



Leverhulme Centre
for Nature Recovery



Theatre games for environmental researchers: An activity pack for interdisciplinary mindsets

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Environmental issues, from biodiversity loss to climate change, are complex, interlinked, and shaped by both social and ecological processes. Effectively understanding these issues requires interdisciplinary collaborations, involving researchers from different fields that offer distinct approaches and ideas about the nature of environmental issues, why they arise, and how they can be addressed. Bringing academic knowledge to help address environmental issues also requires engaging effectively with non-academic communities, be they policy makers, businesses or civil society members. Working across – and beyond – disciplines in this way is a complex challenge in itself. It requires researchers to develop skills and attitudes that enable them to think and act effectively together.

This activity pack – called **Theatre games for environmental researchers** – was developed to help researchers, organisations, and students build the habits that allow for effective interdisciplinary and transdisciplinary work. It offers ten activities designed to spark discussion, strengthen collaboration, and encourage reflection on what it means to work thoughtfully across disciplines and with non-academic communities. Each activity invites participants to play, explore, and reflect through guided discussion about the way knowledge, values, and practices intersect across disciplines. The aim is to help researchers cultivate the confidence, curiosity, and flexibility needed to work well with others: what we call an ‘interdisciplinary mindset’.

Each activity in this pack comes with step-by-step instructions and can be run in a range of settings from research group meetings and postgraduate training sessions to interdisciplinary workshops and classrooms. They can each be run as stand-alone activities or as a series, and can be run in any order. You can choose those which fit your group’s needs. Some are designed to energise and connect a group, others to prompt deeper discussion or reflection, and others do both. All invite participants to consider the relational side of interdisciplinary research: how we listen and respond, how we handle uncertainty and disagreement, and how we make meaning together across different ways of knowing.

We hope this activity pack encourages you to make space in your research for creative and reflective practice. Interdisciplinarity is not just a structure for organising knowledge, but a skillset and mindset that can be continually practiced and refined. By engaging with these activities, we invite you to explore together what it means for you to connect across disciplines in pursuit of environmental understanding and action.



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Our approach to developing the activities

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The activities were co-developed by academics associated with the Leverhulme Centre for Nature Recovery at the University of Oxford and theatre practitioners from The Oxford People's Theatre. Together, we combined insights from environmental social science with the creative methods of participatory theatre.

The motivating spark for each activity was drawn from the insights identified in a journal article called [Ten facts from the critical and interpretive social sciences for environmental research](#) (Montana et al., 2025) doi: 10.1016/j.jisci.2025.112736. This article identified ten 'facts' from the social sciences and humanities that can help strengthen environmental research (see Table 1.).

Taking the facts as a starting point, we worked together as academics and theatre practitioners to explore what theatre practice – such as movement, storytelling, and improvisation – could add to our understanding and approach to interdisciplinarity. Inspired by the work of Augusto Boal (especially *Games for actors and non-actors*, 1992), we adapted a range of theatre games and workshop techniques to create exercises that would encourage discussion, curiosity, and collaboration through physical, creative, and participatory activities.

Although the activities were developed as part of our connection to the Leverhulme Centre for Nature Recovery, their relevance extends to any area of environmental research where collaboration across disciplines is needed. They are intended not as prescriptions but as invitations—to experiment, adapt, and find approaches that work in your own context.

To read more about the process of creating the activities, see the journal article: 'Catalysing an interdisciplinary mindset for environmental research through theatre games' in *Humanities and Social Sciences Communication* (Welden et al., 2026).



Table 1: The ‘motivating spark’ for each activity was drawn from the insights identified in a journal article called *Ten facts from the critical and interpretive social sciences for environmental research* (Montana et al., 2025).

Theatre-based activities	‘Facts’ for environmental research	Explanation
Activity 1: Back and forth	Critique is a foundation of good research	Critical thinking strengthens scientific fact-finding through rigorous theory testing and analysis, and also enables constructive critique of social and ethical implications. Critique can help environmental research produce more appropriate, ethical, and transformative outcomes.
Activity 2: Academic statues	Standards of evidence are not the same everywhere	Different scientific fields and non-scientific actors hold varying standards for what counts as credible evidence for action. Effective environmental research will recognise and work with these diverse expectations.
Activity 3: Human / Non-human	All environmental research involves social theory or assumptions	The implicit mental models of all researchers shape what their research reveals or obscures. Enabling more transparent, truthful, and equitable scientific findings can be enhanced by recognising and explicitly stating underlying assumptions.
Activity 4: Object of significance	Multiple meanings and values matter in society	Differences in language, culture, and history shape how people understand reality. Different communities therefore attach diverse, sometimes conflicting meanings to environmental issues, which can be understood through social sciences and humanities research.
Activity 5: Communication revelations	Two-way communication improves outcomes	Effective communication of environmental research involves not only conveying scientific findings but also genuinely listening to and learning from others’ existing perspectives, including in the design of research projects.
Activity 6: Action reactions	Reflexivity can help navigate tensions	Reflexivity – involving attentive, responsive engagement with research participant perspectives and analytical scrutiny of the researcher (self), research choices, and the benefits and harms of research – can strengthen the social contract between science and society.
Activity 7: Lost in the pass	Human Dimensions are ever present in environmental issues	The “human dimensions” encompassing culture, tradition, community engagement, and conflict management are often key aspects of understanding environmental problems and should be acknowledged (even when not central to a project).
Activity 8: Making a ‘monster’	The boundaries between science and policy are not always clear	Despite a commonly assumed division of labour between research and policymaking, both are simultaneously shaped by political priorities, funding choices, current public debates, and unspoken social norms.
Activity 9: One way or another	Scientific disagreement can be valid and useful	Scientific consensus can support political action, but over-emphasising agreement risks obscuring crucial value conflicts. Creating space to openly acknowledge disagreement may offer more transformative pathways forward for addressing environmental issues.
Activity 10: Cats and dogs	Facts still matter for collective action	Publicly-validated facts, which involve careful attention to how facts are produced, by whom, and with what assumptions, remain important for meaningful environmental action.

