Performing arts for DRR including CCA
Ellie Cosgrave and Ilan Kelman

Boxes:
1. Alexander on music, 300 words.
2. Cosgrave on One Billion Rising, 300 words.
3. Lavery et al. on theatre, 300 words.

Figures:
1. Cosgrave et al., choreographing the city.
2. Haak. A E. Three levels of connection through movement.

1. Introduction

Much disaster risk reduction (DRR), including climate change adaptation (CCA), policy and practice is developed and progressed through linear depictions involving words. Examples are scientific papers, legislation, policy briefs, green papers, and white papers. Yet we know that non-linearities exist in expressing these topics and that all forms of communication, including diverse oral and written forms, have advantages and limitations. Notwithstanding its own limitations, artistic expression can seek to arrive at deeper explanation where language alone falls short. Fine art, poetry, sculpture, and creative literature forms, for instance, all reach for more than descriptive logic.

Other modes of expression, communication, and suggestion involve the performing arts, namely music (Box 1), dance, literature, theatre, and their combinations. On top of this ability of the arts to communicate different types of information, many neurological and psychoanalytic studies have pointed to the therapeutic effects of working through the body as a means of recovering from trauma as well as building resilience to potential future challenges (Pennebaker, 1997; Van Der Kolk, 2014; Hanna, 2006; Harris, 2009).

In order to explore the potential of performative-based approaches to DRR including CCA, this chapter focuses on dance and theatre to apply the two lenses of 'embodied knowledge' and 'connection' inherent in performance practice, applying these lenses to both the individual and communal level. Without professing to accept strict delineations, and while recognising overlaps and combinations, this chapter does not deal with art forms which are more static (accepting that art is rarely entirely static) such as painting, sculpture, poetry, and prose.

The chapter argues that by leveraging the power of performing arts for accessing embodied knowledge and connection, action for DRR including CCA can be encouraged. Embodied knowledge refers to knowledge of oneself (internal) and community (external). Connection also refers to connecting with oneself and one's body and mind (internal) and connecting with one's community (external). Different modes and mechanisms, of which performing arts represents one, are needed to internalise and externalise the need for action on DRR and CCA, particularly given the failure of many traditional attempts to incite effective action. Dance and theatre, in particular, support such action in two key ways, which will be continually alluded to in this chapter:
1. The performing arts as a powerful communication tool that can foster deep connection, in effect making everyone an 'expert' for themselves (internal) and community (external). This process lays the foundation for needed action.

2. The ability of performing arts to support survivors in coping with trauma as well as building individual and community resilience to potential future challenges.

2. Dance

Dance, universally adopted and deeply embedded in many cultural contexts, serves a variety of personal (individual) and social (community) purposes. From social dance that strengthens connection and cultural identity, to performative dance that can portray stories and challenge political paradigms, to more somatic approaches to movement that focus on processing internal experience, the potential application of dance-based approaches to DRR including CCA is both rich and wide ranging.

Dance is about energy, flow, feeling, and movement. It is also about connection, expression, and shared experience. For the dancers, mutual movement can be a development and expression of unity and common understanding, while for the audience, a choreographed piece can convey ideas, information, and facts. This art form can powerfully render messages about social issues that might not be expressible through traditional language-based communication (Shome and Marx, 2009). Following Polanyi's (1966) premise that 'we know more than we can tell', dance, it would seem, is an innate and embodied form of knowledge as much as it is a tool for communicating that knowledge (Parviainen, 2002).

2.1 Dance as embodied knowledge

Dance is a way of 'being' in the body as opposed to the mind, it is a way of knowing that is not communicable through language, and is a way of accessing and processing physical experience. The idea that we 'know more than we can tell' is something that many of us can intuitively understand. We know the feeling in our stomach as we drive over a bump in the car, the sweaty palms and shortness of breath before a job interview, the ache in our feet after a long time standing. We know these feelings, yet we couldn't accurately describe them to someone who had never felt them. To understand them they must be experienced and embodied. Similarly, words are often not a sufficient mechanism for knowing or understanding the effect of a flood or the trauma of war, but those who have experienced it know it, and hold that knowledge in their bodies (Van Der Kolk 2014)).

