

Appendix 7

Logic of group selection

Patterns of difference in participants' visual depictions of Clayoquot Sound

We arrived at our choice of *a priori* demographic subgroups as follows. Our first intimations of systematic differences amongst groups of participants arose with an initial drawing task (see Appendix 7). Namely, as we conducted an increasing number of interviews, we began to observe that males, on average, appeared to depict “the area in which [they] work and/or live” specifically in the form of abstract, overhead maps. Females, on the other hand, tended to depict “the area in which [they] work and/or live” specifically as human-scale landscapes, composed of features such as mountains, water, beaches and trees. Moreover, most of these depictions were largely devoid of people—that is, except in the case of First Nations participants. First Nations’ depictions seemed to include people interacting with the environment (e.g., collecting food) much more frequently than did their non-First Nations counterparts’ (see Figures 5A.1 to 5A.3).

To test the hypothesis that these observations were indicative of a significant difference amongst these groups, we first coded each participant’s visual depiction as a “map” or “scene”, respectively, and also noted whether each depiction “contained people” or not. We then used this simple coding scheme to regress participants’ visual depictions of their local environment on three demographic variables: gender, First Nations status and—in case we had missed a different underlying driver—also age.

As we hypothesized, males emerged as having much greater odds than women of visually representing their local social-ecological system in the form of an overhead, abstract map, specifically. This was true by a factor of nearly 7:1, OR=6.77 (CI 1.78-25.72), $p=0.005$. In addition to gender, there was also a sizable difference between First Nations and non-First Nations participants. First Nations emerged as having much greater odds than non-First Nations (more than 6:1) of including *people* in their visual depictions, OR=6.35 (CI 1.22-32.91), $p=0.028$.

To be clear, we emphatically are not arguing that these differences suggest biologically or genetically determined variations in cognition. Rather, while we realize highlighting such differences may be provocative, our point is that—regardless of the underlying reason—if and when different “habits of mind” (Medin and Atran 2004) do appear to exist across groups, paying attention to them can serve as a first clue in better revealing and understanding potentially consequential variation in the way multiple stakeholders are conceptualizing their shared social-ecological system, wittingly or otherwise.

In this case, we suspect that the gender- and cultural differences noted above are largely driven by the different kinds of activities that males versus females, and First Nations versus non-First Nations, tend to engage in most frequently in the Clayoquot Sound region. Commercial and subsistence fishing, which involve coastal navigation, often over large distances, are largely male-dominated activities on the

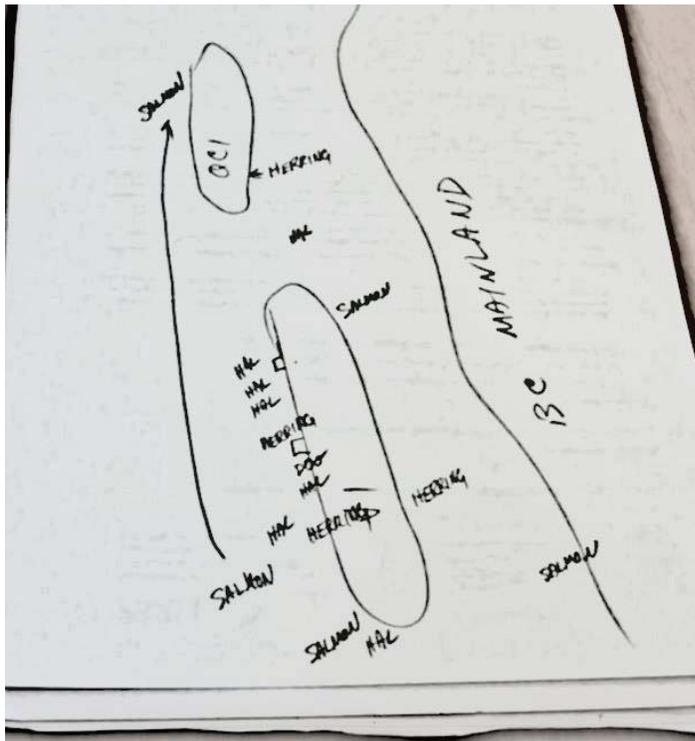
west coast of Vancouver Island (WCVI). Thus, men's depictions of their environment may well reflect the habits of mind they form by virtue of repetition during their extended periods of time on the water.

Women in Clayoquot Sound, on the other hand, seem to spend relatively less time navigating long distances in boats. Rather, amongst our female participants, more commonly cited activities involved jobs in the land-based services industry or in near-shore areas. Similarly, while many men listed recreational fishing as a pastime, women participants' preferred recreational activities likewise tended to centre on near-shore or inland areas (e.g., surfing, hiking, beachcombing).

First Nations participants of both genders appear to engage in more subsistence food collection than do their non-First Nations neighbours. Locally harvested salmon and halibut are especially important foods in the diets and cultural economy of regional Nuu-Chah-Nulth First Nations, but so are herring, herring roe (which is collected off kelp or cedar branches lowered into spawning areas), and a wide range of rocky shore invertebrates. Amongst First Nations, it is largely men who traditionally harvest salmon and halibut, while it is women who have historically spent proportionally more time harvesting near-shore shellfish.

