

Knowing through dance-making: Choreography, practical knowledge and practice-as-research

Anna Pakes

What does choreography have to do with knowledge? Clearly, choreographic works and the processes historically or typically involved in making them are the sorts of things we can know something about. But does the practice of choreography itself exploit, develop or demonstrate particular kinds of knowledge? Is it a way – or series of ways – of knowing in its own right?

The relationship between knowledge and dance practice has been explored by philosophers interested in dance and its role in primary, secondary and tertiary education. Writers such as Best (1985, 1987a, 1987b), McFee (1992, 1994), Carr (1984, 1987a, 1999) and Redfern (1982, 1983) are keen to assert the legitimacy and value of dance within educational curricula, and therefore emphasise how the practice of performance and choreography contribute to the pupil's understanding of the art form in general. They also (particularly Best and McFee) make a case for dance playing a role in emotional education – in developing students' understanding of life issues through the refined insight which engagement with dance works promotes. Much of this writing highlights the cognitive processes involved in making, performing and watching dance – clarifying the contribution dance can make to cognitive development. A clear connection between choreography and particular kinds or domains of knowledge is thus revealed.

More recently, debates about practice as research have again rendered urgent questions about choreography's epistemology.¹ If research (at least at higher degree level and beyond) is the generation of new knowledge, then treating dance practice as a form of research raises important epistemological issues. What kind of knowledge do choreography and performance generate? Is this knowledge specifically about the practice of dance, or also other domains? How does dance practice develop original insight, and how is this disseminated and shared? Unless we can identify the choreographer-researcher's claim to knowledge, it remains difficult to maintain that choreographic research has equivalent status with other, more traditional forms of scholarly enquiry. Within the broader university environment, the value of choreographic research also seems (at least partly) to hinge on whether it generates a distinctive form of knowledge, one that is not available by other means.

Western philosophy has traditionally conceived of knowledge as essentially 'justified true belief'. This conception can be traced back at least as far as Plato's *Theaetetus* and emphasises the importance of factual and theoretical knowledge over and above other forms. It is a conception of what it is to know which has intensified its hold with the ascendancy of positivist and scientific forms of understanding in the modern world. One result is a contemporary situation in which ways of knowing that refuse or transcend the

scientific paradigm must often nonetheless be justified with reference to it, if they are to be recognised as valid. And against an epistemological framework in which factual and theoretical knowledge are accorded pride of place, practice as research is likely to be considered at best marginal, at worst illegitimate, as a form of scholarly endeavour (hence the scepticism with which dance practice as research is sometimes greeted by academics from other disciplines). Choreography is not (generally) a fact-seeking exercise, not (necessarily) a theory-building enterprise and rarely (if ever) a means to measure or quantify the objects of a supposedly mind-independent reality. So, what do and can we know through making dance?

One potentially useful route to an answer is mapped by philosophical discussions of practical knowledge. David Carr (1978, 1999) has explored these discussions' pertinence to the dance domain, examining generally how dance practice involves practical reasoning and wisdom. The discussion below is indebted to Carr's work and develops in more detail how the practical knowledge literature might be relevant to choreography and choreographic practice-as-research.

Knowing how

A well-known challenge to the factual and theoretical bias of Western epistemology is articulated in Gilbert Ryle's (1963) discussion of knowing how as distinct from knowing that. Against the background of a tradition preoccupied with 'investigating the nature, source, and the credentials of the theories we adopt' (1963: 28), Ryle's concern is to explore what it is to know how to perform tasks and what it means to act intelligently. His ideas are pertinent to choreography insofar as they outline a kind of knowledge embodied in dance, alongside other forms of practice.

