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Orders of Autopoiesis and "Lifeness" as the Biological Spectacle of Control

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> Abstract • Descriptions of theatre events as autopoietic are more productively grounded in Luhmann's theory of social systems rather than in Maturana and Varela's original biological conception. The sense of "lifeness" resonating within audiences of all styles of theatrical performance is directly correlated to the type of spectacle produced by the observed relationship between this social autopoiesis and the engagement of biologically autopoietic performers in the closed-loop control activity through which it is catalyzed.

Handling Editor • Alexander Riegler

Introduction

« 1 » Maiya Murphy's target article brings much welcome additional richness to the analysis of theatre and performance through the lens of autopoiesis. I am also particularly grateful for Murphy's integration of my own cybernetic approach into the "liveness" debate in performance studies, something I have long contemplated on my own but, unlike Murphy, without being able to discern a suitable entry-point. I would like to take the opportunity provided by Murphy to think through some further theoretical clarifications that I hope will continue to push this fruitful conversation forward.

« 2 » Before proceeding, I must foreground Merriam Webster's definition of *spectacle* as something exhibited to view as unusual, notable, or entertaining *especially*: an eye-catching or dramatic public display. In addition to discussing different orders of autopoiesis, this commentary will propose ways in which, while the type of spectacle produced by naturalistic and non-naturalistic performances significantly differ, they both emerge via audience members' resonance with the closed-loop control activity of performers who are similarly autopoietically structured.

Which autopoiesis?

« 3 » Given their non-biological nature *qua* systems, I suggest that discussion of the autopoiesis *of* theatrical or performance systems, as opposed to the presence *of* autopoietic entities *within* performance systems and their recognition thereof, is more productively grounded in the theory of Niklas Luhmann than that of Humberto Maturana and Francisco Varela. For Luhmann, *meaning*-constituted systems are either *psychic* or *social*, with the former operating as environments for the latter (Luhmann 1995). All manner of theatrical performances, regardless of stylistic convention, play a role in the autopoiesis of both these types of system; as a set of perturbations to the *psychic systems* of the observers (i.e., audience members) who will make distinctions in the on-going process of meaning-making (commonly understood, in the theatre, as *interpretation*), and as communicative acts that serve as constitutive elements of nested *social systems,* from the basal level of *interactions* up to the symbolically generalized *art system* (Luhmann 2000). It is the connection between this social autopoiesis and the closed-loop control activities of the biologically autopoietic performers that will determine the potential observation of "lifeness" by observers.

"Lifeness" in Naturalism

« 4 » Instances where the resonating sense of "lifeness" is made manifest in naturalist theatre occur when biologically autopoietic systems (human audience members) observe the spectacle of other biologically autopoietic systems (human performers) genuinely engaged in quintessentially cybernetic closed-loop control activity *within* the imaginary world of the performance system. Such observation activates the "resonance" across the interpenetrating *psychic* and *biological* systems of individual observers (with the latter as environment for the former) affording the recognition of "lifeness."

« 5 » In §35, Murphy suggests, that, to some, my "application of isomorphisms to successful naturalist acting and life may seem obvious, subjective, or limited." The claim to obviousness seems to be linked to the notion that, by its very definition, works of naturalism are intended to be "life-like";

therefore, great attention is paid to "copying" everyday settings and behaviour. However, my insistence that naturalist drama has a unique and particular autopoietic quality hinges upon the specific nature of the naturalist actor's work that is not quite so "obvious" to non-practitioners of theatre, or even to the majority of practitioners who, on the whole, are completely unaware of both cybernetics and autopoiesis. Namely, the strong similarity between a cybernetic theory of human behaviour and the Stanislavski System of Acting (Scholte 2015). The degree of this similarity is, in particular, shown by Dyer Bilgrave and Robert Deluty (2004), who compare the Stanislavski System and cybernetic Perceptual Control Theory (PCT) originally introduced by William Powers in 1974.

