Spiral Model of Musical Decision-Making,” albeit in the journal *Frontiers in Psychology* (Bangert, Schubert, and Fabian 2014). The paper is centrally concerned with decision-making by musicians “performing notated music,” and the model of musical decision-making that interests them, they argue, “builds on psychological theories of decision-making . . . developed from empirical studies of Western art music performance that aimed to identify intuitive and deliberate processes of decision-making” (ibid., 1; see, for example, Hallam 1995a¹⁶). In research-methodological terms, how might the researchers concerned have extracted, from the stated seven musicians “performing notated music,” information regarding the decisions they have taken in performance?

Bangert, Schubert, and Fabian’s research undertaking is welcome, even if the research methods deployed might not be pertinent to the contexts and set-ups of PaR doctorates. Their paper takes up some two decades of Music research primarily focused on skills, instrumental learning, and the development of expertise. A paper similarly concerned with “psychological theories of decision-making,” entitled “Dual Processing Model of Medical Decision-Making” (Djulfbegovic et al. 2001), had noted the absence of adequate research into decision-making by expert practitioners, observing that by 2012 “no formal descriptive model of medicine decision-making based on dual processing theory ha[d] been developed” (ibid., 1, my emphasis), despite the publication of other research findings that suggest that the “dual processing theory of human cognition postulates that *reasoning and decision-making can be described as a function of both an intuitive, experiential, affective system . . . and/or an analytical, deliberative . . . processing system*” (ibid., my emphasis).

What “formal descriptive model”—or indeed what “*informal*” descriptive model—has the Bangert team deployed and made available to scrutiny? Key areas for inclusion, given the observations above, might well include the

¹⁵ See, for example, Harteis, Koch, and Morgenthaler (2008); Moxely et al. (2012); Price (2004).

¹⁶ Of Hallam’s extensive work, see also 1995b, 2001a, 2001b.

“intuitive, experiential, [and] affective,” not least in the terms regarding hyperbolic intuition and emotional sets, set out by Bastick and Ulmer, above.

Intuitive and deliberative processes

The distinction between intuitive and deliberative processes, Bangert, Schubert, and Fabian (2014, 1) argue, is “consistent with dual-process theories of cognition” that are central to a better understanding of the “development of expertise” in the musician and her or his capacity to make rapid and effective creative decisions in the events of practice. In a 2015 paper entitled “Practice Thoughts and Performance Action: Observing Processes of Musical Decision-Making,” Bangert, Schubert, and Fabian presented their exploration of how a group of violinists make musical decisions by inducing a variety of decision-making processes in three conditions: sight-reading, practising, and performing. It equally represents how they report, verbally, on that decision-making. The study aimed “to distinguish between intuitive and deliberate processes as defined by default-interventionist forms of dual process theories of cognition” (Bangert, Schubert, and Fabian 2015, 27, with reference to Evans 2011). The spiral model, Bangert, Schubert, and Fabian (2014, 1) argued, “propose[d] that the proportion of intuitive (Type 1) and deliberate (Type 2) decision-making processes changes with increasing expertise and conceptualizes this change as movement along a continually narrowing upward spiral where the primary axis signifies principal decision-making type and the vertical axis marks level of expertise.” The team’s stated aspiration was far from simple: “by theorizing how musical decision-making operates over time and with increasing expertise, *this model could be used as a framework for future research in music performance studies and performance science more generally*” (ibid., my emphasis). Both intuitive and deliberate processes can be employed in expert decision-making, they argue, but expert intuition occurs *before* deliberation. Time, in other words, is a key element in the acquisition of an expertise that differently prioritises the intuitive as it develops.

The entry of the expert-intuitive

In the terms used by Bangert, Schubert, and Fabian, the spiral model has implications for the *development* of expertise in two main stages relating to intuitive and deliberative processes. I have suggested above, to the contrary, that the *expert-intuitive* is likely already to be informed by elements that relate to the disciplinary tradition, its codes and conventions, even when the practitioner feels that decisions made are her or his own. What Bangert, Schubert, and Fabian’s research findings suggest, on the other hand, is that the expert-intuitive is progressively acquired in a training context, such that the primarily intuitive engagement of “the early stages of learning” gives way “toward greater deliberation as analytical techniques are applied during practice” (Bangert, Schubert, and Fabian 2014, 1).

The second phase, they argue, “occurs as deliberate decisions gradually become automatic (procedural), increasing the role of intuitive processes” (ibid.)—whence the spiral model’s importance. That “increased role of intu-

itive process,” however, in my view, is not simply “proportionally” different, as the writers claim, but rather it is and indeed it should be *qualitatively* different in the expert-practitioner who masters the stages of doctoral development.