Activity 1: Back and forth

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In pairs, participants engage in back-and-forth conversations that are constructed to either accept or reject suggestions from the offering partner, with role-playing around an environmental research theme. This layered activity helps think through the role of a critical mindset as a productive force in research design and execution.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How agreement can be highly productive but can also lead to runaway agendas that do not grapple with the limitations and constraints that might need critical reflection;
2. How critique, or someone counteracting the initial offer, slows the speed of the conversation, but may lead to better reflection and creativity in idea generation;
3. How playing with different disciplinary roles opens people up to thinking across disciplines.

Activity directions:

Layer 1: Yes/And (running time: 15 minutes)

1. You (the moderator) introduce this activity as a warm-up, about opening up to suggestions, accepting offers, warming up the brain with a partner. Split the group into partners, with pairs including people in two different disciplines, where possible.
2. Explain to the group that the first person will start with an offer (e.g. 'let's go for a day out'). The second person must then accept the offer ('yes') and offer another suggestion ('and'). This continues for 1–2 minutes to get participants comfortable with the format.
3. You should demonstrate how this works to the group using an example:

Example of yes/and:

Person A: 'let's go for a day out,' **Person B:** 'Yes, and we can bring a picnic,' **A:** 'Yes, and I can make the special sandwiches to eat,' **B:** 'Yes, and we can bring juice to wash them down.'

4. Ask the pairs to give this activity a go for 3 minutes so that they can practice.
5. Next, in the same pairs, you will ask the participants to use the yes/and format to 'build a field site.' Participant A begins with, 'let's go into the field,' and the pair subsequently use Yes/and to describe the features of their imagined field site. The pairs should enact a walk through the field site. Have them act out the different offers, acceptances, and other suggestions through their bodies, pointing out and interacting with the features that they describe in the field, for example, as they continue their 'yes, and' conversations.

Example of Yes/and 'in the field:'

A: 'let's go into the field,' **B:** 'Yes, *and* we can take a survey of the beaver activity,' **A:** 'Yes, and I can see how much water their dams retained this time,' **B:** 'Yes, *and* we can count the new species we see, etc.

Layer 2: Fortunately / unfortunately (running time: 10 minutes)

1. This activity starts off with the same premise as the last, with someone making an offer. But, it's responded to with an obstacle ('unfortunately') rather than acceptance, to which the offer-maker must respond with another offer ('fortunately...'). Staying in the same pairs, and maintaining the imagined field site as the place in which the conversation takes place, try this version of the activity for 3-5 minutes.

Example of Fortunately / unfortunately:

A: 'let's go research in the beaver enclosure,' **B:** '*unfortunately*, it's raining, and we'll get wet,' **A:** '*fortunately*, I brought our rain boots,' **B:** '*unfortunately*, we need waders to get to the new dam,' etc.

2. Swap roles, so that each person gets a chance to be the fortunately and unfortunately person.
3. Moderate a quick discussion, asking, 'How did you find being the fortunately person?' and 'How did you find being the unfortunately person?'

Layer 3: Role playing fortunately/unfortunately (running time: 15 minutes)

1. Introduce researcher roles for the participants to integrate into their conversations 'in the field.' Designate the roles:
 - a. **Natural processes advocate:** who is most interested in gathering information about and paying attention to the ecological and biophysical aspects of the project, and
 - b. **Human dimensions advocate:** who is most interested in gathering information about and paying attention to community partner and other social concerns about the project.

3. With these designated roles and each pair's created field site, run fortunately / unfortunately activity again in the pairs, with the natural processes role starting first with 'fortunately' and the human dimensions role with 'unfortunately.' Pairs have the option to 'take it for a walk' and introduce movement.
 - a. Next, keep the same roles, but switch which role is fortunately or unfortunately.
2. Finally, keeping the same roles, choose who is fortunately and unfortunately, but this time, the naysayer must follow their 'unfortunately' with a concession ('however...'), thus providing critique and offers from both roles. If there's time, switch who is fortunately and unfortunately.

Example of role playing fortunately/unfortunately, with concession:

A (natural processes): 'I am going to start this project by mapping the non-human species present in the woodland,' **B (human dimensions):** 'Unfortunately, the local community uses this woodland to farm, and they are going to be working the farm on the days you are mapping. However, I have liaised with them and they will allow you onto the farm between 9 and 10am each day,' **A:** 'Fortunately, I will be able to measure the species in the soil on their farm,' etc.

Discussion questions:

After these layered activities, the moderator should lead a discussion, asking the participants to step outside their roles and the activity. Suggested questions for discussion:

1. How did the scenario make you feel?
2. Do you think it was more or less productive to work with a yes/and, or a fortunately/unfortunately attitude?
3. How did it feel when the person stating 'unfortunately' also came up with a solution?
4. If you role-swapped (i.e. acted in the role of a natural processes advocate despite typically focusing on human dimensions in your everyday research, or vice versa) how did this feel?
5. Do you have experiences from your work that have similar dynamics to those in the activity? What happened?
6. If you were to apply the insights from the activity to your own work, what would you do differently as a result?

