



# Juan David Leongómez

ASSOCIATE PROFESSOR

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

## Highlights

**About me:** I currently am an Associate Professor and Researcher at the [Human Behaviour Lab \(LACH\)](#), Faculty of Psychology, at [Universidad El Bosque](#) in Bogota, Colombia. I hold a Bachelor's in Music Education from Universidad Pedagógica Nacional (Colombia), an MSc in Evolutionary Psychology from the University of Liverpool, and a PhD from the University of Stirling.

**Research:** I study the evolutionary underpinnings of human behaviour, particularly those related to mate choice and the social effects of vocal signals, with a particular interest in the evolution of musicality. I have 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.

*Voice modulation special issue:* More recently, I have led the edition of the 2-part theme issue [Voice modulation: from origin and mechanism to social impact](#) for *Philosophical Transactions of the Royal Society B* (parts 1 and 2 publishing online on November 1 and 15, 2021, respectively). This 2-part issue constitutes the first compendium of research on voice modulation. It includes articles covering the diverse functions of voice modulation in human and nonhuman nonverbal communication, from signalling motivation and emotion, exaggerating biological traits like body size and masculinity, to enabling song and musicality across cultures. This issue contains three articles in which I am an author, including one in which we propose a bold new model for the evolution of musicality embedded in the context of human voice modulation (Leongómez, Havlíček, & Roberts, 2021).

**Open science:** I strongly support the dissemination of open science practices and the use of opensource software and programming as tools to promote transparency and reproducibility, as well as to reduce national inequalities in production of, and access to, scientific knowledge. Because of this, I have been heavily involved in the teaching and designing of statistics-related modules, with an emphasis on open science and reproducibility.

## Research Interests

- Human voice
- Vocal modulation
- Mate choice
- Human behaviour
- Psychoacoustics
- Hormone effects on human behaviour

## Primary Research Methods

- Experimental designs
- Online questionnaires
- Voice recording
- Acoustic analysis
- Facial photographs
- Geometric morphometrics
- Anthropometry
- Reproducible Research

## Skills

<b>Programming</b>	R (advanced: all data wrangling, analysis, plots and tables -and even this CV and <a href="#">my website</a> - made in R)
<b>Reproducible Reports</b>	Markdown/Rmarkdown (including $\text{\LaTeX}$ and $\text{\HTML}$ ), Version Control (GitHub, GitLab)
<b>Quantitative Research</b>	General and Generalised Models, Linear Mixed-effects Models, Model selection and Averaging, Machine Learning
<b>Software</b>	R, RStudio, Praat, Audacity, InkScape, Mendeley, Zotero, OBS Studio, Blender (video editing)
<b>Languages</b>	English/Spanish (native)

# Higher Education

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## University of Stirling

Stirling, UK

PHD - PSYCHOLOGY

2014

- Dissertation Title: "Contextual musicality: vocal modulation and its perception in human social interaction"
- Supervisors: Prof. [S. Craig Roberts](#), and Dr. [Anthony C. Little](#)
- Committee members: Prof. Phyllis C. Lee (dissertation chair), and Prof. Stuart Semple

## University of Liverpool

Liverpool, UK

MSC IN EVOLUTIONARY PSYCHOLOGY (WITH DISTINCTION)

2009

- Supervisor: Prof. [S. Craig Roberts](#)
- Best overall performance in the MSc
- Research project: 82/100

## Universidad Pedagógica Nacional

Bogota, Colombia

BA IN MUSIC PEDAGOGY

2006

- GPA: 4.28/5.00
- Research project: 4.90/5.00

# Working Experience (University Level)

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I have administrative and leadership responsibility both within the University and externally. Within the University, I am the leader of the research group [Procesos Cognoscitivos y Educación](#) [Cognitive Processes and Education], being in charge of the periodic calls for the [recognition and measurement of research, technological development or innovation groups](#) by the Colombian Ministry of Science, Technology and Innovation ([Minciencias](#)), I have been Module Organiser for 9 modules, and sit on two Faculty committees. Externally, I carry editorial responsibilities and review funding applications for [Minciencias](#).