Certainly in the PaR context, in my experience, the qualitatively different expert-intuitive processes that emerge as the research undertaking develops are likely to have little to do with (the wording of) the initial intuitive engagement, for the simple reason that “knowing more,” in the case of expertise, means knowing differently, in terms—for example—of different parameters, differences in orientation, differences in set-up and situation, and, in effect, differences in access to theoretical input and in language register or registers. The latter is of vital importance, in the terms I have set up in this chapter.

Research and the individual practitioner

Plainly, in research-methodological terms, training programmes for practitioners within the Higher Education sphere provide a relatively stabilised cluster of practitioners, already identified and categorised by their particular stage in skills acquisition—which is unlikely to be the case for PaR practitioner-researchers. What I feared that the researchers may not have been able to take into account is a factor that may seem to err on the side of the uncontainable: the input of individual experience, and the taste (or lack of taste) for experimentation in the individual practitioner, may or may not be readily calibrated with the degree of technical and aesthetic mastery of the discipline in the given practitioner. But Bangert, Schubert, and Fabian (2014, 3) clearly recognise the notion of the importance of individual experience and judgement:

While the study of violinists provided insights into how musicians make decisions in the early stages of learning a new piece, we have also examined how decisions are made when the performer is familiar with the musical material. In a case study of the cellist Daniel Yeadon, we were able to elicit detailed description of decision-making regarding his interpretation of J. S. Bach’s Suites for Solo Cello, BWV1007–1012 (Bangert et al., 2014). Decisions were defined as reported changes to one or more performance features and were classified according to the language used within the quotation (a methodology piloted in Bangert, 2009). Four categories of decisions were found: intuitive, procedural, deliberate, and deliberate HIP (historically informed performance).

Bangert, Schubert, and Fabian (2014, 3) noted that deliberate decision-making “accounted for 65% of the total number of decisions found, while intuitive (including procedural) decisions accounted for the remaining 35%.” Instances of intuitive decision-making “based on a feeling or sense . . . were not explained further. . . . Yeadon described doing things based on ‘how I’m feeling at the time’ or being ‘experimental’ and ‘spontaneous.’ Deliberate decisions demonstrated conscious awareness and planning. These quotations included phrases like ‘I had it in my head’ or ‘I’d consciously decided’” (ibid.).

In research-methodological terms, the team gathers what the expert practitioner says, but with implications that seem to me to be obvious: the practitioner uses habits of everyday description, within the professional context,

against the discursive background (of established attitude) to which Bastick drew our attention above. But in terms of qualitative research into expertise, is everyday speech, from which “useful” detail can be extracted, an adequate indicator of expert knowledge in practice?

Time and the intuitive process

Prior to Bangert, Schubert, and Fabian’s 2014 publication in *Psychology*, a team of writer-researchers from Education similarly characterised the intuitive in temporal terms: in “How Intuition Contributes to High Performance: An Educational Perspective,” Christian Harteis, Tina Koch, and Barbara Morgenthaler (2008) identify a particular aim: to explore the role intuitive expertise plays in *judgement* in the professional and educational spheres. While they recognise that others have identified “two parallel and permanent . . . thinking systems” (ibid., 68)—the intuitive and the deliberative—at play in expert decision-making, they note the conventional notion that “intuition utilizes tacit knowledge and is not dependent on awareness and concentration” (ibid., 69). It is not dependent upon deliberation, which may however follow “after a period of incubation and rumination when thinking activities have been [interrupted]” (ibid.; with reference to Bastick 2003).

Intuition as “fast and frugal”

The research team from Education reports on a different way of understanding the intuitive that opposes two models: on the one side, they report, is the characterisation of intuition as “fast and frugal,” meaning that it seems to happen spontaneously but to be relatively brief and slight in terms of its implications. Speed and frugality, in these terms, seem likely to beget a relatively cursory verbal account, such as we see in Yeadon, quoted in Bangert, Schubert, and Fabian, above.

Prior experience abbreviated

The writer-educators suggest, however, that intuitive decision-making is fast because it is informed by “an *abbreviation of the cognitive pattern*” (Harteis, Koch, and Morgenthaler 2008, 69, my emphasis) “*acquired through prior experience*” (ibid., 70) that the Practice-led researcher might want to elaborate on. They take up the notion that experts operating intuitively *recognise patterns in complex arrangements* (situation and set-up, plus past experience) that enable them to respond spontaneously: this constitutes the important idea of intuition as *recognition*, a notion already included in the early twentieth-century writing of French philosopher Henri Bergson ([1911] 1988).¹⁷ Recognition allows experts to seem to avoid concentration, reflection, or awareness. But this model differs from the notion of a “fast and frugal” intuitive decision-making, because, in the recognition model, the intuitive engages with what is called “rich knowledge.”