Activity 2: Academic statues

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Participants in a warm-up make sculpture tableaux using their bodies of what they perceive different forms of research look like when being done (medical, social science, computer science, economics, etc.). Then, building upon these sculptures, two 'team captains' select their ideal research teams from the available sculptures and the teams decide which team member will lead a project to solve a prompted problem. This activity helps participants to contemplate the hierarchies of different standards of evidence that exist in different disciplines, and how these forms of evidence can be useful to solve an overarching problem.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How different disciplines have different standards of evidence that are valid based upon the discipline in which they exist;
2. How different evidence may be required to solve different types of problems and look at different situations;
3. Garnering respect for different forms of knowledge production.

Materials & preparation:

1. What you need:
 - a. Two slips of paper with the same environmental issue written on both: e.g. 'Sea level rise from anthropogenic climate change is threatening a coastal fishing town in Brazil.'

Activity directions:

Required warm-up (running time: 10 minutes)

The first part of this activity requires running a warm-up, called **sculpture tableau**.

1. Introduce this activity as a warm-up, and make the participants get into groups of four. You, the moderator, designate a field of research to each of these pairs (medical, social science, humanities, computer science, etc.).
2. Then, the groups are tasked with making a tableau with their bodies of what their designated research looks like (e.g. what medical research looks like). These tableaux must be still.
3. Once everyone has decided on their sculptures, the moderator asks everyone to face inwards and then a selection of some of the groups are asked to show their sculpture tableaux to the group (ask them to freeze for 5 seconds before breaking away) and to provide a title for their tableau. You may follow on with questions about what they are depicting, what objects they are using, etc. Go around the room of sculptures, ask: What were you trying to demonstrate with your tableaux? What kinds of evidence were you producing?

Academic statues (running time: 15 minutes)

1. Next, choose one pair to split up, making them each a 'team leader' and have them stand about ten feet apart from each other. Tell them that they are tasked with assembling the ideal research team to solve a problem. Give them each a slip of paper with the same problem on it that they are asked not to tell anyone else at this stage: e.g. 'Sea level rise from anthropogenic climate change is threatening a coastal fishing town in Brazil.' The two team leaders do not need to know that they have the same problem.
2. Next, have the team leaders choose heads or tails and flip a coin to see who will be first to begin assembling their sculpture team.
3. The team captains choose different sculpture tableaux to add to their team. They do this one choice at a time alternative between the team leaders (like often happens in school sports).
4. The sculpture tableau pairs remain in their poses available to be chosen. When chosen, the sculpture tableau pair goes to stand behind the team captain. Continue this until all sculpture tableau pairs are on a team.
5. Now, ask the team leader to share why they selected all the different tableaux for their team. Were they happy with the overall team they assembled? They can now reveal the research problem statement that they were given.
6. Next, all participants in each team discuss and choose a sculpture tableau pair from within their group that will lead the research team to solve the problem. The sculpture tableau pairs must pitch to the captain why they – with their field, tools, and processes – are best to lead the interdisciplinary research team. Give the teams 5-10 minutes (depending on group size) to have this discussion amongst themselves before instructing the team captain to choose a leader pair for the project.
7. Finally, have each team captain share with all participants which sculpture tableau pair they chose to lead the research and why.

Discussion questions:

After this **sculpture teams** activity, the moderator should lead a discussion, asking participants to gather together and reflect upon the activity and what it may mean for environmental research. Here are some suggestions for discussion questions:

1. How did it feel as sculpture tableau pairs to be chosen first for your teams? Last?
2. What may this activity say about the hierarchies that exist within research spheres – especially those tasked with interdisciplinarity?
3. Why do you think you ended up with the leaders of the research group?
4. What are the challenges of building a team of diverse disciplines with different standards of evidence? What are the opportunities and benefits?
5. Do you have experiences from your work in environmental research where you experienced similar dynamics to those in the activity? What happened?
6. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 3: Human / Non-human

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All participants are asked to portray a series of opposite actions and things in a warm-up, followed by an activity where they are asked to portray humans and non-humans and create static scenes of different environmental events and interventions. The activity helps think about how different people, institutions, and agencies involved in environmental research and governance carry different social theories and assumptions about the world. It highlights one particular theory on which there are significant divergences in the environmental research space: that is the distinction between nature and society.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How human and environment relations are conceptualised differently in different governance, social, and research contexts;
2. How all environmental research involves social theory and/or assumptions about the world, which affects the knowledge produced.

Activity directions:

Required warm-up (running time: 15 minutes)

The first part of this activity requires running a warm-up, called **opposites attract**.

1. Introduce this activity as a warm-up, and have the participants spread out around the room.
2. Introduce your first 'opposite' pair: stop / walk. When you, the moderator, call out 'stop,' the participants must walk. When you call out 'walk,' the participants must stop. Run this through a few times.
3. Next, explain to the group a number of additional 'opposite' pairs: stop / walk, up / down (reaching tall / getting small), dance / freeze, heads / tails (hands on heads / hands on back) and importantly: human / non-human. Ensure each of these is practiced, especially human / non-human, which will require the participants to act out or use their bodies to represent something that they see as either non-human or human.
4. Run the activity with all 'opposite' pairs being played. You the moderator call out 'clap,' and all participants must jump; you then call out 'human' and the participants must act out what they perceive 'non-human' to be, and on the game goes.
5. **Optional variation:** To wind up the game, you have the option to eliminate people who do not act out the opposite, like in Simon Says. In this variation, you play until everyone in the group does not make a mistake for 3 rounds in a row.

