* **Correlation between Female Corresponding Author (CA) and Female First Author (FA) = *0.30:***

This suggests a weak or moderate, positive correlation towards gender homophily for both first authorship and corresponding authorship in the given sample. Of note, a publication with a woman first author is correspondingly more than likely to have a woman corresponding author. This trend might point to issues of collaboration among researchers, mentorship, or gender distribution in the field. He views this as meaning that, given the trends, female researchers seem either more willing to collaborate with each other, or that the communities in which a greater number of female researchers are involved have more publications in which the women occupy both crucial authorship positions.

* **Correlation between Male Corresponding Author (CA) and Female First Author (FA) =** ***-0.29***:

This enormously negative correlation is a good pointer toward there being an inverse relationship between having a male corresponding author and the presence of a female first author in the same publication. And indeed, in circumstances where the corresponding author is male, one can see that the statistical chance for the gender of the first-named author to be female is slightly lower than would be random chance. In most cases, this may be explained by different strategies in network development for collaboration between males and females. It may also represent some system errors at large in academia or research, which might, in one way or another, impact issues of authorship and publication.

* **Correlation between Male Corresponding Author (CA) and Male First Author (FA) = *0.31***:

Of course, this positive correlation similarly signals moderate evidence of gender consistency between breathing and authorship roles, but in this case, only for men. If quoting a male first author, there is a small increment in the odds that a corresponding author is male, although not to a statistically significant level. This could be a function of men tending to work with other men, or it may be a reflection of the gender balance in the disciplinary research communities. It does suggest that there may be a need for a more subtle understanding of the ways in which gender dynamics operate—in this case, the inclination of affinity toward one's gender within research collaboration and mentoring may very well be at play in a host of other issues, whether that concerns the demographics of particular fields or it concerns the cultures of particular institutions.

For WOS IDs with a male CA, the probability distribution for the FA's gender is as follows:

* Male FA: 62.77%
* Female FA: 31.99%
* Unknown FA Gender: 5.23%

For WOS IDs with a female CA, the probability distribution for the FA's gender is as follows:

* Female FA: 65.81%
* Male FA: 30.34%
* Unknown FA Gender: 3.85%

For WOS IDs with a CA of unknown gender, the distribution is:

* Male FA: 37.58%
* Female FA: 30.60%
* Unknown FA Gender: 31.82%

There are 7,250 male Corresponding Authors (CAs), 3,626 female CAs, and 839 CAs with unknown gender.

* For WOS IDs with a male CA:
* · Male FA: 4,418
* · Female FA: 2,252
* · Unknown FA Gender: 368
* For WOS IDs with a female CA:
* · Female FA: 2,356
* · Male FA: 1,086
* · Unknown FA Gender: 138
* For WOS IDs with a CA of unknown gender:
* · Male FA: 307
* · Female FA: 250
* · Unknown FA Gender: 260

|  |  |  |
| --- | --- | --- |
|  | Female FA | Male FA |
| Female CA | 0.3334 | -0.2715 |
| Male CA | -0.2869 | 0.3068 |