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Chapter 4

# Textures of Thought: Theatricality, Performativity, and the Extended/Enactive Debate Teemu Paavolainen

While relatively recent, the 'cognitive turn' in theatre and performance studies has engaged a growing community of scholars who are now looking to the sciences of the mind for no less than a paradigm shift.<sup>1</sup> Whether or not this promise is delivered, the enterprise would benefit from further reflection on its underlying assumptions and ideologies. In this chapter, I wish to engage the very interface of the two fields by targeting four contested concepts in their current discourses: specifically, by interweaving extended and enactive notions of mind with the well-worn humanistic idioms of theatricality and performativity. While all four defy clear-cut definition, they all promote generally world-involving philosophies of sense and identity, and do indeed appear to share some core assumptions. In particular, I will argue that certain valorisations of the former bear considerable discursive affinities with the latter - the extended with the theatrical, the enactive with the performative – and that these family resemblances may help articulate blind spots on both fronts. Rather than reduce either pair to the other, let alone explain either away, my aim is to discuss them as aspects of wider 'cognitive ecologies'<sup>2</sup>: while both cognitive and theatre studies have witnessed a shift from representations and pregiven identities to a focus on embodied action and performance, ecology here names a parallel (potential) extension beyond individual brains or actors to wider *textures of thought*.

By way of a very short introduction, the 'extended' and 'enactive' idioms<sup>3</sup> specify alternative dynamics as to how precisely it is that cognition, as they say, is 'embodied and en-

<sup>&</sup>lt;sup>1</sup> At least since the landmark anthology *Performance and Cognition: Theatre Studies and the Cognitive Turn*, eds Bruce McConachie and F. Elizabeth Hart (New York: Routledge, 2006), the approach has become a constant presence in the field's major conferences and foremost journals. Since 2008, Palgrave Macmillan have published the series *Cognitive Studies in Literature and Performance*, in which a number of studies have to date addressed not only general historical and theoretical concerns, but also the very pragmatics of acting, spectatorship, and cultural performance.

<sup>&</sup>lt;sup>2</sup> Edwin Hutchins, 'Cognitive Ecology,' *Topics in Cognitive Science* 2, no. 4 (2010), 705–15; see also James J. Gibson, *The Ecological Approach to Visual Perception* (Hillsdale, NJ: Lawrence Erlbaum, 1986, first published 1979); Teemu Paavolainen, 'From Props to Affordances: An Ecological Approach to Theatrical Objects,' *Theatre Symposium* 18 (2010), 116–34.

<sup>&</sup>lt;sup>3</sup> See Richard Menary, ed., *The Extended Mind* (Cambridge, MA: MIT Press, 2010); John Stewart, Olivier Gapenne and Ezequiel A. Di Paolo, eds, *Enaction: Toward a New Paradigm for Cognitive Science* (Cambridge, MA: MIT Press, 2010).

vironmentally embedded.' Drawing on widely divergent disciplines, from biology to robotics, both approaches portray mind as an ongoing process interweaving body, brain, and the larger environment, its 'correlates' being thus fundamentally ecological rather than exclusively neural or intracranial. (It should be noted that this shift from strictly internal to more external ontologies of mind reflects a long-held tension in acting practice and training, between the simplified positions of acting from the inside-out or from the outside-in.) Rather than favour one over the other, I maintain that the theories of enaction and extension may fruitfully befit different discussions, but also that they articulate a stronger form of cognitive contexture than do the more neutrally local/global variants of *embodiment* and its environmental *embedding* – indeed, rather than conflate these approaches into one church, we would better remain sensitive to implicit conflicts in how they configure the roles of action and perception, agent(s) and environment(s).<sup>4</sup> However, it can be argued that all four strands of '4E cognition' bespeak a fundamentally *ecological ontology*: why restrict cognition only to its neural 'back-stage' in some inner 'theatre of the mind,' when effectively *all the world's a stage* for the embodied/embedded/extended processes of enaction in which it is performed?

Here we are already in the time-honoured domain of the theatrical metaphor, differently configured in different aesthetic, academic, and everyday contexts. Crucially, neither theatricality nor performativity need be restricted to their cognate art forms: in cognitive-ecological terms, to recapitulate, I specifically intend them as intertwining practices or qualities of making sense, identity, and meaning. Metaphorically, both concepts have been applied to discuss more abstract phenomena of social and cultural existence, yet both also remain abstract enough to depend on even more basic metaphors themselves, according to the context and purpose of their varying definitions. While their etymologies would suggest a vague distinction between seeing and doing – from the Greek *theâsthai*, 'to behold,' and the Old French *parfornir*, 'to do, carry out, finish, accomplish' – both discourses also fluctuate between the essence of flicting values of novelty and normativity: in the case of *theatricality*, between the essence of

<sup>&</sup>lt;sup>4</sup> See especially Julian Kiverstein and Andy Clark, 'Introduction: Mind Embodied, Embedded, Enacted: One Church or Many?' *Topoi* 28, no. 1 (2009), 1–7; also Philip Robbins and Murat Aydede, eds, *The Cambridge Handbook of Situated Cognition* (Cambridge: Cambridge University Press, 2009); Michael Wheeler, 'Minds, Things and Materiality,' *The Cognitive Life of Things: Recasting the Boundaries of the Mind*, eds Lambros Malafouris and Colin Renfrew (Cambridge: McDonald Institute Monographs, 2010), 29–37; and my brief account in Teemu Paavolainen, *Theatre/Ecology/Cognition: Theorizing Performer-Object Interaction in Grotowski, Kantor, and Meyerhold* (New York: Palgrave Macmillan, 2012), 43–52. Read superficially and against the grain, it could even be argued that the E-words themselves carry all the trappings of containment and dualism, whether between agent and environment or event and context: where *embodied* mind neglects the world for the body, *enaction* even imposes biological closure; *extension* implies some central operative to be extended, and *embedding* entails two entities where one is embedded within the other.

an art form and a more evasive cultural quality itself regarded in the affirmative or in the pejorative (hence the 'anti-theatrical prejudice'); in the case of *performativity*, between *doing* and its *dissimulation* – the heroic extraversion of Performance Studies and the docile incorporation of social discipline as per Judith Butler. However, the *reciprocity* of perception and action that notions of cognitive ecology invariably postulate would suggest that we need to understand this set of tensions as fundamentally interdependent to begin with.

Not that the E-words themselves are any news to cognitive theatre and performance scholarship. On the more enactive front, John Lutterbie has developed a 'general theory of acting' explicitly informed by dynamic systems theory, while Phillip Zarrilli has applied Alva Noë's sensorimotor version to actor training, not from the 'outside' position of 'representational or mimetic theories of acting,' but rather 'from the perspective of the actor as enactor/doer from 'inside' the act of performing.'5 On the 'extended' side, Evelyn Tribble has studied the historical practices and environments of Renaissance theatre 'at a range of levels' distributed across an 'uneven triad of insides, objects, and people' - internal mechanisms, material conditions, and social structures - while I myself have drawn on aspects of both discourses in a study of three emblematic scenographies of the historical avant-garde.<sup>6</sup> The strengths and shortcomings of this work aside,<sup>7</sup> the brief examples I present in this chapter are not drawn from the world of theatre as much as they are from well-known (if indeed somewhat theatrical) experiments in the cognitive sciences, highlighting the themes of change, attention, and appearance that also recur in my reflections on performativity and theatricality. Applied to such admittedly abstract qualities, theories of cognitive ecology allow us to be rather more specific as to how 'the world's a stage' for our collective (cognitive) performances; conversely, these more humanistic idioms may provide historical depth to strictly cognitive conceptions of meaning, sense, and identity, bringing to the fore neglected dynamics and inherent paradoxes not infrequently verging on the political.

<sup>&</sup>lt;sup>5</sup> John Lutterbie, *Toward a General Theory of Acting: Cognitive Science and Performance* (New York: Palgrave Macmillan, 2011); Phillip B. Zarrilli, 'Introduction,' *Acting: Psychophysical Phenomenon and Process*, eds Phillip. B. Zarrilli, Jerri Daboo and Rebecca Loukes (New York: Palgrave Macmillan, 2013), 1–50: 18. See also Alva Noë, *Action in Perception* (Cambridge, MA: MIT Press, 2004).

