

# Helicopter Science: Concepts, Practices, and International Collaborations

Thursday, November 17, 2022 – 1:00pm to 2:30pm

Reitz Union Rm. G330

## Notes

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### Notes from Flash-presentations

- Ethical dimensions of our research
- Reciprocity in research
- Research –Best practices

#### Sandra Russo

- Definition of Helicopter Science ---Asymmetric relationship between high-income and low-income countries in research
- Similar to Parachute science in response -- Decolonize Science
- Co-creation – collaboration –knowledge sharing – knowledge creation

#### Michael Kung

- Relationship culture and collaboration
  - Power distance
  - Individualism vs Collectivism (I vs Me)
- Masculinity vs Femininity
- Uncertainty avoidance
- Long term vs short term
- Indulgence vs restraint
- There is no magic formula

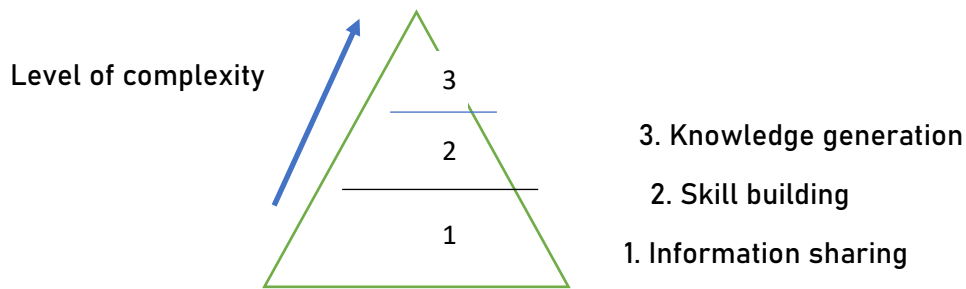
#### Bette Loiselle

##### Is there support to ground helicopters?

- Institutional challenges – institutions we collaborate with
- Differences in responsibilities+ time available for research
- Ability to manage, administrate + distribute funds
- Tensions between collaboration + time ---- in pace and rhythms
- Limitations imposed by funding sources, e.g. 52.5% indirect cost charge --- limits what you can give to international colleagues
- Fiscal + legal risks – mostly for researchers / colleagues in the field
- Differences in way of paying / economies – they determine collaborations?

#### Karen Kainer

- Challenges – students working individually
  - Does this trigger parachute science?
- Contributions to conservation + development on the ground
- Importance of knowledge exchange with on the ground partners



Information sharing is primarily one way

Capacity building on both sides. Increases trust, efforts + resources

Partners in knowledge creation: a. defining research questions; b. relevance to local realities; c. trust; d. learning applications; e. rigor

### Breakout groups – Student Group # 2

#### Student experience

- Working with indigenous communities
- Ventriloquism, materialism + paternalism
- Decolonizing science
- Under climate change scenarios
- Being “in-between” or “the link” from North to South = “Graduate Students”
- Bring resources to develop science in our countries
- Natural science data vs social science data
- IRB lack in some countries
- What standards should we follow?

#### How to Handle it

- Classroom needs to be a place where best practices are discussed – teach about ethics -- practical training (maybe included in the TCD practicum)

#### Best Practices

- Join with local universities
- Ecologist and sociologist working in the area
- Share final results
- Go to the communities with a flexible perception, allowing their needs to reframe your research
- Incentives for collaboration with local partners ---individualistic culture
- Propagates in engineering + medicine (no time to invest in this relationship)

### Breakout groups – Faculty Group # 3

*Group 3 (early career, and faculty) was the most experienced in terms of science, and research due their affiliation to the University, PI, etc.*

*We did not have enough time to explore all the questions placed. But there is plenty of input for all four questions.*

What is your experience with helicopter science?