The distinction between 'knowing how' and 'knowing that' can be illustrated using a simple example. Knowing how to ride a bicycle is clearly different from a theoretical knowledge of how the bicycle works, or of how the expenditure of human energy while pedalling results in forward motion. Factual and theoretical knowledge of the latter kind are not going to help the aspiring cyclist learn to ride – that can only be achieved through practice. Similarly, knowledge of how to make a dance work is distinct from being able to analyse existing choreography or explain how and why it is effective. By extension of Ryle's argument, the experienced artist's knowledge how would be embodied in her conduct of the creative process: it informs the way the choreographer relates to her dancers, generates movement material, manipulates and edits that material and orchestrates the variety of choreographic elements within the emerging work. It is not a case of having a prior theoretical knowledge of what should be done in a choreographic situation and then putting these ideas into practice; nor is it a question of envisaging the work in theory and then finding a physical form to illustrate that idea. Rather, the intelligence of the choreographer's action is embedded in the doing, of which she may or may not be reflectively aware. And this knowledge how is something that – like riding a bike – can only be developed through practice. It cannot be learned by rote or in the abstract.

For Ryle, then, knowing how is a legitimate form of knowledge in its own right, not a derivative operation premised on prior theoretical understanding. Thought and knowledge are embodied in the activity of those who know how. That intelligent action is not – as is often assumed – a two-stage process of thinking, then acting in accordance with the thoughts. With the skilful clown, the chess master, the experienced player of darts (and, by extension, the experienced dance artist), we admire what they do, not ‘some extra hidden performance executed “in their head[s]”’ (1963: 33). Ryle’s claims about ‘knowing how’ form part of his broader challenge to dualist assumptions and to the paradigm of the ‘ghost in the machine’. His ultimate purpose is to show the absurdity of positing mind and body, thought processes and physical action as separate, logically parallel entities. Dualism, for Ryle, rests on this fundamental category mistake. The ‘intellectualist legend’, which imagines intelligent practice as ‘a step-child of theory’ (1963: 27), previously formulated in the abstract and private space of the agent’s mind, succumbs to the same fallacy.

Ryle’s argument seems highly suggestive for the dance artist because it accords weight and value to the doing itself, instead of requiring a theorisation of practice to render it epistemologically respectable. Understanding is already embodied in actions the artist performs during the making process: there is no need to alter the nature of that process in order to give it credence as thoughtful activity. Ryle’s view also chimes in tune with the claims of those choreographer-researchers who object to the idea that their practice must be informed, even directed, by a theoretical perspective or agenda in order to qualify as research. To assume that theory must be the driving force behind thoughtful choreography would be to succumb to what Ryle calls the ‘intellectualist fallacy’ and to ignore the intelligence intrinsic to practice itself.

Practical reasoning

Ryle’s discussion thus resonates in the sphere of dance practice, but remains too schematic to probe the nature and parameters of knowing how. David Carr (1978) recognises and proposes to redress this by drawing on the writings of post-war analytic philosophers about practical inference (Anscombe 1963, Kenny 1966 and Von Wright 1963, 1971). These writings in turn refer back to Aristotle’s exploration of forms of practical knowledge (2000), and to his ‘invention’ of the practical syllogism, which attempts to formalise the kind of reasoning typical of the sphere of practical action. Because this literature further elucidates the logic of knowing how, it arguably identifies principles of rationality embedded in dance practice, and may help clarify what constitutes choreographic knowing.

The mainstay of logical enquiry before Gottlob Frege, the syllogism, depends for its validity on certain rules that govern inference from premises to conclusion, a classic example being the following:

All men are mortal	Premise 1
Socrates is a man	Premise 2

Therefore, Socrates is mortal Conclusion

In this example, the first premise states a universal law, the second an empirical fact, which falls under the province of that universal law, allowing the valid inference to another fact which is articulated in the conclusion. This pattern of passing from general premise to singular premise to singular conclusion is the 'canonical syllogistic form' (Carr 1978: 7). The syllogism presents a proof of the conclusion which follows necessarily from the premises, if the rules of logic are obeyed. This is a kind of reasoning about matters of fact and general principles, governed by a logic of truth and falsity: if the premises are true, then the conclusion will also be true. This kind of deductive inference plays a key role in scientific reasoning or explanation, though it is not the only form of reasoning present in that domain.²

