Article 4
The Pattern That Connects: Drama as a Vehicle for Ecological Understanding

by

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Abstract
This article offers another perspective upon a term familiar to most drama educators: ‘drama across the curriculum’. It argues that this term, which was once central within advocacy for drama education (Pateman 1991), deserves to be reconsidered. This need for reconsideration is a consequence of a widespread expectation that education systems must actively engage with ecological concerns. This article works with a perspective that conceptualises ecology as underpinning all learning. Through this perspective, it argues that the skills and understanding made accessible through drama processes can be used to facilitate ecological understanding. Assuming that this understanding is central to the education required by students into the future, it argues for the enhanced relevance of drama and hence, reconsiderations of drama across the curriculum.

Keywords
Drama; ecology; ecological understanding; learning; systems

Author’s biography
David Wright’s research interests lie in the overlapping fields of drama, cognition, learning and systems thinking. He approaches this work through the lens of social ecology and ecological understanding, which looks at the relationships that facilitate learning. Central here is the creative communication of learning. David teaches at the University of Western Sydney in the overlapping fields of social ecology; transformative learning; creativity; and sustainability. He has published nationally and internationally on cognition, learning, drama, constructivism and creativity. He has written plays for performance as well as creative fiction.

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Introduction
It is a necessary truth that as the context of education changes, education systems must also change (Kalantzis and Cope 2008). With scientific evidence foreshadowing significant developments in human–environmental relations (e.g. see Costanza, Graumlich and Steffen 2011), education systems will be required to respond.

In his foreword to Edmund O’Sullivan’s (1999) treatise on the transformation required for an emerging ‘ecozioc’ era, Thomas Berry argues that ‘if we are educating for a world that is extinguishing so many living forms then we need to rethink the deeper forces at work in our educational programs’ (1999: xi). These deeper forces are considerable. As a consequence, Berry suggests:

Every profession and occupation of humans must establish itself within the integral functioning of the planet. The earth is the primary teacher in economics, in medicine, in law, in religion. Earth is the primary educator. Ecology is not a part of economics. Economics is an extension of ecology. (1999: xiv)

This is an argument for the centrality of ‘ecological understanding’ to education. However, Berry does not establish how this understanding might be acquired or taught. I argue here that the skills and understanding made accessible through drama activities can make a considerable contribution to the development of this form of ecological learning.

Like Berry, David Orr (1992, 2004) is an educator who argues the need for a deep appreciation of ecological circumstances. In educational terms, he asserts the need for a new core competency, which he calls ‘ecological literacy’. Orr describes ecological literacy as a ‘quality of mind that seeks out connections. It is the opposite of the specialisation and narrowness characteristic of most education.’ (1992: 92) This is a powerful critique of existing educational systems and a far-reaching construction of what might be. There are similarities to Orr’s thinking in the work of polymath, biologist and anthropologist Gregory Bateson (1972, 1979). While Bateson’s work is broader than Orr’s, he expresses similar concerns in his problematisation of ‘the pattern which connects’:

The pattern which connects: Why do schools teach almost nothing of the pattern which connects? … What’s wrong with them? What pattern connects the crab to the lobster and the orchid to the primrose and all four of them to me? And me to you? And all six of us to the amoeba in one direction and to the back-ward schizophrenic in another? (Bateson 1979: 8)

It is the understanding of this patterning – what Bateson calls the ‘meta-pattern’ – that is central to ecological understanding:

The pattern which connects is a metapattern. It is a pattern of patterns. It is that metapattern which defines the vast generalisation that, indeed, it is patterns that connect. (1979: 11, italics in original)
The link between this understanding and drama lies in the ways in which both ecological understanding and drama draw on an applied appreciation of the construction and communication of relationships (or connections). It is within an appreciation of patterns in relationships that the depth of ontological and epistemological learning resides.

