



# Juan David Leongómez

ASSOCIATE PROFESSOR

Faculty of Psychology, Universidad El Bosque

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*I am a researcher mainly interested in human behaviour, as well as quantitative methods and reproducible science.*

## i About me

I am an Associate Professor and Researcher at **EvoCo: Human Behaviour and Evolution Lab**, and leader of the **CODEC: Cognitive and Behavioural Sciences** research group (classification **A1**), **Faculty of Psychology**, at **Universidad El Bosque** in Bogota, Colombia. My research interests mostly lie in mate choice, human vocal communication, and musicality, as well as bioacoustics, psychoacoustics, and hormonal effects on human behaviour. I published among the first articles showing within-individual changes in voice pitch in response to the social status of the listener, and have demonstrated strong effects of voice modulation on listeners in courtship contexts. I am very passionate about quantitative methods and **R** programming, as a tool to promote reproducibility and open science. Consequently, I am a **recommender** (editor) for **PCI Registered Reports**.



## ★ Skills

<b>Programming</b>	<b>R</b> (advanced: all data wrangling, analysis, plots and tables —and even this CV— made in R)
<b>Reproducible Reports</b>	Markdown/ <b>R Markdown</b> (including <b>LaTeX</b> and <b>HTML</b> ). Version control: <b>Git</b> and <b>GitHub</b>
<b>Quantitative Research</b>	General and generalised models, linear mixed-effects models, multi-model inference, machine learning
<b>Software</b>	<b>RStudio</b> , <b>Visual Studio Code</b> , <b>Praat</b> , <b>Audacity</b> , <b>InkScape</b> , <b>Zotero</b>
<b>Languages</b>	English/Spanish (native)

## 🔗 Research

<b>Research Areas</b>	Human voice • Vocal modulation • Mate choice • Human behaviour
<b>Primary Research Methods</b>	Experimental designs • Acoustic analysis • Geometric morphometrics • Stimuli rating

## 🎓 Education

### University of Stirling

PHD - PSYCHOLOGY

Stirling, UK

2014

- Research project: **Contextual musicality: vocal modulation and its perception in human social interaction**
- Supervisors: Prof. S. Craig Roberts and Prof. Anthony C. Little
- Committee members: Prof. Phyllis C. Lee (dissertation chair) and Prof. Stuart Semple

### University of Liverpool

MSC IN EVOLUTIONARY PSYCHOLOGY

Liverpool, UK

2009

- Research project: **Variation of pitch and loudness range of human voice in response to intra- and inter-sexual stimuli**
- Supervisor: Prof. S. Craig Roberts
- Best overall performance in the MSc

### Universidad Pedagógica Nacional

BA IN MUSIC PEDAGOGY

Bogota, Colombia

2006

- GPA: 4.28/5.00
- Research project: 4.90/5.00 | **El origen no humano de la música**

## 🎓 Relevant further education

## Eindhoven University of Technology

### IMPROVING YOUR STATISTICAL INFERENCES

- GPA: 100/100 (see [certificate](#))

Coursera 

2024

## Johns Hopkins University

### PRACTICAL MACHINE LEARNING

- GPA: 97/100 (see [certificate](#))

Coursera 

2021

## University of Dundee

### STATISTICAL PROGRAMMING IN R AND LINEAR MIXED MODELS

Dundee, UK

2012

## Working Experience

### Universidad El Bosque

Bogota, Colombia

#### ASSOCIATE PROFESSOR

Apr. 2019 - Present

- Researcher at [EvoCo: Human Behaviour and Evolution Lab](#)
- Leader of the [CODEC: Cognitive and Behavioural Sciences](#) research group (since 2016)
- [Methodological and statistical advisor](#) for postgraduate and faculty research projects
- Supervision of a variety of undergraduate research projects associated with psychology and biology
- Member of the Research Committee
- Member of the Advisory Committee on Research Ethics

### Universidad El Bosque

Bogota, Colombia

#### ASSISTANT PROFESSOR

Jan. 2015 - Apr. 2019

- Researcher at [EvoCo: Human Behaviour and Evolution Lab](#)
- Leader of the [CODEC: Cognitive and Behavioural Sciences](#) research group (since 2016)
- [Methodological and statistical advisor](#) for postgraduate and faculty research projects
- Organiser of the Nerd Café weekly conference series of the Faculty of Psychology (2016-2017)
- Supervision of a variety of undergraduate research projects associated with psychology and biology
- Postdoctoral stay (2018-2019)
- Co-supervision of Doctoral Students: [Milena Vásquez-Amézquita](#) (PhD in Neuroscience, University of Valencia, Spain – 2015-2018)
- Co-supervision of Doctoral Students: Francisco Javier Flores (Professional Doctorate in Counselling Psychology, University of East London, UK – 2016-2018)

### Universidad de La Sabana

Chia, Colombia

#### CATHEDRATIC PROFESSOR

Jan. 2015 - Dec. 2016

- Teaching and supervision of research projects

### University of Stirling

Stirling, UK

#### RECOGNISED TEACHER IN PSYCHOLOGY

2011 - 2014

- Supervision of an MSc research project (Evolutionary Psychology MSc)
- Marking and statistical advice to MSc students

### Universidad Pedagógica Nacional

Bogota, Colombia

#### AUXILIAR PROFESSOR

2010

- Member of the Research Committee
- Supervision of research projects

## Teaching Experience

### Universidad El Bosque

Bogota, Colombia

#### ASSOCIATE PROFESSOR

2019

- Quantitative Methods II (Psychology MSc) (2019)

### Universidad El Bosque

Bogota, Colombia

#### ASSISTANT PROFESSOR

2015 - 2018

- Quantitative Methods II (Psychology MSc) (2017-2018)
- Research Degree Project (2018)
- Quantitative Methods I (Psychology MSc) (2017)
- Sources and Documentation Styles in Psychology (2015)