¹⁷ Bergson distinguishes between attentive and inattentive recognition, a distinction that is of interest in the context of growing meta-agency.

“Rich knowledge”

Such “rich knowledge,” in a professional as well as a training context, will be complex and marked by the specificities of that context, its disciplinary set-ups, and individual past experience. In pedagogic terms (in both undergraduate training set-ups, and in the doctoral context), educators or trainers are able to identify certain aspects from within that or those contexts in establishing learning and teaching programmes.

It also seems to me, however, that some expert practitioners in the wider community are likely no longer to be consciously aware of this rich knowledge as such. They are likely, in my experience, to have internalised rich or complex knowledge practices acquired in the professional environment, through ongoing experimentation, experience (including recognition and judgement), and progressive enculturation; however, thereafter they are as likely to underestimate and under-represent the significance of those rich or complex knowledge practices in epistemic terms. For many practitioners in the doctoral context, their own areas of expertise, in their estimation, are other-than-linguistic, where linguistic competence has never been as important as other expert practices. How might “we” (in the doctoral PaR programme) enable them to articulate these knowledge-practices, unless we strive to equip the doctoral researcher with discursive tools appropriate to the production of a critical and self-reflexive meta-commentary?

Back to that research dilemma, once again . . .

This historically-inflected research situation and some of its curiosities that I have begun to sketch out above is of keen interest, I would argue, in terms of the “knowledge problematic” that I have represented above by the words “running in [knowledge] circles”: there is a central conundrum to the Practice-as-Research or Practice-led Research aspiration that seems to me to be exemplified by the sad history, in the later twentieth century, of the intuitive in general and of the expert-intuitive more particularly. To the extent that the expert-intuitive is, in the simplest of terms, a mental process that is informed by and opens onto discipline-specific (knowledge-)practices—which, like many other mental processes, need have no material manifestation as such—these mental processes, regardless of Schatzki’s (2001, 11) assertion that mind is constituted within actual practices, are not, in other words, “openly available to . . . scrutiny [by] others” (UK Council for Graduate Education 2016).

What’s more, as I have suggested above, while intuitive processes might well be followed by observable actions, it would be unhelpful to mistake the action that follows for the process itself. Even in the case of what Bastick has called “hyperbolic intuition,” a primary difficulty for the ways others in Higher Education and Research have come to evaluate research lies in that same question of observation and reliable evidence. Any account of “hyperbolic intuition”—for example—depends upon observer inference; as such, it is likely already to have been “worked through,” often according to one or another habitual process of interpretation, which may well include prejudicial representations of the intuitive.

How might creative practitioner-researchers in the Performing Arts begin to document the *mental processes* central—in my argument—to creative decision-making? That they are eventually *constituted within expert practices*, in Schatzki’s account of posthuman practice, simply fails to allow us to understand that expert practitioners always exercise choice *within the range of systemic options* and in so doing also exercise judgement. What’s more, the central conundrum that continues to test me here—that is, the logical postulation that evades resolution—derives, in significant part, from the “problem” of evidence-provision of that exercise of choice. Evidence-based research has been preferred over the past two decades because it purports to include a systematic focus on the empirical, to such an extent that the qualifier “evidence-based” has become a commonplace term. What uses of the term tend to mask, however, are issues relating specifically to the nature of decision-making, to how that decision-making itself might be evidenced, and finally to the mode of transmission of “evidence” that the researcher might choose. How might creative practitioner-researchers in the Performing Arts begin to document the *mental processes* central—in my argument—to creative decision-making in the advanced research context and its set-ups?

