

Dear participant,

We are asking you to participate in a research study entitled “Perceptions of Fairness in Academic Networks.” This study is being led by Dr. Lisette Espín-Noboa, postdoc at the Complexity Science Hub Vienna (CSH), and Central European University (CEU). The Faculty Advisor for this study is Dr. Fariba Karimi, Professor at Graz University of Technology and Team Lead at CSH. Learn more about our team on our project website: https://netin.csh.ac.at/network_fairness_survey

Below is a summarized version of the consent form; for more detailed information on data collection, data privacy, and GDPR compliance, please refer to the [Appendix](#) (pages 4-6).

What the study is about

This research aims to explore fairness from various stakeholders' perspectives in academic hiring. It has a twofold objective: (1) to identify the factors that influence scientists' decisions in hiring, and (2) to examine scientists' perceptions of fairness in evaluating others' decisions in hypothetical hiring scenarios. In particular, we want to know when meritocracy or skills are more important than personal networks, and to what degree network effects influence academic decision-making.

What we will ask you to do

We will ask you to answer four types of questions: (1) your demographics, (2) vignettes, (3) self-assessment, and (4) your academic profile. The survey contains 33 to 40 questions, including the assessment of fairness in hypothetical scenarios about hiring in academia (i.e., vignette questions). The survey has no time constraint, thus, once you start, you can fill the form at your own pace. Nevertheless, we estimate a duration of approximately 15 minutes to finish the entire survey. After you complete the survey, you will be taken to a Google form to enter your email address. This lets us know you are finished (so we will stop sending reminders) and ensures you will receive a copy of the manuscript once it is published. Your email address will only be used for sending you the manuscript and will not be shared or used for any other purposes.

Why you were selected

You were selected to participate in this survey because you are the corresponding author of at least one scholarly paper published between 2010 and 2023 that is indexed by SCOPUS.

Risks and discomforts

We do not anticipate any risks from participating in this research.

Benefits

We foresee two main benefits from this research. First, reflecting on an experience (i.e., hiring in academia) may lead you to a better understanding of yourself and your unconscious biases. Second, the information from this study can help decision-making processes (both algorithmic and human-driven) become fairer by highlighting the advantages, disadvantages, and potential biases associated with relying on personal networks, particularly in hiring decisions.

Incentives for participation

In this survey, you will have the opportunity to download your collaboration and citation networks in two forms: (1) as compressed anonymized csv files, and (2) as a PNG image. Further information is provided below.

Privacy

In this survey, we will collect three types of data for each participant: (1) consent form (*this document*), (2) questionnaire responses, and (3) academic networks.

1. After accepting this consent form, you can immediately proceed to the survey questionnaire.
2. This questionnaire is completely anonymous. We will not collect information that identifies you (e.g., email address attached to answers).
 - a. In the beginning and towards the end of the questionnaire, you can choose whether to provide your email. If you do, you will receive a preprint of the study's results and will no longer receive reminders about the survey. This feature was added based on feedback from the pilot phase.
 - b. For academic network questions (see point 3 below), where identification might be possible, you can choose one of three privacy levels. Regardless of your choice, we will anonymize your academic network data before analysis and remove all personal identifiers.
3. The academic networks refer to your collaboration and citation networks. While this information is public (e.g., via digital libraries, or co-authors' websites) we will treat them anonymously to keep the questionnaire anonymous. We will provide three privacy-aware options that you can choose from to provide your networks:
 - a. **Open:** We will directly ask for any identifier of your academic profiles (i.e., Google Scholar, ORCID, ResearchGate, any archival repository, personal website). Once we collect the academic networks and map them with the responses from the questionnaire, we will anonymize your data in a way that you cannot be identified.
 - b. **Strong privacy:** We will provide a link to download an anonymized version of your academic networks as compressed **.csv** files, and we will kindly ask you to upload them into the survey. The downloaded **.zip** file has two purposes. First, you get a copy of the data we are using (i.e., promoting transparency). Second, you can see that the data is anonymized (i.e., promoting trustworthiness). We use the [OpenAlex](#) repository to access your publications, citations, and collaborators. Additionally, we estimate your and your collaborators' perceived gender (from first name), race and ethnicity (from lastname) using the Python libraries [gender-guesser](#), [ethnicolr](#), and [ethnicseer](#). These libraries rely on common name associations and may not accurately reflect your or your collaborators' gender or ethnic identities. We acknowledge that gender and ethnicity are complex constructs. The 6 gender categories are: unknown (name not found), androgynous (non-binary), male, female, mostly male, or mostly female. The 4 race categories are: api, black, hispanic, and white. The 12 ethnicity categories are: MEA, IND, ENG, FRN, GER, ITA, SPA, RUS, CHI, JAP, KOR, VIE.

