Cybernetic-Existentialism

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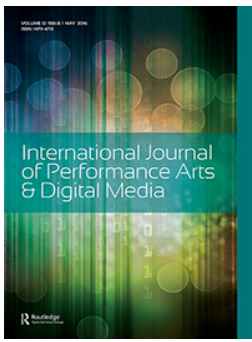
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ABSTRACT
A theory of Cybernetic-Existentialism is proposed in the light of emerging themes within contemporary arts and performance that appear to relate simultaneously to both fields and to fuse them. Cybernetic-Existentialist ideas are also increasingly prevalent within everyday life and popular culture, and the Disney film *Frozen* (2013) is examined as an illustration. Case studies are presented of performances by The Wooster Group, Societas Raffaello Sanzio, Jennifer Ringley, Paul Sermon, and Steve Dixon, and analysed with reference to the concepts and innovations of cyberneticians including Gregory Bateson and Existentialist philosophers including Jean-Paul Sartre and Gabriel Marcel. A number of philosophical notions are explored, including Bateson's 'the difference that makes a difference', Marcel's *disponibilité* (availability), and Sartre's discourses on 'the look', *Nothingness*, and *being-for-others*. The argument highlights the complementary and intersecting concerns of cybernetics and Existentialism and how fusing knowledge from these fields can throw light on fundamental issues and developments within arts, culture and everyday life, including interactivity, telepresence, frames, questioning, *Angst*, and 'separation with communion'.

Introduction

I propose a theory of Cybernetic-Existentialism. In doing so, two old paradigms are conjoined to provide a fresh perspective, and reignited to shed light on emerging themes within contemporary arts and sociocultural practices that appear to relate simultaneously to both fields.

Cybernetics developed from the 1940s as an interdisciplinary field that initially focused on ideas of 'communication and control' and the use of positive and negative feedback loops to develop hybrid and synthesizing systems. Later, in its 'second order', it particularly explored adaptive, self-organizing and *autopoietic* (self-making) systems across a range of areas from computing to management and from biology and psychology to the arts.

Existentialist ideas were first proposed in the nineteenth century by such writers as Edmund Husserl, Søren Kierkegaard, and Friedrich Nietzsche, and became consolidated as a distinct philosophy within the wider field of phenomenology in the mid-twentieth century by such thinkers as Martin Heidegger, Jean-Paul Sartre, and Simone de Beauvoir. Existentialism emphasised fundamental conflicts in the nature of human *Being*, including our equally strong experience of *Nothingness* and anticipation of *being-towards-death*.

Such recognitions of our simultaneous *Being and Nothingness* (Sartre 2003 [1943]), and the fact that we can never fully grasp our existence or events within it means that we are confronted continually with choices about how to act in order to create meaning by the way we live. Existentialism urged rejection of externally imposed values so as to make individual freedom and responsibility paramount; and advocated that we continually create and recreate our own identities through authentic actions and relationships. The philosophy also emphasised how in the face of *Nothingness*, perpetual choices and recognition of our absolute freedom, we experience understandable and insurmountable feelings of separation, isolation, *Angst* (Heidegger), anxiety, and nausea (Sartre). For Existentialists, these are not only intense embodied feelings, but also underline how the human condition is synonymous with a primordial sense of pathos, sadness, loss, loneliness, absurdity, boredom, homelessness, trepidation, anguish, and distress (as described variously by Existentialist philosophers).

Both cybernetics and Existentialism have been largely neglected or forgotten, overtaken by other modes of thought, some of which evolved from them: posthuman theory, for example, can be seen to have arisen directly out of cybernetics (Hayles 1999), while poststructuralism and deconstruction developed through the traditions of phenomenology and Existentialism (Reynolds 2006). Since they are generally considered outdated, my task to argue a case or 'revival' may be difficult, and in particular for a philosophy as extreme and uncompromising as Existentialism. As Foley has put it: 'Existentialism rejects team-player malleability, emphasises finitude rather than potential … and embraces the difficult because it confers intensity. No wonder this philosophy has gone out of fashion' (2010, 36).

Nonetheless, I hope to show that ideas from cybernetics and Existentialism have actually reemerged more prominently and explicitly than when interest in them was at its height in the late 1960s. At the same time, while their ideas and philosophies have been rediscovered and applied strongly within creative practice, they are not always explicitly recognised or labelled by name as such by artists. Nonetheless, not only are recent artworks and performances embodying Cybernetic-Existentialist ideas, but also academics and critics analysing those works are increasingly adopting concepts and critical language originating from the two fields, as we shall see.

Cybernetic revivals

Renewed interest in cybernetics and Existentialism, and creative explorations around them, is apparent across all major arts and media forms. This essay concentrates on manifestations within theatre and performance, but I will begin with examples from other disciplines and wider culture.

In the twenty-first century, there has been a reevaluation of the importance of cybernetic art–science experiments and a revival of interest in the key exhibitions and events during the 1960s. These include significant new digital documentation and analyses of the series of technological performance events in New York entitled *Nine Evenings: Theater and Engineering* (1966) which involved collaborations between scientists, such as Billy Klüver, and artists, including John Cage, Robert Rauschenberg, and Yvonne Rainer (e. g. Morris et al. 2006); and reconsiderations of the London Institute of Contemporary Art's *Cybernetic Serendipity: the Computer in the Arts* (1968). This landmark exhibition had brought together 325 artists, engineers, and cyberneticians to present a history of

cybernetics and a series of interactive exhibits, computer sculptures, and quasi auton-omous art making machines. It included algorithmic artworks by Charles Csuri and Kenneth Knowlton, an interactive computer by Margaret Masterson that co-created haiku poems with users, a music programme by Peter Zinovieff that improvised around visitors' whistled inputs, and Gordon Pask's large cybernetic machine *Colloquy of Mobiles* (1968). When this 'threshold-crossing' exhibition (Usselmann 2002, 390) went on tour in 1969, it was the inaugural show at The Exploratorium in San Francisco, and in September 2013, the museum presented a major symposium that gathered together some of the pioneer artists. While naturally looking back, it was significant that the explicit focus was forward-looking, with a discussion centering on 'The Future of Creative Collaboration', as the subtitle of the symposium emphasised.

