Over-simplified Communication of Disease Spillover Risk during the COVID-19 Pandemic

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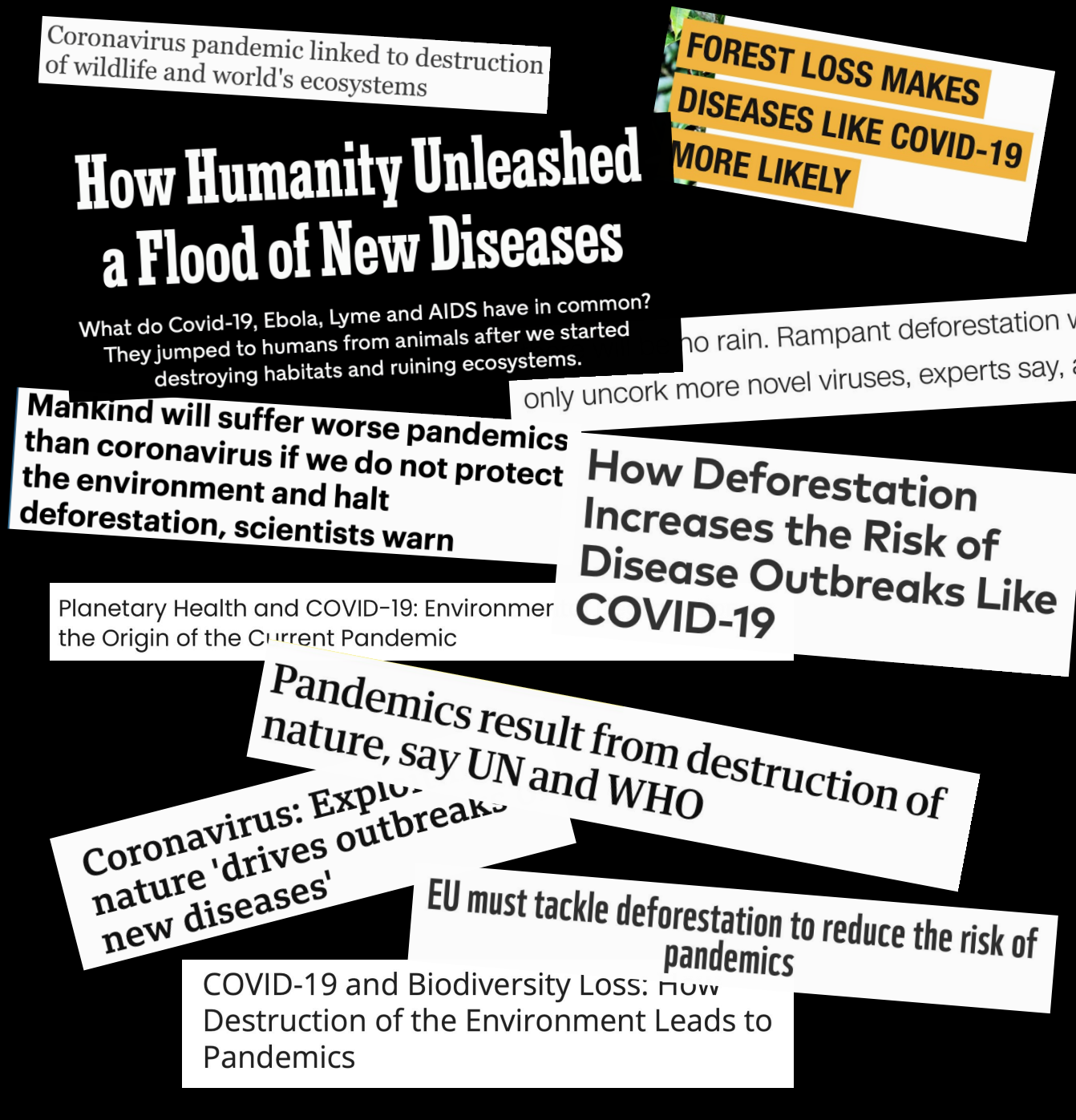
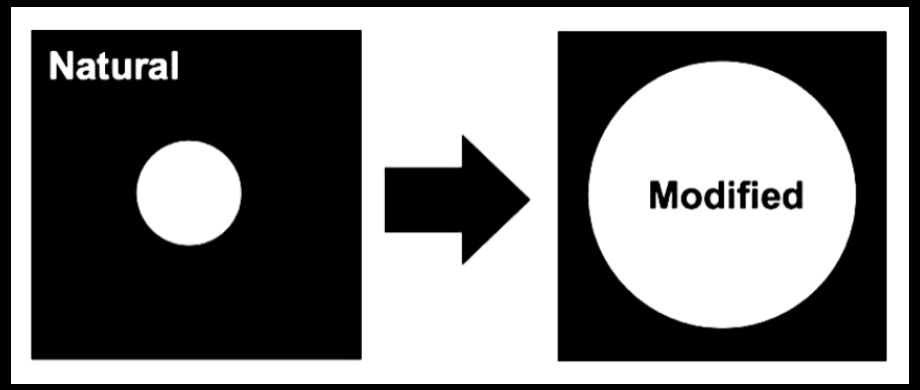
Overview