## Universidad de La Sabana

CATHEDRATIC PROFESSOR

- Evolution and Development of Vocal Communication: Songs, Fashion, and Language (2016)
- Inferential Statistics (2015 - 2016)
- Descriptive Statistics (2015 - 2016)

Chia, Colombia

2015 - 2016

## University of Stirling

RECOGNISED TEACHER IN PSYCHOLOGY

- Animal Behaviour (lecture on vocal communication) (2012)
- Quantitative Methods (Psychology MSc – several lectures, practical supervision, one-on-one teaching) (2012-2014)
- Cognition Module (leading research projects in psychoacoustics) (2012-2014)

Stirling, UK

2012 - 2014

## Universidad Pedagógica Nacional

AUXILIAR PROFESSOR

- Research Project I (2010)
- Research Lab II (2010)

Bogota, Colombia

2010



## Scholarships, Awards and Honors

### Universidad El Bosque

IX EXCELLENCE AWARDS

- COP\$10.000.000

Bogota, Colombia

Dic. 2022

### Ig Nobel Prize

ECONOMICS PRIZE

- For 'trying to quantify the relationship between different countries' national income inequality and the average amount of mouth-to-mouth kissing' (Watkins, et al., 2019)

Cambridge, MA, USA.

Sep. 2020

### Universidad El Bosque

VIII EXCELLENCE AWARDS

- COP\$7.000.000

Bogota, Colombia

Dic. 2019

### Universidad El Bosque

VII EXCELLENCE AWARDS

- COP\$5.000.000

Bogota, Colombia

Dic. 2018

### Universidad El Bosque

VI EXCELLENCE AWARDS

- COP\$5.000.000

Bogota, Colombia

Dic. 2017

### Experimental Psychology Society

GRINDLEY GRANTS

Canterbury, UK

Sep. 2014

### Minciencias

FRANCISCO JOSÉ DE CALDAS SCHOLARSHIP FOR DOCTORAL STUDIES

Bogota, Colombia

Oct. 2010 - Oct. 2014

### School of Life Sciences – University of Liverpool

ANNUAL PRIZE IN EVOLUTIONARY PSYCHOLOGY

- Best overall performance in the MSc

Liverpool, UK

Oct. 2009

### University of Liverpool

UNIVERSITY OF LIVERPOOL INTERNATIONAL SCHOLARSHIP

Liverpool, UK

Sep. 2008 - Sep. 2009

### Colfuturo

SCHOLARSHIP-LOAN PROGRAMME

Bogota, Colombia

Sep. 2008 - Sep. 2009



## Grants

### Universidad El Bosque

XI INTERNAL CALL FOR FINANCING RESEARCH AND TECHNOLOGICAL INNOVATION PROJECTS EL BOSQUE UNIVERSITY, 2023

- Project: *Effect of real and simulated resource control on androphilic women's preferences for masculinity in men's faces: an experimental study using eye-tracking*
- PI: Milena Vásquez-Amézquita
- COP\$89.979.750

Bogota, Colombia

Feb. 2024 - Present

## Minciencias

Bogotá, Colombia

POSTDOCTORAL RESEARCH STAYS - COLCIENCIAS BENEFICIARIES 2017

Jan. 2018 - Jan. 2019

- Project: Perceptible signals of physical and mental health in faces, voices and body odors, and their relationship with hormonal levels
- COP\$84.000.000

## Universidad El Bosque

Bogotá, Colombia

IX INTERNAL CALL FOR FINANCING RESEARCH AND TECHNOLOGICAL INNOVATION PROJECTS EL BOSQUE UNIVERSITY, 2017

Jan. 2018 - Dec. 2021

- Project: Perceptible signals of physical and mental health in faces, voices and body odors, and their relationship with hormonal levels
- COP\$136.586.537

## Universidad El Bosque

Bogotá, Colombia

VIII INTERNAL CALL FOR FINANCING RESEARCH AND TECHNOLOGICAL INNOVATION PROJECTS EL BOSQUE UNIVERSITY, 2016

Jan. 2017 - Dec. 2020

- Project: Effects of evolutionary relevant static signals (sex, dominance, and attractiveness) on the cortical processing of human faces
- COP\$80.000.000

## Universidad El Bosque

Bogotá, Colombia

VII INTERNAL CALL FOR FINANCING RESEARCH AND TECHNOLOGICAL INNOVATION PROJECTS EL BOSQUE UNIVERSITY, 2015

Jan. 2016 - Dec. 2019

- Project: Effects of hormone levels, masculinity and femininity, on pitch discrimination in men and women
- COP\$13.000.000