In 2015, the ICA itself revived interest by curating a Touring Programme to UK art gal-leries of displays, artefacts, and photos entitled *Cybernetic Serendipity: A Documentation*. The original exhibition's artists and cyberneticians such as Gordon Pask are now the subject of renewed research interest and publications, while Bruce Lacey, the artist behind the exhibition's popular anthropomorphic female robot ROSA BOSOM (1965, Radio Operated Simulated Actress - Battery Or Standby Operated Mains) was asked to res-cucitate 'her' for a memorable performance at the Kinetica Art Fair in London (itself a cybernetically aligned event) in 2010. At the age of 85, Lacey also became the subject of a documentary by Turner-Prize winning relational artist Jeremy Deller, *The Bruce Lacey Experience* (2012, with Nick Abrahams).

Since the advent of widespread electronic person-to-person communications, initially through commercial email from 1988, then through the world wide web and mobile phones in the 1990s, the notion of the cybernetic feedback loop has taken on an ever growing significance to people's working and social lives. Twenty-first-century life is all about sending out messages, signals and symbols, and waiting for feedback. The cybernetic loop is not just an important phenomenon, but also a defining feature of our age, and is not only concerned with communication, but crucially *action*, which is also a key concern in Exis-tentialism. Much more than an essential part of commerce and culture, it is now a type of human addiction and default component of the contemporary existential condition. The so called 'post-human' is first and foremost a creature of the feedback loop, and even in the pre-Internet 1960s, Marshall McLuhan was discussing the loop in relation to how technologies bring about profound impacts on society, affect human life and identity, and changes to the human brain itself. In 1965, he expanded on 'the medium is the message' idea to suggest that: 'Everything under electric conditions is looped. You become folded over into yourself. Your image of yourself changes completely' (McLuhan 1965).

Existentialism returns

One's metamorphosing image of oneself, and Existentialism's core themes of freedom and self creation through decisive concrete action have suddenly been seized again with a vengeance across arts, media, and popular culture, though sometimes rendered in crude or simplified forms. In 1947, de Beauvoir wrote that: 'Freedom is the source from which all significations and all values spring. It is the original condition of all justification of existence. The man who seeks to justify his life must want freedom itself absolutely and above everything else' (2000 [1947], 284). The call has been taken up in numerous images,

narratives, and messages, including as slogans for clothing brands where Kama now recommends that you 'Own Your Life' while Nike urges: 'Just Do It'. In 2016, a George Bernard Shaw quotation: 'Life isn't about finding yourself. Life is about creating yourself' became a popular poster in clothing shops in Sri Lanka, and quite separately on 9 January 2016, the Deputy Prime Minister of Singapore Tharman Shanmugaratnam launched an ambitious 'SkillsFuture' lifelong learning initiative with an accompanying book with the same quotation writ large across its entire first page.

In literature, the 2008 Man Booker Prize winning novel was Adiga's *The White Tiger* (2008) whose protagonist is an Indian servant who murders his master in cold blood and steals his money, despite his master's relative kindness to him, and the genuine possibility that his own family may be killed in revenge. It is a deliberate, existential act to, as he puts it, 'break free of the coop', and he compares the crime to a type of Buddhist enlightenment, marking his passage from 'the Darkness' to 'the Light'. In the final lines of the book he reflects:

> I've made it! I've broken out of the coop! … Getting caught – it's always a possibility. … [Yet] I'll never say I made a mistake that night in Delhi when I slit my master's throat. I'll say it was worthwhile to know, just for a day, just for an hour, just for a *minute*, what it means not to be a servant. (Adiga 2008, 320–321)

Another with no regrets was Ian Brady, the UK's longest serving prisoner. In June 2013, British newspapers reported he had broken a 47-year silence to speak out about the notorious 'Moors murders' of five children. Brady noted that he had been studying German and French philosophy and said the reason he and Myra Hindley 'had tortured and killed children [was] as an "existential exercise"' (*The Guardian* 2013). An Existentialist tenet closely related to freedom is *authenticity*, which had long been considered passé, even laughable (for Adorno, it was meaningless 'jargon' (1973)) but it has made such a startling revival that the word is now seen and heard everywhere; indeed, authenticity has become the new necessity. Existentialists saw authentic action as a form of revolt and expression of individual freedom, and advocated that people 'transcend their social and ethical predicaments…to attain authenticity by being faithful to scripts they have written for themselves' (Golomb 1995, 3). Existentialist authenticity was understood to be difficult and uncompromising, as Sartre noted: 'Authenticity consists in having a true and lucid consciousness of the situation, in assuming the responsibilities and risks that it involves, in accepting it in pride or humiliation, sometimes in horror and hate' (2000 [1948], 90).

There is a renewed interest in the classic Existentialist antihero, a nonconformist who breaks rules and attempts to live an 'authentic' life *in extremis*, including in many of the most successful recent American television series. *Mr. Robot* features not one, but two Cybernetic-Existentialist figures, with the main protagonist a computer hacker addicted to morphine with bleak internal monologues – 'I am fear. I am anxiety, terror, panic' is how Episode 6 begins – and who is obsessed with making the right 'zero or one' choices. Extreme commitment and the same concern for authentic choices runs through *The Americans,* where the married Russian spies are told by their handler: 'We all die alone … before that we make choices'. But Walter White, *Breaking Bad*'s protagonist is arguably the most overt embodiment of the Existentialist 'outsider' since Albert Camus' *L'Etranger* (1942), and he is also a visionary cybernetician, synthesizing drugs of miraculous purity and establishing a labyrinthine and self regulating underground crime network.