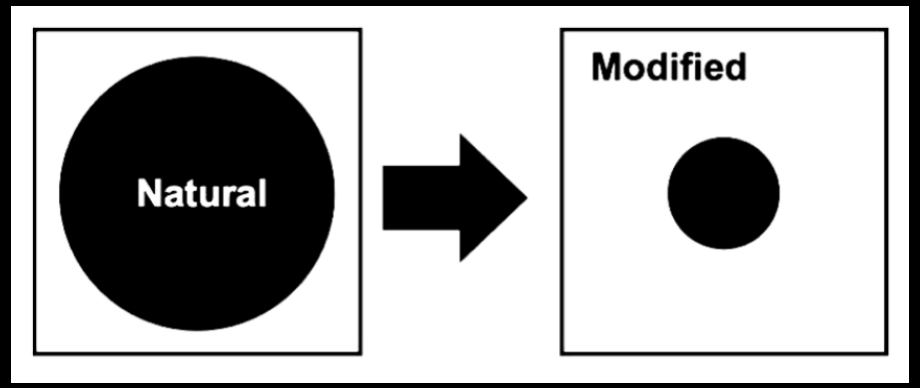
- Media around COVID-19: land change causes zoonotic spillover
- Secondary peer-reviewed similar
- But…
  - it’s not clear why
  - primary literature differs
- Meanwhile this messaging can…
  - put local communities at risk
  - discredit science
  - distract from other drivers of spillover risk



Complexity

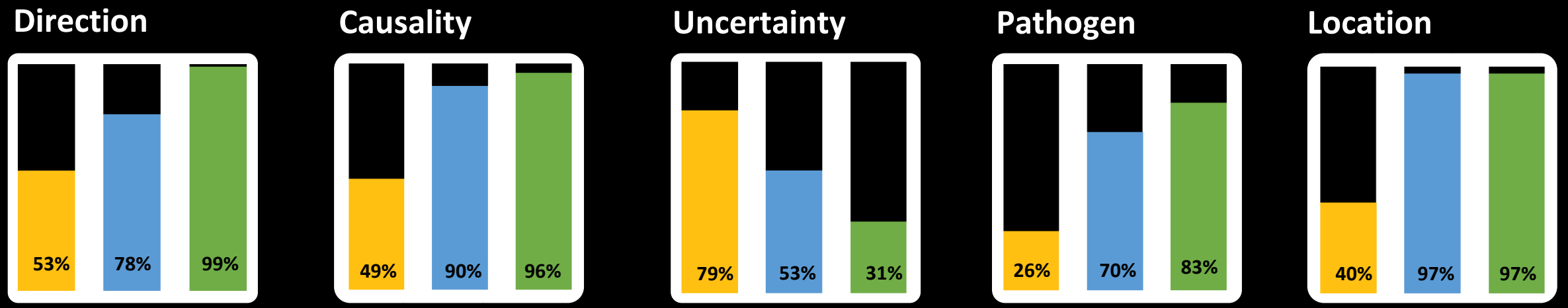
- **Multiple** variables, infinite combinations
- Exceptions, depending on land change **configuration**
- Unclear why wildlife move to modified landscapes
- Different **processes** may pose different risks





Review

- 852 papers 145 (43 primary)
- 132 webpages



Implications

- Decisions based on simplistic messaging, neglect the importance of **local context**
- Bold messaging turns out to be wrong can erode **credibility**
- Implying that land change is the sole reason for spillover can detract from **other important drivers** of spillover risk

Recommendations

- Specify **context** and acknowledge generalizations
- Use **consistent terminology**
- Explain **mechanisms**
- Acknowledge **uncertainty & exceptions**
- Readers: Be **wary** of generalizations