Human / non-human (running time: 25 minutes)

1. Building on the **opposites attract** warm-up, divide the participants into two groups and designate one group as 'human' and another group as 'non-human'. The 'human' group will go first, and the other group can form an audience around them.
2. Instruct the first group that you will be giving them prompts and they will then have to create tableaus representing those prompts in 10 seconds. For example, you will say 'deforestation,' and they will have 10 seconds to join with others in their human group to create an image of this idea.
3. Start by having the participants walk around the space. When you are ready, shout out a prompt (e.g. mining, climate change, sea level rise, littering, etc) and count down from ten until they have arranged themselves into tableaus.
4. Ask some of the participants to explain what they are depicting.
5. Run this a few times with different prompts. And then switch groups so that the 'non-human' group is creating tableaus and the other group is watching (i.e. extinction, renewable energy, overfishing, drought, etc.).
6. Then, ask half the non-human group to stay in the centre while the other half joins the audience, and half of the human group to go back into the centre. The now mixed group of participants must create tableaus of both humans and non-humans this time. Run through the same or different prompts (e.g. mining, climate change, sea level rise, littering, extinction, renewable energy, overfishing, drought, etc.), counting down each time. Again, go around asking different participants what they are depicting.

Discussion questions:

After this **human / non-human activity**, the moderator should lead a discussion, asking participants to step outside their groups and the activity. Here are some suggestions for discussion questions:

1. When acting in the warm-up and the game, which was easier to portray: the human or the non-human? Why?
2. When you think of the non-human, what were the most common things that were portrayed? Why do you think that is?
3. When creating the tableaus, how did it feel to make the tableau with just humans or just non-humans in the group? How did it feel to make tableaus with both humans and non-humans? Which do you feel is more representative of the research you do?
4. How might this activity relate to the environmental research process? Reflect specifically on the different assumptions made within research.
5. If this activity reveals the importance of seeing humans and non-humans as interconnected, what are other assumptions about the world that affect your—or other—environmental research?
6. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 4: Object of significance

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Three groups engage in role-play, each group independently develops their own 'rituals' around a provided object, and these are then shared. The activity helps think about research and decision making when meanings placed on objects and ideas in the environment are different or in conflict between groups of people.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How different groups of people place meaning in objects/ideas and create social norms around them, to varying degrees;
2. How different meanings lead to complicated conversations across disciplines and/or different groups of people, as they each have different expectations and understandings of objects/ideas being discussed and/or governed.

Materials & preparation:

1. What you need:
 - a. Folded piece of paper (for optional warm-up)
 - b. 3 identical small objects (e.g. Pine cone)

Activity directions:

Optional warm-up (running time: 10 minutes)

You have the option of running a warm-up for this activity, called **baby bird**.

1. Introduce this activity as a warm-up, and ask the participants (and you, the moderator) to stand in a large circle. You have a folded piece of paper, which you introduce as a 'baby bird.'
2. Pass the baby bird around the circle, from hand to hand, having each participant describe what they will do to make the baby bird comfortable upon receiving the bird from the person next to them (e.g. I will put it in a box; I will stroke its head; etc.). On the second pass around the circle, instruct the participants to describe what they will feed the baby bird to ensure it lives, passing it around again.
3. When the 'baby bird' paper arrives back to the moderator after a second round, the moderator says 'all right, on to the main activity,' and callously crushes the piece of paper and throws it in the bin. The moderator asks everyone to sit back down along the wall on prearranged seats for the main activity, without YET discussing the baby bird warm-up.

4. Once everyone is sitting down ready for the next activity, the moderator says, 'before we start the next activity, how did people feel about the bird activity?' People may realise how they placed meaning in the plain piece of paper (to different extents: to some it was just paper; to others, it was a baby bird). This warm-up is intended to prime the participants to think about how meaning (what something is and why it matters) can be a powerful force and important consideration in environmental research and decision making.

Object of significance (running time: 25 minutes)

1. Divide the participants into three groups. Give each group an identical object (e.g. pine cone). The groups are told that the object is important. At this point, it is better if the groups are isolated from one another so that they do not overhear the instructions of the other groups, although the activity can also be run where everyone is aware of all instructions.
2. Each group gets different instructions. One group is designated as the local community, another group as a conservation organisation, and the last group as scientists.
 - a. **Local community:** must design a ritual that demonstrates how they / their family have imbued the object with symbolic significance
 - b. **Conservation organisation:** must design a method in which the object will be protected/preserved
 - c. **Scientists:** must design a method for how the object will be studied/how facts will be derived about the object.
3. All groups must also identify anything that **must not happen** to the object.
4. Give the groups ten minutes to discuss amongst themselves. They may role play (?) their own rituals and / or methods to demonstrate what they do with the object/how they interact with it. They may also discuss / decide their rationale behind their rituals / methods.
5. Regroup as a whole and have each group share their objects and their rituals/methods with everyone. After each group has shared, you may allow one or two clarification questions from participants from other groups or you as the moderator, if desired.
6. Then, the groups must discuss and attempt to come to a decision around how best to use, protect, and study the object, instructed to hold on to the values which they decided in the group. They will find that compromise is difficult, and sometimes impossible, when meanings and values of the object are different.

Discussion questions:

After this **object of significance** activity, the moderator should lead a discussion, asking participants to step outside their roles and the activity. Here are some suggestions for discussion questions:

1. How did the scenario feel from the perspective of the different groups?
2. What did you find difficult about agreeing on a collective approach to the object?
3. How might this relate to environmental research?
4. Do you have experiences from your work where you experienced similar dynamics to those in the activity? What happened?
5. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 5: Communication revelations

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After a story-building warm-up, the participants break into groups of 3–4 where one person is designated the leader and the others are designated as followers – who have their own secret revelations which they do not share. They run through different scenarios in which they do not share the revelations and those in which they do, under different time pressures. This activity highlights how two-way communication between research teams takes time and energy, but may lead to better overall satisfaction within a research group.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How different parties within an interdisciplinary research project have different intentions and perspectives;
2. How one-way communication may be more efficient, but less effective;
3. How two-way communication allows all intentions to be heard, leading to outcomes that are more satisfying for everyone.