Through performance, dancers are able to translate this knowledge to an audience and press for social transformation. As Boal (2002 pp.16) asserts "Theatre is a form of knowledge; it should and can also be a means of transforming society." Indeed, Hayes (2006, pp. 83) claims that embodied knowledge can be transferred through movement to create a ripple of change in the community explaining; "…when dancers are able to access their deepest emotions and spiritual connection through the body, they reach out to the corresponding levels of experience in the audience […] the witnessing process ripples outwards".

Dance has a unique ability to access depth of feeling within a dancer as it is itself embodied. It can access physical response, reignite it, and allows both the performer and the observer to access and process embodied knowledge (Rothschild, 2000). Movement and touch also create a conduit for communication and connection between individuals and communities. They can foster trust, understanding, and a sense of community through a direct and shared physical experience.

Like many art forms, dance is an intuitive process as well as containing a 'teachable' technique. There are structures and frameworks that can be implemented, whilst at the same time allowing space and fluidity for the expression to be owned by the individual or community; directed by their individual and collective experience. Dance is culturally and politically influenced as well as being emergent from the dancer's unique inner experience and as such is an effective mechanism to unite personal as well as collective knowledge and experience. As such it can help create a common discourse and reinforce a communal identity essential to both a personal sense of belonging and a communal resilience.

On top of this, performative dance styles offer an opportunity to tell stories, experiences, lessons, and convey political messages. There is a plethora of professional dance performances from Christopher Bruce's 'Ghost Dances' which portrays the human rights violations of the Pinochet regime, to Hofesh Schecter's 'Political Mother' which explores more general ideas around nationalism, fear, control, and community.

Dance has also been used to communicate climate risks where the language and logic of science has fallen short. One of the key challenges in communicating risk is to be able to link the global challenge with the personal lived experience of individuals (Joffe, 2003). As such, many artists have chosen to communicate climate change knowledge through movement.

Motivated by a frustration that the science around climate change was not spurring sufficient action, Karole Armitage created a dance work entitled 'On the Nature of Things', in collaboration with Stanford University biologist Paul Ehrlich. The show visualises the challenges to environmental sustainability, bringing the ideas to an audience through art. They explain "we need a new method of presenting climate change as an issue we can't ignore, they attest. And that method should include art" (Brooks, 2015). Professor Ehrlich, a collaborator on the project, calls for the social sciences and humanities to be reorganized and refocused to provide a better understanding of how to change patterns of human behaviour.

Dance has also been used globally as protest to spur action around climate change and other political and social goals. For example the 2009 climate demonstrations in London were kicked off by a 'flash mob' (https://www.youtube.com/watch?v=BdSiTLPpXPY). More recently dance has been used as protest by environmentalists at the Paris climate change negotiations in 2015 (http://www.trust.org/item/20151129182605-qzy1t).

2.2 Dance as connection

Drawing on an understanding of dance as a personal and social experience, dance and theatre can foster connection at these levels and consequentially build community cohesion, resilience, personal strength, and connection to the environment. Dance can (Figure 1):