## Publications

14 *h-index*

27 *g-index*

19 *i10-index*

41 Publications

770 Citations

### PUBLISHED JOURNAL ARTICLES AND WORKS

- Hadavi, S., Kuroda, J., Shimozono, T., **Leongómez, J. D.**, & Savage, P. E. (In Principle Accepted). Cross-cultural relationships between music, emotion, and visual imagery: A comparative study of Iran, Canada, and Japan [Stage 1 Registered Report]. *Peer Community In Registered Reports*. Preprint: <https://doi.org/10.31234/osf.io/26yg5>
- Martínez, C. A., & **Leongómez, J. D.** (2024). Dehumanizing framing effects on agency, punishment, and re-socialization attributions towards ex-perpetrators in post-conflict. *Peace and Conflict: Journal of Peace Psychology*. Advance online publication. <https://doi.org/10.1037/pac0000710>
- Kleisner, K., Tureček, P., Saribay, S. A., Pavlovič, O., **Leongómez, J. D.**, Roberts, S. C., Havlíček, J., Valentova, J. V., Apostol, S., Akoko, R. M., & Varella, M. A. C. (2024). Distinctiveness and femininity, rather than symmetry and masculinity, affect facial attractiveness across the world. *Evolution and Human Behavior*, 45(1), 82–90. <https://doi.org/10.1016/j.evolhumbehav.2023.10.001>
- Vásquez-Amézquita, M., **Leongómez, J. D.**, Salvador, A., & Seto, M. C. (2023). What can the eyes tell us about atypical sexual preferences as a function of sex and age? Linking eye movements with child-related chronophilias. *Forensic Sciences Research*, 8, 5-15. <https://doi.org/10.1093/fsr/owad009>
- Terry, J., Ross, R. M., Nagy, T., ..., **Leongómez, J. D.**, ..., & Field, A. P. (2023). Data from an international multi-centre study of statistics and mathematics anxieties and related variables in university students (the SMARVUS dataset). *Journal of Open Psychology Data*, 11(1), 8. <https://doi.org/10.5334/jopd.80>
- Leongómez, J. D.**, Havlíček, J., & Roberts, S. C. (2022). Musicality in human vocal communication: An evolutionary perspective. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 377, 20200391. <https://doi.org/10.1098/rstb.2020.0391>
- Santamaría-García, H., Burgaleta, M., Legaz, A., Flichtentrei, D., Cordoba-Delgado, M., Molina, J., Linares, J., Montealegre, J., Castelblanco Toro, S., Schulte, M., Paramo, J., Mondragón, I., **Leongómez, J. D.**, Salamone, P., González-Pacheco, J., Baez, S., & Ibañez, A. (2022). The price of prosociality in pandemic times. *Humanities and Social Sciences Communications*, 9, 15. <https://doi.org/10.1057/s41599-021-01022-2>
- Vásquez-Amézquita, M., Salvador, A., & **Leongómez, J. D.** (2022). Is digit ratio (2D:4D) different between sexual and non-sexual offenders, and non-offending men? Study of a Colombian sample [Existen diferencias en la ratio 2D:4D entre delinquentes sexuales y no sexuales, y hombres no delinquentes? Un estudio en una muestra colombiana]. *Interdisciplinaria. Revista de Psicología y Ciencias Afines*, 39(1), 127–141. <https://doi.org/10.16888/interd.2022.39.1.8>
- Watkins, C., Bovet, J., Fernandez, A. M., **Leongómez, J. D.**, Zelazniewicz, A., Correa Varella, M. A., & Wagstaff, D. (2022). Men say ‘I love you’ before women do: Robust across several countries. *Journal of Social and Personal Relationships*, 39(7), 2134–2153. <https://doi.org/10.1177/02654075221075264>
- Fiala, V., Třebický, V., Pazhoohi, F., **Leongómez, J. D.**, Tureček, P., Saribay, S. A., ... Kleisner, K. (2021). Facial attractiveness and preference of sexual dimorphism: A comparison across five populations. *Evolutionary Human Sciences*, 3, e38. <https://doi.org/10.1017/ehs.2021.33>
- Jones, B. C., DeBruine, L. M., Flake, J. K., Liuzza, M. T., ..., **Leongómez, J. D.**, ..., & Chartier, C. R. (2021). To which world regions does the valence-dominance model of social perception apply? *Nature Human Behaviour*, 5, 159–169. <https://doi.org/10.1038/s41562-020-01007-2>

