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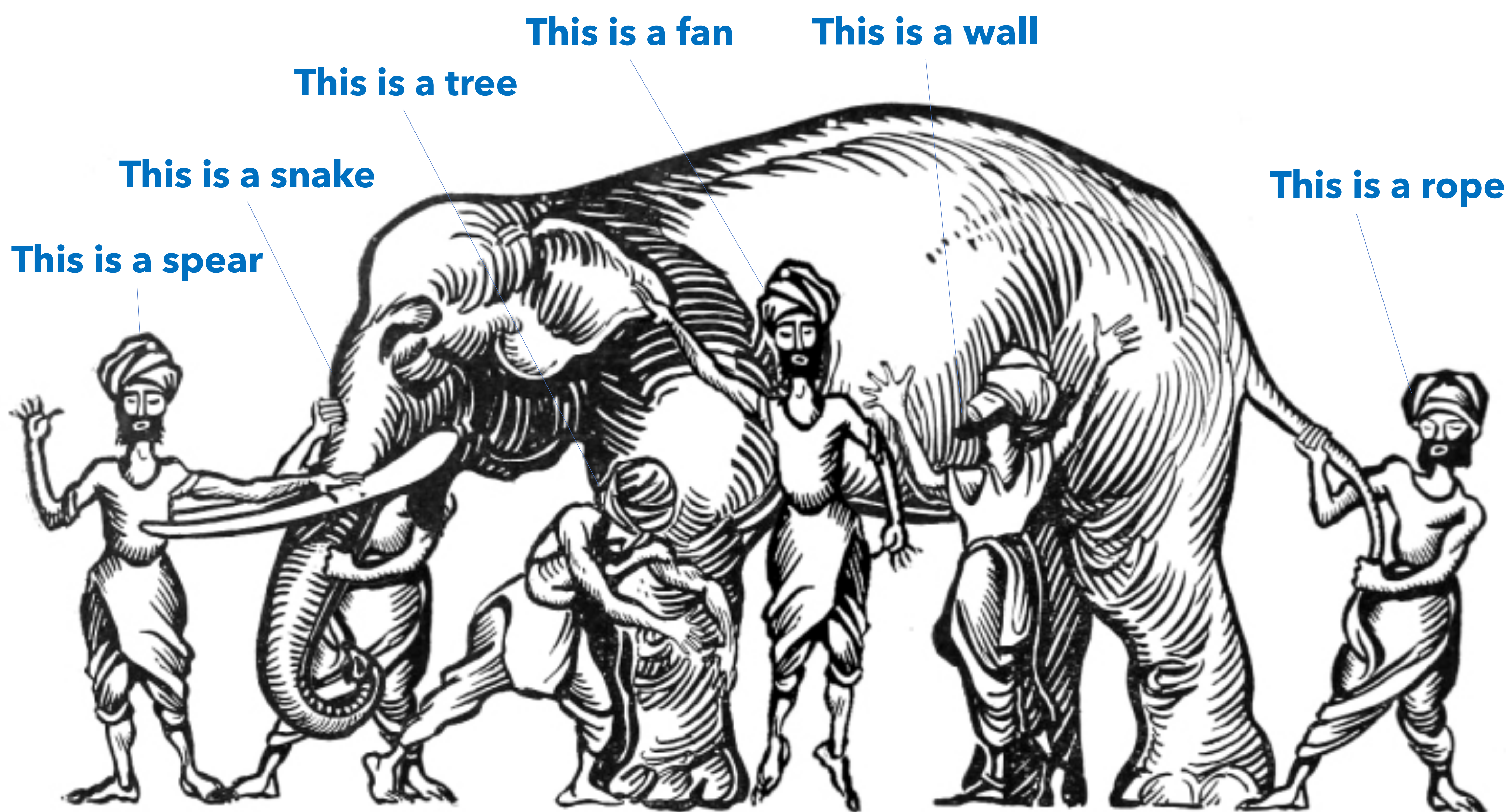
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KNOWLEDGE INTEGRATION TO EVALUATE ONE HEALTH

PROCESS EVALUATION OF WEST NILE VIRUS INTEGRATED SURVEILLANCE IN NORTHERN ITALY

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The parable of the "Blind men and an elephant". Illustrated by Robert W. Williams, 2017, modified

The first version of the story is traceable to the Buddhist text Udana (mid 1st millennium BCE). A group of blind men, who have never come across an elephant before, learn and conceptualize what the elephant is like by touching it. Each blind man feels a different part of the elephant body, they then describe the elephant based on their partial experience. The moral of the parable is that humans have a tendency to project their partial experiences as the whole truth, ignore other people's partial experiences, and one should consider that one may be partially right and may have partial information (Wikipedia).

1. Introduction

The core of **One Health (OH)** is the **integration of knowledge and perspectives** at the **science-policy interface**. Its key mechanism is **transdisciplinarity**, which **integrates society and science** by including relevant stakeholders to effectively tackle complex health problems [1]. Accordingly, the evaluation of **OH** initiatives requires a transdisciplinary approach, integrating multiple sciences and perspectives.

2. Method & results

We performed a **process evaluation** of **West Nile virus (WNV) surveillance** in three regions of Northern Italy by integrating the expertise of social and life sciences. The evaluation was performed in 2017 and 2018 using **focus groups where surveillance "actors"**—members of **transdisciplinary and trans-institutional working groups (WG)**—were interviewed as **privileged observers**. Our **evaluation** combined the analysis of the **surveillance legal framework** and **organizational processes** aiming to investigate the **relationship between scientific evidence and the production and implementation of the legislation** aimed at protecting the population from **WNV** disease.

4. References

- [1] Rüegg SR, McMahon BJ, Häsler B, et al. A Blueprint to Evaluate One Health. *Frontiers in Public Health*. 2017;5:20. doi:10.3389/fpubh.2017.00020.
- [2] Wenger E, McDermott RA, Snyder W. *Cultivating Communities of Practice: A Guide to Managing Knowledge*. 2002. Harvard Business School Press: Boston, Mass.
- [3] Paternoster G, Tomassone L, Tamba M, et al. The Degree of One Health Implementation in the West Nile Virus Integrated Surveillance in Northern Italy, 2016. *Frontiers in Public Health*. 2017;5:236. doi:10.3389/fpubh.2017.00236.

3. Conclusion

The **integration of knowledge, rules, and policy objectives within the WG** was identified as a **key factor influencing the implementation, effectiveness, social recognition, and results of the surveillance**.

Formal and informal **communication** among the actors – constituting so called "communities of practice" [2]— **is an indicator of such integration, resulting in the generation of shared rules and procedures that may become legally established**. The nature and dynamics of knowledge integration processes must be considered to build more powerful policies for public health protection.

The **integration of expertise from social and life sciences** helped us to perform a detailed **analysis of the surveillance planning and implementation and to describe the entire "elephant", i.e. the surveillance, combining various perspectives**.

The future step of our work will be to **confront this process evaluation with the assessment of the degree of OH implementation** of the **WNV** surveillance, performed according to the evaluation protocol developed by the Network for Evaluation of **OH (NEOH)** [3]. This may result in the validation of the **NEOH** evaluation protocol.

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