« 6 » Actors employing the Stanislavski System are engaging as deeply as they possibly can in genuine control behaviour via closed loops with objects and "characters" in the environment of the play, even though they are speaking a memorized text under imaginary circumstances. The point is not to *imitate* "everyday life" but to *engender* it in the moment through the commitment to the kind of closed-loop control processes that are the fundamental drivers of our outward behaviour. This is accomplished through the selection of an objective for the actor/character to pursue throughout a unit of the play's action that involves controlling some aspect of the environment. Most often, this is the behaviour of another character in the scene, such as "I want my father to say something encouraging to me." Konstantin Stanislavski (2008: 40–42) forcibly expressed to his students that it is through the cultivated development of this capacity to fully engage their own appropriate sensorimotor processes within the fictional world of the play in order to fulfil the character's needs in the scene (i.e., committing to the genuine closed-loop control action rather than emptily illustrating its appearance or effects), that skilled naturalist actors end up, as Murphy identifies in §28, "genuinely listening to each other, interacting, building off one another, and giving rise to Stanislavsky's 'spark of genuine life'."

« 7 » In §21, Murphy points to a "kind of autopoietic promise [undergirding my] cybernetic definition of Stanislavsky's system in general." By extension, she posits that, given its commitment to mimesis, even the most imposed, top down, directorially driven naturalist production might end up "looking like an autopoietic system," regardless of my description of those production methods as "allopoietic." In a general sense, I can agree with this statement, given that a well-written and competently staged naturalist play will most likely render some likeness of the autopoiesis of *social* systems through the demonstration of such processes as the reduction of *double contingency*.[1] The key word here is *demonstration*. As such, an audience may well "recognize" the mechanisms of *social* (therefore, non-biological) autopoiesis in a production that is completely lacking in "lifeness." It is only when actors, in imaginary circumstances, are genuinely engaged in the cognitive/behavioural processes of control intrinsic to *biological* autopoiesis that the sense of "lifeness" is liable to emerge for observers.

« 8 » Powers (2005) argued that, cybernetically speaking, and in line with PCT's conception of *all* human behaviour as the correction of error between preferred states of intrinsic variables and present-time sensory perceptions, humans are *always* engaged in some degree of closed-loop control activity. However, for the "ham" actor that was Stanislavski's archetypal "bête noire," the dominant control loop is between themselves and the audience, whose meaning-making they are trying to manipulate, rather than between themselves and the objects and people in the fictional world *inside* the performance system. This is what gives birth to the kind of "playing the result, forcing, stock-in-trade" that was the bane of Stanislavksi's life (Stanislavksi 2008: 143f) and is the polar opposite of "lifeness," defined by Murphy (in terms with which Stanislavski would have likely agreed) as those moments when –

> "the system of that scene at that moment is not just *exhibiting* the behavior of daily life, but is also spontaneously emerging through its own processes, similar to how life emerges from its bio-social circumstances." (§22, my emphasis)

1| For an analysis of theatrical performance and double contingency, see Porr (2016).

« 9 » Murphy's description also underscores why I claim an additional unique and particular autopoietic quality that is not as fully present in other performance forms. The "bio-socially" situated "spontaneous emergence of daily life" described not only resonates with observers on the level of their own biological autopoiesis but also, through the genuine engagement of sensorimotor closed-loop control within imaginary circumstances, operationally *embodies* the autopoietic catalytic emergence of social systems experienced and recognized from "daily life." These nested systems extend from the level of individual interactions as sub-systems, to the larger social systems in which they participate, portrayed by the play (e.g., in Arthur Miller's 1948 play *Death of a Salesman* the social systems of the Loman family, the business in which Willy Loman works, American capitalism, etc.) This is in addition to the social autopoiesis of the art system, and the participation in the ongoing autopoiesis of psychic systems, shared by naturalist and non-naturalist performance as described in the next section.

Autopoiesis in non-naturalist performance

« 10 » As examples of "lifeness"-bearing, autopoietic non-naturalistic performance, Murphy points to the "intermedial work" of performance artist Joanne Scott's "live improvised performances where she manipulates the components of pre-recorded video footage, live footage, objects, technical apparatuses, recorded sound, live sound, and her live body" (§16). These performances are framed as autopoietic "due to the co-presence (a closed network) of reciprocal relations and transformations between the physical and digital components of the performance" (ibid). This conception is presented by both Scott and Murphy as enacting a "parallel between the structural organization of autopoiesis and the structural organization of her live intermedial practice made up of bodies, objects, and media" (§17) through which the "interactions" between components of the system "constitute and construct the event [… of] 'being and doing'" (ibid). Murphy claims that "[b]y closely adhering to Maturana and Varela's biological autopoietic theory, the components, organization, and activities of

Scott's performance event are made visible as an autopoietic system" (§19).