Let it go

But such antiheroes and heroines are not confined to dark dramas of crime, drugs, and death. In 2013, the Walt Disney children's film *Frozen* broke all records to become the most successful animated film of all time, with a central set piece sequence, *Let It Go*, that is pure Cybernetic-Existentialism. Filled with existential *angst*, and having repressed her powers and authentic self for years, Elsa sings about being like the queen of a kingdom of isolation, who will now reject the past, cast off her controlling fears without a care for what others think, and go and reach the extreme limits of her potential. Echoing the Existentialists' total rejection of externally imposed codes and morals,[1] she sings that from now on, for her there will be no rules and no regard for what is wrong or right. 'I'm free!' she declares, as she runs up a staircase that she simultaneously creates by emitting ice and snow from her body. As human being and nature make a magical cybernetic connection, she asserts that she is at one with the elements and that her power radiates through the earth and sky. The cybernetic circuit evolves rapidly, and reaches a climax as she conjures a magnificent palace of ice, while describing her soul as spiralling in fractals.

She has taken a 'leap of faith' (Kierkegaard) to reach a point of Existentialist self creation (de Beauvoir) whereby she is now 'condemned to freedom' (Sartre), pursuing transcendence from *facticity* (everydayness and her historical past), and seeking to live in an authentic mode of being (Heidegger) and to go beyond her limits (Nietzsche). At the same time, she has reached new heights of cybernetic 'communication and control' (Wiener) and become a cybernetic posthuman subject, which according to Hayles is: 'an amalgam, a collection of heterogeneous components, a material-informational entity whose boundaries undergo continuous construction and reconstruction' (1999, 3).

Frozen was not just another children's film but a huge cultural phenomenon at the time, hitting a note that resounded loudly, and encapsulating a zeitgeist concerned with self creation, freedom, authenticity, and making synthesizing connections that overflow normative boundaries – what I am defining as Cybernetic-Existentialism.

Jennicam

An earlier, somewhat unlikely Cybernetic-Existentialist popular heroine was Jennifer Ringley, a self-confessed computer geek who, in the relatively early days of 24/7 online webcams, also broke all 'box office' records to become the first superstar 'created' by/ on the Internet (Dixon and Smith 2007, 448). Her *Jennicam* (1996–2003) was one of the web's first viral phenomena, reported in 1997 by Reuters to have over 20 million viewers a day, who simply watched her life unfold; or an empty room when she was not around. She claimed that she initially rigged the webcam when she moved to college so that her mother could see her, and that she subsequently broadcast her home life (or slowly changing still frames of it) for almost eight years '*not* because I want to be watched, but because I simply don't mind being watched'. This web blog statement was one of many with a distinctly Existentialist ring; another read 'People are always waiting for real-life to start'.

Jennicam was a quintessential example of a Cybernetic-Existentialist phenomenon. It became a cybernetic organism, expanding to connect, affect, and interact with the

external environment including through a veritable media 'frenzy' and numerous copycat sites. The feedback loops were red hot with interaction, as fan sites and chatrooms dedicated to Jenny proliferated, and she received – and sometimes answered – hundreds of emails every day. And as we watched her, we were also existentially confronting ourselves, exploring our positions as subjects or objects of what she called 'a sort of window into a virtual human zoo'.

As we watched, we were hit – time and time again – by the monumental absurdity and aching banality of existence. It was utterly compelling. This was first-and-foremost 'a life most ordinary' – eating, sleeping, watching TV – although there were highs and lows, some surprise occurrences and occasional sex. But most fundamentally, we experienced the surprising profundity of the mundane, the hypnotic compulsion of the absurd, and the existential shock of a soap opera of *Nothingness*. It encapsulated Sartre's insight at the end of his novel *Nausea* (1965) that Being is mere contingency, and that Being has no meaning, it just *is*: 'The essential thing is contingency. I mean that by definition, existence is not necessity. To exist is simply to be there; what exists appears, let's itself be encountered, but you can never deduce it' (Sartre 1965, 188).

What one 'encountered' when logging in was as often Ringley's absence as her presence. In the philosophy's defining work, Sartre identifies two fundamental ontologies – *Being and Nothingness* – and this provides such a perfect description of *Jennicam* that it could have been its subtitle. Sartre's foregrounding of *Nothingness* includes significant reflections on the nature of absence, and he provides various examples of *negation*, most famously a story of going to meet his friend Pierre in a café. When he walks in and realises that Pierre is not there, the space becomes entirely defined by his absence, rather than by the presence of the other people who are there. As new customers arrive and Sartre realises that they too are not Pierre, Sartre nihilates and *negates* them, seeing them only in terms of what they are not, so that they 'quickly decompose'. Everyone

> melts into the ground … Thus the original nihilation of all the figures which appear and are swallowed up in a total neutrality of the ground is the necessary condition for the appearance of the principal figure … Pierre. … I am witness to the successive disappearance of all the objects which I look at. (2003 [1943], 34)

Although ostensibly the people, objects, and sounds denote that 'the café is a fullness of being', absence becomes entirely pervasive throughout it, as though 'it is Pierre raising himself as nothingness on the ground of the nihilation of the café. So that what is offered to intuition is a flickering of nothingness … Pierre absent haunts this café' (33). This idea becomes one of the foundational pillars of Sartre's philosophy since, as Jack Reynolds has noted:

> … we could not apprehend absence and perceive that which is not in the café were we not free, were consciousness not radically separate from the real of things (*Being and Nothingness* p27). These then, are the foundation for Sartre's later insistence on our radical freedom. All his various examples of negation (i.e. questioning, destruction and absence) involve a rupture, or a break, from what is given, or from that which *is*, to posit that which is not given. He concludes from this that particular instances of negation are made possible by non-being (or Nothingness) and not the other way around. Nothingness is part of the ontology of the human-world relation, although it is human beings who are the beings by which Nothingness comes to things. (2006, 65)

Sartre articulates Nothingness in terms of an interruption within being; and argues that Nothingness 'lies coiled in the heart of being like a worm' (1994 [1943], 21). Nothingness also lies at the heart of *Jennicam*; and even when Ringley was there (in the house) she did not always appear to be there (within the camera's view), or when her camera or Internet connection was down, there was (to use Gertrude Stein's famous words) 'no there there'. Sartre's notion of experiencing 'a flickering of nothingness' is also particularly apposite, given the low, one per minute webcam frame rates in the early years, when each new image had a surprise 'what will happen next?' element, with 'nothing' being a common reply.