- Kleisner, K., **Leongómez, J. D.**, Pisanski, K., Fiala, V., Cornec, C., Groyecka, A., ... Akoko, R. M. (2021). Predicting strength from aggressive vocalisations versus speech in African bushland and urban communities. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 376, 20200403. <https://doi.org/10.1098/rstb.2020.0403>
- Kleisner, K., Tureček, P., Roberts, S. C., Havlíček, J., Valentova, J. V., Akoko, R. M., **Leongómez, J. D.**, Apostol, S., Varella, M. A. C., & Saribay, S. A. (2021). How and why patterns of sexual dimorphism in human faces vary across the world. *Scientific Reports*, 11, 5978. <https://doi.org/10.1038/s41598-021-85402-3>
- Leongómez, J. D.**, Pisanski, K., Reby, D., Sauter, D., Lavan, N., Perlman, M., & Varella Valentova, J. (2021). Voice modulation: From origin and mechanism to social impact. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 376, 20200386. <https://doi.org/10.1098/rstb.2020.0386>
- Leongómez, J. D.**, Sánchez, O. R., Vásquez-Amézquita, M., & Roberts, S. C. (2021). Contextualising courtship: Exploring male body odour effects on vocal modulation. *Behavioural Processes*, 193, 104531. <https://doi.org/10.1016/j.beproc.2021.104531>
- Leongómez, J. D.**, Sánchez, O. R., Vásquez-Amézquita, M., Valderrama, E., Castellanos-Chacón, A., Morales-Sánchez, L., ... González-Santoyo, I. (2020). Self-reported health is related to body height and waist circumference in rural indigenous and urbanised Latin-American populations. *Scientific Reports*, 10, 4391. <https://doi.org/10.1038/s41598-020-61289-4>
- Bonilla, F. M., & **Leongómez, J. D.** (2019). Efectos de la expresión emocional y de la orientación del rostro sobre las respuestas conductuales y el componente N170. *Psychologia*, 13(2), 95–106. <https://doi.org/10.21500/19002386.3473>
- Vásquez Amézquita, M., **Leongómez, J. D.**, Seto, M. C., & Salvador, A. (2019). Differences in visual attention patterns to sexually mature and immature stimuli between heterosexual sexual offenders, nonsexual offenders, and nonoffending men. *Journal of Sex Research*, 56(2), 213–228. <https://doi.org/10.1080/00224499.2018.1511965>
- Vásquez-Amézquita, M., **Leongómez, J. D.**, Seto, M. C., Bonilla, F. M., Rodríguez-Padilla, A., & Salvador, A. (2019). Visual attention patterns differ in gynephilic and androphilic men and women depending on age and gender of targets. *Journal of Sex Research*, 56(1), 85–101. <https://doi.org/10.1080/00224499.2017.1372353>
- Watkins, C. D., **Leongómez, J. D.**, Bovet, J., Żelaźniewicz, A., Korbmacher, M., Corrêa Varella, M. A., ... Bolgan, S. (2019). National income inequality predicts cultural variation in mouth to mouth kissing. *Scientific Reports*, 9, 6698. <https://doi.org/10.1038/s41598-019-43267-7>
- Culpepper, P. D., Havlíček, J., **Leongómez, J. D.**, & Roberts, S. C. (2018). Visually activating pathogen disgust: A new instrument for studying the behavioral immune system. *Frontiers in Psychology*, 9, 1397. <https://doi.org/10.3389/fpsyg.2018.01397>
- Danel, D. P., Valentova, J. V., Sánchez, O. R., **Leongómez, J. D.**, Corrêa Varella, M. A., & Kleisner, K. (2018). A cross-cultural study of sex-typicality and averageness: Correlation between frontal and lateral measures of human faces. *American Journal of Human Biology*, 30(5), e23147. <https://doi.org/10.1002/ajhb.23147>
- Vásquez-Amézquita, M., **Leongómez, J. D.**, Seto, M. C., Bonilla, F. M., Rodríguez-Padilla, A., & Salvador, A. (2018). No relation between digit ratio (2D:4D) and visual attention patterns to sexually preferred and non-preferred stimuli. *Personality and Individual Differences*, 120, 151–158. <https://doi.org/10.1016/j.paid.2017.08.022>
- Bonilla, F. M., & **Leongómez, J. D.** (2017). Efectos en la amplitud y la latencia del componente N170 ante la presentación de rostros emocionales de ira y miedo. *Psychologia*, 11(1), 39–48. <https://doi.org/10.21500/19002386.3100>
- Leongómez, J. D.**, Mileva, V. R., Little, A. C., & Roberts, S. C. (2017). Perceived differences in social status between speaker and listener affect the speaker's vocal characteristics. *PLOS One*, 12(6), e0179407. <https://doi.org/10.1371/journal.pone.0179407>
- Cobey, K. D., Nicholls, M., **Leongómez, J. D.**, & Roberts, S. C. (2015). Self-reported dominance in women: Associations with hormonal contraceptive use, relationship status, and testosterone. *Adaptive Human Behavior and Physiology*, 1(4), 449–459. <https://doi.org/10.1007/s40750-015-0022-8>
- Leongómez, J. D.** (2015). La música como objeto de estudio científico: consideraciones en torno a la musicalidad y el origen de la música. (*Pensamiento*), (*Palabra*) y *Obra*, 13, 77–86. <https://doi.org/10.17227/2011804X.15PP077.86>
- Leongómez, J. D.** (2014). *Contextual musicality: vocal modulation and its perception in human social interaction* [PhD, University of Stirling]. <http://hdl.handle.net/1893/21102>
- Leongómez, J. D.**, Binter, J., Kubicová, L., Stolařová, P., Klapilová, K., Havlíček, J., & Roberts, S. C. (2014). Vocal modulation during courtship increases perceptivity even in naive listeners. *Evolution and Human Behavior*, 35(6), 489–496. <https://doi.org/10.1016/j.evolhumbehav.2014.06.008>
- Binter, J., **Leongómez, J. D.**, Moyano, N., Valentova, J., Jouza, L., & Klapilová, K. (2012). Sex differences in the incidence of sexual fantasies focused on evolutionary relevant objects. *Anthropologie*, 50(1), 83–93. <http://puvodni.mzm.cz/Anthropologie/article.php?ID=1413>
- Ferdenzi, C., Lemaître, J.-F., **Leongómez, J. D.**, & Roberts, S. C. (2011). Digit ratio (2D:4D) predicts facial, but not voice or body odour, attractiveness in men. *Proceedings of the Royal Society B: Biological Sciences*, 278(1724), 3551–3557. <https://doi.org/10.1098/rspb.2011.0544>
- Leongómez, J. D.** (2009). *Variation of pitch and loudness range of human voice in response to intra- and inter-sexual stimuli* [MSc]. University of Liverpool.
- Leongómez, J. D.** (2008). El origen no humano de la música. (*Pensamiento*), (*Palabra*) y *Obra*, 1, 87–97. <https://revistas.pedagogica.edu.co/index.php/revistafba/article/view/50>

## PREPRINTS AND ARTICLES UNDER REVIEW

Savage, P. E., Ampiah-Bonney, A., Arabadjiev, A., Arhine, A., Ariza, J. F., ..., **Leongómez, J. D.**, ..., & Zariquiey, R. (2024). *Does singing enhance cooperation more than speaking does? A global experimental Stage 1 Registered Report*. PsyArXiv. <https://doi.org/10.31234/osf.io/pv3m9>

Vásquez-Amézquita, M., **Leongómez, J. D.**, Martínez-González, M. B., & Chivers, M. L. (2023). *Trait Sexual Desire-Linked Subjective Sexual Arousal to Erotic and Non-Erotic Stimuli: Gender, Relationship Status, and Gender-Specificity*. [Manuscript submitted for publication].

## SCIENCE OUTREACH

**Leongómez, J. D.** (2023). Meta-análisis de correlaciones y meta-regresión en R: Guía práctica [Meta-analysis of correlations and meta-regression in R: A Practical Guide]. *MetaArXiv*. <https://doi.org/10.31222/osf.io/yaxd4>


**Leongómez, J. D.** (2020). Análisis de poder estadístico y cálculo de tamaño de muestra en R: Guía práctica [Statistical power analysis and sample size calculation in R: A practical guide]. *Zenodo*. <https://doi.org/10.5281/zenodo.3988776>

Mileva, V. R., & **Leongómez, J. D.** (2018). Want to know if your partner's cheating on you? Just listen to their voice. *The Conversation*. <https://theconversation.com/want-to-know-if-your-partners-cheating-on-you-just-listen-to-their-voice-92387>

Mileva, V. R., & **Leongómez, J. D.** (2017). We change our voice when we talk to high-status people, shows new study. *The Conversation*. <https://theconversation.com/we-change-our-voice-when-we-talk-to-high-status-people-shows-new-study-80053>

## Investigación Abierta (YouTube channel)



 **Investigación Abierta** [Open Research] is a YouTube channel (in Spanish) where I post videos and tutorials related to quantitative research methods and open science, as well as useful open source software.