## Universidad El Bosque

Bogota, Colombia

ASSOCIATE PROFESSOR

Apr. 2019 - Present

- Researcher at the [Human Behaviour Lab](#) (LACH)
- [Methodological and statistical advisor](#) for postgraduate and faculty research projects
- Leader of the [Cognitive Processes and Education research group](#) [Procesos Cognoscitivos y Educación] (since 2016)
- 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 the [Human Behaviour Lab](#) (LACH)
- [Methodological and statistical advisor](#) for postgraduate and faculty research projects
- Leader of the [Cognitive Processes and Education research group](#) [Procesos Cognoscitivos y Educación] (since 2016)
- 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 *Summa cum laude*, University of Valencia – 2015-2018)
- Co-supervision of Doctoral Students: Francisco Javier Flores (Professional Doctorate in Counselling Psychology, University of East London – 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

TEACHING ASSISTANT

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

Before working at universities, I worked as a private piano teacher to adult students (2000 - 2005), and taught music-related topics in several institutions in Colombia, at different levels ranging from nursery to secondary school (2003

- 2006), as well as the school of the Colombian Youth Philharmonic Orchestra (2005 - 2006). In 2006 I moved to the UK to study English and look for postgraduate opportunities.

## Teaching Experience (University Level)

I have been mostly involved in teaching statistics-related modules<sup>1</sup>. At both Universidad El Bosque (MSc level) and Universidad de La Sabana (undergraduate level), I redesigned the statistics learning programmes to integrate teaching of statistical techniques with the use of statistical software.

Since 2017, I have led an initiative at Universidad El Bosque to move from proprietary software like SPSS, to open-source software, following open science principles and focusing on statistical modelling, inference, and reproducibility. This has included using *jamovi* for both undergraduate and postgraduate courses, as well as running R seminars for staff, and co-designing an optional R module for undergraduate students.

### Universidad El Bosque

*Bogota, Colombia*

ASSOCIATE PROFESSOR

2019 - Present

- Reproducible research and statistical modelling in R (open practical seminar) - 2020-Present
- Quantitative Methods II (Psychology MSc) - 2019

### Universidad El Bosque

*Bogota, Colombia*

ASSISTANT PROFESSOR

2015 - 2019

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

### Universidad de La Sabana

*Chia, Colombia*

CATHEDRATIC PROFESSOR

2014 - 2016

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

### University of Stirling

*Stirling, UK*

TEACHING ASSISTANT

2012 - 2013

- Quantitative Methods (Psychology MSc – several lectures, practical supervision, one-on-one teaching) - 2012-2014
- Cognition Module (Year 3 BSc/BA – leading research projects in psychoacoustics) - 2012-2014
- Animal Behaviour (Year 3 BSc/BA – lecture on vocal communication) - 2012

### Universidad Pedagógica Nacional

*Bogota, Colombia*

AUXILIAR PROFESSOR

2010

- Research Project I - 2010
- Research Lab II - 2010

## STUDENT EVALUATIONS (UNIVERSIDAD EL BOSQUE)

Below are evaluations of some representative modules I have taught. Please be aware of the different system established by the University to evaluate modules for undergraduate and postgraduate students.

### Research Degree Project II

*Universidad El Bosque*

VALUES CORRESPOND TO THE PERCENTAGE OF STUDENTS WHO RATED EACH ACHIEVEMENT AS HIGH

2018

(OPTIONS WERE LOW, MEDIUM, HIGH)

- To be able to read about the subject matter in this area more critically: 90.9%
- Correct inaccurate ideas and concepts about this field of psychology: 90.9%
- Interest in research on the area under study: 90.9%
- New concepts and research: 81.8%
- Application of knowledge in the psychological context: 81.8%

<sup>1</sup>In Colombia, academic years run between January and December, and all university courses are organised in semesters, typically starting in February and August. Because of this, each year of teaching means running the same module twice.