« 11 » Again, I suggest that theatrical autopoiesis is more productively grounded in Luhmann's distinctive extension of the theory to the autopoiesis of *meaning*-constituted *psychic* and *social* systems. Such a move would be more appropriate given that the interacting "elements" of the system in question include, in addition to live sound, live footage and the performer's live body, such distinctly non-biological components as pre-recorded footage, objects, technical apparatuses, and recorded sound. At least *prima facie*, interactions between a biologically autopoietic performer and such allopoietic artifacts as microphones and video screens are of a different order from those between two or more biologically autopoietic entities who, by virtue of their interactions, are inherently involved in the bio-cognitive activities that are the hallmarks of their continuing biological autopoiesis itself.

« 12 » Still, what can be said to emerge autopoietically from a performance such as Scott's is a particular set of *meaning*-constituted *social* systems at the level of *interactions* between performer and audience that participate, as sub-systems, in the ongoing autopoiesis of the functionally differentiated system of "art" by adhering to the established "codes" and "boundaries" thereof (Luhmann 2000). In terms of the patterns that accrue between the "interactions" of images and sounds generated by the performer's activities, they are best understood as participating in the ongoing autopoiesis of *psychic* systems within the biological environments of the audience members, occurring when those patterns are distinguished as *meaningful* by those audience members *qua* observers, rather than conceived of as constituting some kind of physically bounded autopoietic system with extension in time and space. The spectacle of "lifeness" sensed by audience members results from their observation of the relationship between this autopoiesis and the closed-loop control activities through which it is produced.

"Lifeness" in non-naturalist performance

« 13 » While Scott is not engaged in an "imaginary" world, she is most definitely carrying out closed-loop control acts as "she manipulates the components of pre-recorded video footage, live footage, objects, technical apparatuses, recorded sound, live sound, and her live body" (§16). As Scott "intervenes" with images projected on a screen, and sound projected through speakers, her interventions must be meticulously timed and executed in order to facilitate the striking combinations and juxtapositions of sound and imagery intended to perturb the *psychic* systems of the observing audience members. Such interventions require sensorimotor acts with "tight" control loops to achieve specific desired spatio-temporal positioning of the various performance elements. Scott deliberately includes the visible execution of these actions as essential components of the performance as each spectator/experiencer "witnesses in full view not only the projected images and sounds, but also Scott manipulating, managing, and improvising with her body and tools to produce effects in the intermedial space" (§16). One particularly striking example from the clip of the performance piece, Cover, cited in the target article, is a sequence in which Scott appears to manually manipulate the opening and closing of her mouth, as well as the acts of smiling and frowning, by placing her hand on a transparency laid over a projected video of her face and "interacting" with her own projected image. I posit that it is the simultaneity of such visible acts of control and the novel and surprising visual and sonic relationships and patterns they engender, distinguished as meaningful by the *psychic* systems of the observers, that results in the spectacle of "lifeness" in this particular performance context.

Conclusion

« 14 » "Lifeness" as the biological spectacle of control is, in no way, confined to the domain of theatrical performance. Regardless of which performative domain it is being mobilized within, its spectacular nature seems to arise from the pairing between acts of closed-loop control, the social and psychic autopoiesis of the performance system being catalyzed by those actions, and related distinctions of surprise and meaningfulness that are intuitively recognizable to us as autopoietic systems of the same sort as the performers. In the socially autopoietic domain of sport, where acts of closed-loop control are, often, at their most demanding upon the performer, the completion of such acts is accompanied by our recognition of the extreme difficulty involved given our embodied knowledge of the limitations and constraints of our own physical organization. This relationship holds even if the event is witnessed in a mediatized manner, even after the event has taken place if the viewer is unaware of the outcome before viewing the recording. In the domain of live naturalist theatre performance, where acts of control are occurring within the imaginary world of the play as described above, we recognize the virtuosity of the actor whose powers of concentration and availability of spontaneous sensorimotor and emotional response can convince us that, in Murphy's words, "daily life" is "spontaneously emerging through its own processes, similar to how life emerges from its bio-social circumstances" (§22) without opportunities for another "take" should their concentration lapse. And, in the non-naturalistic performance domain highlighted by Murphy, we delight in the way in which the intentional control actions performed by the artist upon the assembled elements produce surprising effects that afford us the opportunity to "glide along the continuity of life and mind [of the artist], experiencing moments of resonance [in which we chime] with the [psychic/social] autopoietic process on stage, registering the interactivity of the performance components" (§35).
All of these varieties of "lifeness" rely on risk and the possibility of failure: specifically, in the realm of closed-loop control in front of observers.