- c. **Prefer not to disclose:** In this case, we will kindly ask you to provide some academic metric counts such as your number of publications, number of citations, h-index, number of collaborators, and number of awarded grants.

Confidentiality

Your confidentiality will be kept to the degree permitted by the technology being used and your choice of privacy (see above). We cannot guarantee against interception of data sent via the internet by third parties. Only the members of this research team will have access to the data in either form: raw responses or aggregates.

Data security

The survey is being conducted with the help of the IT infrastructure of the Central European University (CEU). We anticipate that your participation in this survey presents no greater risk than everyday use of the Internet.

Please note that email communication is neither private nor secure. Though we are taking precautions to protect your privacy, you should be aware that information sent through email could be read by a third party.

Sharing de-identified data collected in this research

De-identified data from this study may be shared with the research community at large to advance science. We will remove or code any personal information that could identify you before files are shared with other researchers to ensure that, by current scientific standards and known methods, no one will be able to identify you from the information we share. Despite these measures, we cannot guarantee anonymity of your personal data.

Taking part is voluntary

Your participation in this study is completely voluntary. You may refuse to participate before the study, discontinue at any time, or skip the optional questions with no penalty to you. Note that if you choose to discontinue at any time, we will not consider any of your responses for the study.

If you have questions

The main researcher conducting this study is Dr. Lisette Espín-Noboa, a postdoc at the Complexity Science Hub Vienna, and Central European University. Should you have any questions, please contact Dr. Espín-Noboa at espin@csh.ac.at.

By clicking on “I have read and understood the consent form and given my permission to participate in this study” in the main survey, you will be giving us your consent to be part of this study, and will be able to continue the survey. By not clicking the above mentioned button, you will not be contacted again for this study. If you take no action, we will send you at most three reminders via email every Monday within a month.

Statement of Consent

I have read the above information, and have received answers to any questions I asked. I consent to take part in the study.

Appendix

Survey Platform

We utilize Qualtrics through an academic license offered to CEU. Qualtrics is a platform provided by the affiliation of Dr. Espín-Noboa. This platform serves dual purposes: designing and collecting survey responses, and sending bulk email invitations for the surveys. The data stored in Qualtrics-CEU are hosted in a datacenter located in Frankfurt, Germany.

Target Population

The surveys target corresponding authors of papers indexed by SCOPUS and published between 2010 and 2023. In this project, we target around 5 million scientists worldwide.

Through an agreement between SCOPUS and GESIS - The Leibniz Institute for the Social Sciences, GESIS has access to the *corresponding authors'* information, including their names, emails, and countries of affiliation. According to ELSEVIER, corresponding authors play a critical role in the manuscript submission process and are often senior researchers or group leaders. SCOPUS is a comprehensive, multidisciplinary, trusted abstract and citation database offered as a product by ELSEVIER, a major scientific publisher. Dr. Espín-Noboa is entitled to use this data as she is a visiting researcher at GESIS until 31.12.2024 or the conclusion of this project.

Corresponding authors implicitly consent to being contacted by voluntarily making their email address public in their role as corresponding author in scientific publications. We are contacting corresponding authors whose responsibility includes providing timely responses to queries related to their manuscripts, such as individual approaches, letters to the editor, and requests for data sharing [1]. Moreover, corresponding authors are often invited to provide peer reviews for manuscripts on similar research topics [1]; thus, reaching out to them through this survey is essential for gathering insights and feedback on *the fairness of academic hiring practices, considering both meritocracy and the influence of social or academic capital*. Importantly, most questions are optional, allowing respondents to skip them or terminate the survey at any time.