## Sources and Documentation Styles in Psychology

Universidad El Bosque

VALUES CORRESPOND TO THE PERCENTAGE OF STUDENTS WHO RATED EACH ACHIEVEMENT AS HIGH

2015

(OPTIONS WERE LOW, MEDIUM, HIGH)

- To be able to read about the subject matter in this area more critically: 79.5%
- Correct inaccurate ideas and concepts about this field of psychology: 70.5%
- Interest in research on the area under study: 77.3%
- New concepts and research: 72.7%
- Application of knowledge in the psychological context: 81.8%

## Quantitative Methods II (Psychology MSc)

Universidad El Bosque

2017-2019

VALUES CORRESPOND TO THE AVERAGE SCORE OUT OF 5.00

- Relevance of the contents to the objective of the programme: 4.75
- Material provided to support the development of the module: 4.67
- Didactic resources used: 4.64
- Practical usefulness of the contents: 4.63
- Contribution of the contents to professional life: 4.63
- Fulfilment of the programme: 4.76
- Design of the sessions: 4.69
- **Average Academic and Methodological Aspects: 4.69**
- Clear and comprehensive conceptual handling of the topics: 4.65
- Clarity in their presentations: 4.49
- Terminology used: 4.74
- Use of strategies that develop critical-constructive thinking: 4.60
- Use of strategies that facilitate the understanding of concepts: 4.61
- Use of strategies that facilitate the application of the concepts addressed in the subject: 4.63
- Willingness to resolve doubts: 4.71
- Promotion of class participation: 4.70
- **Average Pedagogical and Didactic Conditions: 4.65**
- Adequate and objective volume of readings: 4.70
- Promotion of the student's interest in learning: 4.72
- Feedback on the activities carried out (workshops, seminars, case analysis): 4.57
- Cordial and respectful relationship with the student: 4.79
- **Average Learning Facilitators: 4.71**

## STUDENT COMMENTS (UNIVERSIDAD EL BOSQUE)

Below are some anonymous comments included during student evaluations for modules I have taught.

### Research Degree Project II

Universidad El Bosque

2018

COMMENTS INCLUDED:

- "Excellent teacher, good methodology and always available for tutorials"
- "Excellent attitude of the teacher during the class and in the tutorials"
- "The teacher knows a lot and his methodology is appropriate"

### Sources and Documentation Styles in Psychology

Universidad El Bosque

2015

COMMENTS INCLUDED:

- "Professor Juan always came prepared to the classes and kept us informed of everything, the topics were very interesting and contributed a lot to my learning; if I had any difficulty or concern he was concerned about solving it"
- "Excellent teacher! He goes out of his way to make sure we learn and see the importance of research in psychology"
- "He is a good teacher who strives for us to learn and to be people with a critical sense and who explains by means of methodologies that make it easier to understand the subjects"

### Quantitative Methods II (Psychology MSc)

Universidad El Bosque

2017-2019

COMMENTS INCLUDED:

- "Juan David has a very good way of transferring knowledge, especially for people who are not very good at quantitative subjects"
- "The course was excellent; the professor provided a very valuable learning space, not only because the topics were very relevant and at a master's level, but also because he motivated our critical thinking, gave us unconventional tools and was generally flexible to the requests of the group"
- "Excellent professional and human being"
- "I consider that the teacher's contribution was excellent, it allowed me to obtain the necessary skills for the research and statistical field"

## Scholarships, Prizes and Awards

### Ig Nobel Prize

Cambridge, MA, USA

ECONOMICS PRIZE

Sep. 2020

- 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).

