Autopoiesis as Biological Theory and as Theoretical Metaphor

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Abstract: I probe the extent to which a metaphorical deployment of the concept of autopoiesis has value in elucidating a notion of liveness in theater performance.

1.   In my commentary on Maiya Murphy's target article I draw as much from my career as an artist and an arts (but not theater) academic, as from my work in post-cognitivist approaches to cognition. I enthusiastically endorse Murphy's call for the application of embodied and enactive approaches theorizing the arts, and for the usefulness of arts contexts in expanding the frame of reference for research into embodied and enactive (and situated, distributed and extended, etc.) approaches to cognition.[1] That said, I was often not sure what was at stake in this article (even given the articulation of the "problem" in the abstract). Despite being a career theorist in "performing arts-adjacent" territories, I am not familiar with the "liveness debate" the author refers to. The community in the intersection between theorists of performing arts and constructivists is comparatively tiny. Some kind of précis on what "the liveness debate" is, or has been, would help to position what followed.

2.   A second and related preliminary critique concerns definitions of (the various dimensions of) the domain in question. Murphy paints theater with a broad brush and does not articulate, and thus distinguish, radically different theatrical traditions.[2] Nor

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[1] In full disclosure, I devised and directed the conference cited in Footnote 25, in which Evan Thompson, Giovanna Colombetti, Maxine Sheets-Johnstone, David Kirsh and Anthony Chemero were keynote speakers, http://simonpenny.net/BK. The explicit goal of this event was to bring cultural practitioners into dialog with 4E cognitive scientists for mutual benefit. So, I am pleased to see work of this kind appearing in the pages of *Constructivist Foundations*.

[2] As, e.g., Guy Zimmermann, one of the authors cited in the article, does, "…the ceremonial and performative dimension of fully 'postdramatic' work (e.g., Robert Wilson or Romeo Castalucci), the

does the author acknowledge the profoundly culturally constructed and constrained nature of (conventional) theater – for example:

- The construction of an audience who are required to behave in certain ways with respect to the "fourth wall": to remain seated and facing, to be (not) seen and not heard except in acceptable moments when laughter or applause is permitted;
- The special architectural environments complete with raised stages, curtains, theatrical lighting that renders the audience invisible to performers, rows of seats, lobbies and all the rest;
- The perpetuation of cultural conventions for actors, directors, playwrights, plays, plot structures, etc. – which frame the response of the audience.

Such cultural constructions make theater a very special case of biological life. Recognition of such would seem to be an important component in any conversation attempting to leverage a biological theory. It is well known that J. J. Gibson was chagrined by the limitations of his ecological psychology to explain pictures (Gibson 1978). Similarly, many enactivist theorists such as Ezequiel Di Paolo, Elena Cuffari, and Hanne De Jaegher (2018) have recognized theoretical challenges in applying enactivist perspectives to cultural phenomena like linguistic exchange (languaging), as opposed to sensorimotor performances (as the author notes). Highly culturally imbricated practices as theater might be regarded as *a bridge too far*. Any attempt to cross that bridge (if indeed there is a bridge) must start with an acknowledgement that theater is, from the perspective of a biologically based theory, tricky territory because it involves language, metaphor, conventions, style, expectations etc., i.e., culture.

3.   Theater as a cultural phenomenon is cognitively complex, depending on a nuanced negotiation into and out of layers of suspension of disbelief: you (the audience) know I am the actor John Smith on a stage, but you also know I am Othello, a character in a play, which you know not only to be a play but a highly regarded work of English literature. You are in a dark, airconditioned room, but you are also in an Italian Renaissance city. I am speaking a strange dialect that you only have occasion to comprehend in such contexts. These are neither the kind of cognitive complexities a muskrat or jackdaw has to contend with, nor the sort of scenario easily explained in terms of a bacterium swimming up a nutrient gradient. So theater is (cognitively or

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enactivist play still requires a footing in representation, defined to include both the absurdism of Ionesco and the normative realism of, say, Arthur Miller" (Zimmerman 2020: 87).

ethologically) strange. It may be lifelike, but it may represent a kind of life we have never experienced. Theater is "like" life, because it is a representation of life, and it is performed by living creatures who are pretending not to be themselves. Yet to accord the performance "life" is to move into territories of metaphor that are themselves problematic, especially with respect to a second-order cybernetic standpoint (see below).