The metaphor of searching for Pierre and experiencing a sense of deepening, pervasive absence can nowadays be fittingly considered a metaphor for the endless online searching that has become a defining hallmark of contemporary culture. Whether navigating search engines or scrolling obsessively through social media screens to find *your* Pierre, large parts of human life now consist of fast finger flicks that continually open up 'a flickering of nothingness'.[2]

To be or...

As Hamlet confronts his own *Nothingness* and undergoes the most famous existential crisis in dramatic literature, the Wooster Group locate him within a dynamic cybernetic system. *Hamlet* (2007) is a boxing match and a cybernetic duet between Elizabeth LeCompte's company and a 1964 film of the Broadway production starring Richard Burton (directed by John Gielgud), which was shot live by 17 cameras and broadcast to 2000 US movie theatres. Cybernetics is the study of systems and how they connect and interact, and the two systems of Hamlet on film and Hamlet on the stage continually vie with each other for dominance or consonance in the Wooster Group's production. They have separate ontologies and they exist and pulsate in different ways, but this is of no concern to transdisciplinary, boundary overflowing cybernetics: the important thing is that they communicate and *connect*. And while at times they seem to speak different languages, they nonetheless diverge and converge, igniting synapses and sparks, and sending electrical signals between one another. They establish positive and negative feedback loops to create one of the most original and memorable 'film-theatre' cybernetic circuits to date.

The film plays on a large screen behind the theatre set which roughly replicates the 1964 one, and the dialogue is heard sometimes from screen, sometimes from stage, at others from both as they synchronise, repeat, bleed into and crisscross one another. Scott Shepherd's *Hamlet* and Burton's are differently intoned but Shepherd's deferment to, and imitations of, the screen version renders this a poetic and powerful double act. The key is that both are uncompromising, idiosyncratic and courageous – in Existentialist terms, 'in good faith' (Sartre) and 'authentic' (Heidegger), even in their artifice.

Burton's version is a dangerously brooding persona, with darting, electrical eyes and a classically arch, mellifluous voice that flows from the slowest, quietest delicacy to machine gun speed and volume. Shepherd operates within the Wooster Group's trademark post Brechtian acting style: cool and self-aware, yet mercurial and dynamically energised; hovering and crossing between the understated and overstated, the flatly filmic and the theatromelodramatic.

As the film plays, elements of the set and stage furniture (chairs and a long, retractable table) are moved quickly by actors and stagehands to align with the perspective of the particular camera angle of the film behind them. In addition, at times the video operators use VJ software to 'scratch' the video, reversing and fast-forwarding it, and the actors respond instantaneously (watching screens in front of them) to keep in sync. The operators play it differently every night, trying to catch the actors out, spooling back and forth. There is a delicious spectatorship pleasure principle as the images are repeatedly misaligned and disrupted, then spontaneously rebalanced and matched up, as we watch the actors and stagehands scurrying around the stage to place themselves and the stage furniture into position, like frenzied cartoon characters or the Keystone Cops.

Cybernetician Gregory Bateson famously discussed 'the difference which makes a difference', and how introducing small differences can have significant effects on information flows or throughout an entire cybernetic system. For Bateson, 'a difference which makes a difference is an *idea* or unit of information' (1972, 318, original emphasis) and he illustrates this with the analogy of a man felling a tree, where:

> each stroke of the axe is modified and corrected according to the shape of the cut face of the tree left by the previous stroke. The self corrective (i.e. mental) process is brought about by a total system, tree-eyes-brain-muscles-axe-stroke-tree, and it is the total system that has the characteristics of immanent mind. (1972, 317)

Bateson also talks at length about systemic flexibility and the importance of the 'mutability of frames', while emphasizing that increasing flexibility in one area can decrease or be parasitic to flexibility in another; what Steier has called 'Exercising Frame Flexibility' (2005, 36). Eriksen has related Bateson's principle to changes to time and space within our working lives and how now, with omnipresent communications technology 'increased spatial flexibility entails decreased temporal flexibility' (2005, 59) since our personal time at home is squeezed by the expectation of keeping up with communications and emails; as Steier puts it 'we are, alas, always at work' (2005, 46).

The Batesonian 'difference that makes a difference' in *Hamlet* is the literal and kinetic 'exercising [of] frame flexibility' on the stage to directly mirror the screen image; and when the doubling is perfect, the performance reaches moments of the sublime. The group performed the piece for a number of years, enabling them to reach impeccable, sometimes seemingly impossible moments of harmonisation and synchronisation (Figure 1).

The actors on stage as well as on screen seem somehow to hark back from another, aptly ghostly, era. The monotone film and mise-en-scène emphasises this, together with the phantom-like effacements and defacements that are progressively digitally rendered on the heads and body parts of the film's actors. As Burton's Hamlet contemplates suicide, and confronts and struggles with his identity, those around him visibly begin to lose theirs in 'a constant creation of a negative space, a perpetual erasure of presence' (Woycicki 2014, 125). As he asks 'what is the quintessence of dust?' his own face speckles and gradually dissolves to nothingness. A projection on a smaller monitor of a live feed camera completes a sense of cybernetic recursion, the image stuttering and freezing at times for dramatic emphasis or random punctuation.