**Ecology Across the Curriculum**

For those working in drama, ecological understanding does not simply mean drama about ecological perspectives or ecological problems. This sort of work has been canvassed widely (e.g. see Coult and Kershaw 1990; Marranca 1996; Kershaw 2007). Kershaw demonstrates the limits to this in the introductory essay to *Theatre Ecology*. Here he writes of his concern about the ambivalence of theatre ‘in the environment of the ecological era’. As a consequence, he writes of his interest in theatre’s subject-matter and theatre’s ecological compromise, its ‘unavoidable ecological engagement and/or disengagement regarding the environment’ (2007: 10). He writes of theatre and performance as ecosystems (2007: 15). He writes of ‘the interrelationships of all factors of particular theatrical systems including their organic and non-organic components and ranging from the smallest and/or simplest to the greatest and/or most complex’ (2007: 15–16). While this recognition, and the study emanating from it, are important, and while it contributes to cultural understanding, it is different in focus and intent from the experience I am seeking to address here. The difference revolves around ‘learning’. I argue that drama processes, because of their necessary engagement with learning, facilitate deep understanding that can then be interpreted ecologically. The language and experience of the former open the door to the language and experience of the latter. For this reason, drama warrants widespread use within an education for ecological understanding that, given the importance of this sort of learning for our collective futures, deserves to be central within educational practice.

This is because drama processes actually construct relationships. These are often thought of as person-to-person relationships, but they are also relationships to groups or communities; to sensed experiences; to places, spaces or settings; to other than human life; and to social and personal processes – racism, celebration, imagination, grief, dreams, beliefs and fascinations. These relationships do not stand in isolation; they are interwoven – a place, a person, a sound and a feeling are connected in consciousness. Networks of associations arise. Layers of association arise too, through sensitivity to immersion in this complex container of experience. Drama is life, constructed with learning.

The qualities and interlinking of relationships are also the basis of ecology and ecological understanding (Bateson 1979). Generally, ecology is thought to refer to studies of the relations of organisms to one another and their surroundings (Moore 2007). Ecological understanding, as described by Bateson, applies this understanding, while admitting self-reflective humans to the process. Bateson observes that understandings of relationships that include humans are not pre-formed. They are dependent on perspective – hence individual and social learning. They are a consequence of how we make meaning from our encounters. ‘What we observe,’ wrote Heisenberg, ‘is not nature, but nature exposed to our questioning’ (cited in Capra 1996: 40). Like Augusto Boal’s (1992) ‘spect-actors’, none of us can stand apart from that in which we are participating.

**Bateson and Systemic Perspectives**

Bateson was a biologist, and therefore interested in relationships and patterns in nature. But he saw his work as more than this. He was interested in the ways of thinking that enable
relationships and patterns in nature to be identified and appreciated. This is a significant extension. Bateson argued that the orthodox scientific perspective, which views ecosystems as entities that can be observed, controlled and managed, was flawed. Instead, he offered an ecological epistemology based on the premise that our survival depends on understanding that we are intimately coupled to our vision of the ecological order. This, Bateson argued, determines how we think and act in relation to that order. Thus our appreciation of an ecosystem is limited by our imagination of that which is included in its field. Limits to understanding construct limits to action – hence the significance of questions around the degree to which humans appreciate themselves as part of – as being within – a system.

Bateson’s argument was not based on an anticipation of scientific discovery or courageous political decision-making. It was based on an assumption that we humans have the capacity to act upon our appreciation of interrelatedness and will, as a consequence, arrive at a practical recognition that we cannot totally control the natural systems of which we are a part. There are equivalences to this that can be found in the experience of drama, most notably in improvisation. Here participants are at the mercy of unfolding dynamics. Consciously contributing to the shaping of these dynamics without controlling them bears comparison with the experience to which Bateson alludes. Given the power of this experience, it is no wonder that comedian Tina Fey describes improvisation as a world-view. She says it ‘literally changed my life … it changed the way I look at the world’ (2011: 82). The first rule of improvisation, Fey reports, is ‘Start with a YES and see where it takes you’ (2011: 84).

Unfolding dynamics of this kind are pursued extensively by systems theorists who, like Bateson, argue that there is a pattern to the formal relationship between natural systems and cognition: in this instance, between ecology and learning. This analysis is extended in self-organising systems theory, which asserts that mind is an integral part of the system that mind seeks to explain. There is no separation. Systemic approaches of this kind have influenced work in the sciences – particularly biology – where organic life has been analysed through reference to its self-organisation (Maturana and Varela 1992; Mingers 1995; Capra 1996). This work suggests that living organisms have the capacity to organise aspects of their own existence in response to ecological encounters. Some theorists – most notably Niklas Luhmann (1995) – have inferred the social from the biological and extended this into the realms of communication.

Luhmann perceives communication as a system. He argues that ‘humans cannot communicate; not even their brains can communicate; not even their conscious minds can communicate. Only communication can communicate.’ (Luhmann, cited in Moeller 2006: 8) By focusing on the relationships required for communication, Luhmann asserts that society is a self-organising network of communication systems. These communication systems comprise and organise those who participate in them.