<sup>&</sup>lt;sup>6</sup> Evelyn B. Tribble, *Cognition in the Globe: Attention and Memory in Shakespeare's Theatre* (New York: Palgrave Macmillan, 2011), 2, 7; Paavolainen, *Theatre/Ecology/Cognition*.

<sup>&</sup>lt;sup>7</sup> In line with the above discussion, I am thinking of blurred distinctions and 'churches' conflated, yet the appropriate level of abstraction and precision can only be settled according to each specific context.

# **Bringing Forth: Magnitudes of Enaction**

To the extent that the actual truth value of my concepts can be bracketed for their rhetorical aspirations, a convenient place to begin charting the territory is performance theorist Richard Schechner's work on the 'magnitudes of performance,' organised by size, duration, extension, and degree of consciousness. Positing 'theatricality' as a special case of a more restricted range (as I will too) Schecher presents 'performativity' as a general condition that 'permeates all seven magnitudes' from brain event to macrodrama, its broad spectrum virtually coextensive with life itself.<sup>8</sup> By comparison, even if the 'deep continuity' of the enactive approach – as theorised by Francisco Varela, Evan Thompson, Ezequiel Di Paolo, and others<sup>9</sup> – is between life and *mind*, not life and performance, its rhetoric does appear closely akin to Schechner's. Indeed the tone can even be conceived of as imperial: where the 'enactive' now boasts a transdisciplinary perspective 'on an extremely diverse variety of phenomena ... otherwise separated by disciplinary discontinuities' - 'all the way from [the single] cell to society and back again,' as Froese and Di Paolo put it in a recent ambitious overview<sup>10</sup> – so would (Schechnerian) Performance Studies, initially at least, challenge the very status of Theatre Studies in Anglo-American academia.<sup>11</sup> Even as their key concepts differ markedly, both fields claim the ability to analyze all magnitudes of living existence, be it as a dynamic of play and ritual from animal behaviour to public politics, or as one of 'autonomy' and 'emergence' from single-cell organisms to encompassing ecosystems.

Turning from Schechner to the philosopher and critical theorist Judith Butler, however, the one key premise on which the concepts of enaction and performativity also converge explicitly is in renouncing pregiven essences for acts of 'bringing forth' – no longer in the business of just *expressing* or *revealing* pre-existing worlds, minds, or identities, but precisely enacting, performing, or indeed *constituting* them from moment to moment. Certainly, there is a difference in nuance and domain with regard to just what constitutes such 'constitution': In the classical phenomenological sense of the enactive paradigm, the term refers to the

<sup>&</sup>lt;sup>8</sup> Richard Schechner, 'Magnitudes of Performance,' *Performance Theory*, rev. and expanded edn (New York: Routledge, 2003), 290–332. All seven magnitudes would include: (1) brain event; (2) microbit; (3) bit; (4) sign; (5) scene; (6) drama; and (7) macrodrama (meaning 'large-scale social actions ... where whole communities act through their collective crises,' p. 326).

<sup>&</sup>lt;sup>9</sup> As distinct from the 'sensorimotor' version most associated with Alva Noë (*Action in Perception*; but cf. Alva Noë, *Out of Our Heads: Why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness* (New York: Hill and Wang, 2009)).

<sup>&</sup>lt;sup>10</sup> Tom Froese and Ezequiel A. Di Paolo, 'The Enactive Approach: Theoretical Sketches from Cell to Society,' *Pragmatics & Cognition* 19, no. 1 (2011), 1–36: 2–3.

<sup>&</sup>lt;sup>11</sup> Richard Schechner, *Performance Studies: An Introduction*, 2nd edn (New York: Routledge, 2006).

world's disclosure to awareness in acts of intentional consciousness.<sup>12</sup> In Butler's more socially active sense, the performativity of gender 'means, quite simply, that it is real only to the extent that it is performed'; instead of our 'doings' (styles, clothes, gestures) merely exteriorising what we essentially 'are,' they 'effectively constitute the identity they are said to express or reveal' in the social sphere.<sup>13</sup> However, neither tradition grounds 'thought' in identity or ontology. For Varela and colleagues, *cognition* is 'the enactment of a world and a mind' on the basis of a history of their 'structural coupling'<sup>14</sup>; in Thompson's neat set of equations, it is this 'co-emergence' of self and world that amounts to 'sense-making, which [again] equals enaction.'<sup>15</sup> Situating *performativity* 'within a wider movement against Descartes' *cogito*,' sociologist Vikki Bell, likewise, sees its key argument as one for *coextensivity* over 'any originary notion of interiority.'<sup>16</sup> Crucially, if one of the key challenges she has identified is for performativity to account for the creativity and self-organisation of *matter*, beyond the narrowly 'psychic' or cultural,<sup>17</sup> this is certainly something an enactive perspective could deliver. Below, I draft aspects of such an intertwining 'from cell to society.'

Consider first the *ur*-performance of the enactive approach: that of the *living cell* as a paradigm of an 'autonomous system.' As Thompson explains, the 'recursive interdependence' of its 'constituent processes' takes the form of 'a self-producing, metabolic network' that *constitutes* it as an *autopoietic* 'unity in the biochemical domain and [also] determines a domain of possible interactions with the environment.'<sup>18</sup> Thus if performative identity in Bell's phrasing is neither 'essential, ontological [nor] inevitable,' but only has constancy due to a fragile 'reiteration of connections,'<sup>19</sup> then on the enactive view it depends on precisely the kind of self-organisation she calls for, in a delicate dynamic of *autonomy* and *emergence*. Whereas 'autonomy' sets enaction apart from other approaches to embodiment, 'emergence' accounts for its broad spectrum of 'non-reducible domains ... typically associated with quali-

<sup>&</sup>lt;sup>12</sup> Evan Thompson, *Mind in Life: Biology, Phenomenology, and the Sciences of Mind* (Cambridge, MA: Belknap Press of Harvard University Press, 2007), 15.

<sup>&</sup>lt;sup>13</sup> Judith Butler, 'Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory,' *Theatre Journal* 40, no. 4 (1988), 519–31: 527–8.

<sup>&</sup>lt;sup>14</sup> Francisco J. Varela, Evan Thompson and Eleanor Rosch, *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge, MA: MIT Press, 1991), 9, 205.

<sup>&</sup>lt;sup>15</sup> Thompson, *Mind in Life*, 158.

<sup>&</sup>lt;sup>16</sup> Vikki Bell, *Culture and Performance: The Challenge of Ethics, Politics and Feminist Theory* (New York: Berg, 2007), 11.

<sup>&</sup>lt;sup>17</sup> Bell, *Culture and Performance*, 97–8, 114.

<sup>&</sup>lt;sup>18</sup> Thompson, *Mind in Life*, 44.

<sup>&</sup>lt;sup>19</sup> Bell, *Culture and Performance*, 32, 36.

tative shifts in *experience*.' On the one hand – and I keep paraphrasing Froese and Di Paolo – even if a nervous system 'can enable the emergence of a domain of behavior and cognition,' the latter cannot be reduced to the former; likewise, 'the social domain cannot be reduced to the behavior of the individuals' of which it is a large-scale emergent.<sup>20</sup> On the other hand, as Thompson and Stapleton note, 'even the simplest organisms regulate their interactions with the world' so as to transform it 'into a place of salience, meaning, and value – into an environment (Umwelt) in the proper biological sense of the term.'<sup>21</sup> Whatever the magnitude, Thompson elaborates, we witness here the co-emergence of 'selfhood and a correlative world or environment of otherness': 'Whereas autopoietic closure brings forth a minimal "bodily self' at the level of cellular metabolism, sensorimotor closure produces a "sensorimotor self" at the level of perception and action.'<sup>22</sup>

Hence an important distinction should be made between *constitutional* and *relational* domains, with 'sense-making' as the relational or interactional side of autonomy. Keeping with Thompson, the distinction is between the 'system as such' and its 'performance or behavior in its structural coupling with the environment,' definitionally in place 'when the conduct of each is a function of the conduct of the other.'<sup>23</sup> As Di Paolo puts it, reiterating perhaps the ultimate precondition of performativity, 'what an organism is and what it does should not be properties external to each other.'<sup>24</sup> On the enactive view, however, couplings also come in emergent orders or magnitudes, from the merest symmetrical influence to the more 'asymmetrical' concepts of behaviour, action, and adaptive agency that also entail the *regulation* of lower-order couplings. Accordingly, *cognition* as such is defined as 'the regulation is aimed at aspects of the coupling itself'<sup>25</sup>: it is 'not an event happening inside the system ... [but] the relational process of sense-making that takes place between the system and its environment'<sup>26</sup> – or in a well-known phrase, 'the enactment or bringing forth of a world by a viable history of structural coupling.'<sup>27</sup>

<sup>&</sup>lt;sup>20</sup> Froese and Di Paolo, 'The Enactive Approach,' 3.