Figure 1. Scott Shepherd's live Hamlet and Richard Burton's film version share a moment of synchronicity in The Wooster Group's *Hamlet*, directed by Elizabeth LeCompte. Photograph: © Paula Court.

The stage event therefore happens, night after night, as an ever changing, corrupting and evolving, autonomous, and self regulating cybernetic system, while Burton and Shepherd's Hamlets rehearse again and again and again the exquisite anxiety and madness of Shakespeare's quintessential take on Being and the existential crisis (Figure 2).

Figure 2. A retractable table is a key element within the mise-en-scène of The Wooster Group's *Hamlet*, directed by Elizabeth LeCompte. Pictured (left to right): Kate Valk, Casey Spooner, Scott Shepherd, Ari Fliakos. Photograph: © Paula Court.

Questions, questions…

Cybernetics is a synthesizing force and method that crosses disciplines, and practitioners such as Bateson, whose work extended from ecology and anthropology to communications and family therapy, are considered visionaries operating not only across but also 'beyond disciplines' (Montuori 2005, 147). Montuori suggests that Bateson established a new approach to enquiry based on transdisciplinary processes that are 'inquiry-driven rather than exclusively discipline-driven; meta-paradigmatic rather than intra-paradigmatic; informed by thinking that is complex, contextualizing, and connective; inquiry as a creative process combining rigor and imagination' (2005, 154). Kendon argues that Bateson significantly influenced 'the *kinds of questions* that came to be asked about interaction, the *kinds of phenomena* that came to be looked at, and the *strategy of investigation*' (2005, 447, original emphasis).

There are interesting parallels with Existentialist philosophers here, who undertook considerable exploration and discourse on the importance of the question and how it reveals the limits of knowledge and experience (asking what things *cannot* be answered). Sartre called 'authentic philosophy … the moment at which the question transforms the questioner' (1984, 85) and Heidegger ended his famous essay 'The Question Concerning Technology' by declaring: 'The closer we come to the danger, the more brightly do the ways into saving power begin to shine and the more questioning we become. For questioning is the piety of thought' (2008, 341).

Choreographer Michael Klien, who in the 1990s developed innovative stochastic systems such as *The ChoreoGraph*, which produced a timeline with symbols to prompt dance improvisations, has been using Bateson's cybernetics as his primary inspiration and methodology for a number of years, and it was the subject of his PhD in his edited book *Framemakers: Choreography as an Aesthetics of Change* (2008) he discusses

> metaphors of choreography as an aesthetics of change, and dance as a metaphor for thought … [in] the spirit of Gregory Bateson … who moved, step by step, his own and science's consciousness towards an ecology of mind, towards 'a regenerative ecology of ideas'. (2008, 9)

Bateson particularly focused on environmental and ecological issues towards the end of his life, and in his book *Steps to an Ecology of Mind* (1972, 315) argued that '*any* ongoing ensemble of events and objects that has the appropriate complexity of causal circuits and the appropriate energy relations will surely show mental characteristics'. It will process information, make comparisons, and respond to difference, thus becoming self corrective. Moreover, he maintains: 'no part of such an internally interactive system can have unilateral control over the remainder or over any other part. The mental characteristics are inherent or immanent in the ensemble *as a whole*' (Bateson 1972, 313, original emphasis).

Never act with…

The mise-en-scènes of Italian theatre group Societas Raffaello Sanzio provide arresting examples of such a holistic ecology: their cybernetic loops and 'causal circuits' connecting an ensemble of adult actors (some with disabilities), babies, children, animals, robots, automata, and other machines. These activate alarmingly and evolve cybernetically

before our eyes, while the imagery and narratives deal with profound and disturbing Existentialist themes from alienation, nausea, and *being-towards-death* to freedom and transcendence. Moran has noted that given Existentialism's conviction that God is dead: 'Man's project is to be God. However, no project will actually provide the self-completion we aspire to [because of death], and therefore, as Sartre concludes at the end of the book [*Being and Nothingness*] "man is a useless passion"' (2000, 372).

Romeo Castellucci, director of Societas Raffaello Sanzio employs creative strategies around what he calls the *dis-human* and the *dis-real*, and has discussed his aim to steal the art of writing from God (Trapanese 2015, 67). His version of Genesis – *Genesi: from the Museum of Sleep* (1999) – begins with a huge, mechanised arm of God descending holding a massive, pulsating pen. The sense of a giant, cybernetic synthesizing machine intensifies as the performance proceeds through dreamlike sequences and tableau where machines continue to pulsate: a spluttering 'nuclear' aquarium, a milking machine, a vice that crushes a cow's skull, a convulsing hydraulic chair, and a masturbating mechanical stuffed dog. Meanwhile, a human contortionist writhes, trapped in a museum display cabinet (Adam); Cain is choked to death by the short, phocomelic arm of the actor playing Abel; body organs descend on wires from above; a headless anthropomorphic wire robot applauds; and a child dressed as a white rabbit murders another small girl.