4.   Here representation(alism) must be mentioned. Theater (some would argue as opposed to "performance"[3]) is inherently *representational* – a word that appears only once in Murphy's article. Much debate has occurred in cognitive philosophy over questions of representation – both internal (mental) and externalized (textual, artifactual) representations, and the relationship between the two. Given the central role that critiques of representationalism have played in post-cognitivist discourses, would a recognition of the representational aspects of theater (and of components of theater such as scripts) not seem a necessary aspect of Murphy's conversation – in terms of the representational/performative dichotomy articulated by Andrew Pickering (1995), in semiotic terms, in cognitivist terms, or in terms of the critiques of hylomorphism by Tim Ingold (2010), Lambros Malafouris (2013)? **(Q1)**

5.   My third critique concerns the choice of the amassed theoretical resources. In a theatrical performance there are actors, there is a script, there is an array of theatrical machinery. They do the performance together. As Evelyn Tribble has shown in her work on Shakespeare's Globe (Tribble 2005; Tribble & Sutton 2011), the theoretical scaffold of distributed cognition (Suchman 1987; Kirsh & Maglio 1994; Hutchins 1995) seems immediately relevant. Or – gruesome pun acknowledged – Actor Network Theory (Latour 1986; Callon 1986; Law 1992). The usefulness of autopoietic theory in this case, in my opinion, demands more justification than is provided. There is a long

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[3] This, in some quarters, is a non-trivial distinction. The performance by Marina Abramovich recounted in the beginning of Erika Fischer-Lichte's 2008 book (in which the artist cuts her own flesh with broken glass and lies naked on ice) is an example of work in the tradition of "performance art" and points up radical differences between that tradition and traditional theater. In §15, Murphy remarks that "Fischer-Lichte's work opened the door for thinking about performance as autopoietic, linking process, performance, and liveness." On the contrary, such critical work has been occurring since the 1960s (a more recent contribution being Jones 1998) - in response to the work of body/performance artists such as Adrian Piper, Valie Export, Carolee Schneeman, Arnulf Rainer, Stelarc, and many others.

history of such work, notably Niklas Luhmann's (1995) extrapolation of the original biologically based concept for sociology.[4] There is no space here to delve into the question of whether Luhmann's abstracted formulation of autopoiesis is applicable to the cultural phenomenon of theater. However, I note that the division in conventional theater between performers and audience – which reproduces subject–object and observer–observed binaries – does not map onto a social system in which the status of actor and audience is in constant flux.

6.   In interdisciplinary research particularly, it is important to justify importing theoretical systems from a "source domain" to a "target domain." Though (or perhaps because) an offender myself, I maintain some skepticism. I have referred to some theorists – often on the humanities side – as theoretical "ambulance chasers."[5] One might point to some in the current crop of literary theorists who have hijacked climate, sustainability, environmental and ecological discourses. Such methods *may* be principled, but it is incumbent upon any such author to articulate the relevance of the source discourse.[6]

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[4] A pioneer in this area was Jack Burnham, who introduced both cybernetics and systems theory to an art-historical and art-theoretical audience (Burnham 1968a, 1968b).

[5] Referring to freeway tow-truck drivers who follow ambulances to the scene of an accident. In this vein, for example, I was recently notified of a paper applying Shannon entropy to analysis of language. This is typical of a genre of interdisciplinary theorizing that applies theory from the physical sciences (this is not a critique of that paper).