<sup>&</sup>lt;sup>21</sup> Evan Thompson and Mog Stapleton, 'Making Sense of Sense-Making: Reflections on Enactive and Extended Mind Theories,' *Topoi* 28, no. 1 (2009), 23–30: 25.

<sup>&</sup>lt;sup>22</sup> Thompson, *Mind in Life*, 48–9.

<sup>&</sup>lt;sup>23</sup> Thompson, *Mind in Life*, 50–1, 45.

<sup>&</sup>lt;sup>24</sup> Ezequiel Di Paolo, 'Extended Life,' *Topoi* 28, no. 1 (2009), 9–21: 18.

<sup>&</sup>lt;sup>25</sup> Froese and Di Paolo, 'The Enactive Approach,' 18.

<sup>&</sup>lt;sup>26</sup> Thompson and Stapleton, 'Making Sense of Sense-Making,' 26.

<sup>&</sup>lt;sup>27</sup> Varela, Thompson and Rosch, *The Embodied Mind*, 205.

Arguably, however, a *performative* dynamic is well in place before the emergence of any cognitive domain. What I mean is exemplified by Thelen and Smith's dynamic-systems experiments in infant development, in which they found that a 'reflex stepping action seen to disappear at about two months can be restored by holding the baby upright in water.' That the otherwise non-stepping baby will step under water shows that the reflex itself, assumedly lost, is 'clearly in place even while other factors (such as leg mass) prevent its expression under ecologically normal conditions.' With little agency or stepping-relevant cognition on the infant's part, that is, the capacity that here emerges is courtesy of the temporary performative system composed of baby, adult, and bathtub.<sup>28</sup>

Now, the really relevant question here concerns how the two sets of concepts navigate their native paradoxes of *novelty and normativity* (in the above example, the stepping reflex and the ecological affordances to support its emergence). In a sense, this is *the* paradox of performativity, driven between what Jon McKenzie calls its 'subversive' and 'normative valences': the kind of cultural agency cherished in Performance Studies – the Austinian vision of *doing things effectively* – and the more Butlerian rendering of social performativity as an ongoing 'reiteration of norms.'<sup>29</sup> Arguably, an enactive emphasis on autonomous systems 'whose being is their own doing'<sup>30</sup> might provide the Butlerian idiom with a more positive account of embodied agency, without compromising its grounding in reiteration.

Indeed, what enables the comparison is how both discourses abound in *figures of circularity* to account for change and invariance. Where notions of performativity range from Schechner's 'restored behaviour'<sup>31</sup> to Butlerian citationality and Derridean iterability – sometimes overly textual in their metaphysics – those of enaction capitalise on biological cycles of *coupling* and *closure*. In Thompson's recap, 'organizational closure refers to the self-referential (circular and recursive) network of relations that defines the system as a unity, and operational closure to the reentrant and recurrent dynamics of such a system'; in such opera-

<sup>&</sup>lt;sup>28</sup> Esther Thelen and Linda B. Smith, *A Dynamic Systems Approach to the Development of Cognition and Action* (Cambridge, MA: MIT Press, 1994); I quote the precis in Andy Clark, 'Embodied, Situated, and Distributed Cognition,' *A Companion to Cognitive Science*, ed. William Bechtel and George Graham (Oxford: Blackwell, 1998), 506–17: 506–7.

<sup>&</sup>lt;sup>29</sup> Jon McKenzie, *Perform or Else: From Discipline to Performance* (New York: Routledge, 2001), 15; J. L. Austin, *How to Do Things With Words*, ed. J. O. Urmson and Marina Sbisà (Oxford: Oxford University Press, 1986); Judith Butler, *Bodies That Matter: On the Discursive Limits of 'Sex'* (London: Routledge, 1993), 234.

<sup>&</sup>lt;sup>30</sup> This very performative phrase from Hans Jonas ('Biological Foundations of Individuality,' *International Philosophical Quarterly*, 8 (1968), 231–251: 233) is often quoted in enactive circles, notably in Renaud Barbaras's contribution in *Enaction*, eds Stewart, Gapenne and Di Paolo, 89–122: 93, 119, 121.

<sup>&</sup>lt;sup>31</sup> See for example Schechner, *Performance Studies*, 34–6.

tional terms, 'cognitive structures and processes emerge from recurrent sensorimotor patterns of perception and action.'<sup>32</sup> However, where Butler's fairly weak concept of agency consists in the possibility of *repeating differently* and thus exposing wider textures of iterability, the enactive concept of agency refers to a more active, asymmetric modulation of more local couplings, without 'positing either the individual or the interactive levels as fundamental.'<sup>33</sup> As Varela *et al* poetically put it, 'We are always constrained by the path we have laid down, but there is no ultimate ground to prescribe the steps that we take.'<sup>34</sup>

Finally, some potentially fruitful discrepancies might also be found by comparing how the two approaches conceive of *normativity* and *precariousness*. If performativity for Butler 'consists in a reiteration of norms which precede, constrain, and exceed ... the performer's "will" or "choice"<sup>35</sup> and perhaps *make* her very life precarious, the inherent normativity of an enactive system is precisely a measure of its own flourishing as it 'actively generates and sustains its identity under precarious conditions.<sup>36</sup> Admittedly, Froese and Di Paolo have lately engaged in intriguing theoretical work to extend enactive principles to the social domain, 'taking on an autonomous organization' of its own while guided by a normativity 'highly underdetermined by metabolic values.' In short, they present 'the heteronomy of culture' as yet 'another discontinuity in the system of discontinuities which constitutes life, mind, and sociality.'<sup>37</sup> Arguably, however, the enactive approach still lacks the tools for properly engaging the more top-down processes of the *political*, mirroring perhaps the bottom-up influence of biological autonomy and of the 'cognitive unconscious' that Thompson contends 'cannot be made experientially accessible.'<sup>38</sup>

Hence the more performatively oriented questions of how the apparently 'natural' or 'pregiven' may work to occlude, conceal, or 'dissimulate' its enactive/performative constitution; and how subjects may 'actively partake in their own subjection,' sustained as they are by lines of power and knowledge which they themselves recursively sustain and 'literally incorporate,' yet which they must also deny in order to assert themselves as subjects.<sup>39</sup> Alt-

<sup>&</sup>lt;sup>32</sup> Thompson, *Mind in Life*, 45, 13.

<sup>&</sup>lt;sup>33</sup> Ezequiel Di Paolo and Evan Thompson, 'The Enactive Approach,' *The Routledge Handbook of Embodied Cognition*, ed. Lawrence Shapiro (London: Routledge, 2014), 68–78: 75.

<sup>&</sup>lt;sup>34</sup> Varela, Thompson and Rosch, *The Embodied Mind*, 214.

<sup>&</sup>lt;sup>35</sup> Butler, *Bodies That Matter*, 234.

<sup>&</sup>lt;sup>36</sup> Thompson and Stapleton, 'Making Sense of Sense-Making,' 24.

<sup>&</sup>lt;sup>37</sup> Froese and Di Paolo, 'The Enactive Approach,' 5, 17, 28.

<sup>&</sup>lt;sup>38</sup> Thompson, *Mind in Life*, 12.