a) Rebuild connection to 'self' after trauma and support survivors preparing for future disaster response, in effect supporting the individual in reducing their own physical and psychological vulnerability to disasters.
b) Foster connection between individuals by creating a shared physical experience, building trust and embodied empathy, a touted element for community-based DRR (including CCA) so that people help each other through participatory processes.
c) Communicate a story or experience to an audience, supporting performers in being witnessed and allowing learning to be passed on—very much along the lines of participatory theatre and role playing, as explored in the next section.
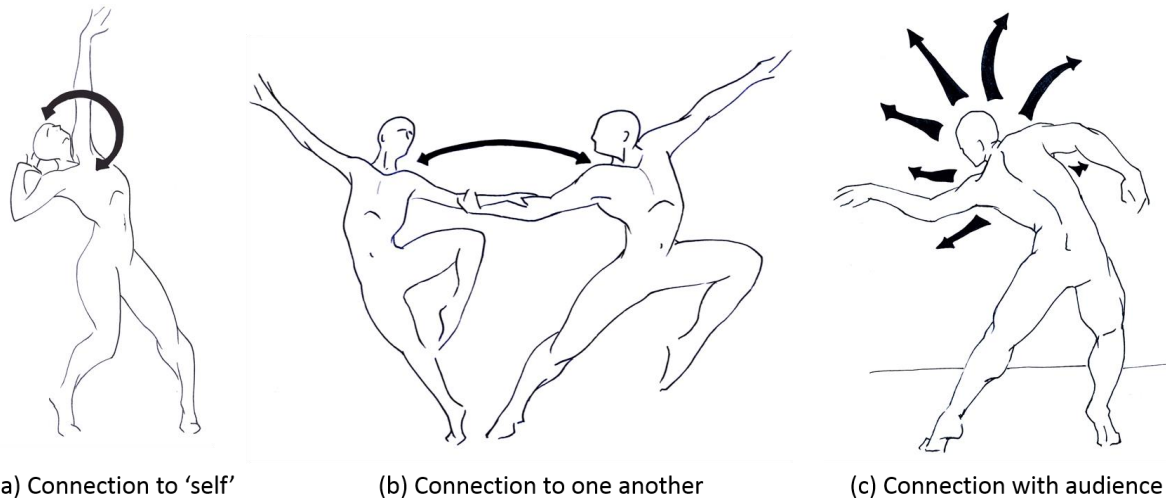
(a) Connection to 'self'   (b) Connection to one another   (c) Connection with audience

Figure 1 Three levels of connection through movement

2.3 Dancing for placing CCA into DRR

Dance and choreography can be used to integrate CCA into DRR by communicating the policies and actions needed at multiple governance scales (Figure 2). We can see examples of this type of integration and communication in projects across the world. 'Dance Your PhD', for example, communicates complex ideas and concepts through physical movement (Bohannon 2008). The "Science Ceilidh" (http://www.scienceceilidh.com) uses Celtic dancing taught to the participants in order to explain basic science.

Figure 2: Choreographing the city to integrate CCA into DRR for urban planning and development

The experience of dancing together offers opportunities to foster communities of action and to build a collective purpose around DRR including CCA. Tikambilanie, an organisation that promotes communication methods as a key engagement and exploration tool in developing a global world from a local scale, uses dance practice to unite and engage communities. Their "let's Dance!" workshop series has supported:

- 'Earthdance – the global peace party' (http://www.earthdance.org);
- Dance for Freedom, an initiative that attempts to get the collective moving through working with people in small numbers; and
- Community participative drama for which local issues they feel strongly about are explored together and communicated to others.

Participatory dance emerges from each community's culture, ensuring that principles, knowledge, and wisdom about DRR are exchanged on the people's own dance terms and forges the connections within and outside of each individual and community which are needed for DRR including CCA.

3. Theatre

Theatre is another performing art which has long been used by humanity to convey social messages. Theatre can select from some or all performing arts, yielding different combinations of acting (role playing), dancing, music/sound, and painting and sculpture

through set design, lighting, and props. Theatre has frequently been used in development settings in two ways.

First, communicating from actors to an audience by staging a show with messages, conveying embodied knowledge. Second, by having the 'audience' involved in theatre, either through developing a show on their own or through working and workshopping messages with actors through theatrical role playing, conveying connection. This multidirectional dialogue is particularly relevant in contexts in which hierarchy, social structure and cultural codes can create barriers across members of the same community (Box 2). These two approaches demonstrate how theatre could be used for DRR including CCA.

3.1. Theatre as embodied knowledge

An example of theatre demonstrating embodied knowledge for development is from Fiji, through an annual school competition across the country called Tadra Kahani. Groups of school children are challenged to develop a music, theatre, and dance show conveying a development message. School groups have selected DRR messages, including one group communicating how a community should deal with a tsunami and another performing the consequences of sea-level rise due to climate change. By focusing on youth and children, the population learns the key material from an early age while educators themselves learn important messages. The children take the messages home reaching their family and neighbours, especially when they come to see the show. Tadra Kahani has also become a tourist attraction, reaching beyond Fiji, and appears on YouTube, reaching those who might not have school-age children in their family or social networks.