### 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 | Ministry of Science, Technology and Innovation

FRANCISCO JOSÉ DE CALDAS SCHOLARSHIP FOR DOCTORAL STUDIES

- Full tuition and living costs (aprox. £120,000)

[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

- 25% of annual tuition fees

[Liverpool, UK](#)

Sep. 2008 - Sep. 2009

### Colfuturo

SCHOLARSHIP-LOAN PROGRAMME

- 50% of all tuition and living costs (aprox. US\$25,000)

[Bogota, Colombia](#)

Sep. 2008 - Sep. 2009

## Grants

Funding for scientific research in Colombia is scarce<sup>2</sup>, especially for basic research; of the limited number of grants available, the vast majority is for medical research or conservation projects, as well as to address specific postconflict issues, which mean that my options for obtaining funding are extremely restricted. Moreover, even the University's internal funding has recently shifted towards certain *key areas*, all aimed at applied research and in line with the prioritised areas established by [Minciencias](#) (Ministry of Science, Technology and Innovation of Colombia).

Despite this, I have consistently outperformed my colleagues and have never failed to obtain funding for any of the applications I have made since 2015. In fact, I have received over US\$200,000 in research funding from external grants and scholarships since the start of my PhD, including from major funder Minciencias.

### Minciencias | Ministry of Science, Technology and Innovation

POSTDOCTORAL RESEARCH STAYS - COLCIENCIAS BENEFICIARIES 2017

- Project: Perceptible signals of physical and mental health in faces, voices and body odors, and their relationship with hormonal levels
- COP\$84,000,000

[Bogota, Colombia](#)

2018 - 2019

### Universidad El Bosque

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

- Project: Perceptible signals of physical and mental health in faces, voices and body odors, and their relationship with hormonal levels
- COP\$136,586,537

[Bogota, Colombia](#)

2018 - 2021

### Universidad El Bosque

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

- Project: Effects of evolutionary relevant static signals (sex, dominance, and attractiveness) on the cortical processing of human faces
- COP\$80,000,000

[Bogota, Colombia](#)

2017 - 2020

### Universidad El Bosque

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

- Project: Effects of hormone levels, masculinity and femininity on pitch discrimination in men and women
- COP\$13,000,000

[Bogota, Colombia](#)

2016 - 2019

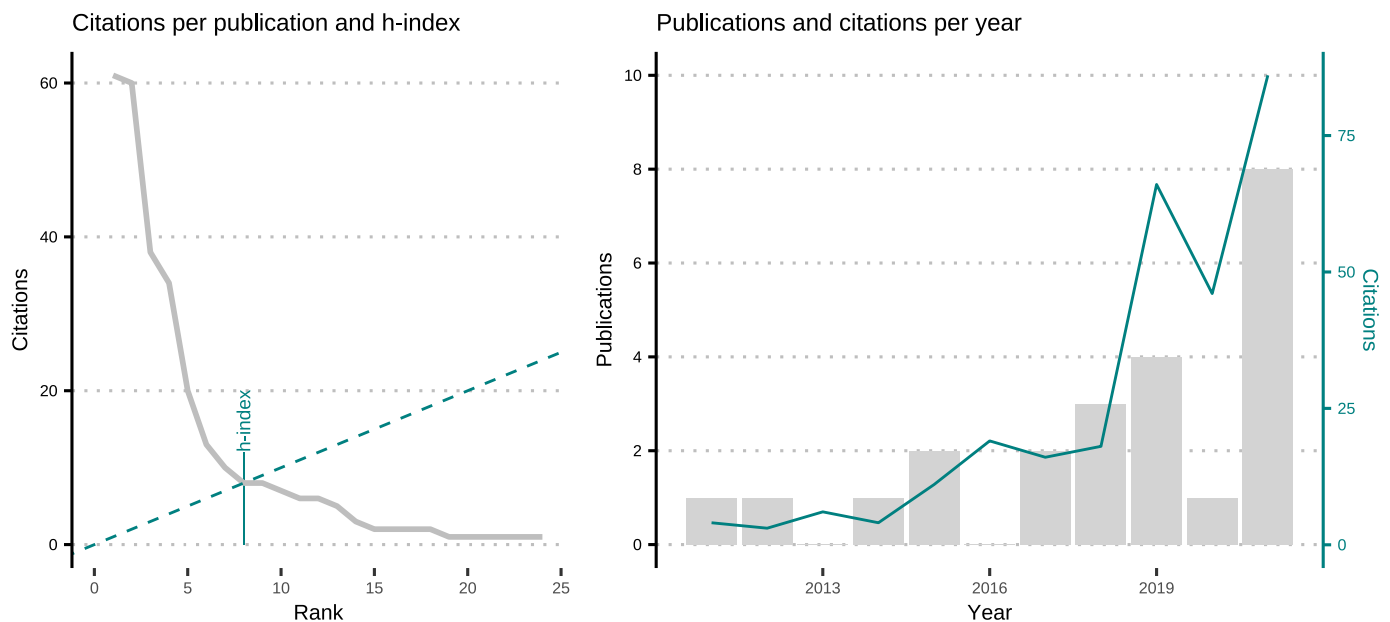
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<sup>2</sup>In 2015, Colombia spent a mere 0.24% of its gross domestic product on R&D, and since then, the situation has worsened. In 2018, [Minciencias budget](#) was US\$75,000,000, and by 2021 it was only about US\$67,000,000.