<sup>&</sup>lt;sup>39</sup> Butler, *Bodies That Matter*, 12; Bell, *Culture and Performance*, 14, 17.

hough formally implicit in its systemic implications – of local interactions enacting global patterns and being thereby constrained – the 'cell-to-society' theorists themselves admit that the layer of culture 'is still in much need of further clarification by the enactive approach.'<sup>40</sup>

### **Standing In: Extension and Its Discontents**

Thus, it can be argued, we have already entered the prop room whence ideas of extended cognition take off. Predicated on a public domain between the magnitudes of brains and cultures, indeed on humble materials habitually *denied* the kinds of agency we feel befit both brain and culture, one of this approach's central arguments is for the constitutive 'role' of 'nonbiological props' in the cognitive 'drama' or 'ensemble' - and it is no accident that philosopher Andy Clark leans on resolutely theatrical language here.<sup>41</sup> In the theoretical drama that ensues (perhaps around the merest performances of pen and paper) the stakes are clear: where his opponents would reduce such props to mere causal background – as 'accidental extras' to 'basic biologically given minds'<sup>42</sup> - for Clark the very idea that mind and self only unfold 'on some privileged stage marked out by the good old-fashioned skin-bag' amounts to a 'biochauvinistic prejudice.'<sup>43</sup> And indeed, one way of determining what the extended might share with the *theatrical* lies in their being variously embraced and rejected in just such dramas of value. Around since Western antiquity, what Jonas Barish famously dubbed the 'antitheatrical prejudice' is still evident in the 'hostile or belittling' connotations that the theatre begets in everyday language (plaving up to, putting on an act, making a scene).<sup>44</sup> As noted, the word's etymology first evokes sight and spectatorship; add a Platonic prejudice over 'mere appearances,' and it becomes a pejorative term for something derived if not detrimental to art and society alike, defined, as Thomas Postlewait and Tracy C. Davis neatly put it, by its 'excess and its emptiness, its surplus as well as its lack.' Be it the technology of stagecraft or extensions of cognition, whatever is opposed is deemed 'deceptive, exaggerated, artificial, or affected,' secondary to and corruptive of some prior essence - effectively ob-

<sup>&</sup>lt;sup>40</sup> Froese and Di Paolo, 'The Enactive Approach,' 4, caption to Figure 1.

<sup>&</sup>lt;sup>41</sup> Andy Clark, *Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence* (Oxford: Oxford University Press, 2003), 6, 75–7, 139; see also his 'Author's Response,' *Metascience* 13, no. 2 (2004), 169–81: 176 ('cognitive drama'); and my *Theatre/Ecology/Cognition*, 46–9.

<sup>&</sup>lt;sup>42</sup> The words are a proponent's: John Sutton, 'Material Agency, Skills and History: Distributed Cognition and the Archaeology of Memory,' *Material Agency: Towards a Non-Anthropocentric Approach*, eds Carl Knappett and Lambros Malafouris (New York: Springer, 2008), 37–56: 37.

<sup>&</sup>lt;sup>43</sup> Clark, *Natural-Born Cyborgs*, 27; *Supersizing the Mind: Embodiment, Action, and Cognitive Extension* (Oxford: Oxford University Press, 2008), 77.

<sup>&</sup>lt;sup>44</sup> Jonas Barish, *The Antitheatrical Prejudice* (Berkeley: University of California Press, 1981), 1.

structing ideals of aesthetic absorption and enactive immersion alike.<sup>45</sup> Whether *theatricality* serves to occlude reality, authenticity, literature, or liveness, the expressive promiscuity of cognitive extension risks contaminating what critics like Adams and Aizawa call the very 'mark' or specificity of cognition itself.<sup>46</sup>

As was implied by their few applications to theatre and performance studies, then, there is a sense in which the enactive and the extended bet their stakes on the actor and the scenery, respectively (the experiential first person and the spectatorial third). Where the enactive derives 'mind' from the specifics of biological embodiment, the extended 'depicts the body as just one element in a kind of equal-partners dance.'<sup>47</sup> Indeed, the *multiple realisability* of such *extended functionalism* comes close to that of theatricality precisely. Just as humans need not be depicted by humans, nor darkness by darkness, on stage – as Jindřich Honzl put it in 1940, 'the theatrical sign ... can use different materials for its implementation'<sup>48</sup> – so also the 'functional networks' of cognitive extension may casually disregard the particulars in which they are realised.<sup>49</sup> In other words, what matters is their functional role and mechanical interaction rather than their physical constitution. As Mark Rowlands puts it, 'if it walks like a duck, and talks like a duck, then it is a duck' – *how* and *where* 'is not directly relevant.'<sup>50</sup>

For Clark, the machinery of mind is quite specifically 'just tools all the way down': if only 'poised for easy use and deployment as and when required,' any piece of external scaffolding may support cognitive properties beyond those of the bare agent – think again with pen and paper, or the artist's sketch pad – making her constitutively *heteronomous* ('othergoverned') in a way that the enactive principle of autonomy will not allow.<sup>51</sup> Nor, finally, can

<sup>&</sup>lt;sup>45</sup> Thomas Postlewait and Tracy C. Davis, 'Theatricality: An Introduction,' *Theatricality*, eds Tracy C. Davis and Thomas Postlewait (Cambridge: Cambridge University Press, 2003), 1–39: 4, 5. They further relate the philosophical dichotomy of 'appearance and reality' to an entertaining 'series of related antinomies ...: real versus false, genuine versus fake, intrinsic versus extrinsic, original versus imitative, true versus counterfeit, honest versus dishonest, sincere versus devious, accurate versus distorted, revealed versus disguised, face versus mask, serious versus playful, and essential versus artificial. All things theatrical are on the negative end of the polarity.' (17) See also Marvin Carlson, 'The Resistance to Theatricality,' *SubStance* 31, no. 2–3 (2002), 238–50.

<sup>&</sup>lt;sup>46</sup> Fred Adams and Ken Aizawa, 'The Bounds of Cognition,' *Philosophical Psychology* 14, no. 1 (2001), 43–64.

<sup>&</sup>lt;sup>47</sup> Kiverstein and Clark, 'Introduction,' 2.

<sup>&</sup>lt;sup>48</sup> Jindřich Honzl, 'Dynamics of the Sign in the Theater,' *Semiotics of Art: Prague School Contributions*, eds Ladislav Matejka and Irwin R. Titunik (Cambridge, MA: MIT Press, 1976), 74–93: 88. First published 1940.

<sup>&</sup>lt;sup>49</sup> Robert A. Wilson and Andy Clark, 'How to Situate Cognition: Letting Nature Take Its Course,' *The Cambridge Handbook of Situated Cognition*, eds Philip Robbins and Murat Aydede (Cambridge: Cambridge University Press, 2009), 55–77: 69.

<sup>&</sup>lt;sup>50</sup> Mark Rowlands, 'Enactivism and the Extended Mind,' *Topoi* 28, no. 1 (2009), 53–62: 56–7.

<sup>&</sup>lt;sup>51</sup> Clark, *Natural-Born Cyborgs*, 136, 141; Thompson and Stapleton, 'Making Sense of Sense-Making,' 27–8; see also Thompson, *Mind in Life*, 43.

either mind or theatre claim any immutable set of constitutive elements if even the most prominent (like the performing body) are easily coupled and decoupled on the shortest notice. Where Bert States defines the very history of theatre 'as a progressive colonization of the real world,' incorporating 'almost anything into its diet,' Clark would deem us all 'natural-born cyborgs' already primed 'to create, co-opt, annex, and exploit nonbiological props and scaffoldings' as 'part and parcel' of extended minds 'distributed across brain, body, and world.'<sup>52</sup>

Flipping metaphors, the cognitive theatre has become not only considerably extended here, but also indifferent (in good avant-garde tradition) to the walls of the playhouse. Replace 'the mind' with 'theatre' in the opening sentence of Clark and Chalmers's 1998 inauguration of 'The Extended Mind,' and the implications threaten our very stand on reality: 'Where does the [theatre] stop and the rest of the world begin?'<sup>53</sup> Here it may be illuminating to briefly recount three stories of how the 'inner' and 'outer' stages of this distributed drama have previously been set up. The first concerns Clark and Chalmers's own *parity principle* for determining when cognitive extension takes place: 'If ... a part of the world functions as a process which, were it to go on in the head, we would have no hesitation in accepting as part of the cognitive process, then that part of the world is (for that time) part of the cognitive process.'<sup>54</sup> To the standard objections of confusing *coupling* with *constitution* and *derived* with *intrinsic content* – Otto's notebook with Inga's biological memory, in the article – the standard reply of the extended functionalist is that rather than 'the outer performing just like the (human-specific) inner,' what matters is its contribution to the system's 'functional poise' such that its removal might deteriorate performance.<sup>55</sup>

The second story is Edwin Hutchins's, casting the early internalism of cognitive science as an over-reaction to behaviourist principles, and 'mistaking the properties of a complex sociocultural system for the properties of individual minds' – here, projecting the logician's actual manipulation of symbols with 'her hands and eyes' into a principle of inner

<sup>&</sup>lt;sup>52</sup> Bert O. States, *Great Reckonings in Little Rooms: On the Phenomenology of Theater* (Berkeley: University of California Press, 1985), 36, 39; Clark, *Natural-Born Cyborgs*, 6, 31, 32–3.