Activity directions:

Optional warm-up (running time: 10 minutes)

As a part of this activity, you may run a warm-up called **story-builder**, which builds a story from individual words, getting the team to think about listening and responding to communication.

1. Introduce this activity as a warm-up, and make the participants (and you, the moderator) stand in a large circle. Instruct the group that they will all collectively be building a story, but every person is only allowed to say one word.
2. You begin the story with a word (for example, 'Once...'). The person next to you then says one word, then the person next to them, and the story continues around the circle. After everyone has had at least one turn saying their word, you (the moderator) can decide when the story ends (when it reaches a satisfactory conclusion, or when a sentence finishes).

Communication revelations (running time: 25 minutes)

1. Break the participants into groups of 4–5 people. Tell them to nominate a 'leader' of each group and designate the rest as 'followers.'
2. Next, tell the groups that they are all families who are hosting big dinner parties at their home that evening. Tell the leader that they are tasked with getting the dinner and the house ready in time for the guests to arrive.

3. Then, instruct the followers to think of a 'revelation' in their heads – no sharing with the group! Give an example, like 'I'm moving to Australia tomorrow' or 'All of my houseplants just died.'
4. You're next going to run three different rounds of this scenario.
5. In the first, tell the leaders that they have one minute to organise their families and get the house ready and dinner made. Remind the followers that they are not allowed to share their revelations, but the revelations still exist for their characters.
6. Ready, set, go! Time the groups. In this scenario, it is likely that the leader will dictate directions to the followers.
7. In the next round, tell the leaders that they have one minute to organise their families and get the house ready and the dinner made. However, tell the followers that during this scene, when the leader asks them to do something, they must share their revelations and the leader (and other followers, if they choose) must react to their revelations. One minute, ready, set, go!
8. In the final round, tell the leaders that they still must organise their families to get the house and dinner ready, but that they have no time limit. Tell the followers to once again that when the leader asks them to do something, they must share their revelations and the others must react. See how this scene plays out with no time limit and with everyone sharing, listening, and responding to the revelations.

Discussion questions:

After this **communication revelations** activity, the moderator should lead a discussion, asking participants to reflect upon the activity and what it may mean for interdisciplinary decision making. Here are some suggestions for discussion questions:

1. In each scenario, what were the outcomes? What was the outcome when the revelations were not shared? What about when they were shared and it was timed? Shared and not timed?
2. Was one outcome preferable to another? For whom?
3. What was the difference between timing and not timing the scenarios?
4. How did it feel to be a leader in the different scenarios? Did you prefer one over the others? Why?
5. How did it feel to be a follower in the different scenarios? Did you prefer one over the others? Why?
6. How may this activity relate to environmental research decision making processes? Reflect specifically on the idea of one-way versus two-way communication.
7. Do you have experiences from your work in environmental research where you experienced similar dynamics to those in the activity? What happened?
8. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 6: Action reactions

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Participants are split into groups of 4–6 people, and one person from each group is designated as ‘the researcher’ and sent out of the room. The other group members are given a set of rules to guide their actions during the activity, including reactions to different things that the researcher – or other members of their group – might do. The researchers are brought back into the room and tasked with ‘discovering’ the rules of the game, making them pay attention to how their actions directly and indirectly affect the people and places in which they are conducting ‘research.’

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How environmental researchers themselves affect the research they are conducting;
2. How there are multiple perspectives of the research from different people encountering it (e.g. participants, stakeholders, funding bodies, etc).

Activity directions:

Required warm-up (running time: 10 minutes)

The first part of this activity requires running a warm-up, called **emotion radar**.

1. Introduce this activity as a warm-up, and have the participants break into pairs and spread out across the space. Tell the participants that this is an activity about reading emotions **silently**.
2. Have one person in each pair go first. Tell them to **silently** come up with an emotion and then non-verbally / physically display that emotion to their partner.
3. The partners then must silently interpret that emotion and non-verbally/physically display what they perceive to be that emotion’s opposite. For example, if Person A displays what they think to be ‘angry’ (e.g. crossing their arms, frowning), Person B then must display ‘angry’s’ opposite – perhaps loving (e.g. hugging, making a heart shape with their hands).
4. Next, repeat this activity with Person B starting with an emotion and Person A being the interpreter and reflector of another emotion.
5. You may run this through a few times with each person getting the chance to begin 2–3 times.