The practical syllogism, meanwhile, articulates a different kind of logic, whereby one moves from intentions or purposes and consideration of the particular circumstances in play (the premises) to action (the conclusion), as in the following example from Carr:

I intend to change the oil in my car;
If I remove the drain plug, I'll be able to change the oil;
There is no way to change the oil without removing the drain plug;
I will/must remove the drain plug. (Carr 1978: 6)

In contrast to theoretical reasoning, this kind of logic is concerned with how we can fulfil our intentions rather than with moving from observations to statements about the world. Practical inference concerns 'the practical logic of our efforts to cope with and be effective in the world, not the theoretical logic of our thoughts about the world' (Carr 1978: 8). It takes into account the particularity of the situations in which action occurs. Where the first premise of a theoretical syllogism is invariably general (e.g. 'All men are mortal'), 'there is no general positive rule of the form "Always do X" or "Doing X is always good" (where X describes some specific action) which a sane person will accept as a starting point for reasoning out what to do in a particular case' (Anscombe 1963: 62). Aristotle and his modern followers stress that the conclusion to a practical syllogism is not a statement (though it appears as such in attempts to articulate the logical principles at stake) but an action. Thus, in the example above, the conclusion would be the actual removal of the drain plug not the thought that this would be a good idea, nor simply an intention to remove the drain plug (Carr 1978: 8–9). The conclusion 'is an action whose point is shewn by the premises' (Anscombe 1963: 60). The logical rules of theoretical inference ensure that one does not pass from true assertions to false conclusions; the rules of practical inference determine 'that in reasoning about what to do we never pass from a plan which will satisfy our desires to a plan which will not satisfy them' (Kenny 1966: 73). In this 'logic of satisfactoriness', the motivating desire is crucial as the touchstone against which action is measured.

Clearly choreographic making is typically a more complex, less predictable activity than changing the oil in one's car. But the choreographer's process entails a similar sort of

practical engagement over and above any effort to theorise about dance works. It remains a question of acting in accordance with an intention, in a way that takes into account the prevailing circumstances, be they the precedents set by dance history, contemporary aesthetic conventions, or pragmatic considerations (like the available funds, dancers and rehearsal space). So the reasoning embedded in choreographic practice seems articulable in practical rather than theoretical syllogistic form. There are no general artistic rules to dictate what should always be done in particular choreographic situations; rather, the artistic intention is the starting point of the chain of reasoning. Relating that intention to the surrounding circumstances provides a justification or rationale for what choreographers do or the work they make (the syllogism's conclusion).

It is perhaps instructive to think of choreographers' verbal (spoken or written) accounts of their processes as articulating their rationality in this way. What such accounts often do is to show the sense of the artist's action, that is, they expose the logic embedded in what was done, which the choreographer may or may not have been reflectively aware of during the process itself.³ Indeed, that logic arguably only becomes evident afterwards, when the work is complete and its connections with the original intention can be made. From this perspective, accounts of process are not so much causal explanations which trace chronologically what went on in the choreographer's head and the actions it provoked. Rather, they are teleological explanations which justify the activity in relation to its end. They lay bare the practical reasoning embedded in the choreographic process.

There is an issue here of how we can be sure that practical reasoning informs what the artist does unless that logic is somehow made explicit. After all, as Ryle points out, 'there need be no visible or audible differences between an action done with skill and one done from sheer habit, blind impulse, or in a fit of absence of mind' (1963: 40). It is possible, if unlikely, that a successful choreographic work could be created by someone wholly inexperienced in the practice, because he just happens to hit on an idea, set of images or movement material that 'works'; he does not know how in the manner of the choreographer with thirty years' practice behind her, yet by happy accident produces a dance that gives the illusion that he does. But then being able to do is neither a necessary nor a sufficient condition of knowing how, since our inexperienced artist can choreograph without knowing how. Does this suggest that the artist's practical reasoning process must be formalised or symbolically articulated in a language other than that of the artwork in order to prove that it informed the action?