REFERENCES

- Bangert, Daniel. 2009. “Doing without Thinking? Aspects of Musical Decision-Making.” In *Proceedings of the International Symposium on Performance Science*, edited by Aaron Williamon, Sharman Pretty, and Ralph Buck, 403–8. Utrecht: European Association of Conservatoires.
- Bangert, Daniel, Emery Schubert, and Dorotyya Fabian. 2014. “A Spiral Model of Musical Decision-Making.” *Frontiers in Psychology* 5: 320. Accessed 25 July 2016. doi:10.3389/fpsyg.2014.00320.
- . 2015. “Practice Thoughts and Performance Action: Observing Processes of Musical Decision-Making.” *Music Performance Research* 7 (1): 27–46.
- Bangert, Daniel, Dorotyya Fabian, Emery Schubert, and Daniel Yeadon. 2014. “Performing Solo Bach: A Case Study of Musical Decision-Making.” *Musicae Scientiae* 18 (1): 35–52.
- Bastick, Tony. 1982. *Intuition: How We Think and Act*. New York: Wiley.
- . 2003. *Intuition: Evaluating the Construct and Its Impact on Creative Thinking*. Kingston, Jamaica: Stoneman and Lang.
- Bergson, Henri. (1911) 1988. *Matter and Memory*. Translated by Nancy Margaret Paul and W. Scott Palmer. Zone Books. First published 1896 as *Matière et mémoire: Essai sur la relation du corps à l’esprit* (Paris: F. Alcan). This translation first published 1911 (London: George Allen and Unwin).
- . (1946) 1992. *The Creative Mind: An Introduction to Metaphysics*. Translated by Mabelle L. Andison. New York: Citadel Press. First published 1934 as *La pensée et le mouvant: Essais et conférences* (Paris: F. Alcan). This translation first published 1946 (New York: Philosophical Library).
- Bryant, Levi, Nick Srnicek, and Graham Harman, eds. 2011. *The Speculative Turn: Continental Materialism and Realism*. Anamnesis. Melbourne: Re.press.
- Deleuze, Gilles, and Félix Guattari. 1994. *What Is Philosophy?* Translated by Hugh Tomlinson and Graham Burchell. New York: Columbia University Press. First published 1991 as *Qu’est-ce que la philosophie?* (Paris: Éditions de Minuit).
- Djulbegovic, Benjamin, Iztok Hozo, Jason Beckstead, Athanasios Tsatsanis, and Stephen G. Pauker. 2012. “Dual Processing Model of Medical Decision-Making.” *BMC Medical Informatics and Decision Making* 12: 94. Accessed 26 July 2016. doi:10.1186/1472-6947-12-94.
- Dreyfus, Hubert L., and Stuart E. Dreyfus. 1986. *Mind over Machine: The Power of Human Intuition and Expertise in the Era of the Computer*. New York: Free Press.