## Publications

Between 2015 and 2017 my contracts were teaching based, with little time for research. Since 2018, however, I have focused increasingly more on research.

I have published (or have in press) 24 journal articles. In most of these I have done all statistical analyses, and 12 are as first or last author. To date, my articles have been cited 293 times, 198 (68%) since the beginning of 2019, and two have been cited over 50 times (see figure below). I have an h-index of 8 and a g-index of 16<sup>3</sup>.



Source for citation data: Google Scholar. Updated November 11, 2021

### THEME ISSUE ON VOICE MODULATION (GUEST EDITOR)

**Leongómez, J. D.**, Pisanski, K., Reby, D., Sauter, D. A., Lavan, N., Perlman, M., & Valentova, J. V. (Eds.). (2021). Voice modulation: From origin and mechanism to social impact (Part I) [Theme issue]. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 376(1840). <https://royalsocietypublishing.org/toc/rstb/376/1840>

**Leongómez, J. D.**, Pisanski, K., Reby, D., Sauter, D. A., Lavan, N., Perlman, M., & Valentova, J. V. (Eds.). (2021). Voice modulation: From origin and mechanism to social impact (Part II) [Theme issue]. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 377(1841). <https://royalsocietypublishing.org/toc/rstb/377/1841>

**Note:** Parts 1 and 2 publishing online on November 1 and 15, 2021, respectively.

### PREPRINTS AND ARTICLES UNDER REVIEW

Ibañez, A., 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. (submitted). The price of prosociality in pandemic times. *Humanities and Social Sciences Communications*. [https://mts-palcomms.nature.com/palcomms\\_files/2021/09/13/00005560/01/5560\\_1\\_merged\\_1634137245.pdf](https://mts-palcomms.nature.com/palcomms_files/2021/09/13/00005560/01/5560_1_merged_1634137245.pdf)

Martínez, C. A., & **Leongómez, J. D.** (submitted). Dehumanization Effects on Agency Attributions, Retributive Justice judgments, and Resocialization Attitudes towards Former Perpetrators in Post-conflict. *Political Behavior*. [https://jdleongomez.info/en/files/Dehumanization\\_effects.pdf](https://jdleongomez.info/en/files/Dehumanization_effects.pdf)

Vásquez-Amézquita, M., **Leongómez, J. D.**, Salvador, A., & Seto, M. C. (submitted). What do the eyes tell us about sexual preferences according to the age and sex of the stimuli? Connecting attention and eye movements to pedophilia. *Forensic Sciences Research*. [https://jdleongomez.info/en/files/eye-tracking\\_review.pdf](https://jdleongomez.info/en/files/eye-tracking_review.pdf)

Watkins, C., Bovet, J., Fernandez, A. M., **Leongómez, J. D.**, Zelazniewicz, A., Correa Varella, M. A., & Wagstaff, D. (submitted). Men say "I love you" before women do: Robust across several countries. *Journal of Social and*

<sup>3</sup>Citation data obtained using the [scholar](#) R package.