<sup>&</sup>lt;sup>53</sup> Andy Clark and David J. Chalmers, 'The Extended Mind,' *Analysis* 58, no. 1 (1998), 7–19: 7. The article is reprinted in Clark, *Supersizing the Mind*, 220–32, and Menary, *The Extended Mind*, 27–42.

<sup>&</sup>lt;sup>54</sup> To be precise, I am here citing Clark (*Supersizing the Mind*, 77) purporting to cite Clark and Chalmers ('The Extended Mind,' 8) yet incorporating a delicate set of adjustments in agency, truth value, and scope: 'Were it done' becomes 'were it to go on'; 'recognizing' becomes 'accepting'; '(so we claim)' becomes '(for that time).'

<sup>&</sup>lt;sup>55</sup> Wilson and Clark, 'How to Situate Cognition,' 72; Kiverstein and Clark, 'Introduction,' 3–4. Thus, for Clark and Chalmers, 'the notebook plays for [the impaired] Otto the same role that memory plays for Inga': 'It is central to his actions in all sorts of contexts, ... reliably there when needed, available to consciousness and available to guide action, in just the way that we expect a belief to be' ('The Extended Mind,' 13).

computation.<sup>56</sup> The third story is then Clark's externalist reversal of the cognitivist one: 'Instead of attempting to create, maintain, and update a rich inner representation' of a scene, the 'opportunistic' visual brain rather 'deploys a strategy that roboticist Rodney Brooks describes [in Clark's favorite quote] as "letting the world serve as its own best model."<sup>57</sup>

Then again, cognitive extensions come in a wide variety of forms only some of which appear intuitively *theatrical*. In the 'two-dimensional matrix' that Wilson and Clark propose, the augmentative resources may be 'natural, technological, or socio-cultural in nature,' the resulting wholes either 'one-off, repeated, or relatively permanent.' At one extreme, *extended mind* simply 'scores rather more highly on the ... dimension of durability and reliability,' showing 'cognitive capacities that seem qualitatively distinctive'.<sup>58</sup> Examples range from cultural institutions in general – carrying out cognitive processes that could not possibly just 'go on in the head' – to early modern theatre in particular, as 'an object lesson in the power and scope of distributed and situated cognition.'<sup>59</sup>

At another extreme are such more weakly coupled, transient, and less iterative systems that I will deem particularly theatrical, 'exposing [for Wilson and Clark] a barely connected hodge-podge of warring materials ... apt for rapid dissolution or replacement.'<sup>60</sup> In Clark's intriguing terms, these systems typically enact 'surrogate situations,' *standing in* for what we could hardly grasp otherwise, yet precisely available for direct coupling and manipulation: with no world yet present to serve as its own best model, we '*let a real, physical model serve as its own best world.*' Insofar as 'the need for [such] situational surrogacy increases with the sensory ineffability' of what one is trying to fathom, it is well evidenced in 'the sheer wealth of material culture' associated with religion, science, or indeed the theatre, trading the ephemeral for the kinds of 'online' cognition that we are intuitively good at according to connectionist doctrine: recognising patterns, modeling simple dynamics, manipulating objects.<sup>61</sup> In fact, I am inclined to also include in this 'ephemeral' category the recessive nature

<sup>&</sup>lt;sup>56</sup> Edwin Hutchins, Cognition in the Wild (Cambridge, MA: MIT Press, 1995), 371–2, 355, 361.

<sup>&</sup>lt;sup>57</sup> Clark, *Natural-Born Cyborgs*, 68.

<sup>&</sup>lt;sup>58</sup> Wilson and Clark, 'How to Situate Cognition,' 62, 74; 66–7.

<sup>&</sup>lt;sup>59</sup> Shaun Gallagher and Anthony Crisafi, 'Mental Institutions,' *Topoi* 28, no. 1 (2009), 45–51: 47; Clark, *Supersizing the Mind*, 64. Clark acknowledges Tribble's work directly; in extending the discussion to institutions, Gallagher and Crisafi startlingly find it 'difficult to think of a form of cognition that is not extended in some sense. The exceptions may be our dreams and the other small bits of cognition that go on in our heads' (p. 51). <sup>60</sup> Wilson and Clark, 'How to Situate Cognition,' 58.

<sup>&</sup>lt;sup>61</sup> Andy Clark, 'Material Surrogacy and the Supernatural: Reflections on the Role of Artefacts in 'Off-line' Cognition,' *The Cognitive Life of Things: Recasting the Boundaries of the Mind*, eds Lambros Malafouris and Colin Renfrew (Cambridge: McDonald Institute Monographs, 2010), 23–28: 24–5. Evoking e.g. mock-ups,

of *enactive cognition* (the path walked down), presupposed by the extended *mise-en-mind* as its makeshift components stand in for the brought-forth. Staples of the theatrical, political estrangement and melodramatic excess alike can only reference norms already enacted or performed in the world, now made explicit in antagonism and stereotype.

And here we have inconspicuously shifted camps, from the anti- to the *pro-theatrical*, reflecting the 'major reversal' in its appreciation that Postlewait and Davis situate in aesthetic modernism – not least with the historical emergence of the professional theatre director, now 'making a virtue of the mimetic gap' previously held so suspect.<sup>62</sup> In Marvin Carlson's affirmative prose, this is a view of theatricality not 'as a pale, inadequate, or artificially abstract copy of the life process' but 'as a heightened celebration of that process and its possibilities.' Moreover, such a view may proudly 'admit to all those qualities that have historically been cited against it – that it is artificial, removed from everyday life, exaggerated, extreme, flamboyant, distracting.'<sup>63</sup>

Insofar as there are three central threads to Christopher Balme's admirably succinct definition of such theatricality as 'a *mode of perception* that *brackets* moments of action or particular places in such a way that they are imbued with extreme *concentration and focus*,'<sup>64</sup> each can also be helpfully woven into the surrogate-situation definition as well. First, the formalistic notion of theatricality as the work of *framing* or *foregrounding*, and hence of bracketing its 'poetic function' from the domain of effective action, works fairly straightforwardly with the distinction between pragmatic and *epistemic action* – what Rowlands dissects into 'the manipulation, exploitation and transformation of environmental structures' precisely in respect of their cognitive affordances.<sup>65</sup> Second, if indeed theatricality is a *perceptual modality*, then its very function (applying Clark's cognitive definition) is to 'render certain features of our world concrete and salient' so that we may 'target our thoughts ... on

<sup>65</sup> Rowlands, 'Enactivism and the Extended Mind,' 53.

sketches, storyboards, and statues, Clark's latest iterations of this idea draw on Henrik Gedenryd's work on design (*Supersizing the Mind*, 155), and Matthew Day's on religion ('Material Surrogacy,' 24–5).

<sup>&</sup>lt;sup>62</sup> Postlewait and Davis, 'Theatricality,' 12, 14. See also Teemu Paavolainen, 'Woven Within: Textures of Theatricality and the Directorial Impulse,' in the sixth yearbook of the Theatre Research Society in Finland, forthcoming online at <a href="http://teats.fi/julkaisut.html">http://teats.fi/julkaisut.html</a>.

<sup>&</sup>lt;sup>63</sup> Carlson, 'The Resistance to Theatricality,' 244, 246, 249.