Requiring verbal articulation of the reasoning process seems to undercut the advances made by the notion of practical inference in the first place. It is one thing to say that such reasoning can be abstracted and formalised, another to argue that it must: the sense in which reasoning is embodied in the doing gets lost as soon as there is an expectation that it be reframed or articulated some other way. In their account of the practical syllogism, summarised above, both Anscombe and Carr emphasise how its conclusion is an action, not a statement of intention or a direction to act, both of which would suggest that a different, more theoretical kind of rationality is at stake. Equally, the choreographer might claim that – while she may choose to discuss her process and thus lay bare how it was informed by

patterns of practical reason – such discussion does not alter the fact that her actions were reasonable and intelligent, embodying her knowledge how, regardless of whether or how what she did is subsequently described or paraphrased. Similarly, the practitioner-researcher might be uneasy that the requirement for a verbal account of his process, which exposes its reasoned character, shifts the focus of any assessment of his work from the practice itself to how well he writes about it even though it is the choreography he has made which really embodied his (practical) thinking and knowledge.⁴

One way around this problem might be to suggest that it is not so much the agent who should identify her reasoning process but rather those observing and evaluating what she does. Carr (1978) makes the point that we reason practically in the third person and past tense as well as in the first person and present tense. Practical reasoning is the means by which others' intentional actions are understood, 'a matter of perceiving the logical ties between their beliefs and intentions and the things that they do' (1978: 11). If we are to claim that a person has knowledge how, we need to be able to explain these logical connections implicit in their activity: 'the correct ascription of "knowing how" presupposes understanding of an agent's behaviour through practical reasoning' (1978: 14). An example of Ryle's (1963) may help to illustrate this point. Ryle imagines a chess game in which a drunkard novice makes a devastating move that flummoxes and, ultimately, defeats his more experienced opponent. However, the fact that the drunkard has proved able to do this, indeed has performed the move, does not mean that the spectators ascribe to him the quality of knowing how to play, or assume that his action was a planned move that had been carefully thought through. In fact:

the spectators are satisfied that this was due not to cleverness but to luck, if they are satisfied that most of his moves made in this state break the rules of chess, or have no tactical connexion with the position of the game, that he would not be likely to repeat this move if the tactical situation were to recur, that he would not applaud such a move made by another player in a similar situation, that he could not explain why he had done it or even describe the threat under which his King had been.
(Ryle 1963: 45)

This description highlights the many and various criteria against which spectators assess whether or not the move was intelligent.

A similarly complex, multifaceted set of considerations comes into play when judging a dance work as the outcome of a reasoned process. The audience or assessors will be interested in how different facets of the work relate to one another, to other instances of the choreographer's practice and, indeed, to works and strategies employed by others in the field. They will be concerned with whether the line a choreographer pursues at a particular moment (in the dance work, or more generally in her career) makes sense in relation to the surrounding circumstances – aesthetic, semantic, pragmatic – and in how the choreographer explains (or might explain) that action and/or the problematic it resolved (without requiring that the whole logic of her process be laid bare).⁵ Evaluating practice in this way does not

make the success of the action's outcome a condition of its intelligence. The experienced chess player may lose the game as a result of the drunkard's devastating move, but the spectators still recognise that he is the one who really knows how to play. Equally, the dance work performed as the culmination of the choreographer's process might be judged an artistic or aesthetic failure, but this would not necessarily disqualify the choreography – or the practice-as-research – as intelligent action.

Choreography as creative action

There is still, however, a major difficulty in adapting these ideas about practical knowledge to choreography and choreography presented as research. Carr, Anscombe and Kenny all treat practical reasoning as underwriting intentional action as such. Choreographic practice is clearly a form of intentional action – that is, it is not something we engage in by accident, or unwittingly (which is not to say that accidents and unexpected turns do not occur in the course of making); but it is also a highly specialised and distinctive activity which seems, intuitively, to be fundamentally unlike changing the oil in one's car or playing chess. These are much more clearly routinised actions, governed by norms or rules that make the reasoning about the means to achieve one's purposes relatively straightforward.