## PUBLISHED AND ACCEPTED JOURNAL ARTICLES

- Leongómez, J. D.**, Havlíček, J., & Roberts, S. C. (in press). Musicality in human vocal communication: An evolutionary perspective. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 377, 20200391. <https://doi.org/10.31234/osf.io/nfg26>
- Vásquez-Amézquita, M., Salvador, A., & **Leongómez, J. D.** (in press). Is digit ratio (2D:4D) different between sexual and non-sexual offenders, and non-offending men: Study of a colombian sample. *Interdisciplinaria*. [https://jdleongomez.info/en/files/Mile2021\\_2D4D.pdf](https://jdleongomez.info/en/files/Mile2021_2D4D.pdf)
- Fiala, V., Třebický, V., Pazhoohi, F., **Leongómez, J. D.**, Tureček, P., Saribay, S. A., Akoko, R. M., & 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., ..., **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., Butovskaya, M., Reby, D., Sorokowski, P., & 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., Nieto, J., & 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., Fernandez, A. M., Wagstaff, D., & 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%20=%201413>
- 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(1), 87–97. <https://revistas.pedagogica.edu.co/index.php/revistafba/article/view/50>

## Science divulgation

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### ARTICLES AND GUIDES

- Leongómez, J. D.** (2021). Meta-análisis de correlaciones en R [Meta-analysis of correlations in R]. *Zenodo*. <https://doi.org/10.5281/zenodo.5640182>
- 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.** (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>
- 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>



## 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 since 2020. To date (November 11, 2021), I have posted 8 videos, that have been watched a total of 148,050 times. The channel has 1,160 subscribers, and videos have an average of 396 likes, 18,490 views, and 98.9% of ratings are likes<sup>4</sup>.

**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 OBS Studio* [Introduction to OBS Studio]. [Video]. YouTube. <https://jdleongomez.info/en/post/obs/>

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

## Conference Presentations, Posters and Workshops

**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.

**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.

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<sup>4</sup>Data obtained using the [tuber](#) R package.

- Leongómez, J. D.**, Binter, J., Kubicová, L., Stolařová, P., Klapilová, K., Havlíček, J., & Roberts, S.C. (2014, April). *Vocal modulation during courtship increases proceptivity 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.

## Student supervision

**Note:** honours are in bold (names vary between countries and universities).

### POSTGRADUATE SUPERVISION

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.

#### PhD in Neuroscience

*University of Valencia, Spain*

MILENA VÁSQUEZ-AMÉZQUITA - **Summa Cum Laude**

2015 - 2018

- Supervised together with Alicia Salvador
- Thesis: *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]

#### Professional Doctorate in Counselling Psychology

*University of East London, UK*

FRANCISCO JAVIER FLORES

2015 - 2018

- Supervised together with Lisa Chiara Fellin
- Thesis: *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*

#### Psychological Research Methods (Evolutionary Psychology) MSc

*University of Stirling, UK*

JULIA SANZ-VIDANIA - **Distinction**

2013 - 2014

- Supervised together with S. Craig Roberts
- Dissertation: *Sexy Chat: Mate-Choice Preferences for Speech Content in the Absence of Auditory Cues*

## MSc in Psychology

Universidad El Bosque, Colombia

ADRIÁN ACOSTA GUERRERO - **Honourable Mention**

2019 - 2020

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

## UNDERGRADUATE SUPERVISION

Undergraduate supervised students below are from different universities and courses. This list only includes students for whom I was the principal supervisor. In addition to these, I have supervised 21 students as co-supervisor, and am currently supervising 6 more as principal supervisor, and many as co-supervisor.