<sup>&</sup>lt;sup>64</sup> Christopher B. Balme, *Pacific Performances: Theatricality and Cross-Cultural Encounter in the South Seas* (New York: Palgrave Macmillan, 2007), 6, my italics; the idea of theatricality as a mode of perception is derived from Elizabeth Burns, *Theatricality: A Study of Convention in the Theatre and in Social Life* (London: Longman, 1972). With implications forward and back in the present discussion, the definition continues: 'It invariably emphasizes the visual senses and moves the beholder to become aware of his/her act of spectating. Because this mode of perception depends on the recognition of pre-existing patterns and conventions, it is often framed or, pejoratively spoken, marred by a sense of second-handedness' (Balme, *Pacific Performances*, 6).

elements of a scene that were previously too "unmarked" (incidentally, the title of Peggy Phelan's influential book on performativity).<sup>66</sup> As for this sense of focus, finally, surrogate situations provide a theatrical 'halfway house between fully offline' thought and the more *time-constrained, densely-coupled* performances of everyday life, by the dual means of *temporal relaxation* and *selective concretisation* – that is, latitude in timing and the abstraction or idealisation of content by omitting the extraneous. As any financially-pressured theatre company will know, 'commitment to maximal detail and realism ... may prove counter-productive.'<sup>67</sup>

Finally, theatrical effects also abound precisely when epistemic action is inhibited. If in the previous examples they enabled an absent 'target situation' to be cognised with perception and action still tightly coupled, in others the target may appear there before us while a sense of theatricality begins with the *decoupling* of action from perception (without yet being institutionalised into divisions of actors and audiences). In some cases the effect is still affirmative, affording insight into patterns of change otherwise occluded by their very timescale or other forms of performative normalisation. As a theatricalisation of the earlier babysteps example, consider Gunnar Johansson's canonical studies of biological motion, being recognised as such through the merest set of reflective markers attached to an actor's joints, the instant they begin to move about in the dark. (Reflecting the principles of both puppetry and motion-capture technology, the technique was arguably inspired by the Czech tradition of 'black light theatre.')<sup>68</sup> In other instances, even dramatic changes may go all unnoticed if only they do not 'violate the gist of the scene.' Such was the case in Simons and Levin's 'slapstick scenario' on a university campus, where most unsuspecting testees failed to notice that the person who just asked them for directions, briefly occluded from view by a door carried by, was swiftly substituted with another quite unlike in both build and attire.<sup>69</sup>

<sup>&</sup>lt;sup>66</sup> Andy Clark, *Mindware: An Introduction to the Philosophy of Cognitive Science*, 2nd edn (Oxford: Oxford University Press, 2014), 172; Peggy Phelan, *Unmarked: The Politics of Performance* (London: Routledge, 1993).

<sup>&</sup>lt;sup>67</sup> Clark, 'Material Surrogacy and the Supernatural,' 25–6. In his earliest discussion of surrogate situations as their '*own best microworld*,' Clark presents the 'halfway house' they are to provide as specifically 'evolutionary and developmental' (Andy Clark, 'Beyond the Flesh: Some Lessons from a Mole Cricket,' *Artificial Life* 11, no. 1–2 (2005), 233–44: 237–8).

<sup>&</sup>lt;sup>68</sup> Gunnar Johansson, 'Visual Perception of Biological Motion and a Model for Its Analysis,' *Perception and Psychophysics* 14, no. 2 (1973), 201–11. For demonstration, see

<sup>&</sup>lt;http://www.biomotionlab.ca/Demos/BMLwalker.html> [accessed 24 September 2015].

<sup>&</sup>lt;sup>69</sup> Daniel J. Simons and Daniel T. Levin. 'Review: Change blindness,' *Trends in Cognitive Sciences* 1, no. 7 (1997), 261–267: 266; see also Clark, *Natural-Born Cybogs*, 66. As Alva Noë observes, 'artists, magicians, stage designers, and cinematographers – people who live by the maxim that the hand is quicker than the eye –

This is all in agreement with the tropes of distance, duality, and detachment apropos of theatricality, *defamiliarising* the performative by operations of decoupling and decontextualisation, yet only deemed 'theatrical' in degrees – from the merest 'outside' perspective of the novice to a sense of excess and contrivance as such 'cuts' abound. (As Simons and Levin note, age was also a factor in their experiment, with peers less easily fooled than older participants just encoding 'some student asking directions.'<sup>70</sup>) With its vexed dynamic of insight and illusion, however, now intuitive and now inhibiting, any 'logic' of theatricality can only ever appear as one of *principled disparity*: if taken by a scene which, *were it to unfold in a theatre*, we would scarcely act upon, its theatrical affordances may (or may not) affect our thought and action nonetheless.

# **Cognitive Ecology: Textures of Thought?**

So in a sense we are back at the question of *magnitude*, regarding the cultural and biological conceptions of cognitive ecology that the notions of extension and enaction appear to imply. In terms of how they specify the very *relationship* between agents and environments, their core commitments are effectively to functional heteronomy and systemic autonomy, multiple realisability and 'compositional plasticity' – by which Thompson and Stapleton mean 'the body's capacity to incorporate environmental processes into the operationally closed network ... that constitutes its autonomy.' This is neatly clarified by the dual terms they borrow from Helena De Preester. If cognitive *extension* occurs when a set of heterogeneous resources is instrumentally recruited to Clark's 'ecological assembly,'<sup>71</sup> on the spot, then enactive *incorporation* only occurs when such resources are no longer experienced as objects but 'function transparently in the body's sense-making interactions with the environment.' Further, if extensions are 'artifacts that we use and control in order to extend our abilities,' then 'tools that the body incorporates ... have a phenomenologically different status' – hence the parallel requirements for *transparency* and *functional poise* (as the extended-mind variant) if any-thing extra-bodily is to count as part of a cognitive system.<sup>72</sup>

<sup>70</sup> Simons and Levin, 'Review,' 266.

would not be surprised by the change blindness results' (*Action in Perception*, 59). Indeed, one possible avenue for the cognitive study of theatricality could be that opened by the cognitive study of *magic* and 'the effects created by magicians' – specifically 'the ability to control attention, to distort perception, and to influence choice' (Gustav Kuhn, Alym A. Amlani and Ronald A. Rensink, 'Review: Towards a Science of Magic,' *Trends in Cognitive Sciences* 12, no. 9 (2008), 349–54: 349).

<sup>&</sup>lt;sup>71</sup> See Clark, *Supersizing the Mind*, 13.

<sup>&</sup>lt;sup>72</sup> Thompson and Stapleton, 'Making Sense of Sense-Making,' 28–9.

In regard to the enactive and extended camps' respective affinities with the phenomenology of consciousness and with more mechanically unconscious operations, the upshot for the present discussion is a view of performativity as the *unconscious of the enactive* and of theatricality as a *consciousness of situated extensions*. If the notion of performativity signals the emergence of an identity – one that 'literally *incorporates* the lines of force and knowledge that surround it'<sup>73</sup> – and thus also needs to be actively enacted and sustained, then that of theatricality is more apt for makeshift appearances in the fleeting situation, easily decomposed as 'tools all the way down,'<sup>74</sup> only assembled in improvisational practices as and when required.

More poetically perhaps, I am inclined to suggest that the key metaphors of *mind* here involved span the magnitudes of metabolism, manipulation, and movement. On the one hand, in a Lakoff-and-Johnson-style cognitive linguistic account,<sup>75</sup> enactive thinking thus figures as bodily movement between topics, straight or in cycles, overcoming obstacles, and sometimes forced to conclusions. In the extended scenario, meanwhile, thoughts become objects to play with/toss around/turn over, are only examined aspectually and may (at moments of slapstick) slip from our grip altogether. On the other hand, performative processes of movement and metabolism are simply *more tightly coupled* with the environment than are more theatrical instants of vision and precision – even if only so with the Gibsonian *medium* (the ever-ambient air or water) through which organisms are bound to move in action and perception.<sup>76</sup>

By implication, if the paradigm examples of enaction range from autopoietic closure, as chemically realised by the single cell, to the grand metaphor of 'laying down a path in walking,'<sup>77</sup> these crucially occur on magnitudes that habitually recede from consciousness and actively dissimulate their performative constitution. By contrast, if cognitive extension is typically achieved through acts of bodily manipulation – perhaps of surrogate situations that actively suppress realistic detail and relax temporal constraints – it is specifically set to make things more 'graspable' on an ecologically human scale. Somewhat akin to Schechner's 'the-atrical' magnitudes of *bit, sign*, and *scene*, since fit for further editing once 'freed from their

<sup>&</sup>lt;sup>73</sup> Bell, *Culture and Performance*, 17 (my emphasis).

<sup>&</sup>lt;sup>74</sup> Clark, Natural-Born Cyborgs, 136.

 <sup>&</sup>lt;sup>75</sup> On such metaphors of mind, see especially George Lakoff and Mark Johnson, *Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought* (New York: Basic Books, 1999), 235–43.
 <sup>76</sup> See Gibson, *The Ecological Approach*, 16–19.

<sup>&</sup>lt;sup>77</sup> Thompson, *Mind in Life*, 44, 13.

attachment to larger schemes of action,<sup>78</sup> this is the scale of direct perception and action, targeting what would otherwise remain too vague or unmarked, affording feats of cognitive compression and selective (in)attention. Moreover, this very sense of manipulation also motivates an antitheatrical bias against excess theatrics in the business of maliciously manipulating their pliable audiences.