In one sense, of course, choreography is also a rule-governed activity: conventions do exist to render it both possible and identifiable, and even when breaking with these conventions one still operates with reference to them.⁶ And yet, choreography's creative dimension transcends the norm-based character of the 'ordinary' activities with which the literature on practical inference is largely preoccupied. Ends and means are not as clearly defined in a creative situation. For one thing, the purpose or intention governing a choreographic process (and thus governing the logic of practical reasoning embedded in that process) may itself shift according to the circumstances that present themselves; it may also be discovered during that process rather than being identifiable in advance.⁷ What is more, the requirement that practice at least aims at an original approach remains entrenched in the aesthetic-artistic environment in which most choreographers work. As soon as we begin to consider choreography as research there is an additional expectation that it generate new knowledge and make an innovative contribution to the field, not necessarily only with respect to its artistic originality.⁸ Can the practical reasoning model accommodate this creative dimension of choreographic (research) practice?

Carr, although concerned with dance education rather than dance research, recognises this problem within his early work on dance practical knowledge. He notes that ideas about practical inference seem able to account only for 'the acquisition of fairly routine or habitual techniques – staying well clear of the less predictable creative and imaginative aspects of dance practice' (1999: 126). His solution to the dilemma is to further interrogate the range of Aristotle's distinctions between kinds of knowledge, focusing in particular on the notion of phronesis (practical wisdom). This notion is also interesting as a way of articulating the knowledge a choreographer or choreographer-researcher develops through her practice.

For Aristotle, practical knowledge is distinct from theoretical understanding (episteme), which is a demonstrable and teachable form of knowledge concerned with the first principles or causes of its objects. Thus episteme is objective knowledge in the traditional sense, linked to and demonstrated by the ability to 'give an account of the thing which traced it back, or tied it down, to certain principles (archai) or causes (aitai)' (Dunne 1997: 237–8) – the general laws of scientific understanding. The domain of episteme is thus the domain of things that cannot be otherwise – of natural laws that transcend human intervention in the world. In contemporary terms, a neuroscientific account of a choreographer's brain processes might provide this kind of theoretical explanation of practice. The domain of practical knowledge itself, meanwhile, 'lies forever outside the scope of theory'; it is a realm of 'contingent or variable being ... and more specifically, those things which, subject to certain limitations, are within the rational power of human beings to change' (Dunne 1997: 243).⁹

Aristotle also draws a distinction between two modes of practical knowledge, each associated with a different form of activity. *Techne*, or the skill of craftsmanship, is associated with making products (*poiesis*) through the interaction of the craftsman's skill with his materials, the product's evolving form and its ultimate outcome. This is a reasoned capacity to make, linked to theoretical understanding: the craftsman's *techne* is evident not just in the successful outcome of the making process, but in his capacity 'to give a rational account (*logos*) of his procedures – an account which is rational insofar as it can trace the product back to the causes to which it owes its being' (Dunne 1997: 250). It implies a detachment of the maker from his product, in Dunne's words, he can 'stand outside of his materials and allow the productive process to be shaped by the impersonal form which he has objectively conceived' (1997: 263).

In Aristotle's world, art-making was (or was considered to be) essentially this kind of technical procedure, a species of craftsmanship in which skill was used instrumentally to achieve pre-conceived ends. In the context of contemporary choreography, *techne* is still involved in making processes where the end is clearly specified in advance – perhaps where a dance is created according to an exact specification, or within a well-defined style which already sets out the criteria for artistic or aesthetic success. Indeed, an element of *techne* may be present in all choreographic making, insofar as there are parts of the process where the aim is clear and a largely procedural approach is appropriate to fulfilling it. For example, a transition may need to be found between two distinct, already choreographed sections of a work, which gets the dancers from A to B in a manner which blends the movement motifs of the two parts. Or lighting may need to be designed which emphasises those elements of the movement that the choreographer has already highlighted as important (which is not to say that, in other cases, lighting design is not a less routine, more creative process). In these cases, the choreographer-craftsman works self-consciously within preconceived parameters to achieve an identified aim.