Action reactions (running time: 25 minutes)

1. Break participants into groups of 4–6 people, and spread the groups out across the space. Designate one person in each group as ‘the researcher.’ Ask the participants at the beginning if any of them have played this game before. If they have, they should not be ‘the researcher.’
2. Send the ‘researchers’ out of the room, so they cannot hear the instructions that are given to the other group members.
3. To the other group members, tell them to give themselves letters: Person A, B, C, etc.
4. Next, give the groups a set of ‘reaction rules,’ which designate each person to have a ‘trigger’ to different things that the researcher (or others in their group) might do:
 - a. When the researcher looks at them, **Person A** must act happy; when the researcher is not looking at them **Person B** must act bored.
 - b. When the researcher is walking / moving around, **Person B** must act angry; when the researcher is stopped, **Person B** must act happy.
 - c. **Person C** must act in the opposite emotion to whatever **Person A** is doing.
 - d. When two other Persons in the group are aligned in their emotions, **Person D** must stand up / cross their arms.
 - e. (You as the moderator may adjust these rules to accommodate for the numbers in each group and / or choose different emotions.)
5. Bring the ‘researchers’ back into the room and have them stand in the middle of their groups. Tell the researchers that they are tasked with figuring out the rules of the game—they must ‘study’ the reasons why their group members are acting the way in which they are acting.
6. If they think they have ‘a discovery’ and want to check if it’s correct, they must raise their hand and you the moderator can go over to them and let them know if they got it right or if they must keep researching.
7. Let this activity run for 5 minutes. Check in with the researchers at this point, and if they have not realised that their body / movements / etc. are triggering reactions, give them that clue. Then, let the game continue.
8. Run the activity for another 5 minutes, attending to the researchers with raised hands for their ‘discoveries.’ You may choose to give more clues if some researchers need assistance (i.e. you may suggest that they move around the space if they have been standing still).
9. Finally, bring the activity to a close, even if the rules are not fully discovered by the researchers. If that is the case, have the other group members tell the researchers what triggered their different reactions.

Discussion questions:

After this **action reactions** activity, the moderator should lead a discussion, asking participants to step outside their researcher roles and groups, and the activity itself. Here are some suggestions for discussion questions:

1. How did it feel to be a researcher? How did you realise that your actions were triggering reactions from the other group members? How did you go about discovering the rules?
2. How did it feel to be a group member reacting to the researcher? What about being a group member reacting to the other members and not the researcher directly?
3. How might this activity relate to doing environmental research? Reflect specifically on the different participants, stakeholders, and perspectives one may encounter while doing environmental research.
4. As a researcher, once you realised things you did to trigger certain group members, did you adjust your actions?
5. How might a researcher's very presence during fieldwork affect different participants, stakeholders, and other community members? How does the activity act as a metaphor for that?
6. Do you have experiences from your work in environmental research where you experienced similar dynamics to those in the activity? What happened?
7. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 7: Lost in the pass

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Two individuals pass balls between each other, while the remainder of the participants try to block some of the balls from getting through. This activity helps participants to contemplate how what they perceive through scientific research may not always reflect the reality of an issue. In particular, human dimensions (represented by marked balls in this activity) are often under-acknowledged in environmental issues. Participants discuss how they can be made more visible.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How human dimensions are ever present in environmental issues, even if hidden;
2. How the causes and effects of environmental issues cannot be fully addressed without considering these hidden human dimensions;
3. How changing the way we do environmental research may help to make these human dimensions more visible.

Materials & preparation:

1. What you need:
 - a. Ten ping pong balls: 5 marked with black crosses and the remaining 5 left unmarked

Activity directions:

Lost in the pass (running time: 20 minutes)

1. First, identify two people to act as the 'sender' and 'receiver' (they will need to have the capacity to pass the ping pong balls between each other). Ask these two individuals to each place themselves at opposite sides of the room. They cannot move from these places.
2. The remainder of the group is asked to stand in the middle between the sender and receiver. These people can move around.
3. The sender is provided with the ten ping pong balls. They must send the balls to the receiver by rolling them along the ground or bouncing them one at a time in an order of their choosing.
4. Once all of the balls have been sent, the receiver counts the number of marked and unmarked balls that they received and tell the group. If a whiteboard is available, this 'score' can be recorded for everyone to see.
5. Steps 1–4 can be repeated.
6. When time has been exhausted or there are no more volunteers to be sender or receiver, the activity can be drawn to a close.

Discussion questions:

After this **lost in the pass** activity, the moderator should lead a discussion, asking participants to gather together and reflect upon the activity and what it may mean for environmental research. Here are some suggestions for discussion questions:

1. For the sender and receiver, how did it feel to have the ping pong balls being blocked?
2. For the group, what was it like trying to block some balls and not others?
3. In the context of environmental research, if the 'receiver' is thought about as the researcher and the 'sender' is representing the issue that they are looking at, what do you think the marked balls could represent?
4. In the above context, what are the processes in research – or in the world more generally – that are letting through some aspects and not letting through others?
5. This activity was conceived with the under-acknowledged human dimensions of environmental research in mind. How could these human dimensions – or any other under-acknowledged aspects of environmental issues – be made more visible through our research practices?
6. Do you have experiences from your work in environmental research where you experienced similar dynamics to those in the activity? What happened?
7. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 8: Making a ‘monster’

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Groups of 3–5 people work together to perform as a ‘monster’ with their bodies and have to move and speak as one. The activity helps think about how the different actors within a science-policy relationship come together, with different priorities, and how they rely on and respond to one another. It highlights how different leaders drive different priorities at different times, and how this influences both knowledge and policy.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. The complexity of the relationship(s) between science and policy, with all other actors and stakeholders within policymaking;
2. How priorities of different groups and institutions – including policies – shape the ways we do science, the production of knowledge, and the knowledge itself.

Activity directions:

Optional warm-up (running time: 10 minutes)

You have the option of running a warm-up for this activity, called **policy knot**.

1. Introduce this activity as a warm-up, and ask the participants (and you, the moderator) to stand in a large circle (maximum 10 people. If there are more than 10 people, split into two circles). You begin by asking the group(s) to identify different types of actors that are or should be involved in addressing environmental issues?
2. Going around the circle, each person states a different actor, such as policymakers, scientists, funding bodies, NGOs, developers, etc.
3. Tell the participants that their body now represents the actor / stakeholder they stated.
4. Direct the participants to place their hands in the middle of the circle and grab the hands of two other people, the group forming a human knot.
5. Now, the participants must de-tangle themselves as best they can. It is unlikely they will be fully successful in getting back to a clean circle. Even if they do, this warm-up is intended to prime the participants to think about how complicated and multi-directional the science-policy interface is.