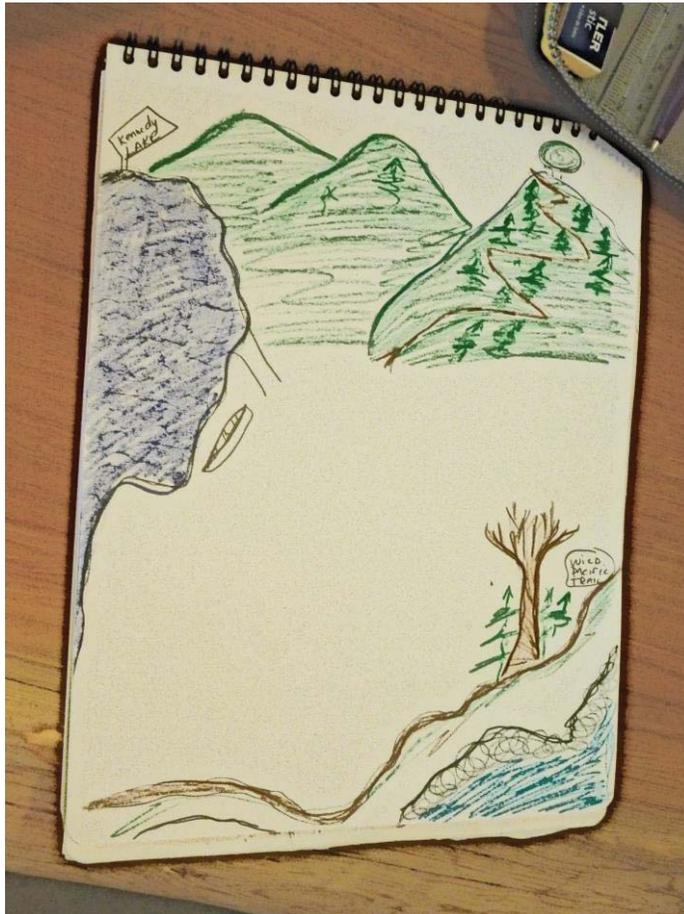
Such habits, however, may not entirely account for First Nations' participants' relative penchant for descriptive scenes over maps, nor their significantly greater inclusion of humans in their depictions. There may also be ontological or epistemological differences involved (Ross et al. 2007): for example, a tendency amongst First Nations to think of humans as more directly involved in, or part of, the local social-ecological system, relative to non-First Nations who in the course of our interviews seemed to have more distinct notions of 'nature' as separate from human activity. Regardless of the underlying cause, these significant differences in cognitive style are thought provoking and, we argue, worthy of further consideration in the context of actual multistakeholder consultation or negotiation over shared marine resources in the region.

Figure A7.1: Sample depiction of local ambit—non-First Nations male



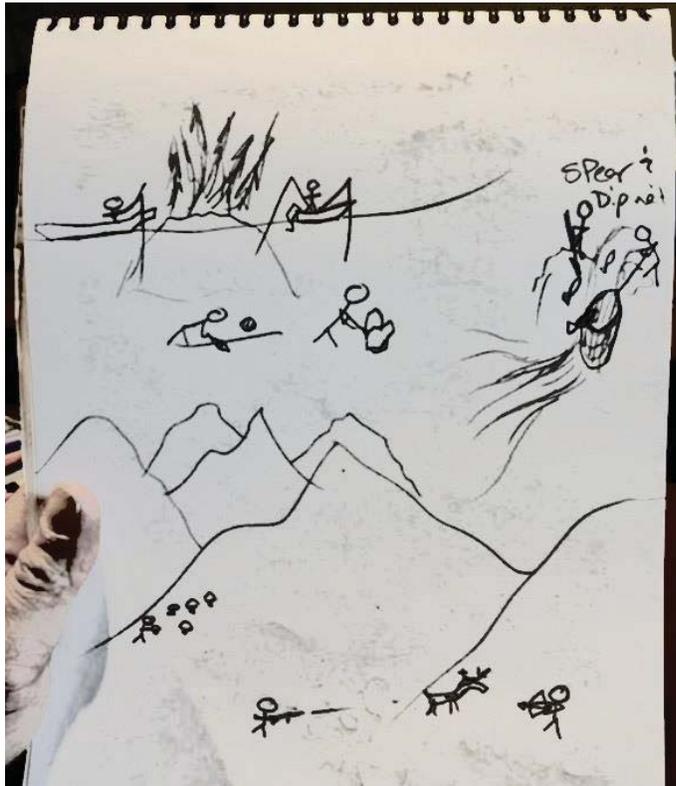
This image is an example of one non-First Nation male participant's response to the instruction "please depict the area in which you work and/or live." Note that this participant chose an overhead map-style depiction, at a fairly large scale, with an emphasis on fishing activities. Men exhibited, on average, nearly seven (6.77) times greater odds of intuitively choosing this map-based style of depiction than did women ($p=0.005$).

Figure A7.2: Sample depiction of local ambit—non-First Nations female



This image is an example of one non-First Nation female participant’s response to the instruction “please depict the area in which you work and/or live.” Note that this participant chose a natural scene, at a relatively high-resolution scale, depicting both land and coastline, with no humans in the image. Women exhibited, on average, nearly seven (6.77) times greater odds of intuitively choosing a scene-based style of depiction (such as this, above) than did men ($p=0.005$).

Figure A7.3: Sample depiction of local ambit: First Nations male



This image is an example of one First Nations male participant's response to the instruction "please depict the area in which you work and/or live." Note that this participant chose a series of outdoors scene, at a relatively high-resolution scale, depicting both land and water, with many humans in the image, each of which is conducting a different form of wild food collection. First Nations participants had, on average, over six (6.35) times higher odds of intuitively including humans in their depiction than did non-First Nations ($p=0.028$).