Drama is one such communication system, which works through a meta-analysis of communication processes. Interrelationship is always present and always subject-matter in drama. In this respect, drama is a laboratory for the conscious exploration of relationships. Accordingly, one of the principal functions of an education in drama is the facilitation of a conscious awareness of how communication unfolds and the circumstances that determine that unfolding. Put simply, drama is an education in the employment of conscious awareness. In this respect, epistemology and ontology are combined in the generation of practice. Knowing is doing and vice versa. This systemic awareness is far reaching. It affirms the way in which drama facilitates more than drama. Employed skilfully, drama processes have the capacity to facilitate an enriched awareness of the relationships in which we are all – individual and collectively –
participating. This understanding underpins all arguments for the contribution of drama beyond the boundaries of the discipline.

Within this general embrace of systems theory, it is worth pointing out that systems thinking has not been received uncritically. Morris Berman (1996), in his discussion of ‘the shadow side of systems theory’, expresses some concerns about the difficulties in defining the boundaries of systems. Berman is most concerned about the use of systems theory as a conservative, even authoritarian tool by ‘the emerging global corporate economy’. This global economy is driven by the desire of transnational corporations for international financial systems, trade systems and communication systems beyond the determinations of individual participants within individual nation-states.

Despite such criticism, Berman suggests that systems thinking holds significant advantages over mechanical determinism. It offers a radical vision and a spontaneous and non-formalistic way of thinking. Its interpretive and descriptive power, according to Berman, suggests it will be a tool that will ‘continue to be part of contemporary scientific and philosophical discussions’ (1996: 29).

The principal benefit of approaching drama through a systemic analysis is the meta-analysis that becomes available. The notion of self-organisation extends this further. There are no necessary qualities to the analysis other than an extended depth of perception, though there is a necessary relationship between the questions that are asked and the ways in which perception is extended. Questions that are asked will be determined by additional factors. O'Sullivan argues that ‘the initial task for the contemporary educator is to “find our place in history” before we decide what education is going to be’ (1999: 13). He argues further that ‘if there was ever a time in recent history where the understanding of historical context was necessary for doing education, our historical moment is certainly that time’ (1999: 13). It is this contextual understanding that characterises the questioning of relationships, and drama is uniquely constructed as a site of such questioning.

Learning in Drama
The bedrock of drama is trust. John O’Toole (2009: 10) argues that teaching drama ‘demands an understanding of how to frame a situation so as to provide protection and permission, as well as dramatic tension and action’. In the same publication Julia Reid (2009) writes: ‘[A]s a teacher of the arts, there is no sweeter moment for me than when the shy child steps to the front of the class and accepts the creative risk.’ (2009: 55) While it is the responsibility of the teacher to provide ‘protection and permission’ to enable the ‘shy child’ to step forward, it is the trust or learning of the child that finally realises that step. Students need to feel confident that their imagined worlds will not be undermined. Drama games are often used for this purpose, and children are invited to play with the elements of drama through these. This is where the origins of drama education lie: in children’s play (Slade 1978; Hornbrook 1989; Burton 1991).

More recently, as secondary school drama has drawn on actor training, play has been formalised as ‘improvisation’. As well as providing permission to play, as discussed earlier, improvisation provides a structure for the appreciation of play. Johnson (1989) and Boal (1992) have made these structures accessible – Johnson through theatresports and Boal through his ‘theatre of the oppressed’. Extended play and improvisation require both permission and sustainable relationships. These are only constructed with appreciation for the dynamics that facilitate their accomplishment.
Playbuilding (Bray 1991; Lovesy 2003; Hatton and Lovesy 2008; Norris 2009) is also a way of generating and applying knowledge. Like performance ethnography (Denzin 2003), playbuilding is a means of inquiry through participation in a collective creative enterprise. In that respect, its learning outcomes include, but extend beyond, performance. Describing playbuilding as a form of research, Norris writes:

Trust is vital in any process of co-creation, and, since all participants are stakeholders, a respect for one another’s position is vital. As director/researcher, one of my duties is to set the tone of our work. I assert that we are all in a state of becoming … and we, as pilgrims, have gathered to tell our stories … not only to advance our current positions but also to change them, when personally deemed appropriate, as we listen to the stories of others. (Norris 2009: 23)

The ‘state of becoming’ to which Norris refers can be found throughout dramatic experience. Knowledge unfolds as relationships are seen to develop. This occurs in the experience of audience as well as performers. It occurs in drama education particularly because, for the purpose of learning, there is a strong responsibility for performers to also be audience: to arrive at learning through their awareness of their participation in the drama.

