



**Responses from panelists to the questions posed during the webinar “A Conversation with Conservation Psychologists”.**

#	Questions for Susan	Responses
1	I rarely incorporate habits into my work because it seems to be one of the most impenetrable factors when it comes to behaviour change. You mentioned COVID presenting an opportunity to tackle habits - what are other examples of situations in which habits are often disrupted and become more penetrable? Or - is it actually easier to tackle habits indirectly by changing the other factors like context or attitudes/values?	live answered
<b>Questions for Kelly</b>		
2	Has cognitive mapping been used to elicit local and traditional knowledge? I ask because based on experiences working with Inuit Peoples, interviews and surveys have not been a great method and is outdated. One of our partners tell us that "Inuit just don't say much". Would something like cognitive mapping be something that better aligns with Indigenous research methods?	live answered
3	I read the report from 2019, “Social Science for the Salish Sea” (which was great about centering inclusivity and the need to actively promote the inclusion of the social sciences) and I was wondering if you and/or the team are currently working on any follow up efforts; I know it came out right before the pandemic hit.	This document was used to guide priorities for our recent RFP for state funding to fulfill Puget Sound research needs. It is also used to set priorities for all contracts related to social science projects (meaning, that if we receive a contract, we need to address some part of the S4 report). So far, we’ve had an undergraduate conduct a literature review, and completed a couple research projects that will soon be available on my website ( <a href="https://kellybiedenweg.weebly.com/">https://kellybiedenweg.weebly.com/</a> ). The report itself is being translated into a peer reviewed manuscript led by Drs. Breslow and Trimbach as well. This type of scientific priority setting will likely occur about every 4 years in the Puget Sound.



4 How do you approach taking the products & insights from a cognitive mapping process and applying them to address a problem? For example, if you learn that protected area managers and local residents have radically different maps, what next?

The elicitation of mental models around a topic or problem can highlight opportunities for communication, cooperation, and maybe even problem-solving. If, for example, managers and residents have different mental models around an issue, then perhaps the communication messaging is tailored differently between these two groups. Or, instead of thinking that one group is an “expert”, you might approach the next step as both groups having different yet equally relevant experiences and expertise around the issue of concern. This approach (knowing that the two groups have different mental models) can create opportunities for social learning or collaboration to develop sustainable policies.

5 With cognitive mapping, are the icons on the cards depicting the mental objects visually modified for each audience/community to reflect their local contexts/cultures/art?

Yes, most certainly. A general second step in the mental modeling approach is to collect content or mental objects. Researchers can collect this content from participants (maybe they are prompted to write down any word associated with the topic being studied). Or the researcher identifies mental objects through free listing (e.g., interviews) or theory. Collecting this content is linked to how a person thinks about the topic and is often tied to the individual's experiences, knowledge, culture, traditions, and/or local context. Then, as a researcher, you take this content gathered and finalize a list of mental objects that you can use when sampling a larger population. The objects on the cards reflect the content (mental objects) collected and can be presented as words, images, graphics, etc.

## Questions for Agathe

6 Did Agathe's research focus on just adult experiences or did it also look at the quality of children's experiences in nature as well?

The research focused on just adult experiences due to research logistics and timeframe.

7 Not sure if this ties in with discussion but...Very specific question based on real issue. We are exploring options to manage behavior of public users of our conservation areas. More specifically users play a role in potentially transplanting a type of virus that is lethal to amphibians. Any thoughts on effective messaging to keep people

I would first want to know more about what capacity you have (e.g., enforcement?) and why people are exploring this area – what attracts them to the site? Are dogs on/off leash in the area? Do the people exploring this area have any similarities (e.g., are they first-time visitors who don't know the rules? Are they local youth engaged in deviant behavior? Are they aquatic lovers who want to see what's in the wetland)? Messages need to resonate with the audience *who is most likely to change and having the greatest impact*. Unfortunately, you may not be



(and their dogs) away from the wetland areas in particular? Am at a loss...