But Aristotle contrasts *techne* with a different mode of practical knowledge – *phronesis* or practical wisdom – which neither masters nor instrumentalises in this way. This is the knowledge associated with the domain of *praxis*, the variable and mutable world of human

beings, intersubjective action and encounters; for Aristotle, the moral domain in which, as human beings, we try to live and act in ways beneficial to ourselves and the social group (polis). The kind of knowledge needed in this domain is not a technical understanding of how to manipulate processes, so much as a creative sensitivity to circumstances as they present themselves. Phronesis is not concerned so much with general principles, universal laws or causal understanding, but rather with what cannot be generalized. It is a kind of attunement to the particularities of situations and experiences, requiring subjective involvement rather than objective detachment; and it has an irreducibly personal dimension in its dependence upon, and the fact that it folds back into, subjective and intersubjective experience.

Although Aristotle's own analysis of phronesis applies to the task of cultivating moral virtue, Carr (1999) argues its relevance for contemporary artistic practice. In art-making, as in ethics, there is a focus on practice rather than theory and on the experientially particular rather than universal precepts or generalisations. It is what is done in particular situations that matters, and that is shaped by the nature of the particular situation, not by abstract reasoning about how things ought to happen. It seems rare that a dance be made in accordance with a theory defined in advance, according to generalised rules, or at least, choreography of this kind often lacks the interest of work made through a more aleatory, creative approach. Carr also points out that both moral and creative artistic action are intertwined with the expression and articulation of feeling, requiring sensitivity to the emotional character of situations, not detachment or neutrality. And it seems true that, even the choreographer who does not set out to make a dance which expresses a particular feeling or range of emotions still works with the emotional nuances of movement, light and sound, insofar as she is interested in the impact her work may have on a potential audience. Carr suggests that for the agent cultivating moral virtue or making dance, there is a comparable concern with personal development: in each case, the self is implicated, unfolded and cultivated, not something to be set aside in cool objectivism. There are, of course, exceptions to this in the world of choreography,¹⁰ but in general it seems clear that making dance involves the artist as a person much more than, say, theoretical or scientific enquiry involves the researcher, or than a technical making process completed according to a predefined specification involves the craftsman. All of which suggests, in line with Carr's (1999) argument, that phronesis is a useful way of characterising choreographic as well as moral knowledge.

The concept of phronesis seems relevant to choreography not only because we can draw an analogy between dance-making and moral action. Choreography is itself arguably a form of praxis because it involves collective production. Choreographers work with others – performers, designers, audiences – to produce performance events. It is crucial, in this intersubjective context, to have a creative sensitivity to the others involved, the evolving situation and the experiences it generates. This creative sensitivity – and the ability to act in accordance with what it suggests to be the 'right' course – is arguably a fundamental part of any performing artist's practice. Decisions are not generally made according to a technically rational view of how to manipulate the relationships central to dance-making, but rather arise out of the circumstances of the moment and are governed by a different kind of rationality sensitive to contingencies and to the evolving nature of those relationships.

Perhaps this is particularly true of choreography-as-research which tends to involve an increased self-consciousness about how the artist conducts herself within the making process. Research provides a space for reflection, often not afforded in the sphere of professional performance, geared as it is towards the production of works that can be exchanged as commodities within the dance market. With such reflection may come a heightened awareness of oneself and one's encounters as an artist as the basis of any performance event. And this awareness is arguably a form of phronetic insight developed through the practice itself.