Eve, played by a mature actress who has undergone a mastectomy, is naked and vividly white. She stares out as if in an alienated existential state, contemplating nothingness: in Castellucci's words: 'She is tired to be there, tired to be' (in Trapanese 2015, 235). She is revealed as one node in a highly developed cybernetic system that links human, machine, and nature within a complex interactive circuit, like a spider within a web, as Causey describes:

> Eve pulls at the strings that run across the stage to a large cylindrical frame of perhaps 100 spools of string that Castellucci names *Macchina Tessile*. The cylinder spins back and forth, and the individual spools turn as well. The machine remains in a shaky motion like some type of life force whose threads issue from a single source but move out in multiple patterns. The threads run from Eve to the world as a result of the expulsion from paradise. (2006, 133)

He continues as follows, and significantly his analysis switches from cybernetically inflected ideas to philosophical concepts from one of Existentialism's founding fathers, Heidegger:

> She is projecting herself through a *throwness* into the field of possibilities, echoing the anxiety in a historicity of being in time. … Castellucci's stage is a space of *not-being* (seeming) that regurgitates spasmatically the presence of being … Paraphrasing Heidegger's thesis on Nietzschean aesthetics, the *not-being* of the *dis-human* is worth more than the truth of the being of the human. … It is through the stage use of the dis-human and the dis-real that the *real* itself can be fully brought into presence. (2008, 133–135, original emphasis)

Of course, *Genesi* is an example of a performance that is so richly imagistic and dream like that numerous critical perspectives and positions might be aptly applied to it; and as Causey argues 'meanings elide, evade, appear and merge in a labyrinth'. But I maintain that the themes, imagery and imagination of what Causey calls pointedly this 'performance of authenticity' (131) specifically and archetypically align with Cybernetic-Existentialism.

Francesco Trapanese's insightful analysis of *Genesi* also illuminates some of its Existentialist aspects, particularly in relation to Agamben's discourses on Heidegger's notions of profound boredom, potentiality, and *Dasein* as an experience of 'disconcealing'. He describes the performance in terms that again shed light on *both* Existentialist and cybernetic readings. The production, he says, explores:

> the possibility of being … [in] a highly formalized inorganic mechanism in which the human body appears in its 'bare life' sharing with animals and automata an ontological proximity … a state of becoming-Dasein and becoming-other. I suggest that this set of pure potentialities marks the complex ecology of *Genesi*. Here, men, animals and machines appear on the stage in the betwixt, between a becoming-being of 'beings' and the impotentiality of not being. (Trapanese 2015, 65, 69, 70)

It is worth noting that the notion of 'becoming' has been a widely applied critical perspective (and at times, perhaps, a *too* widely applied conceit) within arts and performance, and is commonly referenced back to the ideas of Gilles Deleuze and Felix Guattari. However, the theoretical insight was initiated and developed decades earlier by the Existentialists including Husserl who in 1935 wrote: 'This life, as personal life, is constant becoming through a constant intentionality of development. What becomes, in this life, is the person himself. His being is forever becoming' (1970 [1935], 338).

Being-for-others

Sartre discusses 'the look' of the Other (another person) as something which renders us momentarily as self-conscious objects rather than subjects, and unable to control the Other's judgement of us. He uses the example of a voyeur caught looking through a keyhole, who will suddenly experience self-consciousness and a feeling a shame: 'pure shame is not a feeling of being this or that guilty object, but in general of being an object' (1994 [1943], 288). Sartre argues that this acts to deny solipsism by offering proof of the absolute reality of other people, since we would not experience such feelings of judgement and shame if other people did not exist and were not 'subjects' too: 'being seen by the other is the truth of seeing the other' (1994 [1943], 257). For Sartre, the shock of 'the look' of the Other thus 'instigates a metamorphosis of our world' (Reynolds 2006, 95) that prompts not only the realization of our being-as-object but also a 'revelation' of our *being-for-others*, which he afforded a special ontological category in its own right. '*I am for others*, the Other is revealed to me as the subject for whom I am an object' (Sartre 2003 [1943], 375, original emphasis), he wrote, and for many people this remains a lesser known and surprising aspect of a philosophy more famous for its emphasis on individualism.

In this, Sartre was influenced by the earlier Existentialist writings of philosopher Gabriel Marcel, whose ideas also interconnect with cybernetic thought. A more optimistic thinker than Sartre, and a man of strong Catholic religious faith unlike the atheist Sartre, he nonetheless took a typically bleak view of the world, noting that in metaphysical terms: 'the distinction between *full* and *empty* seems to me more fundamental than that between *one* and *many*. Life in a world centered on function is liable to despair because in reality this world is *empty*, it rings hollow' (Marcel 2000 [1933], 88, original emphasis).

But his protocybernetic ideas on the *one* fusing with the *many* through love, compassion, 'creative fidelity', and what he termed *disponibilité* distinguish his thought

and contributions to the philosophical movement. In the face of the world's emptiness and absence, our sincere and open interactions with the presence of others allows us to become truly present to ourselves; and this insight has bearing on our understandings of numerous interactive artworks as well as wider online culture and social media. During the First World War, Marcel worked for four years for the French Red Cross, particularly supporting families of men missing in action, which opened him to what he called 'a boundless compassion for the distress to which each day testified anew' (1984, 20). Marcel identified interaction, relationships, and love as the key to affective living and as a route to transcendence (his abiding devotion to his wife Jacqueline informed his thoughts). The Existentialists used the term 'transcendence' less in its traditional spiritual or religious sense, and more to denote the achievement of freedom from 'everydayness' and being part of the crowd, which is won through a total commitment to authentic actions: 'authentic selves do not exist; there are only certain individuals who carry out authentic acts and live authentic modes of life' (Golomb 1995, 54).

Is there love in the telematic embrace?