Making a monster (running time: 25 minutes)

1. Divide the participants into groups, with 3–5 people in each. Participants are tasked with creating a ‘monster’ with their bodies, linking them together in some way. They must decide as a group how this creature moves, what it does, and how it operates in day-to-day life.
2. Have the groups discuss this creature they are creating with their bodies and practice moving as one ‘monster’ around the room. They do not need to make physical contact to do this, but can still move together.
3. Once the groups have had time to discuss and be their creature for a bit, you (the moderator) call each creature up to the front of the room where you are. All other groups are watching.
4. Remind the creatures that they are one and they must answer in one voice. This means that the group have to intuitively try to speak together to say the same words. Typically, different people who are a part of the monster will find this part difficult, speaking slowly. Often, one person will lead the answering and the others follow, or this may switch at different points as the monster finds its voice.
5. You ask the creature questions, e.g. where do you come from? What do you like to do? What do you eat? What should we do about climate change?
6. Each creature gets a chance to be called up and asked a few questions by the moderator, finding their ‘voice’ as best they can.

Discussion questions:

After this **making a monster** activity, the moderator should lead a discussion, asking participants to step outside their monstrous roles and groups, and the activity itself. Here are some suggestions for discussion questions:

1. How did it feel to become one monster as a group of individuals? What about speaking as one monster?
2. How might this relate to the science-policy relationship for environmental issues? e.g. needing to work together with actors different to you, and to lead and follow different agendas.
3. When speaking as one monster, could you identify one or more leaders from your group who were primarily influencing your monster’s responses? How did it feel to be the leader? The followers? Was it always so binary, or were there instances of different dynamics bouncing off each other?
4. Do you have experiences from your work in the science-policy nexus where you experienced similar dynamics to those in the activity? What happened?
5. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 9: One way or another

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The group is split into two and each given the task of creating an improvised scene. One group must do it within one movie genre, and the other gets to play with different genres and pick and choose elements from each to create their scene. Through a following discussion, this activity helps participants think through ways in which a diversity of ideas and approaches to environmental research makes decision making more dynamic. It highlights how scientific consensus around one way of doing research is not always the answer.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. How expertise is often levied in environmental (research) decision making to bring everyone behind one particular idea from one voice;
2. How consensus is contested by other forms of expertise exerting their dominance;
3. How in fact consensus reduces diversity of ideas and thus diversity of effective solutions. Consensus is not the goal.

Materials & preparation:

1. What you need:
 - a. Paper
 - b. Scissors
 - c. Hat or bowl
2. Preparation:
 - a. Print (or write) the 3 genres on 3 pieces of paper: silent movie, slapstick comedy, and documentary.
 - b. Place these 3 slips of paper folded in the hat / bowl.

Activity directions:

One way or another (running time: 25 minutes)

1. Split the group into two even groups. Instruct the participants that they will each be creating a scene from the starter prompt: 'A quiet night at home is interrupted by a knock at the door – and someone you weren't expecting walks in' **or** 'Four bumbling robbers plan and execute a robbery.' As moderator, choose which **one** prompt you give to both groups.
2. **Group A** picks one genre out of the hat, and they must create a scene within that genre. **Group B** is instructed that they get to use all three genres in the hat to create their scene.

3. Each group is given five minutes to discuss and prepare a rough scene. If they need additional direction, tell them it need not be scripted, but they can set rough characters and a plot within the genre(s) they are assigned.
4. **Group A** has five minutes to make their scene within a particular genre.
5. **Group B** must try each genre for one minute each. Then, they have two minutes to decide which bits from each genre they will use to create one improved version of the scene borrowing from each genre.
6. Both groups share their scenes, then discuss using discussion questions below.

Optional extra

1. Ask each group to add a new twist to their scene from the other group's approach (e.g. Group A gets to break restrictions and add diversity to their scene).
2. Discuss:
 - a. What were the benefits of adding other genres?
 - b. How did this change the idea?

Discussion questions:

After this **one way or another** activity, the moderator should lead a discussion, asking participants to reflect upon the activity and what it may mean for environmental research and decision making. Here are some suggestions for discussion questions:

1. For Group A, when watching Group B perform, what was successful about Group B's scene?
2. For Group B, when watching Group A perform, what was successful about Group A's scene?
3. To both groups, how was the process of making your scene? How was each approach (1 genre or 3 genres) helpful or unhelpful?
4. How may this activity relate to environmental research decision making processes? Reflect specifically on the idea of diversity of ideas when working in an interdisciplinary team.
5. When planning environmental research, is the goal to reach consensus amongst your team? Why or why not? What does consensus include or exclude?
6. How did consensus play in the activity? What about diversity of ideas? Reflect on this in relation to your work.
7. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Activity 10: Cats and dogs

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The large group of participants moves about the room and breaks into smaller groups based on prompts from the moderator, ending with the prompt, 'dogs are better than cats.' The two groups – those that agree and those that disagree – then must debate this 'fact,' and then build upon it to create a more robust 'fact' which gets most everyone to agree and form a collective. This activity helps participants to contemplate how commonly-held facts work to structure our collectives and organise the collective 'we' towards action.

Goals of the activity:

The goals of this activity are to catalyse discussion on:

1. What facts and collectives are, and the interconnections between the two;
2. How facts still matter because they create the foundations for collective action.