able to change everyone, but even little changes can make a big difference because humans are inherently social creatures who tend to do what others we trust/care about are doing. Use visuals of people (walking away from the area) most like the audience (e.g., dog owner with pet on leash, a deviant kid thinking “I don’t like rules, but amphibians rule here and I’m good with that”) to show correct behavior. Alternatively, consider allowing access to at least one site, but not others to limit spread/impact but allow behavior to occur if people are going to go anyway. Also consider highlighting the idea of virus transmission given we’re very aware of virus spread between humans and wildlife thanks to COVID-19... Highlighting values might be important to the visitors. Emphasizing personal ownership of the space (can people symbolically adopt it?) might also help

## All panelist - modify behavior

8 While I was working on an Indian reservation, I noticed that despite having a transfer station and an active recycling program, the tribal members would illegally dump their trash all over their lands, including areas that were ironically named “Sacred Area” and “Sacred Springs”. There was also a “governing agreement” in which the community determined salaries and raises for government employees. My department was involved with environmental and cultural resources preservation, and the community refused to allow us to have industry standard salaries or raises. Although the people made references to “their lands”, the land and preservation were not important to this community. What recommendations can be made to modify these types of behavior?

Who are the primary government employees in this area – tribal members or people from ‘outside’? Who pays these salaries and where do those funds originate? It’s possible wages may be kept low to limit people from outside coming onto reservations lands or because funds that would otherwise pay these salaries are needed (or perceived to be needed) for other services. Also, is the reservation on which these Native peoples live different from their traditional lands? There may be long-term historical trauma unresolved in this community that needs to be addressed. That said, there could be any number of reasons that are hard to know from the question posed. From a conservation psychology perspective, we would first want to understand the community and what is important to them, not just what is important to us as environmental and cultural resources preservationists. Any number of factors may be at play, including a lack of trust in a governing body that establishes and enforces rules (due to a long history of broken treaties and promises), or few social norms around recycling that could be developed through marketing approaches, or other barriers that prevent engagement with the program (e.g., do residents have to take refuse with them to another location or is refuse picked up at each house?). Once these underlying factors that affect behavior are understood, a next step can be collaborating with



- community members to promote behaviors consistent with their needs/interests that also help to promote environmental and cultural resource preservation. A potential collaborator can be a prominent figure in the community or someone who has long-standing relationships with that community (i.e., a key informant).
- 9 I am from New Delhi India, concluded my PhD in conservation psychology, using attitudinal theories. Is there any answer to the gap between intended behaviour and actual behaviour in environment conservation.
- Indeed, there are many reasons why there is a gap between intended behavior and actual behavior. In the context of survey work, we often ask people to rationally consider behavior when many of us don't deliberate the behavior in the same way outside of that context. Outside of a survey, we may be constrained by real world circumstances (e.g., a person might say they recycle, but instead throws away a recyclable bottle because there's no recycling container nearby and they have little desire to carry the bottle with them until they find one). We must also be careful not to force social desirability on surveys, meaning people tell us what they think we want to hear ("oh, yes, I'll do that behavior... that's what you want me to say, right?") even when they would never engage in the behavior or they can't engage in the behavior in the context they find themselves in. Attitudes are only one part of what drives behavior, and social context (i.e., what others are doing or what I think others want me to do) and habits (i.e., what do I normally do in this particular context) can matter much more than attitudes. As researchers, we have to be incredibly thoughtful about the context in which the behavior is likely to occur, and then measure what we think might be affecting behavior in that context specifically. In short, it's always better to have a measure of *actual* behavior, not intended behavior.

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#### All panelist - collaboration

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- 10 Thank you for an interesting discussion. How can research done with communities benefit those communities more effectively? From an African perspective we still see many scientists still doing parachute science.
- One of the best research practices is to initially develop a project (ideas, research question, methodology) *with* local people from the place of interest or partner with an organization that has established strong relationships with a place and its people. **This includes allowing the community to determine what's of interest to them and ask questions that support their interests.** Then apply for grants together and explicitly include objectives of not only publishing a peer-review



paper but also providing outcomes intended to benefit the community. These outcomes may be community workshops, long-term monitoring through the partnered organization, mentorship opportunities, etc. In fact, some granting agencies are starting to require local collaborators, which could potentially lead to more impact benefits for communities.

11 Along lines of collaborative conservation, how big is the conservation psychology field? From my work in collaborating across disciplines, social scientists who are actually interested in applied conservation are rare and when you find someone, they are always maxed out because there is such a high demand. Is this field growing and where could we find collaborators in conservation psychology?