Conclusion

This discussion has sought to show how philosophical ideas about practical knowledge, reasoning and wisdom might be relevant to choreography and dance practice as research, helping us identify (at least part of) their epistemological value. This is not the only way in which the knowledge developed in and through dance-making can be described, and it is not unproblematic.¹¹ For example, one might question whether theoretical and practical knowledge can be so sharply differentiated, whether *techne* and *phronesis* are distinct and mutually exclusive forms of practical knowledge and also whether the particularism of phronetic insight compromises its shareability and hence its very status as knowledge. All of these issues and more warrant more detailed investigation. But, hopefully, the discussion does demonstrate the fruitfulness of the literature for attempts to think through the epistemology of choreography. To think of choreography and choreographic research as dealing in practical knowledge does help move us beyond dominant paradigms, which deny that dance-making has epistemological value.¹²

Notes

¹ See Nelson (2013) for an overview of the development and stakes of Practice as Research. Allegue et al. (2009) also examines the historical emergence of PAR in the UK context, and critically explores the range of issues raised by its integration into the Academy. This volume emerged out of the PARIP (Practice as Research in Performance) project, an AHRB-funded initiative, which investigated (from 2001 to 2005) the creative and academic issues raised by practice as research in theatre, dance, film, video and television. The project's website is still live (<http://www.bristol.ac.uk/parip/index.htm>) and presents an interesting and useful picture of the nature of PAR debates over a decade ago. See also Pakes (2003), Piccini (2003) and Thomson (2002).

² Inductive reasoning and inference to best explanation are also widely used patterns of inference, based on a logic of probability rather than truth and falsity. Popper (1968) proposes to refocus scientific reasoning around the principle of falsifiability rather than verification, recasting all inference in its deductive – and hence more reliable – form. According to Hempel's 'covering law model', meanwhile, the logic of scientific explanation is essentially deductive, since, when trying to explain the occurrence of a particular phenomenon, scientists tend to cite a general law from which the empirical facts follow (Hempel 1965).

3 Good examples are Rosemary Butcher’s reflections on her making processes (Butcher and Melrose 2005: especially 66–85) and Anne Teresa De Keersmaeker’s accounts of numerous early works (in Cvejic and De Keersmaeker 2012, 2013 and 2014).

4 The necessity (or otherwise) of written documents accompanying practice-as-research is a contentious issue within the performing arts research community. See Reason (2006), Piccini and Rye (2009) and Nelson (2013, 71-92) for discussion. Mullin (2011) and Macleod and Holdridge (2011) explore the issues in a wider context that includes fine art.

5 These are the kinds of issues an examiner might consider when assessing a choreographic research project, but also typical questions posed in reviews and critical analyses of choreographers’ work. See, for example, the essays in Bremser and Sanders (2011). Reason (2006, 183-204) examines what is at stake in the reviewing of performance.

6 On dance as a rule-governed activity, see McFee (1992: 52–5) and Carr (1987b).

7 See Pakes (2003). Gaut and Livingston (2003) offer a critical overview of philosophical issues and literature on creativity, relevant to this and other related themes.

8 See, for example, UKCGE (1997). Pakes (2003) explores further the issue of originality in dance practice-as-research.

9 The Choreography and Cognition Project, led by Scott deLahunta and Wayne McGregor, for example, was a collaborative project in which an artist (McGregor) sought to inform his creative practice through exploring cognitive scientific research on creativity: see deLahunta, Barnard and McGregor (2009) for an account of the project and the issues it raised. One interesting feature of this research is its staging of an encounter between two very different modes of knowledge. See also Jola (2010).

10 Merce Cunningham’s use of chance methods, for example, famously aimed to distance choreographic decision-making from his own will and personal resources (Vaughan 2005). Several American postmodern choreographers – Anna Halprin and Steve Paxton, for example – used various types of score to enable a more “objective”, democratic transmission of movement or choreographic instructions (see Banes 1987, Morgenroth 2004 and Ross 2007). More recently, European “conceptual” dance has explored how self-regulating systems might be made central to choreography: see, for example, Protopapa (2009).

11 Pakes (2004) develops a critique of the practical knowledge model and presents an alternative view of how knowledge is embodied in practice-as-research.

12 Early drafts of this material were presented to the PARIP 2003 conference, at PARIP and Roehampton University Dance Research Seminars, and to postgraduate students at London Contemporary Dance School and Laban between 2004 and 2006. Thanks to the audience on each occasion for its help in exploring and critiquing the ideas.

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