[6] This is what Zimmerman does when discussing the playwright, Harold Pinter: "I compare this autopoietic approach to dramatic composition and performance to the new philosophy of enactivism (Varela; Thompson; Noë). An enactivist perspective sheds new light on the spatial dynamics of theater, I argue, and how the three distinct spaces of the offstage, the stage and the audience are intensively coupled to each other in a way that draws un-recognized features of the cultural milieu into the light." (Zimmerman 2020: 76). A little later, he usefully clarifies: "I am not suggesting Harold Pinter […] ever encountered or deployed the concepts of autopoiesis or enactivism in any explicit formulation. My point is only that his work cannot be adequately understood without reference to these theories of embodied cognition and systemic relationality, which are implied by both the play's content and its form. […] While all theatre creation may, in some more or less trivial way, embody enactivism, the lineage I describe, in a much more important sense, truly exemplifies enactivism." (ibid).

7. Murphy specifically restricts her discussion to "theatrical performance." Are we to understand the phrase as denoting an abstract entity different from *a group of actors engaged in the presentation of a theatrical performance, with respect to a physically present audience*? Is a theatrical performance to be understood as a special kind of social system: an abstract formation of forces that can be understood at the level of a cybernetic "system" or an actor network? How should we understand the way the theatrical performance correlates with the notion of an autopoietic organism? If the designation "autopoietic" is to be claimed for "theatrical performances" (as opposed to theater as an artform, the text of a play, and so on) then it is incumbent upon Murphy to demonstrate that a (some, any) theatrical performance is "living" in a sense that is consistent with Maturana and Varela's conception of autopoiesis – as opposed to "allopoiesis" (a term that does not occur in the article till §21 and §22). Given that the "liveness" of the theatrical performance is separate from the biological living of the actors: in Murphy's discussion, autopoiesis must be taken in a metaphorical sense, and loosely, like "emergence." The danger is, as always, that with metaphorization we slip from "is" to "is like," and things (as Hubert Dreyfus 1998 reminded us) can be like (and unlike) other things in multifarious ways. At issue is: What constitutes a discursively rigorous application of metaphor?

8. In §28, Murphy states:

> "On the stage of the Noel Coward Theatre there were appearances of stylistically realist interchange between actors where I sensed that they were genuinely listening to each other, interacting, building off one another, and giving rise to Stanislavsky's 'spark of genuine life.' In theatrical terms, we could say that these moments were 'alive'."

9. Later she states: "I recognized moments where actors appeared to be participating in an autopoietic process" (§28). And later: "Onstage, I sensed autopoiesis in the intermedial space of Van Hove's mise-en-scene" (§30). – "I sensed"?, "appeared to be"? Everything said is said by an observer, as Humberto Maturana pithily noted, paraphrasing Heinz von Foerster's articulation of second-order cybernetics (that Murphy calls "cybernetic flair"). In these passages, I began to wonder if the potential theoretical leverage of a second-order cybernetic perspective had been jettisoned. Murphy is here intuiting that something she senses (is structurally coupled to) is like an idea she calls autopoiesis in a theatrical context, which is a special sense of Luhmann's abstraction of the original ectoplasmic autopoiesis. I am unsure what theoretical purchase is gained by use of autopoietic vocabulary articulating qualities of theatrical

performance usually described by terms such as a "persuasive," "captivating" or even "electrifying" performance. **(Q2)**

10. Murphy says: "I am suggesting that both individual humans and theatrical performances are embodied through the process of autopoiesis" (§6). There is no need to assert that individual humans are constituted through autopoietic process, but what does "embodied through the process of autopoiesis" mean, in the case of a theatrical performance? Murphy would need to explain in what sense a theatrical performance is or can be understood to be "embodied," i.e., in a sense that is consistent with enactivist theory. **(Q3)** Murphy says that (some parts of) some theatrical performances can be autopoietic while others are deemed to be "dead." It is difficult to parse such pronouncements within the context of autopoietic theory. I might be accused (and found guilty) of being an autopoietic fundamentalist, but autopoiesis (and by extension enactivism) is a theory of biological entities: "Living systems are cognitive systems, and living as a process is a process of cognition. This statement is valid for all organisms, with or without a nervous system" (Maturana & Varela 1980: 13). The question that remains open is whether, or in what terms, we should consider a theatrical performance an organism.

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