**Leongómez, J. D.** [Investigación Abierta]. (2023). *Meta-análisis de correlaciones en R [Meta-analysis of correlations in R]* [Video]. YouTube. [https://jdleongomez.info/en/post/meta\\_corr\\_r/](https://jdleongomez.info/en/post/meta_corr_r/)

**Leongómez, J. D.** [Investigación Abierta]. (2021). *Hacer meta-análisis en jamovi es muy fácil [Meta-analysis in jamovi is very easy]* [Video]. YouTube. <https://jdleongomez.info/en/post/meta/>

**Leongómez, J. D.** [Investigación Abierta]. (2020). *Poder estadístico y tamaño de muestra en R [Statistical power and sample size calculation in R]* [3 Videos]. YouTube. <https://jdleongomez.info/en/post/power/>

**Leongómez, J. D.** [Investigación Abierta]. (2020). *¿Qué es un valor p? Te lo puedo mostrar gráficamente y con simulaciones [What is a p-value? I can show you graphically]* [Video]. YouTube. <https://jdleongomez.info/en/post/pvalue/>

**Leongómez, J. D.** [Investigación Abierta]. (2020). *Introducción a jamovi [Introduction to jamovi]* [2 Videos]. YouTube. <https://jdleongomez.info/en/post/jamovi/>

**Leongómez, J. D.** [Investigación Abierta]. (2020). *Introducción a OBS Studio [Introduction to OBS Studio]* [Video]. YouTube. <https://jdleongomez.info/en/post/obs/>

## Shiny Apps



I have created a few, small public apps with **Shiny** in R, mostly for fun. While I am still learning, in this section there are some examples.

**Leongómez, J. D.** (2023). *PowerSimulate* [Computer software collection]. <https://shiny.jdl-svr.lat/PowerSimulate/>

- **PowerSimulate: Correlation**, [https://shiny.jdl-svr.lat/PowerSimulate\\_corr\\_EN/](https://shiny.jdl-svr.lat/PowerSimulate_corr_EN/)
- **PowerSimulate: Independent t-test**, [https://shiny.jdl-svr.lat/PowerSimulate\\_ind\\_t\\_EN/](https://shiny.jdl-svr.lat/PowerSimulate_ind_t_EN/)
- **PowerSimulate: Paired t-test**, [https://shiny.jdl-svr.lat/PowerSimulate\\_pair\\_t\\_EN/](https://shiny.jdl-svr.lat/PowerSimulate_pair_t_EN/)

**Leongómez, J. D.** (2023). *ScholarlyOutput: Create and Export a complete plot of your academic Google Scholar profile* (Version 1.0.0) [Computer software]. <https://doi.org/10.5281/zenodo.8060475>

**Leongómez, J. D.** (2021). *ProbDnD: Probability of getting a score in DnD, combining multiple dice and a modifier* [Computer software]. [https://github.com/JDLeongomez/ProbDnD\\_EN](https://github.com/JDLeongomez/ProbDnD_EN)

## Conference Presentations, Posters and Workshops

**Leongómez, J. D.** (2023, August). *Powering your conclusions: Exploring the vital importance of statistical power and sample size for reliable inference*. Invited talk presented at XXIX Institutional Research Congress (Universidad El Bosque), Bogotá, Colombia. <https://doi.org/10.31234/osf.io/pv3m9>