Becoming of the sort referred to by Norris emerges in relation to numerous factors. These include other participants in the drama, the setting, the subject-matter, form, style or narrative. Technologies can be a factor, as can sites and situations along with assumptions about relationships with others. All of these contribute to an appreciation of the ecology – the network of interrelationships – that comprises the drama. This appreciation is enhanced through experience and/or extended practice or rehearsal, which involves a tightening focus on relationship construction. Rehearsal prioritises responsiveness to character and environment, and an enhanced awareness of personal participation in the system of understanding that is the drama. This ecological understanding, as Bateson (1972) observes, arises within an experience of immersion. Depth of involvement limits detached awareness. Given this, participants interact in response to the internal workings of the drama. This defines it as self-organising. An appreciation of this aspect of the drama enables it to be understood as a means of facilitating broad social-ecological learning.

Like Norris, Maturana, who along with Varela has had considerable impact upon ecological thinking, also works with the idea of ‘becoming’. He uses it to suggest the activity contained in the passive notion of ‘being’. Thus Maturana and Varela (1987) observe that – and this notion should be familiar to all drama practitioners – we ‘bring forth a world’ through our ‘manner of living’. O’Sullivan and Taylor (2004) use this perspective to argue that:

Knowledge in an ecological perspective is firmly imbedded in the practical world … We generate knowledge from the practice of living and working – action, reflection, commonsense-making, social construction. That is, knowledge is not individually derived and held but rather generated in relationships with others. (2004: 21)

Drama is ideally situated for the exploration of this way of thinking. This is different to the use of drama to argue environmental issues or dramatic performances situated in specific environments or locales. It is an argument for the recognition of drama as a means of facilitating ecological understanding of the sort alluded to by Bateson, O’Sullivan and Taylor. Necessarily,
facilitation of this kind requires, as a prerequisite, recognition of the ecological perspective, in the context of contemporary concerns about our collective future.

**Drama and Ecological Understanding**

Some of the most influential educators in ecological understanding work with drama processes. Joanna Macy (1991, 1998), whose work centres on ‘despair and empowerment’, uses ritual, dance, emotional identification, mask, costume, and other drama tools and activities to ‘explore the inner resources that are needed to take action in today’s world’ (1991: 3). In keeping with Macy’s Buddhist orientation, many of these activities have a meditative character, while others have a powerful revelatory intent, most particularly the ‘Council of All Beings’ (Seed, Macy and Fleming 1988). This is a flexible workshop activity devised by Macy and John Seed, which can last several days. It uses drama processes such as improvisation, naming games, milling, mask work, storytelling, character work, emotional identification, structured presentation and reflection for the purpose of ritual identification with the natural environment. The focus is the environment, but it is the deep emotional processes of interrelationship and identification that mark it as a prompt to ecological understanding.

I regularly use drama activities in my own work with students. In a recent undergraduate class, we worked with Heathcote’s ‘mantle of the expert’ exercise. This exercise imagines life in the shadow of a medieval monastery (Heathcote and Bolton 1994) as a means of interrogating social power. It soon became apparent that none of my Australian students lived in a village overlooked by a monastery. We talked about what did oversee our homes. One student, who lived in the nearby Blue Mountains, recognised that her home was overshadowed – especially each summer – by the possibility of bushfire. This became our subject-matter, and our play-building then focused on our collective relationship to bushfire: its destructive power accompanied by its power in building community along with its capacity to stimulate regeneration, regrowth and new life. During an intense three-hour class, we gathered tales of powerful visceral encounters with fire. These told of the fear of fire, the piercing noise of warning sirens, the domination of the media by safety warnings, the red fire-smoke clouds that become the sky, the charred fragrance of burning eucalyptus followed some time later by the return of bird life, the recovery of reptiles, the sweet smell of new leaves sprouting fresh from charcoaled bark. Students encountered a deep, communal learning about fire; more than this, however, their learning included an enhanced understanding of how peers meet powerful existential challenge. It became an exercise in the building of community through vulnerability and trust. Drama was the medium of the learning, and fire the immediate subject-matter, but interrelationship was the substance of the class. ‘I learned about fire as a collective experience,’ said Denise.