Yes, the field is definitely growing, though we're unaware of a specific measure of how big the field is. We encourage you to check out the Social Sciences Working Group of the Society for Conservation Biology ([www.scb-socialscience.org](http://www.scb-socialscience.org)) – though not comprised of psychologists only, everyone is engaged in conservation and the listserv of people interested in the conservation social sciences is comprised of over 1,100 people. There are also many derivatives, such as behavioral sciences, decision sciences, environmental psychology, etc. that overlap in some important ways. The Conservation Psychology Institute will be launching a website soon to better highlight various conservation psychologists working across the world. Stay tuned to the CPI webinars for more on that!

12 What do you suggest would be the best way of promoting collaboration between conservation projects, in particular conservation translocations and rewildings, and conservation psychology? Working across disciplines and knowledge styles (considering local communities) can be challenging...

live answered

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**All panelist - general conservation psychology field**

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13 Can you please provide an example of a qualitative conservation psychology method? I am trying to understand if methods are typically quantitative / based on statistical interpretation.

Conservation psychology tends to rely on quantitative methods due to the parent discipline of psychology, but any qualitative method can apply (e.g., interviews, focus groups, open-ended questions that allow respondent control over response). An example of a qualitative method within mental modeling is when a researcher



conducts interviews with individual participants before or after completing the card sorting task. A researcher can also ask participants to explain their thinking or decisions about why they sorted cards in particular ways. Responses can then be qualitatively coded for meaning and incorporated into the study findings.

14 For everyone: What do you think the future of conservation psychology looks like? What are the emerging frontiers, new methods, new/controversial ways of thinking? What are you most excited about in this field for the years to come?

live answered

15 Has there been thought given to expanding engagement in conservation and nature through social media or other “passive” digital outreach? So often the folks we want to engage in these topics are those that aren’t coming to our programs. They are often those (at least at my organization, which is a parks foundation) who might only engage with us because we happen to operate in the same space (again, for me, visitors to municipal parks). What are the best ways to incorporate conservation psych principles into passive outreach, both digitally or for those folks simply visiting the parks?

This question hints at a lot of interesting subjects. Engagement of people who visit conservations spaces (e.g., zoos, aquaria, parks, nature preserves) may be quite different than those who don’t. A lot of this answer will depend on what capacity you have, and why you are seeking to engage different people. As an illustration, some researchers and parks are exploring the impact of nature-based videos to attract virtual visitors who may not be able to travel due to different abilities/access, financial constraints, or expectations. This can raise awareness of what’s the ‘norm’ (what should people do at this site) for those who have never been, maintain a connection for those who can’t go now, and raise interest in a site for those who don’t know what to expect. Additionally, others are using social media to raise awareness of conservation behavior and actions – however, we cannot stress enough that knowing who your audience is and what they are interested in learning more about is the key to success with these approaches. You might want to check out the SCB’s Conservation Marketing working group (<https://www.consmark.org/>) for more ideas on message framing.

16 How do you generate support for the social sciences within academia and the natural sciences (at institutions where there might not be much awareness)?

Almost all academic institutions have social scientists and social science departments (e.g., psychology, sociology, anthropology, economics), though these departments may be siloed with little support (e.g., traditional wildlife conservation departments may have one, if any, social scientist). Thus, you may have to get creative in offering (and advertising!) spaces in which these different



disciplines can come together. As an example, Oregon State University started a weekly lunch seminar called *People and Nature*, where students (undergraduate, graduate, and post-doc) present their research. The goal is to unite individuals who share common interests (broadly research) but are housed in different departments across campus. Through this avenue, we have been able to gain interest in the social sciences - drawing in both students and their advisers. Also, hosting a social science researcher from another institution or agency on campus is a great way to initiate support or interests. This allows students and faculty to meet the individual through either 1:1 meetings or casual group meetings (e.g., over lunch) and provides an opportunity for the guest speaker to present their research.

- 17 For the group - How would you relate conservation to the current buzz ideas like Nature RX, forest bathing, and the healing power of nature. These topics are "hot" around the world & we saw people turning more to time in Nature during Covid?

live answered