Over 25 years ago, one of the great practitioners and educators in cybernetic arts, Ascott, wrote an article, which posed a question in its title that reflected on such notions of 'the look', *disponibilité* and *being-for-others* – but at a distance: 'Is There Love in the Telematic Embrace?' (1990). Two years later, British media artist Paul Sermon answered the question with an emphatic 'Yes', creating *the* classic telematic installation of the time, *Telematic Dreaming* (1992). Two beds in different spaces are linked via cameras and a video conferencing system and, using blue screen techniques, the image of the gallery visitor on the opposite bed is projected onto your bed. Apparently 'together' through the cybernetic system that has been established, you see (but cannot hear) one another, you share the same space, you begin to engage and interact, and inevitably you begin to 'vitually' touch one another, whereupon:

> a feeling of astounding nearness arises … many visitors seize the opportunity for uninhibited mischief and make virtual seductive advances, indulge in intimacies or even come to blows … the restraints that reality imposes on us are lifted and the actual consequences of our actions removed. (Grau 2003, 275)

Telematic Dreaming is not only a classical cybernetic networked system of inputs, outputs, and feedback loops; but it also operates powerfully in terms of exploring Existentialist concepts. The licence that the virtuality of the other person affords in lifting what Grau calls 'the restraints that reality imposes' offers an interesting take on Existentialism's ideas of 'freedom' as a transcendence of everydayness and *facticity*, and the imperative to act spontaneously and authentically. While the installation is grounded in a sense of fun and play, it also provides an experience of the body's apparent separation, and splitting across two spaces, and a 'transcendence' of the physical, which in turn acts as a powerful reminder of our phenomenological body. As Kozel notes: 'Telepresence has been called an out-of-body experience, yet what intrigues me is the return to the body which is implied by any voyage beyond it' (1994). As the body becomes an Other, an object and a double (on the other bed), the experience provides 'double consciousness' of the body as a vacillation between separation and oneness. This idea is a cornerstone

of Existentialist philosophy, with this sense of separation resulting in intense feelings of what Heidegger called existential *Angst*, Sartre termed anguish, and Albert Camus conceptualised as recognition of the absurd.

Equally significantly, such artworks allow us to appreciate and reappraise the nature and importance of our intimate relationship with and dependence on others. As Heidegger puts it, the world is fundamentally a sharing with others, and *Dasein* – or being in the world – is necessarily a *Mitsein*: being-with-others. In Sermon's installation, the bodies of these Others are rendered virtual, poetic and metaphorical bodies to us (and we to them), lying vulnerably on a bed. They are symbols of the always already ghostly and ephemeral status of the human being, which is always lost and, for Heidegger, 'never at home' ['*Nicht-zuhause-sein*'] (1962 [1927], 233–234), ever searching for communion with others, and for existential connection. My argument here is that such artworks and experiences provide profound illuminations on the human existential condition, and underline our increasingly cybernetic and posthuman ontology in the face of networked technologies (Figure 3).

Uncanny journeys

In 2006 and 2007, my company The Chameleons Group and I (as Director) collaborated with Sermon and two other artists, Mathias Fuchs and Andrea Zapp to present *Unheimlich*, which utilised an advanced networked system combining video conferencing and blue screen techniques. Audience members in the USA were invited to step into an entirely blue stage area, and on doing so (sometimes alone, sometimes in couples or groups) they were greeted by two female actors (Anna Fenemore and Niki Woods) playing charming but mischievous, childlike sisters. They were in an empty theatre studio in London, UK, and their video image and voices were transmitted via a high speed Internet connection to be conjoined with the US participants in real-time, and in high resolution, within the same live screen image, which was projected on large monitors placed all around the space. All

Figure 3. Two remote participants 'telematically embrace' in Paul Sermon's interactive installation *Telematic Dreaming*.

the bodies thus shared the same screen space and everyone in the two remote locations talked together, 'virtually' shook hands (and sometimes kissed), improvised together and, to use Roy Ascott's phrase, successfully 'telematically embraced'.

Zapp and Fuchs continually changed the keyed in background images every few minutes, sometimes randomly, sometimes in response to things happening within the improvisations. These placed everyone within either real-life locations, which were vivid photographs of forests, beaches, rooms, train carriages, etc., or imaginary ones: Fuchs' customised 3D navigable game-worlds depicting surreal spaces, and hell and heaven. The backgrounds helped in turn to prompt different interactions and fragmented narratives, or were used by the actors as routes to lead the audience members on surreal journeys (Figure 4 and 5).

Participants would typically come on 'stage' for a few minutes to interact, then exit and watch others do the same, and return again later. The stage was sometimes empty, and at others filled with people talking, 'touching' and moving around the space 'with' and in relation to the sisters. There was a continual proxemic and positional reordering of the bodies, with a complicating cybernetic loop added, by virtue of the reversal of the right and left perspectives when watching oneself on video. This was a delicate and sometimes bumbling 'dance' as the mediatised bodies within this cybernetic self organising system spontaneously composed themselves – no longer three thousand miles apart, it seemed, but within precise millimetres of one another – inside the screen frame that now embodied them.

Unheimlich utilises an advanced cybernetic interactive system to explore how telepresence can act to foreground the key Existentialist notion that our Being is first and foremost a relational property, 'where we contemplate ourselves as nothing other than the result of perpetual transactions with the subjectivity of others' (Bourriaud 2002, 21). As Moran has noted, 'Sartre's most interesting discussions concern the manner by which we come to consciousness of ourselves in the light of how others see us … our being-for-others (*être-pour-autrui*). This is a "third-person" perspective on ourselves' (2000, 388–389).

This third person perspective is intensified in *Unheimlich* since everyone is also operating and existing in a 'third', virtual space: not the USA or the UK, but the screen which acts as a portal between them. In one sense they are thus doubly 'separated' from themselves, but in another, there is an uncanny (the English translation of *unheimlich*) sense of real proximity and intimacy – what Grau, above, calls 'a feeling of astounding nearness'. This is what constitutes the real power and 'magic' of such telematic works: the allure of communicating ethereally at a distance trumps the banality of real-life proximal interaction.[3] The sense of the 'return to the body' (like a cybernetic loop) is also crucial, just as Sartre discusses how the shock of the 'Other's look' prompts the 'revelation of my being-as-object; that is, of my transcendence as transcended … This *being-there* is precisely the body. … My body's depth of being is for me this perpetual "outside" of my most intimate "inside"' (2003 [1943], 375).

