COMPASS Statement on "Scooping" and the Value of Open Data

Researchers use the term "scooping" to refer to when someone else claims ownership of a research idea or result they have independently been working on in parallel. It can happen by rushing to be the first to publication and/or result from a reluctance to share the status of in-progress work. Scooping is perceived as a large problem in academia because of the cultural value we place on "novel research" and being the first to discovery. This problem is exacerbated by the "publish or perish" (Dhand 2002) mentality, which demands manuscripts in high-impact journals in order to keep a competitive edge for grants and jobs. This is despite the large body of research that suggests impact factors have no correlation with scientific quality (Seglen, 1997, PLOS Medicine Editors, 2006, Neuberger & Counsell, 2002, Brembs et al. 2013). Nevertheless, it is common to feel the need to work in the phrase "Here we show for the first time" into abstracts to advocate the novelty of research, and to feel despair when a paper appears on arXiv with similar conclusions to our own works.

Scooping takes on an additional dimension in the realm of open data. In particular, it is seen as the number one barrier to the full adoption of open data (Laine 2017) and the elimination of proprietary periods for observatory data (as seen at the recent NASA ExoPAG Community Forum, Winter AAS 2023). With fully open data, a team other than the original proposing/awarded team could produce a publication with no involvement, acknowledgment, or credit given to that original team. In some cases, this happens before datasets are fully taken with the observatory, which jeopardizes the science (e.g. in the case of multi transit observations). Because of the cultural emphasis we still place on novelty, this could be particularly detrimental to: 1) early career researchers, 2) members of marginalized groups within the research community, and 3) members of non-R1 institutions. The detrimental effects are not only associated with career growth. The race to publish could also have adverse effects on mental health, work-life balance, and overall research quality.

Despite the drawbacks to open data, its value cannot be understated. This value was exemplified by the recent Early Release Science analyses of WASP-39 b, which benefited from an open dataset and an open team. Open participation meant that all analyses benefited from multiple independent data reductions, and multiple scientific interpretations which increased the reproducibility and reliability of the manuscripts (JWST Transiting Exoplanet Team, 2023, Ahrer et al., 2023, Rustamkulov et al. 2023, Feinstein et al., 2023, Alderson et al. 2023). The value of open data has also been clearly outlined in many international forums (e.g., UNESCO 2021, White House Office of Science and Technology 2022). Specifically, UNESCO recommendation on Open Science affirmed the importance of open science as a vehicle to improve the quality and accessibility of both scientific outputs and the scientific process, and to ultimately fulfill the human right of access to science. Recognizing the benefit of open science, some research communities have assuaged the fear of scooping by creating trust in their peer communities and research establishments (Laine 2017).

Ultimately, in order for humanity to benefit from open data without the detrimental effects, research communities must center integrity and trust. Below we outline our team's general approach and philosophy to doing so:

1. We will not compromise the scientific rigor and reproducibility of our data reduction and interpretation in order to be the first to publish.
2. We recognize that these observations are highly sought after by the community and as such we are working diligently to publish results in a timely manner. Our results will include data products at various stages of the analysis (available on zenodo), scripts to reproduce paper figures (available on our team github), planet models (available on zenodo), open software (add-link)
3. We will openly keep the community up to date on the status of each of our analyses, which can be found our timeline page and our planets page.
4. Any Co-I on the team can request to invite a new team member, as outlined in our collaboration agreement (link here). We believe that cooperation outplays competition. If you are interested in getting involved, we encourage you to reach out to a Co-I.
5. We adopt the AAS Code of Conduct with an emphasis on psychological safety. The details can also be found in our Collaboration Guidelines.

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