- Leongómez, J. D.** (2023, July). *From data to knowledge: Conducting meta-analyses of correlations and t-tests*. Invited workshop presented at Summer Institute of the International Society for Human Ethology (ISHE), Universidade Federal de Pernambuco, Recife, Brazil. [https://ishe.org/wp-content/uploads/2023/07/BoA\\_v06\\_km.pdf](https://ishe.org/wp-content/uploads/2023/07/BoA_v06_km.pdf) (see [certificate](#))
- Leongómez, J. D.** (2023, July). *Ensuring reliable results: Power analysis and sample size estimation in behavioural research*. Invited workshop presented at Summer Institute of the International Society for Human Ethology (ISHE), Universidade Federal de Pernambuco, Recife, Brazil. [https://ishe.org/wp-content/uploads/2023/07/BoA\\_v06\\_km.pdf](https://ishe.org/wp-content/uploads/2023/07/BoA_v06_km.pdf) (see [certificate](#))
- Leongómez, J. D.**, Havlíček, J., & Roberts, S.C. (2022, October). *Musicality in human vocal communication*. Paper presented as part of The Evolution of Human Musicality symposium at the 4th Brazilian Meeting on Evolution of Human Behavior (University of São Paulo), São Paulo, Brazil. [https://youtu.be/gK\\_r10r4nfs?t=9662](https://youtu.be/gK_r10r4nfs?t=9662)
- Leongómez, J. D.** (2022, October). *jamovi face-to-face session*. Workshop for the Research Training Plan of the Vicerectory of Research (Universidad El Bosque), Bogotá, Colombia.
- Leongómez, J. D.** (2022, September). *Introduction to jamovi: Modern, free, open source alternative for statistical analysis*. Presentation for the Research Training Plan of the Vicerectory of Research (Universidad El Bosque), Bogotá, Colombia. <https://investigaciones.unbosque.edu.co/eventos/cuestioneseticas-jjnlm-92bkj-n249w-hbnhl-6tpj4-pm22x-8m3yh-645tt-gw59h-xwc6x-d9sgw-6fzel-hm6dd-2wrls-569m2-8zns8-rg363>
- Leongómez, J. D.** (2022, August). *Beyond Open Access: The need for comprehensive Open Science to address the implications of the naturalisation of malpractice and the replication crisis*. Presentation for the Research Training Plan of the Vicerectory of Research (Universidad El Bosque), Bogotá, Colombia. <https://investigaciones.unbosque.edu.co/eventos/cuestioneseticas-jjnlm-92bkj-n249w-hbnhl-6tpj4-pm22x-8m3yh-645tt-gw59h-xwc6x-d9sgw-6fzel-hm6dd-2wrls-569m2-8zns8>
- Leongómez, J. D.** (2022, April). *How reliable is the scientific literature? Open science as a strategy to address the implications of the naturalisation of bad practices and the replication crisis*. Presentation organised by the Research Unit of the Faculty of Psychology (Universidad El Bosque), Bogotá, Colombia. <https://youtu.be/F198MoBqSaI>
- Leongómez, J. D.** (2020, November). *How many participants do I need? Statistical power analysis and sample size calculation in R*. Workshop presented at the Online International Congress of Neurosciences: Brain and Behaviour in times of COVID-19 (Universidad El Bosque, Universidad de los Andes), Bogotá, Colombia. <https://youtu.be/tVB9sh5ZFHO>
- Leongómez, J. D.** & Sánchez, O. R. (2019, September). *Association between height and waist circumference with health in rural indigenous and urban populations in Latin America*. Paper presented at the XXV Institutional Research Congress (Universidad El Bosque), Bogotá, Colombia. <https://static1.squarespace.com/static/5fb667be752a000eaf4b5869/t/60454941f7f209159575a773/1615153475374/Memorias+-XXV+Congreso+2019.pdf>
- Leongómez, J. D.**, Sánchez, O.R., Vásquez-Amézquita, M., Valderrama, E., Castellanos-Chacón, A., Morales-Sánchez, L., Nieto, J., & González-Santoyo, I. (2019, August). *Self-reported Health is Related to Body Height and Waist Circumference in Rural Indigenous and Urbanised Latin-American Populations*. Paper and poster presented at the VII Summer Institute of the International Society for Human Ethology (ISHE), Zadar, Croatia. Poster: <https://jdleongomez.info/en/publication/leongomez2020/PosterA0.pdf>
- Leongómez, J. D.** (2019, June). *Experimental Designs*. Workshop at the Vicerectory of Research (Universidad El Bosque), Bogotá, Colombia.
- Leongómez, J. D.**, Murray, A.K., & Roberts, S.C. (2018, September). *Contextualising courtship: Male body odour effects on vocal modulation*. Paper presented at the XXIV Biannual Conference for Human Ethology (ISHE), Santiago, Chile.
- Leongómez, J. D.** (2017, September). *Effects of hormonal levels, masculinity and femininity, on men's and women's pitch discrimination*. Paper presented at the XXIII Institutional Research Congress (Universidad El Bosque), Bogotá, Colombia.
- Leongómez, J. D.** (2017, August). *The sound of seduction: Vocal modulations and their effects during courtship*. Plenary session at the 2nd Symposium of Neurosciences, Cognition and Society (Universidad Javeriana), Bogotá, Colombia.
- Leongómez, J. D.** (2017, March). *Is the relationship between musical and linguistic processing a vestige of the evolutionary origins of music?*. Plenary session at the 2017 Brain Awareness Week 2017 (Universidad El Bosque), Bogotá, Colombia.
- Leongómez, J. D.**, Mileva, V.R., Little, A.C., & Roberts, S.C. (2016, August). *Perceived differences in social status between speaker and listener affect the speaker's vocal characteristics*. Paper presented at the XXIII Biennial Congress On Human Ethology (ISHE), Stirling, UK.
- Leongómez, J. D.**, Binter, J., Kubicová, L., Stolařová, P., Klapilová, K., Havlíček, J., & Roberts, S.C. (2014, April). *Vocal modulation during courtship increases perceptivity even in naive listeners*. Paper presented at the European Human Behaviour and Evolution Association (EHBEA) Annual Meeting 2014 (University of Bristol), Bristol, UK.
- Leongómez, J. D.**, & Roberts, S.C. (2013, April). *The sound of sweet nothings: How men and women modulate vocal parameters in speech directed towards attractive and unattractive individuals*. Oral presentation for the Mind and Brain Group (University of Stirling), Stirling, UK.
- Leongómez, J. D.**, & Roberts, S.C. (2013, March). *The sound of sweet nothings: How men and women modulate vocal parameters in speech directed towards attractive and unattractive individuals*. Poster presented at the European Human Behaviour and Evolution Association (EHBEA) Annual Meeting 2013 (VU University Amsterdam), Amsterdam, Netherlands.
- Leongómez, J. D.** (2013, March). *Voice research techniques using Praat*. Workshop at the Faculty of Humanities (Charles University), Prague, Czech Republic.

- Leongómez, J. D.** (2013, March). *Acoustic Communication*. Oral presentation at the Centre for Theoretical Study, Prague, Czech Republic.
- Leongómez, J. D., & Roberts, S.C.** (2012, May). *The sound of sweet nothings: How men and women modulate vocal parameters in speech directed towards attractive and unattractive individuals*. Oral presentation for the Group of Human Ethology (Charles University), Prague, Czech Republic.
- Leongómez, J. D.** (2013, March). *Voice research techniques using Praat*. Workshop at the Scottish Universities Psychology Postgraduate Research Training – SUPPORT (University of Stirling), Stirling, UK.
- Leongómez, J. D., & Roberts, S.C.** (2011, February). *The sound of sweet nothings: How men and women modulate vocal parameters in speech directed towards attractive and unattractive individuals*. Oral presentation for the Behaviour and Evolution Research Group (University of Stirling), Stirling, UK.
- Leongómez, J. D., & Roberts, S.C.** (2010, December). *Context-dependant modulation of vocal parameters*. Poster presented at The Language of Music, the Music of Language; Meeting 2: Entrainment/Meaning (Centre for Music & Science, University of Cambridge), Cambridge, UK.