Even if only an evocative list of words, these notions of movement, metabolism, and manipulation do begin to suggest how the ephemeral excesses of theatricality may profitably parasitise the more enduring ecologies of performative evolution. If we intend *metaphor* not as mere figures of speech – theatrical in the sense of embellishing or reflecting some pre-existing reality – but instead as deeply performative in the sense of creating the very textures of thought we take to be real, then the very possibility of change lay in attending to what our metaphors serve to *hide or highlight*, instead of merely reiterating those we are accustomed to live and act by.<sup>79</sup> As notions of mind as 'extended' or 'enactive' are ultimately metaphorical, in themselves, the final move I would like to propose is that the different strands of action, perception, and ecology discussed might be productively interwoven by the more general dramaturgical metaphor of *texture*.<sup>80</sup>

In such terms, if 'cognitive ecology is the study of cognitive phenomena in context,'<sup>81</sup> we should conceive of 'context' not on the image of concentric containment, but in terms of the fluid intertwining of its divergent layers or strands, that is to say, not in terms of readymade entities, merely 'embedded' in readymade contexts, but in terms of ongoing processes constitutively interwoven with their ongoing contextures – evolutionarily, historically, developmentally, here-and-now. Whatever the life form or the art form, the range of its meaning is that of its *weaving*, going on and leaking beyond, the 'mind' being a process continuously

<sup>&</sup>lt;sup>78</sup> Schechner, 'Magnitudes of Performance,' 321.

<sup>&</sup>lt;sup>79</sup> Cf. George Lakoff and Mark Johnson, *Metaphors We Live By* (Chicago: University of Chicago Press, 1980).
<sup>80</sup> My thinking here is specifically influenced by the 'contextualism' of the largely forgotten pragmatist philosopher Stephen C. Pepper, esp. in his *World Hypotheses: A Study in Evidence* (Berkeley, CA: University of California Press, 1942); and by the anthropologist Tim Ingold, for example his *Being Alive: Essays on Movement, Knowledge and Description* (London: Routledge, 2011). To my knowledge, Diane Gillespie's *The Mind's We: Contextualism in Cognitive Psychology* (Carbondale: Southern Illinois University Press, 1992) remains the sole book-length application of Pepper's metaphors to cognitive studies. More specifically, see Teemu Paavolainen, 'Meaning in the Weaving: Mapping and Texture as Figures of Spatiality and Eventness,' Nordic Theatre Studies 27, no. 2 (2015).

<sup>&</sup>lt;sup>81</sup> Hutchins, 'Cognitive Ecology,' 705.

interweaving body, brain, and world, rather than an object that one could neatly localise in some privileged part of its ongoing texture.<sup>82</sup>

So let me try to recap how my target concepts appear, as *textures of thought* within wider cognitive ecologies. If performative textures are typically enacted over time and depend on further histories of sensorimotor experience, then more theatrical ones may recruit external scaffolding opportunistically assembled on the fly, relativising the role of embodied agency by drawing on whatever strands of context are available, cutting some and compressing others. If one moment of such cognitive texture is deemed performative by cycles of continuity and change (from circular causation to restored behaviour) it is the deviant density or sparsity of another that frames or qualifies it as theatrical – yet both only emerge in the weave of absorption and attention, immersion and intervention. That both terms still have analytical purchase is due to a key qualitative difference in their magnitude: where the performative tends to evade consciousness, the theatrical is precisely intuited as such and may indeed heighten our sensitivity to its performative constitution.<sup>83</sup> If the paradox of performativity consists in its naming the eventness of apparent objects and essences while simultaneously dissimulating it, then that of theatricality consists in rendering this eventness perceptible precisely by reducing it to manageable objects – by collapsing, into synoptic space, some texture of trajectories interwoven over performative time. Apart from my attempts in this article, evidence to the effect of these specific idioms weaving into one another in roughly these ways is provided by the previous work that has systematically drawn on versions of the enactive, in discussing specifically embodied practices of performing,<sup>84</sup> and on the extended, for more distributed kinds of theatrical dynamics.85

<sup>84</sup> Lutterbie, Toward a General Theory of Acting; Zarrilli, 'Introduction.'

<sup>&</sup>lt;sup>82</sup> Even if its 'bouts of seepage' seem inconsistent with the mechanistic premises of extended functionalism, they are in agreement with recurrent metaphors in Andy Clark's prose: For instance, the 'loosely knit field' of embodied cognition depicts thought and reason as 'looping through' and 'inextricably ... intermingled' with 'the details of our gross bodily form, our habits of action and intervention, and the enabling web of social, cultural and technological scaffolding in which we live, move, learn and think' (Clark, 'Material Surrogacy,' 23; Wilson and Clark, 'How to Situate Cognition,' 74). In an important recent review article, Edwin Hutchins has taken issue with whether that which 'spins, selects, or maintains the webs of cognitive scaffolding' (Clark, *Supersizing the Mind*, 123; but see also notes 18 and 19 on p. 243) need be the 'biological human organism' or could equally include the crucial 'orchestration' provided by 'cultural practices' (Edwin Hutchins, 'Enculturating the Supersized Mind,' *Philosophical Studies* 152, no. 3 (2011), 437–46).

<sup>&</sup>lt;sup>83</sup> Cf. Erika Fischer-Lichte, 'From Theatre to Theatricality – How to Construct Reality,' *Theatre Research International* 20, no. 2 (1995), 97–105, arguing on proto-enactive grounds that theatricality is 'not restricted to theatre ... yet is explicitly focused and marked by it' (p. 103), and that 'by reflecting theatricality, the spectators reflect on the conditions underlying and guiding the process by which they construct reality' (p. 104).

<sup>&</sup>lt;sup>85</sup> Tribble, Cognition in the Globe; Paavolainen, Theatre/Ecology/Cognition.

#### References

- Adams, Fred and Ken Aizawa. 'The Bounds of Cognition,' *Philosophical Psychology* 14, no. 1 (2001), 43–64.
- Austin, J. L. How to Do Things With Words, ed. J. O. Urmson and Marina Sbisà (Oxford: Oxford University Press, 1986).
- Balme, Christopher B. *Pacific Performances: Theatricality and Cross-Cultural Encounter in the South Seas* (New York: Palgrave Macmillan, 2007).
- Barish, Jonas. The Antitheatrical Prejudice (Berkeley: University of California Press, 1981).
- Bell, Vikki. *Culture and Performance: The Challenge of Ethics, Politics and Feminist Theory* (New York: Berg, 2007).
- Burns, Elizabeth. Theatricality: A Study of Convention in the Theatre and in Social Life (London: Longman, 1972).
- Butler, Judith. 'Performative Acts and Gender Constitution: An Essay in Phenomenology and Feminist Theory,' *Theatre Journal* 40, no. 4 (1988), 519–31.
- ——. Bodies That Matter: On the Discursive Limits of 'Sex' (London: Routledge, 1993).
- Carlson, Marvin. 'The Resistance to Theatricality,' SubStance 31, no. 2-3 (2002), 238-50.
- Clark, Andy. 'Embodied, Situated, and Distributed Cognition,' *A Companion to Cognitive Science*, ed. William Bechtel and George Graham (Oxford: Blackwell, 1998), 506–17.
- ——. Natural-Born Cyborgs: Minds, Technologies, and the Future of Human Intelligence (Oxford: Oxford University Press, 2003).
- -----. 'Beyond the Flesh: Some Lessons from a Mole Cricket,' Artificial Life 11, no. 1–2 (2005), 233–44.
- ——. Supersizing the Mind: Embodiment, Action, and Cognitive Extension (Oxford: Oxford University Press, 2008).
- ——. 'Material Surrogacy and the Supernatural: Reflections on the Role of Artefacts in 'Offline' Cognition,' *The Cognitive Life of Things: Recasting the Boundaries of the Mind*, eds Lambros Malafouris and Colin Renfrew (Cambridge: McDonald Institute Monographs, 2010), 23–28.
- Mindware: An Introduction to the Philosophy of Cognitive Science, 2nd edn (Oxford: Oxford University Press, 2014).