- Example Costa Rica – helicopter science 80s, 90s
- Field station ecologists are very exposed to it in the field, went to gather data and left. Cited the field station being too expensive for locals
- No many locals
- Minimal issues with USAID, was set up
- Sharing spaces --- exception
- Many however did not have resources when she went to the field, heard that other places did, she was able to meet with communities
- Main source – community
- By definition tropical bio IS helicopter science difference between ‘legal’ and ‘ethical’ and different opinions on this. Also brought up the point of getting/giving credit where it is due because the act of collaboration is tough.
- We are “HS” – Biology, ATBC topic talked about
- Not a major issue with non-field bio (fruit flies), if you don't include people who send you flies, etc. they wouldn't be included in future research
- Landscape architecture, local institutions have been reluctant because LA folks would join and then not reciprocate knowledge, publications would be made and no results for the locals leading to a negative feedback loop
- Relationship with landowners is difficult for even local scientists, this is much more difficult for non-locals. There is then also the risk of international collaborators burning bridges by not knowing local norms
- Ethical manner
- Follow the law (rules – locals)
- Timing projects
- Considering evil – genetics
- Co-authors / collaborations
- Changing social norms / improving framing for best practices
  - Finance / administrative
- NSF Grants. Difficulty setting up international collaborators as a co-PI when working through many US-funded institutions e.g., NSF
- Program Officers -
- IC – equitable collaboration
- Important to foster these relationships to not burn bridges
- Invest / Building collaborations/exchange
  - Communication skills
  - Finances / accounting / FRB
- Incentives
- Rewards “promotions”
- Sensation in the field

- Better research questions on the ground. Locals generally have better research questions to address needs because they live it
    - Local needs
    - Many questions for Who (do, in charge, has knowledge)
  - Unbalance returning results / outcomes
  - Behavior and relationships
    - Invest time to learn how to handle
    - Good practices – take time to invest in relationships ‘need a year’ for visits, exchanges.
  - Improve infrastructure on the ground -- ++ investments
  - Hierarchical / power imbalance
  - Follow-up / limitations --- IRB consent
  - How to fix? Enact cultural norms where you don't get to collaborate if you don't share, or put this into legislation?
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- a. Engaging in research abroad (institutional/UF/faculty) needs more preparation for understanding the real idea of the region, field, group, and the context where the research happens. It means giving more instrumental approaches to the research team to be aware of the local/ground context involved for getting the research done. Socioeconomical, cultural, religious, must be comprehensive for those that want to parachute your science in another place that they never been before.
  - b. Different disciplines (Biology, genetics, socio, Anthropology, etc.) have different approaches, and operationalize in different ways a research well done.
  - c. There is a huge lack of administrative and operational sides (finance/accounting/ etc.) to be worked out to put more awareness about HS.
  - Incentives must be given to those who respect, to work on giving back results/outcomes for the ground (organizations, communities, host organizations...)
  - Complaints from foreigners' researchers were raised to those researchers that have different behavior (cultural) for the team involved during the fieldwork (example – greeting helpers, drivers, bakers, guiding people, and all variety professional, “amateur” people that help for the research to take place)
  - Time – is key for HS. For many motives. Probably the most important, is the time on the ground, or at least the experience that the researchers must be comprehensive in terms of their role in overseeing most equitable possible outcomes and research process.
  - Time – investing in the administration teams (UF (operational, financial, accounting...) Projects (NSF, Ethiopia project, USAID, etc... (trade-off paying the project itself (research) and paying the huge maintenance costs).
  - Timing – PI/Graduates/host organizations/communities - getting a better understanding and effective research to avoid HS or mitigating or softening the HS impacts.
    - IRB is a tool that can help it –
    - IC/Program/Departments also
    - Hierarchical positions must be engaged in this situation
  - Other important adjectives/words/terms appeared
    - Equity
      - There is an unbalanced structure (equipment, funding, human resources) between north and south studies

- Empathy is important also
- Transparency
  - Who is involved, how each party wants to engage and how they understand their roles
- Communication skills
  - Important to develop – socioeconomic/cultural etc. constraints
- Cultural understanding
  - dynamic process involved on the ground, and need to be careful to deal with it
- Collaboration mode
  - Basically, key for the HS
- Research Questions
  - Ground level has many, and sometimes much better or more appropriate