“Unsolicited” Emails

We adhere to Austrian law in all aspects of our work. In compliance with the legal requirements for sending emails, we have followed the guidelines provided by the Chamber of Commerce of Austria. The Chamber states: *“Beispiel: Ohne Einwilligung versendet werden können daher zum Beispiel E-Mails zu Zwecken der bloßen Meinungsforschung ohne jeden Werbecharakter.”* (translated into English: *“Example: Without consent one can send, for example, emails purely for the purpose of opinion research without any advertising character.”*) cited from “E-Mails versenden – aber richtig” section “2. Was versteht das Gesetz unter Direktwerbung?” [2].

It is important to emphasize that our emails are intended to invite researchers to participate in a survey on hiring practices and fairness in academia. Responses will be analyzed exclusively for *research purposes*. Participants can unsubscribe from future communications at any time. Consent for participation is required and will be requested on the first page of the survey, accessible via the URL in the invitation email.

Data Protection

We recognize the rights of all authors not to be contacted and to opt-out of these surveys at any time, starting from the “unsubscribe” link provided in the invitation email, and by not giving consent on the first page of the survey. Corresponding authors who unsubscribe will not be contacted again regarding this survey. Additionally, authors can request via email to be completely removed from the Qualtrics-CEU database. All emails will be deleted from Qualtrics-CEU and CSH servers after the study's publication.

Data Privacy

This project ensures anonymity, thus, it does not use individual URLs; all participants have access to the survey with the same exact URL address. However, this project may request academic data such as publications or CVs, but respondents can choose to ignore these questions or provide anonymized data. We will anonymize all academic data provided by the respondents and handle it with the utmost care and responsibility, ensuring it is used solely for relevant research questions without linking it to real identities.

GDPR Compliance

Our data collection is in strict accordance with the seven principles of the General Data Protection Regulation (GDPR):

1. **Lawfulness, Fairness, and Transparency:** The processing of data is lawful, fair, and transparent to each respondent. GESIS has legal access to the corresponding author information through an agreement with SCOPUS by ELSEVIER.
2. **Purpose Limitation:** The corresponding emails will be used solely for the duration of this project. The collected emails are only used to invite scientists to participate in the survey. Specifically, around 5 million people will receive invitations for this survey.
3. **Data Minimization:** We collect only the necessary data, which includes the email, and country of affiliation of the targeted participant. The email is used to send the invitations, and the country of affiliation ensures invitations are sent based on the recipient's time zone, ensuring delivery in the morning according to their local time.
4. **Accuracy:** Data accuracy for “corresponding authors” is the responsibility of SCOPUS, which parses and verifies the information before sharing it with GESIS. Respondents are responsible for the accuracy of their survey responses. OpenAlex is responsible for the accuracy and completeness of the scholarly data we use to generate and anonymize academic networks. We acknowledge that inferred gender and ethnicity may not reflect reality, but we use these perceived demographics based on names to assess similarity between coauthors.

5. **Storage Limitation:** The list of corresponding authors will be deleted after the completion of this study. The responses to the surveys, which will be anonymized and contain no personal identifiers, may be shared for scientific purposes.
6. **Integrity and Confidentiality:** All data will be processed in a manner that ensures appropriate confidentiality, anonymity, integrity, and security.
7. **Accountability:** We, the authors of these projects, are responsible for demonstrating compliance with all the above principles, ensuring the protection and privacy of the respondents' data throughout the research process.

Conclusion

We are committed to maintaining transparency, ethical standards, and data privacy in our research. This project aims to contribute valuable insights into academic career advancement and fairness in hiring practices, supporting the broader goals of reducing inequalities and promoting well-being in academia.

References

- [1] Birnbaum, Y., Kitakaze, M., Grieve, D., & Uretsky, B. F. (2023). Who Should Be the Corresponding Author, What Are Their Responsibilities, and What Email Address Should They Provide?. *Cardiovascular Drugs and Therapy*, 37(6), 1039-1040.
- [2] Wirtschaftskammer Österreich. E-Mails versenden – aber richtig. <https://www.wko.at/internetrecht/e-mails-versenden--aber-richtig>.