Opening and exposing

Marcel's advocacy of *disponibilité* – being available, 'open and exposed' (1951, 145), adaptable, and at the entire disposal of others – proposed a radical shift in Existentialist thought,

Figure 4. The *Unheimlich* sisters take an audience member (Toni Sant) on an improvised journey from a railway station to a beach and a forest fire. It concludes in Hell, where he says he is so hot that he needs to take off his trousers.

Figure 5. The keyed-in backgrounds (created by Andrea Zapp and Mathias Fuchs) to the audience journeys in *Unheimlich* include deserts with ice-cream vans, rooms with over-sized children, glacial beaches, and churches where participants are telematically married to the sister characters.

taking Heidegger's notion of *being-with-others* into a new realm, and heralding Sartre's later formulation, *being-for-others*. Marcel contrasts the *disponible* person (who will see others as equals) with the *indisponible* one such as 'the proud man [who] is cut off from a certain kind of communion with his fellow men' (1995, 32) who when encountering others will objectify them and consider them as a third-person 'he' or 'she', rather than an intimate 'thou' (1949, 106–107). This inhibits the other person's freedom as well as the proud man's own, whereas through *disponibilité* we enable and collaborate in our own and others' freedom (Cooper 1999).

> the person who is *disponible* … has an entirely different experience of her place in the world: she acknowledges her interdependence with other people. Relationships of *disponibilité* are characterized by presence and … a communication and communion between persons who transcend their separation without merging into a unity, that is, while remaining separate to some degree. (Treanor 2014, original emphasis)

This somewhat paradoxical concept, what Marcel called 'separation with communion' (1995, 39) is also relevant in understanding cybernetic organisms and systems, and serves as a fitting description of person-to-person telematic conjunctions such as *Unheimlich*, where separations *are* transcended and there is strong '(tele)presence' and 'communication and communion', yet the participants nonetheless remain 'separate to some degree'. In preparation for *Unheimlich*, the actors were guided and rehearsed to be entirely open and *disponible* in their interactions, to ensure that in Marcel's terms they are a 'presence' rather than an 'object', and since the opposite 'unavailability (*indisponibilité*) is invariably rooted in some measure of alienation' (2000 [1933], 103).

Marcel's 'separation with communion' is yet another example of a concept that closely unites both fields. But more importantly, it demonstrates again how the fusing of knowledge and insights from Existentialism and cybernetics not only sheds critical light on contemporary issues, but can also conjure powerful images and metaphors for our age. 'Separation with communion' speaks profoundly to twenty-first-century digital culture – across arts, working lives, and social interactions – and encapsulates an ever-troublesome existential 'given' that is becoming ever more obvious and extreme.

Conclusion

Bateson wrote that the essence of cybernetics is not about 'exchanging information across lines of discipline, but in discovering patterns common to many disciplines' (1972, 23). The patterns within contemporary arts and performance that have concepts, themes, and ideas in common with the two fields of thought I have conjoined as Cybernetic-Existentialism, now manifest across a significant body of practice, and in everyday life.

The works we have examined are diverse in form and content: a Disney film, theatre spectacles, an anthropological webcam 'performance', and telematic audience participation installations. But like some cybernetic organism they seem to cohere and adhere, looping and feeding back across and into one another, traversing parallel terrains, exploring complementary concerns. Most fundamentally, they highlight a renewed interrogation into the nature of existential *Being* – who we are, who we can be, how we fit into the world, and how we connect with others.

The merging of knowledge from cybernetics and Existentialism is potent in shedding critical light on these developments, and is appropriate as so many concepts and concerns intersect. Crucially, their ideas seem as relevant and vital today as in their heydays over 50 years ago. Cybernetics' basis in connectivity and interactivity is equally core to the Existentialist project, and both movements were forward-looking and urged action and transformation. The Existentialists proclaimed 'a radical shift in how human beings should think about themselves and their responsibilities towards others' (MacDonald 2000, 5) while cyberneticians such as Bateson conceived ambitious holistic ecological systems. Both fields looked to break old paradigms and to expand new ones: cybernetics regarded *material* forms and containers (human, animal, vegetable, and mineral) as *immaterial* when conjoined within a dynamic system, and disciplinarity as interdisciplinarity; Existentialism rejected the idea of a fixed psychological self or singular unitary body – rather, subjectivity was intersubjectivity.

I argue that by virtue of our progressively digitally looped and posthuman ontology of *being-in-the-world* and *being-for-others*, together with our consequent concerns to discover existential meaning and authenticity in our actions and relationships that a point of Cybernetic-Existentialist fusion has been reached that now manifests across arts and culture. For both cyberneticians and Existentialists, the concrete approaches to Being are defined, first-and-foremost, by relationships with others – with other nodes, networks, and systems in cybernetics, and with other human beings in Existentialism. Through these intense connections, and through our choices in actions and relationships, 'the human being approaches the mystery of being and becomes filled with the assurance that one's life is lived in the company of an eternal presence' (MacDonald 2000, 85). As Sartre puts it:

> in vain would we seek the caresses and fondlings of our intimate selves … since everything is finally outside, everything, including ourselves. Outside in the world among others. It is not in some hiding-place that we will discover ourselves; it is on the road, in the town, in the midst of the crowd, a thing among things, a man among men. (1972, 5)

Notes

1. Sartre, however, did advocate a certain morality in 'Existentialism is a Humanism' (2007 [1946]) by suggesting that while acting to assert one's own freedom, one should also promote the freedom of others.
2. Tor Norretranders has now made a distinction between information and what he calls 'exformation': the information that we filter and discard (1999).
3. In wider culture, this relates to an issue that is becoming increasingly contested, as person-to-person communication becomes more text-to-text rather than face-to-face, with researchers such as Sherry Turkle, once an evangelist of online life with her *Life On the Screen* (1997) turning naysayer with *Reclaiming Conversation: The Power of Talk in a Digital Age* (2015).

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