## Scientific Events

### ISHE International Congress 2024

MEMBER OF THE PROGRAMME COMMITTEE

- [Conference Program](#) (PDF)
- [Book of Abstracts](#) (PDF)
- [ISHE Meetings](#)

ISHE

July 12 - 16, 2024

### CIVN2020 - Online International Congress of Neurosciences: Brain and Behaviour in times of COVID-19

PRESIDENT OF THE SCIENTIFIC COMMITTEE

- [Book of Abstracts](#)
- [YouTube channel](#) (The entire congress is available)

Universidad El Bosque &  
Universidad de los Andes

November 25 - 28, 2020

### 1st International Virtual Congress ISEP

MEMBER OF THE SCIENTIFIC COMMITTEE

- [Scientific Committee](#)

ISEP

May 5 - 7, 2020

## Editorial Appointments

**Note:** My verified review and editor record is available from my [Web of Science](#) profile.

### Peer Community In Registered Reports

RECOMMENDER (EQUIVALENT TO ASSOCIATE EDITOR)

- Issue Stage 1 and Stage 2 recommendations
- [Recommender profile](#)

Recommender

Since 2023

### Philosophical Transactions of the Royal Society B: Biological Sciences

GUEST EDITOR

- Theme Issue ***Voice modulation: from origin and mechanism to social impact*** ([Parte 1](#), [Parte 2](#))
- Edited by Juan David Leongómez, Katarzyna Pisanski, David Reby, Disa Sauter, Nadine Lavan, Marcus Perlman & Jaroslava Varella Valentova

Guest editorial team

2020 - 2021

### Frontiers in Psychology

REVIEW EDITOR

- Specialty section on [Evolutionary Psychology](#)
- [Loop profile](#)

Editorial team

2018 - 2024

### Ad Hoc Reviewer

JOURNALS INCLUDE

- |  |  |   |
|--|--|---|
| <ul style="list-style-type: none"> <li>• <a href="#">Peer Community In Registered Reports</a></li> <li>• <a href="#">Proceedings of the Royal Society B: Biological Sciences</a></li> <li>• <a href="#">Royal Society Open Science</a></li> <li>• <a href="#">PLOS ONE</a></li> <li>• <a href="#">Biology Letters</a></li> </ul> | <ul style="list-style-type: none"> <li>• <a href="#">Evolution and Human Behavior</a></li> <li>• <a href="#">Scientific Reports</a></li> <li>• <a href="#">Cortex</a></li> <li>• <a href="#">Journal of Nonverbal Behavior</a></li> <li>• <a href="#">Perception</a></li> <li>• <a href="#">Basic and Applied Social Psychology</a></li> </ul> | <ul style="list-style-type: none"> <li>• <a href="#">Frontiers in Psychology</a></li> <li>• <a href="#">Evolutionary Psychology</a></li> <li>• <a href="#">Summa Psicológica</a></li> <li>• <a href="#">Human Ethology</a></li> </ul> |
|--|--|---|

Journals

Since 2013



- [Minciencias](#)
- [Universidad Nacional de Colombia](#)



## Research Supervision

### POSTGRADUATE

The Faculty of Psychology at Universidad El Bosque does not offer research degrees, and all M-level courses are professional masters. Because of this, opportunities to supervise postgraduate students are limited, and most of my postgraduate supervision has been external.

#### Milena Vásquez-Amézquita

[Universitat de València, Spain](#)

PHD IN NEUROSCIENCE

2015 - 2018

- Thesis (**Summa Cum Laude**): [Preferencias sexuales típicas y atípicas según sexo y edad de los estímulos: Utilidad de la técnica de rastreo ocular](#) [Typical and atypical sexual preferences according to sex and age of the stimuli: Usefulness of the eye tracking technique]
- Supervised together with [Alicia Salvador](#)

#### Francisco Javier Flores

[U. of East London, UK](#)

PROFESSIONAL DOCTORATE IN COUNSELLING PSYCHOLOGY

2015 - 2018

- Tesis: *What sense do people make of the functions of their 'behaviours that may be causing problems in their everyday life'? A hybrid deductive/inductive template analysis*
- Supervised together with [Lisa Chiara Fellin](#)

#### Adrián Acosta Guerrero

[Universidad El Bosque, Colombia](#)

MSC IN PSYCHOLOGY

2019 - 2020

- Research project (**Distinction**): [La voz como predictor de sintomatología asociada a depresión y ansiedad](#) [Voice as a predictor of symptomatology associated with depression and anxiety]
- Supervised together with [Milena Vásquez-Amézquita](#)

#### Julia Sanz-Vidania

[University of Stirling, UK](#)

PSYCHOLOGICAL RESEARCH METHODS (EVOLUTIONARY PSYCHOLOGY) MSC

2013 - 2014

- Research project (**Distinction**): *Sexy Chat: Mate-Choice Preferences for Speech Content in the Absence of Auditory Cues*
- Supervised together with [S Craig Roberts](#)

### UNDERGRADUATE

The supervised undergraduate students listed below come from different universities and academic programmes. This list only includes students for whom I was the main supervisor or who were awarded honours degrees. Additionally, I am currently supervising six students as a principal supervisor, and have supervised over 25 students as a co-supervisor.

#### Andrés Castellanos-Chacón

[Universidad El Bosque, Colombia](#)

BSc IN PSYCHOLOGY

Since 2017

- Professional practice in research supervision (2017 - 2018)
- Project: *Señales perceptibles de salud física y mental en rostros, voces y olores corporales, y su relación con niveles hormonales* [Perceptible signs of physical and mental health in faces, voices, and body odours, and their relationship to hormone levels]
- Research project with **distinction**
- Teaching supervision (2019 - Present)

#### Scharik Yuliana Bello Lizarazo, Maria Camila Plazas López & Natalia Rodríguez Bautista

[Universidad El Bosque, Colombia](#)

BSc IN PSYCHOLOGY

2023 - 2024

- Research project: *¿Es posible percibir la promiscuidad de una persona con tan solo escuchar su voz?* [Is it possible to perceive a person's promiscuity just by listening to his or her voice?]