- Clark, Andy and David J. Chalmers. 'The Extended Mind,' *Analysis* 58, no. 1 (1998), 7–19 (repr. in Clark, *Supersizing the Mind*, 220–32, and Menary, *The Extended Mind*, 27–42).
- Di Paolo, Ezequiel. 'Extended Life,' Topoi 28, no. 1 (2009), 9-21.
- Di Paolo, Ezequiel and Evan Thompson. 'The Enactive Approach,' *The Routledge Handbook* of *Embodied Cognition*, ed. Lawrence Shapiro (London: Routledge, 2014), 68–78.
- Fischer-Lichte, Erika. 'From Theatre to Theatricality How to Construct Reality,' *Theatre Research International* 20, no. 2 (1995), 97–105.
- Fried, Michael. *Absorption and Theatricality: Painting and Beholder in the Age of Diderot* (Berkeley: University of California Press, 1980).
- Froese, Tom and Ezequiel A. Di Paolo. 'The Enactive Approach: Theoretical Sketches from Cell to Society,' *Pragmatics & Cognition* 19, no. 1 (2011), 1–36.
- Gallagher, Shaun and Anthony Crisafi. 'Mental Institutions,' Topoi 28, no. 1 (2009), 45-51.
- Gibson, James J. *The Ecological Approach to Visual Perception* (Hillsdale, NJ: Lawrence Erlbaum, 1986). First published 1979.
- Gillespie, Diane. *The Mind's We: Contextualism in Cognitive Psychology* (Carbondale: Southern Illinois University Press, 1992).
- Hutchins, Edwin. Cognition in the Wild (Cambridge, MA: MIT Press, 1995).
- -----. 'Cognitive Ecology,' Topics in Cognitive Science 2, no. 4 (2010), 705–15.
- -----. 'Enculturating the Supersized Mind,' Philosophical Studies 152, no. 3 (2011), 437-46.
- Honzl, Jindřich. 'Dynamics of the Sign in the Theater,' Semiotics of Art: Prague School Contributions, eds Ladislav Matejka and Irwin R. Titunik (Cambridge, MA: MIT Press, 1976), 74–93. First published 1940.
- Ingold, Tim. Being Alive: Essays on Movement, Knowledge and Description (London: Routledge, 2011).
- Johansson, Gunnar. 'Visual Perception of Biological Motion and a Model for Its Analysis,' *Perception and Psychophysics* 14, no. 2 (1973), 201–11.
- Kiverstein, Julian and Andy Clark. 'Introduction: Mind Embodied, Embedded, Enacted: One Church or Many?' *Topoi* 28, no. 1 (2009), 1–7.
- Kuhn, Gustav, Alym A. Amlani and Ronald A. Rensink. 'Review: Towards a Science of Magic,' *Trends in Cognitive Sciences* 12, no. 9 (2008), 349–54.
- Lakoff, George and Mark Johnson. *Metaphors We Live By* (Chicago: University of Chicago Press, 1980).

- ——. Philosophy in the Flesh: The Embodied Mind and Its Challenge to Western Thought (New York: Basic Books, 1999).
- Loxley, James. Performativity (London: Routledge, 2007).
- Lutterbie, John. Toward a General Theory of Acting: Cognitive Science and Performance (New York: Palgrave Macmillan, 2011).
- Malafouris, Lambros and Colin Renfrew, eds. *The Cognitive Life of Things: Recasting the Boundaries of the Mind* (Cambridge: McDonald Institute Monographs, 2010).
- McConachie, Bruce and F. Elizabeth Hart, eds. *Performance and Cognition: Theatre Studies and the Cognitive Turn* (New York: Routledge, 2006).
- McGillivray, Glen. 'Theatricality: A Critical Genealogy' (unpublished doctoral thesis, University of Sydney, 2004) <a href="http://ses.library.usyd.edu.au/handle/2123/1428">http://ses.library.usyd.edu.au/handle/2123/1428</a> [accessed 23 September 2015].
- McKenzie, Jon. *Perform or Else: From Discipline to Performance* (New York: Routledge, 2001).
- Menary, Richard, ed. The Extended Mind (Cambridge, MA: MIT Press, 2010).
- Noë, Alva. Action in Perception (Cambridge, MA: MIT Press, 2004).
- ——. Out of Our Heads: Why You Are Not Your Brain, and Other Lessons from the Biology of Consciousness (New York: Hill and Wang, 2009).
- Paavolainen, Teemu. 'From Props to Affordances: An Ecological Approach to Theatrical Objects,' *Theatre Symposium* 18 (2010), 116–134.
- ——. Theatre/Ecology/Cognition: Theorizing Performer-Object Interaction in Grotowski, Kantor, and Meyerhold (New York: Palgrave Macmillan, 2012).
- ——. "Meaning in the Weaving: Mapping and Texture as Figures of Spatiality and Eventness," *Nordic Theatre Studies* 27, no. 2 (2015).
- ——. "Woven Within: Textures of Theatricality and the Directorial Impulse," Näyttämö & tutkimus 6, eds Annette Arlander, Laura Gröndahl, Helka-Maria Kinnunen and Marja Silde (Helsinki: The Theatre Research Society in Finland, forthcoming online at <http://teats.fi/julkaisut.html>).
- Pepper, Stephen C. World Hypotheses: A Study in Evidence (Berkeley, CA: University of California Press, 1942).
- Phelan, Peggy. Unmarked: The Politics of Performance (London: Routledge, 1993).

- Postlewait, Thomas and Tracy C. Davis. 'Theatricality: An Introduction,' *Theatricality*, eds Tracy C. Davis and Thomas Postlewait (Cambridge: Cambridge University Press, 2003), 1–39.
- Puchner, Martin. Stage Fright: Modernism, Anti-Theatricality, and Drama (Baltimore: Johns Hopkins University Press, 2002).
- Robbins, Philip and Murat Aydede, eds. *The Cambridge Handbook of Situated Cognition* (Cambridge: Cambridge University Press, 2009).
- Rowlands, Mark. 'Enactivism and the Extended Mind,' Topoi 28, no. 1 (2009), 53-62.
- Schechner, Richard. 'Magnitudes of Performance,' *Performance Theory*, rev. and expanded edn (New York: Routledge, 2003), 290–332.
- ——. Performance Studies: An Introduction, 2nd edn (New York: Routledge, 2006).
- Simons, Daniel J. and Daniel T. Levin. 'Review: Change Blindness,' *Trends in Cognitive Sciences* 1, no. 7 (1997), 261–267.
- States, Bert O. *Great Reckonings in Little Rooms: On the Phenomenology of Theater* (Berkeley: University of California Press, 1985).
- Stewart, John, Olivier Gapenne and Ezequiel A. Di Paolo, eds. *Enaction: Toward a New Paradigm for Cognitive Science* (Cambridge, MA: MIT Press, 2010).
- Sutton, John. 'Material Agency, Skills and History: Distributed Cognition and the Archaeology of Memory,' *Material Agency: Towards a Non-Anthropocentric Approach*, eds Carl Knappett and Lambros Malafouris (New York: Springer, 2008), 37–56.
- Thelen, Esther and Linda B. Smith. *A Dynamic Systems Approach to the Development of Cognition and Action* (Cambridge, MA: MIT Press, 1994).
- Thompson, Evan. *Mind in Life: Biology, Phenomenology, and the Sciences of Mind* (Cambridge, MA: Belknap Press of Harvard University Press, 2007).
- Thompson, Evan and Mog Stapleton. 'Making Sense of Sense-Making: Reflections on Enactive and Extended Mind Theories,' *Topoi* 28, no. 1 (2009), 23–30.
- Tribble, Evelyn B. Cognition in the Globe: Attention and Memory in Shakespeare's Theatre (New York: Palgrave Macmillan, 2011).
- Varela, Francisco J., Evan Thompson and Eleanor Rosch. *The Embodied Mind: Cognitive Science and Human Experience* (Cambridge, MA: MIT Press, 1991).
- Wheeler, Michael. 'Minds, Things and Materiality,' *The Cognitive Life of Things: Recasting the Boundaries of the Mind*, eds Lambros Malafouris and Colin Renfrew (Cambridge: McDonald Institute Monographs, 2010), 29–37.

- Wilson, Robert A. and Andy Clark. 'How to Situate Cognition: Letting Nature Take Its Course,' *The Cambridge Handbook of Situated Cognition*, eds Philip Robbins and Murat Aydede (Cambridge: Cambridge University Press, 2009), 55–77.
- Zarrilli, Phillip B. 'Introduction,' Acting: Psychophysical Phenomenon and Process, eds Phillip. B. Zarrilli, Jerri Daboo and Rebecca Loukes (New York: Palgrave Macmillan, 2013), 1–50.