Involving youth and children in DRR including CCA demonstrates how much they can contribute (Cumiskey et al. 2015). Theatre gives freedom to express, freedom to experiment, and freedom to be. In Fiji and elsewhere, the process is as important as the product, with the children learning through doing, thereby realising their abilities to achieve and to fail in a make-believe world. With this experience, they can re-orientate themselves in the real world—with guidance offered by the theatre director, their teachers, their family, and their peers—and accept the importance of achieving rather than failing, thereby maturing in the real world.

Yet learning is lifelong. Adults also act and role-play, with theatre helping to embody and emote throughout one's life. Theatre for development has brought forward identity and has empowered audiences to recognise their own knowledge and interests, so that they can empower themselves for action (Banham et al. 1999). This ethos is applied to multiple theatre projects aimed at general audiences for DRR topics.

The Arctic Cycle is a sextet of plays by Chantal Bilodeau and produced by Clay Myers-Bowman which uses story telling to invoke passion and understanding on dealing with climate change in six Arctic countries: Canada, Greenland, Iceland, Norway, Russia, and the USA. The Cycle uses the power of storytelling to investigate and understand the many challenges posed by climate change. It melds science and society by combining the common themes of interconnectedness and urgency with scientific jargon of adaptation and resilience. Feelings and knowledge of ice, identity, and 'The Right to Be Cold' (Watt-Cloutier, 2015) need numerous media to be communicated, with theatre providing a combination of light, sound, roles, and settings that embraces and engages an audience without many other opportunities to be so involved and integrated into these topics.

3.2. Theatre as connection

The initiatives in the previous section start the process from knowledge to connection. Theatre of the Oppressed (Boal, 1979) is a suite of interactive techniques using theatrical forms and processes to empower people and communities. Examples are audience members leaping onto stage to take control of the performance and to change its outcome (Forum Theatre); acting out a show in a public setting in which those watching might not be aware that it is theatre, thinking instead that it is a real situation (Invisible Theatre); and participants forming their body along with the bodies of others to express an idea or emotion without words (Image Theatre). Image Theatre has clear parallels with some of the choreographing techniques explored in the previous section. Invisible Theatre has modern incarnations through flash mobs and pranks which have been used for pure entertainment as well as to raise awareness of social issues such as harassment and racism.

The overall direction is that those participating in Theatre of the Oppressed, as actors or as willing or inadvertent members of the public, learn how to take control of their own situations and change them through their own empowerment, with the stage (in a theatre or on the street) representing their communities where people would aim to enact change. These theatrical approaches parallel the dance approaches of taking control of one's own body so that emotions and interests flow out and are shaped by movement.

In the same way that dance is communal, not just individual, the connection made through theatre is individual as well as communal. Chagutah (2009) describes the theory and practice of using theatrical performance to portray role models for changing individuals' disaster-related behaviour, as applied to earthquakes in Armenia. In the Philippines, Tanner et al. (2009) detail how children become their communities' role models by leading their own theatre to indicate how to deal with floods and erosions as well as preventative actions including management of vegetation and waste.

Consequently, theatre plays a role in connecting within a community and connecting that community to disaster-related topics, including the potential hazard influencer of climate change. As with dance, theatre can build and rebuild connections to oneself and one's own community, including links severed or mangled due to a disaster. The shared physical experience and exchange of roles fosters trust and empathy, indicating how to assist each other with regards to disaster. Finally, the performance, the action of being an audience, and where the two intersect become spaces of communication and places of witness to actions and processes needed for DRR including CCA.

3.3. Theatre for placing CCA into DRR

Embedding and embodying knowledge through theatre both internalises and externalises it for use while connecting the internal and external aspects. Internalising occurs by forcing oneself into the role being played. The role could range from being a righteous prophet of disaster doom such as Stockmann in Ibsen's *An Enemy of the People* (1882) to a disaster survivor exemplified by the characters remaining at the end of Sondheim's *Into the Woods* (1986) banding together after their fairy tale collapsed in death and destruction. Externalising emerges through communicating how to deal with tragedy. Do audiences today respect or mock the upper class stiff upper lip in the face of adversity present in Noël Coward's

Cavalcade (1931)? Is Rudetsky and Plotnick's *Disaster!* (2012) a night of comedy or an spur to DRR action—or both?