Activity directions:

Required warm-up (running time: 5 minutes)

The first part of this activity requires running a warm-up, called **collectives**.

1. Start by having the whole group walking about the room. They can walk in any direction, at any pace, but the one rule is that they do not stand still until a group is formed.
2. You, the moderator, tell the group that you are going to call out different prompts that they must follow, forming subgroups based on whether they agree or disagree with the prompt. Run a practice round where you say, 'dessert is the best part of a meal.' The participants must quickly organise themselves into two groups along those lines.
3. Then, have the participants begin milling about again and run other prompts. For example, summer is better than winter, a home cooked meal is better than take-out, mountains are more fun than the seaside, etc. As these groups form and reform, the participants will begin to recognise who is in which collective with them.
4. Required: Conclude the warm-up with the prompt: 'Dogs are better than cats.'

Activity: Cats and dogs (running time: 15 minutes)

1. The participants begin in their two groups: one which agrees with the statement, 'dogs are better than cats,' and one which disagrees with that statement.
2. Instruct each group that they must select one spokesperson to represent their group in a debate, where they will argue their group's case on the prompt. At this point, tell them that the goal of the activity is to have all of the participants in the room agree with your prompt.
3. Give the groups one minute each to discuss their arguments in their group.
4. Then, the selected spokesperson for the group has one minute to argue their case. The first spokesperson goes, then the second.

5. After that initial debate, tell the participants that they may change groups if they change their minds on whether they agree or disagree that 'dogs are better than cats.'
6. As the moderator, introduce a new rule. The pro-dog group is allowed to add a qualifying statement to the original prompt. For example, 'dogs are better than cats... at catching balls.' Give the group 30 seconds to discuss their qualifier and have the spokesperson present their revised statement.
7. At this point, tell the participants they may change groups if they agree or disagree with the new statement.
8. Run steps 6 + 7 over again until a significant majority, if not all, of the participants are in agreement with the new statement.
9. To finish the game, ask the participants, 'so, what are we going to do, adopt a dog or a cat?' Have them discuss in their group for a minute, before transitioning into the wider discussion questions. They do not need to have a collective answer.

Discussion questions:

After this cats and dogs activity, the moderator should lead a discussion, asking participants to gather together and reflect upon the activity and what it may mean for environmental research. Here are some suggestions for discussion questions:

1. What is a fact? How did the prompt, 'dogs are better than cats' act as a fact for your group?
2. What made you initially agree with that fact? For the others, what made you initially disagree with that fact?
3. How do values underpin facts in the world/in environmental research?
4. For those who changed groups, what made you decide to change your mind? What made the fact more robust for you? How are some facts better than others?
5. Was there anyone that didn't feel strongly about either side? What convinced you to go to one side or the other?
6. What does division or disagreement around facts not allow?
7. Getting beyond two sides, what would be the most correct fact? [Note: our group disagrees on cats and dogs.]
8. Once you had majority agreement, what did collective acceptance of a fact allow you to do? What did it not do? [Note: even though the group had a collective fact, it still didn't tell them what to do next about adoption.]
9. How could we make better facts to address the adoption decision?
10. What / who makes up collectives in the wider world? How are they formed?
11. Why does diversity within collectives matter?
12. Do you have experiences from your work in environmental research where you experienced similar dynamics to those in the activity? What happened?
13. If you were to apply the insights from this activity to your own work, what would you do differently as a result?

Jasper Montana

Jasper Montana is an interdisciplinary academic whose research examines and experiments with the workings of environmental expertise in all its forms, including relationships between science and policy, theories and practices of inter- and transdisciplinary research, and the role of knowledge, norms, numbers and technologies in environmental governance. He has a particular interest in biodiversity loss, nature conservation and nature restoration as complex challenges requiring innovative actions. He is inspired by efforts to reconnect people with nature in everyday life.



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E.A. Welden is an environmental social scientist researching different modes of human-nature relations, particularly those which emerge from the policy discourse of Nature-based Solutions to climate change and biodiversity loss. She also has particular interest in both researching and participating in interdisciplinary environmental collaborations which lead to actionable and effective environmental interventions, and thus she works to develop methods for practising interdisciplinarity in environmental research.



Lizzy McBain

Lizzy McBain is a Designer & Director who grew up in Oxfordshire. She is passionate about creating life-long, transformative memories, and tackling feelings of isolation through making theatre with other people.



Emma Webb

Emma Webb is a Movement and Theatre Director, with over 25 years experience working in teaching, participant & community theatre, which she loves as it “brings out the best and the most vulnerable in us, and binds us through unique shared experiences.”

Oxford People's Theatre

Oxford People's Theatre is an intergenerational company founded in 2022 for people with a passion for making theatre alongside professional artists. Based in Oxford, U.K., Oxford People's Theatre harnesses the transformative power of theatre to create community. Through all-inclusive, intergenerational workshops, socials & productions Oxford People's Theatre allows meaningful connections to flourish, between actors, creatives, and audiences, and across different communities, and age groups.

Leverhulme Centre for Nature Recovery



Leverhulme Centre
for Nature Recovery

About LCNR

The ongoing loss and degradation of nature is one of the greatest challenges of our time. To halt and reverse this global biodiversity decline, the Leverhulme Centre for Nature Recovery was created as a hub for innovative research on nature recovery nationally and worldwide. It brings together experts from disciplines across the University of Oxford, including geography, ecology, social science, finance, economics, psychiatry, anthropology, artificial intelligence, statistics and earth observation. Our team collaborates on a range of projects, working with national and international partners.

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