However, ecological understanding means more than the capacity to appreciate environmental dilemmas. The above story describes a relationship between fire and consciousness. While the fire is important, it is the relationship that determines the learning. This sort of understanding was the focus of a 2008 workshop led by adult learning theorist Peter Willis, who described the workshop as ‘re-enchantment education’, employing social-ecological ways of thinking. The process entailed, Willis said, ‘an exploration of the stories that give meaning to life’ (Willis, personal comment 2008).

Willis asked participants to take on characters contained in an extract from a film he showed, *As It is in Heaven*, which depicts conflicts within a Swedish village community as a choir forms, rehearses and performs under the direction of a disenchanted musical prodigy. By having workshop participants take on roles and encounter conflicts experienced by characters in
the community, Willis sought to inculcate ‘a phenomenological encounter with the construction of relationships in learning’. Willis posed the question: ‘How do these people learn?’ Then he got students to ask: ‘How do I learn under these circumstances?’

The learning that unfolded was bounded within two environments, the fictional environment circumscribed by the film and the real-world workshop environment within which the film was re-enacted. Thus both fictional self and workshop self became characters available for analysis. Their learning became subject-matter. Willis argues that such exercises offer an opportunity for an educator to ‘become aware of how … [teaching and learning] sits with [personal] aspirations and self-stories’ (Willis, personal comment 2008). These aspirations and self-stories are directly related to the relationships constructed in the workshop. The social ecology of the workshop therefore both serves and emerges as a consequence of the learning generated therein.

All social interaction can be discussed in dramatic terms. Schechner’s (1977) analysis of performance, which draws on Turner (1982, 1988), contributes to an appreciation of the boundaries within which such interaction occurs. The insight made available through the vocabulary of drama – such terms as ‘context’, ‘setting’, ‘character’, ‘role’, ‘relationship’, ‘focus’, ‘tension’, ‘movement’, ‘symbols’, ‘mood’ and more – is helpful in this regard. It enables processes to be articulated, and is particularly useful in the observation of learning. Given the relationship between drama and ecological understanding, social interaction can also be interpreted through the lens of ecology – through reference to the relationships that construct learning, hence the notion of ‘learning ecology’:

Learning ecology provides a means for understanding and working with the complex and diverse ways in which individuals … learn, become more conscious, develop worldviews, change and act on their values. It takes a constructivist view and acknowledges how our previous life experiences and opportunities, interactions, learning styles, and personalities result in each individual having a unique learning ecology. (Hill, Wilson and Watson 2004: 49-50)

Concluding Comments
The use of drama to heighten ecological understanding incorporates and extends Nicholson’s focus on applied drama as the ethical construction of a ‘more generous and multi-faceted world by making a creative space in which fixed and inequitable reality, identity and difference might be disrupted and challenged’ (2005: 167). Here the encounter is understood in systemic terms. Ecology is introduced in terms of both process and subject-matter, self and context are examined and meaning is located in a heightened appreciation of deep, systemic interrelationships. The ‘other than human’ world is incorporated wholeheartedly and the learning contained therein is enriched accordingly.

Work of this kind promotes self-reflection in the broad context of considerations about our place in the complex web of emerging systems, patterns and relationships. This is a radical approach to education. An early step in any such learning is an invitation to acknowledge our participation in the systems and relationships – the ecologies – that are being studied. As David Orr reminds us, the fact that many things on which our future health and prosperity depend are in dire jeopardy is not the product of ignorant people. It is the consequence of work by highly educated people (Orr 2004). The issue is therefore not one of education or learning, it is the assumptions upon which that education or learning is constructed.
Such understanding enables the realisation that drama, which is a study of relationships, learning and systems of communication, facilitates ecological understanding: Bateson’s ‘pattern which connects’. This is not the concern of theatre. It is, however, the basis for recognition of the potency of drama, as a contributor to a broad, deep and important learning. This realisation constructs a deepened appreciation of the social dimensions of ecological systems as a consequence of the realisation that ecology, society and epistemology are inextricable. The key elements of drama are at play in these social dimensions. Of necessity, an education process that draws attention to these relationships also, when successful, brings us together in social understanding. It initiates mutuality and belonging. Beyond the yearning for belonging, which attracts so many students to it, drama relies upon and looks towards the deeply connected and respectful relationships that are the basis of sustainable communities and resilient futures.

Note
1 The Blue Mountains rise in a vast world heritage area to the west of Sydney, Australia. They separate the coastal fringe from the Western Plains. The Blue Mountains have a population of about 70,000, most of whom live in a string of towns that follow the rail line through a vast, undulating, rocky, forested wilderness.

References