With the examples in the previous paragraph coming from only the Anglophone world, we also need to reflect on different languages and cultures portraying and applying theatrical endeavours to represent, communicate, and galvanise action on DRR including CCA. Combined with dance, theatre without words can bridge cultures and display emotions (Box 3). As a connector, theatre could potentially contribute to overcoming the separation between CCA and DRR which exists in too many ways in too many venues. A performative space in which DRR-focused professionals playing roles of CCA officers are forced to work with DRR officers played by those trained in only climate change, might indicate the power of recognising CCA as a subset within DRR by applying the theory in practice.

4. Implications of the performing arts for DRR including CCA

Both dance and theatre offer tools to access and communicate knowledge, as well as to foster connection. This has different manifestations and implications when taken at the individual and community level.

4.1. Personal experience

Understanding trauma- Somatic experience
Many therapeutic processes and techniques used with trauma survivors involve accessing and processing emotion through working with the body. Formative psychotherapy, developed by Keleman (1981) is grounded on the premise that thoughts, actions, and emotions are held in the body. Therapists using this theory work with clients on an awareness of how they hold and use their body to alter hormone levels and influence thoughts, actions, and emotions in a positive way. As part of this process, somatic exercises such as pushing, holding, and breathing, with awareness, are often adopted.

An example of this physical approach to working with psychological trauma can be seen in Gibney Dance's Community Action Programme, where dancers from the professional company run workshops with women living in domestic violence shelters. These workshops follow a four-part progression reflecting the Company's artistic process (Gibney Dance, 2015): First, internal reflection; second, expressing through movement; third, collaborating through group dance; and fourth, self-care approaches. These four points reflect the wider ethos of performing arts suggested in the introduction with respect to DRR including CCA. Looking inside and reflecting is about internalising, to accept that risk is something to be dealt with. Expressing and speaking through movement accepts the importance of externalising risk as something to be dealt with. Collaboration entails connection while the fourth point covers caring.

Other non-performative dance practices are designed to support the dancer in connecting with their inner experience. For example 'contact improvisation' a technique developed by Paxton (1975) asks the dancers to pay attention to the feeling of their contact with another person and respond through movement. This type of movement can help the dancer to connect deeply with their bodies as well as to one another. By extension and in the context of CCA, this approach could also be applied to an individual's connection with their environment. Improvising movement with, for example, trees or a river could help to foster a better understanding of nature's forces. In particular, we often do not realise the power of moving

water or ground shaking nor do we necessarily realise the power of the slowly changing climate. Contact improvisation could potentially be used to introduce people physically and psychologically to these experiences, their environmental and social meanings, and ways of turning challenges into opportunities for DRR including CCA.

Connecting with the body is especially important for trauma survivors who have dissociated or disconnected from their body as a way of coping and staying safe. Bringing survivors back into their bodies can be an important part of recovery and also in preparing them to build psychological resilience. When applied to the trauma of disaster, reconnecting with embodied experiences can be a key to healing as well as an opportunity to prepare for potential upcoming disasters.

Preparing for and managing trauma
Drama has been used in post-disaster scenarios as a natural form of healing and in supporting survivors to develop personal and communal resilience, as well as to forestall post-traumatic stress. Landy (2010) describes how the drama therapy called 'Standing Tall' was applied to child survivors of the 11 September 2001 attacks on the World Trade Center in New York. The method, which broadly involves the exploration of different roles through imaginative storytelling, helped the children to make sense of the events they observed and to share their roles and stories with their community, leading to a mutual sense of support and hope.

Drama therapy also allows participants to model, experience and experiment with new ways of behaving and thinking. As Renee Emunah Director, Drama Therapy Program, California Institute of Integral Studies explains "under the guise of play and pretend, we can - for once - act in new ways. The bit of distance from real life afforded by drama enables us to gain perspective on our real-life roles and patterns and actions, and to experiment actively with alternatives" (Emunah, 2016). Here, we can see a rupture with pre-established roles, classes, social stratification, gender, age, or occupation conditioning. This process can support individuals preparing for disaster situations by pre-modelling ways in which they might choose to act in such scenarios. Role-play can also support participants in developing an understanding other peoples' position, responses and actions.