« 15 » In her target article, Murphy has made a valuable contribution to the "liveness" debates: one that offers new ways to understand artistic creativity itself within the frame of autopoiesis and the human control actions that bring it about. Yet, more importantly, she has opened the door to a new conversation offering new ways to understand artistic creativity itself within the frame of social autopoiesis and the human control actions that bring it about. This should be of keen interest to cyberneticians, enactivists, artists and audiences. Let the "lifeness" debates begin!

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Acting and Dynamic Systems

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> Abstract • I consider and expand upon some aspects of the target article that are of particular pertinence to actors and directors. The autopoietic framing is useful in that it can be viewed as carrying on from prior work in systemic views of performance, such as those of cognitive ecologies and Stanislavskian-based approaches.

Handling Editor • Alexander Riegler

« 1 » Maiya Murphy's move to autopoietic terminologies and perspectives to engage liveness and "life-ness" is resonant with – even draws somewhat on – frameworks that have been applied to theatre and performance analysis significantly over the last couple of decades. In performance studies and practice, for the last quarter-century, enaction-based systems views of theatre have most regularly drawn on fields such as 4E cognition, distributed cognition, and affect theory to understand the complexity of the performance process and the event (e.g., Tribble 2011; Tribble & Sutton 2011; Blair & Cook 2016; Cook 2018, 2020; Kemp & McConachie 2018; Blair 2019). These generally hold that "the organism engages in *autopoesis* [sic], or self-making, within an *ecopoetic* situation; the self is not made without being made by and also making its environment" (Blair & Cook 2016: 7).

« 2 » Prior to this, generally in the 1920s and 1930s, decades before the cognitive turn, Konstantin Stanislavsky went from a somewhat rudimentary sense of thinking about what the character does in her given circumstances – what the world of the play offers as possibilities for action, what the character needs or wants, and what she can do to get it – to developing a process that used the body more fully to enter into engaging the text and its context. Initially Stanislavsky focused on "table work" (the company would sit together to read and talk about the play before getting on their feet), but his approach became increasingly embodied and enactive. Stanislavsky's later work culminated in the Method of Active Analysis.

« 3 » If cybernetics is about circular causality and feedback viewed as action/reaction, then the Method of Physical Actions might be considered a kind of cybernetic system. In Active Analysis, actors explore the interactive dynamics of a story by means of problem-targeted improvisations called etudes, in which actors get on their feet to explore situations in the play, embodying and revising until they need the text; Active Analysis "is *analysis* because actors analyze the play by exploring its interactive options through their etudes. It is *active* because, from the first rehearsal to the last performance, actors are on their feet, actively engaging with each other and with the text."[1, 2] Murphy's cybernetic enactive view encompasses and goes beyond Active Analysis's focus on embodying a particular play. However, what new tools or structures might it provide for the theatre-maker to use in the studio, or at this point is the cybernetic enactive view more useful for performance theorists? Q1

« 4 » Cybernetic autopoiesis and Stanislavsky-based actor training (§21) both are dynamic, systemic frameworks, and therefore usefully resonant with each other. However, there is a danger in Murphy's section discussing Tom Scholte's work in that the reader could conflate Stanislavsky's work with realism and naturalism, since that seems to be Scholte's orientation. Indeed, phrases such as "Stanislavskian experiments in realist/naturalist theatre" (§3) might more accurately be framed as "Stanislavsky-*based* experiments," since there are multiple phases of Stanislavsky's work, spanning roughly thirty years, and there have been multiple permutations and distortions of that work by subsequent artists, particularly in the US. Stanislavsky worked with many and varied dramatic forms other than realism-naturalism, including extensive work with Shakespeare, opera, and comedy. Stanislavsky's goal for the actor was "emotional truth," whatever the text,

1| "Active Analysis" by Sharon Marie Carnicke, https://sharoncarnicke.com/active-analysis. Accessed 30 October 2021.

2| An important development in 2022 will be the publication of the first English translation of Maria Knebel's *Active analysis*. Knebel was the recorder and documenter of Stanislavsky's work in the last years of his life, when the focus was Active Analysis (Knebel & Vasiliev 2022).