### BA in Music Pedagogy

Universidad Pedagógica Nacional,  
Colombia

UNDERGRADUATE

2017 - 2019

- Natalia Elizabeth Moreno Buitrago (2017 - 2019) - **Merit**
- Juan Felipe Pérez Ariza (2017 - 2019) - **Merit**

### BSc in Biology

Universidad El Bosque, Colombia

UNDERGRADUATE

2017 - 2018

- Maria Alejandra Abello Mozo (2017 - 2018) - **Honourable Mention**

### BSc in Psychology

Universidad El Bosque, Colombia

UNDERGRADUATE

Since 2015

- Andrés Castellanos-Chacón (2017 - 2018) - **Honourable Mention**. Teaching supervision (2019 - Present)
- Juan Sebastián Preciado Ruíz (2020 - 2021) - **Honourable Mention**
- Maria Daniela Martínez Luna (2020 - 2021) - **Honourable Mention**
- Maria Paula Moreno Rodríguez (2019 - 2021)
- Andrés Felipe Orozco Serrato (2020 - 2021)
- Danny Ferley Gaitan Rodríguez (2019 - 2020)
- Hasbleidy Gamboa Ordoñez (2019 - 2020)
- Paula Andrea Betancourt Velandia (2018 - 2019)
- Ana Sofía Gómez Castelblanco (2018 - 2019)
- Lina María García Hoyos (2016 - 2017)
- Angie Liliana Pérez Rodríguez (2016 - 2018)
- Lina María Morales Sánchez (2016 - 2017)
- Laura Milena Estupiñán Aldana (2016 - 2017)
- Vanesa Díaz Güiza (2016 - 2018)
- Cindy Paola Moncada Gómez (2016 - 2017)
- Haydn Ricardo Roldán Morales (2015 - 2016)

## Editorial Appointments

My verified review record is available from my [Publons](#) profile.

### Philosophical Transactions of the Royal Society B

Editorial Boards

GUEST EDITOR

2020 - 2021

- 2-part theme Issue "Voice modulation: from origin and mechanism to social impact"
- Edited by Juan David Leongomez, Katarzyna Pisanski, David Reby, Disa Sauter, Nadine Lavan, Marcus Perlman, & Jaroslava Varella Valentova

### Frontiers in Psychology

Editorial Boards

REVIEW EDITOR

2019 - Present

- Specialty section on Evolutionary Psychology

### Ad Hoc Reviewer

Journals

JOURNALS INCLUDE

Since 2013

- Proceedings of the Royal Society B: Biological Sciences
- Basic and Applied Social Psychology
- Royal Society Open Science
- Evolution and Human Behavior
- Scientific Reports
- Cortex
- Journal of Nonverbal Behavior
- Perception
- Frontiers in Psychology
- Evolutionary Psychology

## Academic Reviewer

GRANT APPLICATION REVIEWING / PUBLICATION EVALUATION

- Minciencias | Ministry of Science, Technology and Innovation
- Universidad Nacional de Colombia

Colombian Institutions

Since 2015

## Organisation of International Conferences

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

PRESIDENT OF THE SCIENTIFIC COMMITTEE

- <http://doi.org/10.17605/OSF.IO/5BWNX>

### 1st International Virtual Congress ISEP

MEMBER OF THE SCIENTIFIC COMMITTEE

- <https://www.isep.es/congreso2020/#comite>

Universidad El Bosque &

Universidad de los Andes

November 25 - 28, 2020

ISEP

May 5 - 7, 2020

## Memberships

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### CURRENT

- International Society for Human Ethology (ISHE)

### PAST

- European Human Behaviour and Evolution Association (EHBEA)
- Association for Psychological Science (APS)