4.2 Community
DRR including CCA requires collective action based on shared experiences despite differences of opinion. Developing relationships alongside a sense of communal identity, purpose, and trust is an essential building block for such collective action to be fostered.

Connection and social dance
Dance and theatre offers a unique mechanism for community connection and cohesion. The physical connection with one another in space as well as a sense of communal achievement following a workshop or performance can engender a sense of communal identity, belonging and connection. This supports coming together to address the current disaster challenges and those projected under climate change, especially seeking ways to link them and to bring CCA within DRR without alienating groups.

Dancing outside of the therapeutic, workshop, or performative space can also be an effective way of building connection and resilient communities. Social dancing can help people to relax, unwind, and have a break from daily worries, as well as build trust, friendship, and communal identity. It can also bring in the fun factor to DRR including CCA, rather than seeing it as a chore or added task, becoming an activity with which people naturally wish to

engage. The Fun Theory has been used to promote environmentally friendly actions (de Valk et al. 2012) and could be applied to DRR including CCA; but see also the warning by Schaar (1970)—with shades of Huxley's *Brave New World* (1932)—about fun potentially being detrimental to happiness through being forced, superficial, and crowd-driven. By bringing it into their everyday lives, and indeed their bodies through dance, people can begin to feel connected to the reality of the risks they face and begin to take action.

Being witnessed
A key part of drama and storytelling in therapy is to support the survivor in shared experience, connecting with others, feeling valued, expressing embodied knowledge, and validation. It can bring a level of acceptance, understanding, and self-confidence. This is particularly important in the development of a sense of worthiness. After a traumatic situation, previous "belonging" groups (including family, friends, associations, and religious groups) might have disappeared. Creating or finding new groups with which to express experiences can be a useful mechanism by which to start the reconstruction work with oneself and others.

6. Conclusions

By combining the two lenses of 'embodied knowledge' and 'connection', dance and theatre may support communities recovering from trauma and particularly support wider processes of DRR including CCA.

When Joffe (2003) explored how individuals and communities perceive risk, which can be applied to DRR including CCA, she found they use three core mechanisms: distancing, stigmatisation, and blame. Risk is not necessarily something that all people wish to feel exposed to continually—notwithstanding extreme sports and adrenaline junky culture, risk-taking behaviour from which positive environmental connections can be forged (Brymer et al. 2009)—so they tend to try to detach themselves from it and blame others rather than taking responsibility for action. Through this chapter we have explored how dance and theatre can help to reconnect participants with their inner experience, gain a physical understanding of scientific knowledge, develop empathy for others, and build a sense of community (Table 1). This is almost the directly opposite response to the constructed threat of disaster.

Table 1: The power of performing arts

Feeling of lack of control and choices regarding risk	Feeling of dance/theatre for making risk choices
Distant	Embodied
Intangible	Physical
Fear	Safer
Isolating	Connected
Blame	Empathy
Hopeless	Hopeful

In fact, lack of control and choice regarding risk leaves us in a condition whereby we are made to be disconnected and lacking knowledge both as individuals and as communities. The lack of knowledge is not so much somatic obliviousness or systemic ignorance, as systematic ignore-ance (purposely choosing to ignore knowledge, e.g. Streets and Glantz, 2000) in which societal constructs induce the preference to ignore what is known and should be acted

upon. One consequence is the desire to distance oneself from these topics and to hide behind the induced, ostensibly unchallengeable fear of risk, perhaps even fear of a dynamic environment. By bringing in the complementary practice of performing arts at individual and community levels, which brings with it connection and embodied knowledge, we lay the foundation for improved capability to act for DRR including CCA.

We can see that using the lens of dance and theatre in DRR including CCA is especially complementary. By morphing perceived risk into something that individuals and communities are able to connect with constructively, they are in much better position to take positive action for positive change. And perhaps, in the midst of all the hard work needed to build DRR capacity, dance and theatre might help us to enjoy ourselves, de-mystify disaster (both hazard and vulnerability), and tackle the root causes which lead us to disaster-related problems, including climate change, in the first place.

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