Running in Circles, with “Music” in Mind

- Evans, Jonathan St. B. T. 2011. “Dual-Process Theories of Reasoning: Contemporary Issues and Developmental Applications.” In “Dual-Process Theories of Cognitive Development,” special issue, *Developmental Review* 31 (2–3): 86–102.
- Foucault, Michel. (1985) 1992. *The Use of Pleasure: The History of Sexuality: Volume Two*. Translated by Robert Hurley. London: Penguin. First published 1984 as *Histoire de la sexualité: 2. L'usage des plaisirs* (Paris: Gallimard). This translation first published 1985 (New York: Pantheon).
- Freud, Sigmund. (1964) 1965. *New Introductory Lectures on Psychoanalysis*. Translated and edited by James Strachey. New York: Norton. First published 1933 as *Neue Folge der Vorlesungen zur Einführung in die Psychoanalyse* (Vienna: Internationaler Psychoanalytischer Verlag). This translation first published 1964 (London: Hogarth Press; Institute of Psychoanalysis).
- Gregg, Melissa, and Gregory J. Seigworth, eds. 2010. *The Affect Theory Reader*. Durham, NC: Duke University Press.
- Hallam, Susan. 1995a. “Professional Musicians’ Approaches to the Learning and Interpretation of Music.” *Psychology of Music* 23 (2): 111–28.
- . 1995b. “Professional Musicians’ Orientations to Practice: Implications for Teaching.” *British Journal of Music Education* 12 (1): 3–19.
- . 2001a. “The Development of Expertise in Young Musicians: Strategy Use, Knowledge Acquisition and Individual Diversity.” *Music Education Research* 3 (1): 7–23.
- . 2001b. “The Development of Metacognition in Musicians: Implications for Education.” *British Journal of Music Education* 18 (1): 27–39.
- Hammond, Kenneth R. 2007. *Beyond Rationality: The Search for Wisdom in a Troubled Time*. New York: Oxford University Press.
- Harteis, Christian, Tina Koch, and Barbara Morgenthaler. 2008. “How Intuition Contributes to High Performance: An Educational Perspective.” *US-China Education Review* 5 (1): 68–80.
- Levinas, Emmanuel. 1995. *The Theory of Intuition in Husserl’s Phenomenology*. Translated by André Orianne. 2nd ed. Evanston, IL: Northwestern University Press. First published 1963 as *Théorie de l’intuition dans la phénoménologie de Husserl* (France: J. Vrin).
- Lyotard, Jean-François. 1988. *L’Inhumain: Causeries sur le temps*. Paris: Galilée. Translated by Geoffrey Bennington and Rachel Bowlby as Lyotard 1991.
- . 1991. *The Inhuman: Reflections on Time*. Translated by Geoffrey Bennington and Rachel Bowlby. Cambridge: Polity. First published as Lyotard 1988.
- . 1994. *Des dispositifs pulsionnels*. Paris: Galilée.
- Mangan, Bruce. 1993. “Taking Phenomenology Seriously: The ‘Fringe’ and Its Implications for Cognitive Research.” *Consciousness and Cognition* 2 (2): 89–108.
- Massumi, Brian. 2002. *Parables for the Virtual: Movement, Affect, Sensation*. Durham, NC: Duke University Press.
- McKenzie, Jon. 2001. *Perform or Else: From Discipline to Performance*. London: Routledge.
- Melrose, Susan. 1994. *A Semiotics of the Dramatic Text*. Basingstoke: Macmillan.
- . 2008. *Confessions of an (Uneasy) Expert Spectator*. Accessed 21 July 2016. <http://www.sfmelrose.org.uk>.
- . 2015. “Chasing Expertise: Reappraising the Role of Intuitive Process in Creative Decision-Making.” Keynote paper presented at “Thinking Dance 2015: Questioning the Contemporary,” Leeds Beckett University, United Kingdom, 16–17 October 2015. Accessed 21 July 2016. <http://eprints.mdx.ac.uk/18460/>.
- Merriam-Webster. 2016a. “Attitude, noun.” Accessed 19 July 2016. <http://www.merriam-webster.com/dictionary/attitude>.
- . 2016b. “Intuit, verb.” Accessed 19 July 2016. <http://www.merriam-webster.com/dictionary/intuit>.
- . 2016c. “Intuition, noun.” Accessed 19 July 2016. <http://www.merriam-webster.com>.
- Moxely, Jerad. H., K. Anders Ericsson, Neil Charness, and Ralf T. Krampe. 2012. “The Role of Intuition and Deliberative Thinking in Experts’ Superior Tactical Decision-Making.” *Cognition* 124 (1): 72–78.

- Nicolini, Davide. 2012. *Practice Theory, Work, and Organization: An Introduction*. Oxford: Oxford University Press.
- Osborne, Peter. 2000. *Philosophy in Cultural Theory*. London: Routledge.
- Pierce, Charles Sanders. 1998. *The Essential Writings*. Edited by Edward C. Moore. New York: Prometheus Books.
- Price, Adrienne. 2004. "Encouraging Reflection and Critical Thinking in Practice." *Nursing Standard* 18 (47): 46–52.
- Rosenthal, Sandra B. 1986. *Speculative Pragmatism*. Amherst: University of Massachusetts Press.
- Schatzki, Theodore R. 2001. "Introduction: Practice Theory." In Schatzki, Knorr Cetina, and Savigny 2001, 1–14.
- Schatzki, Theodore R., Karin Knorr Cetina, and Eike von Savigny, eds. 2001. *The Practice Turn in Contemporary Theory*. London: Routledge.
- Schön, Donald A. 1983. *The Reflective Practitioner: How Professionals Think in Action*. New York: Basic Books.
- Spinosa, Charles. 2001. "Derridian Dispersion and Heideggerian Articulation: General Tendencies in the Practices that Govern Intelligibility." In Schatzki, Knorr Cetina, and Savigny 2001, 199–212.
- Swidler, Ann. 2001. "What Anchors Cultural Practices." In Schatzki, Knorr Cetina, and Savigny 2001, 74–92.
- UK Council for Graduate Education. 2016. "Good Practice in Research Ethics and Integrity 2016." Information page on conference held at King's Manor, York, 24 November 2016. Accessed 19 July 2016. <http://www.ukcge.ac.uk/events/good-practice-in-research-ethics-2016-85.aspx>.
- Ulmer, Gregory L. 1994. *Heuretics: The Logic of Invention*. Baltimore: Johns Hopkins University Press.
- Zola, Zoka. 2007. "Intuition." The Chicago School of Media Theory, Keywords. Accessed 19 July 2016. <http://lucian.uchicago.edu/blogs/mediatheory/keywords/intuition>.