#### Isabella Russo

[Universidad El Bosque, Colombia](#)

BSc IN PSYCHOLOGY

2023

- Research project: *¿El género, preferencia sexual y nivel de sociosexualidad de una persona podrían influir en su capacidad para detectar la sociosexualidad de otros a través de rostros?* [Could a person's gender, sexual preference and level of sociosexuality influence their ability to detect the sociosexuality of others from their faces?]

**Maria Camila Wilches & Johan Sebastián Castiblanco**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2022 - 2023

- Research project: *El rol del género en la identificación de la sociosexualidad a partir de las voces* [The role of gender in the identification of sociosexuality from voices]

**Angie Alejandra Lozano Sanjuan, Daniela Martínez Franco & Mariana Saavedra Botero**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2021 - 2022

- Research project (**Distinction**): *¿Somos capaces de detectar qué tan sociosexual es una persona a partir de su voz y/o su rostro?* [Are we able to detect the sociosexual orientation of a person from their voice and/or face?]

**John Jairo Rubio**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2021 - 2022

- Research project: *¿Existe relación entre la simetría facial y el atractivo de la voz?* [Association between facial symmetry and vocal attractiveness]

**Maria Daniela Martínez Luna & Juan Sebastián Preciado Ruíz**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2020 - 2021

- Research project (**Distinction**): *¿Existe relación entre la sociosexualidad y la voz?* [Is there a relationship between sociosexuality and voice?]

**Maria Paula Moreno Rodríguez & Andrés Felipe Orozco Serrato**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2019 - 2021

- Research project: *¿Existe relación entre la forma del rostro y la socio-sexualidad?* [Is there an association between face shape and socio-sexuality?]

**Danny Ferley Gaitan Rodríguez & Hasbleidy Gamboa Ordoñez**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2019 - 2020

- Research project: *Detección de infidelidad y sociosexualidad a partir de rostros: Análisis preliminar* [Perception of socio-sexuality from facial cues]

**Natalia Elizabeth Moreno Buitrago & Juan Felipe Pérez Ariza**

U. Pedagógica Nacional, Colombia

BA IN MUSIC PEDAGOGY

2017 - 2019

- Research project (**Distinction**): *Musicalidad y cohesión social: una aproximación experimental y bibliográfica desde el trabajo en equipo* [Musicality and social cohesion: An experimental and bibliographic approach from teamwork]

**Paula Andrea Betancourt Velandia & Ana Sofía Gómez Castelblanco**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2018 - 2019

- Research project: *Hombres que alcanzan voces menos agudas y con un volumen más bajo, tienden a tener más relaciones sexuales casuales* [Men who achieve lower-pitched voices and with a lower intensity tend to have more casual sex]

**Maria Alejandra Abello Mozo**

Universidad El Bosque, Colombia

BSC IN BIOLOGY

2017 - 2018

- Research project (**Distinction**): *Desarrollo y evaluación de una metodología nueva para manipular las variables del atractivo, dominancia y sexo simultáneamente en fotos de caras humanas con el programa PsychoMorph* [Development and evaluation of a new methodology to simultaneously manipulate attractiveness, dominance and sex in photos of human faces with PsychoMorph]

**Cindy Paola Moncada Gómez**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2017 - 2018

- Research project: *La voz del sexo casual: ¿las características vocales predicen la disposición al sexo sin compromiso en hombres y mujeres?* A [The voice of casual sex: do vocal characteristics predict willingness to engage in uncommitted sex in men and women? A]

**Laura Milena Estupiñan Aldana**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2017 - 2018

- Research project: *La voz del sexo casual: ¿las características vocales predicen la disposición al sexo sin compromiso en hombres y mujeres?* B [The voice of casual sex: do vocal characteristics predict willingness to engage in uncommitted sex in men and women? B]

**Vanesa Díaz Güiza**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2016 - 2018

- Research project: *La voz del sexo casual: ¿las características vocales predicen la disposición al sexo sin compromiso en hombres y mujeres?* C [The voice of casual sex: do vocal characteristics predict willingness to engage in uncommitted sex in men and women? C]

**Lina María García Hoyos**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2016 - 2018

- Research project: *¿Se puede determinar si una persona ha sido infiel a partir de su voz?* [Can you determine if a person has been unfaithful from their voice?]

**Angie Liliana Pérez Rodríguez**

Universidad El Bosque, Colombia

BSC IN PSYCHOLOGY

2016 - 2017

- Research project: *Efectos de los niveles hormonales en la discriminación tonal de mujeres* [Effects of hormone levels on pitch discrimination in women]

**Lina María Morales Sánchez**  
BSc IN PSYCHOLOGY

Universidad El Bosque, Colombia  
2016 - 2017

- Research project: *Discriminación tonal predice satisfacción con pareja y su inversión parental, en hombres y mujeres* [Pitch discrimination predicts partner satisfaction and parental investment, in men and women]

**Haydn Ricardo Roldán Morales**  
BSc IN PSYCHOLOGY

Universidad El Bosque, Colombia  
2015 - 2016

- Research project: *El sonido de la seducción: discriminación tonal, satisfacción en pareja, y niveles hormonales en hombres* [The Sound of Seduction: Tonal Discrimination, Partner Satisfaction, and Hormone Levels in Men]



## Memberships

INTERNATIONAL SOCIETY FOR HUMAN ETHOLOGY (ISHE)

2016 - Present

ASSOCIATION FOR PSYCHOLOGICAL SCIENCE (APS)

2013 - 2020

EUROPEAN HUMAN BEHAVIOUR AND EVOLUTION ASSOCIATION (EHBEA)

2013 - 2016