

Supplementary material

Questionnaires

Table A1. Artistic Creativity Achievement Questionnaire (ACAQ)

| Have you created any artistic work in these domains? | Number of 'Yes' |
|--|-----------------|
| Plastic Arts (Drawing, Painting, Sculpture, etc.) | 1,490 |
| Photography | 1,835 |
| New Media Arts (Digital, Computer, Multimedia Art, etc.) | 790 |
| Music | 605 |
| Performing Arts (Dance, Theatre or Film Acting, Opera, etc.) | 680 |
| Architecture | 250 |
| Creative Writing: Fiction (Poetry, Novel, Story, Playwriting, Scriptwriting, etc.) | 1,719 |
| Creative Writing: Non-Fiction (Essay, Journalism, Biography, etc. Excluding scientific publishing) | 1,828 |
| Theatre Direction or Production | 211 |
| Film Direction or Production | 171 |
| Other artistic areas | 212 |

Inspired by Carson et al. (2005). Three mutually exclusive possible replies: "No," "Yes, I have created some artistic work, unpaid and not commercially exploited," and "Yes, I have created some artistic work, paid or commercially exploited."

Table A2. Science Through Art Questionnaires (STAQs)

(I) Through your artistic facet, do you diffuse scientific knowledge?

- Yes, from my field of knowledge
- Yes, from my speciality within my field of knowledge
- Yes, from my publications in the ISI's JCR, with impact factor
- Yes, from knowledge fields other than mine

(II) Does your artistic work enable you to have contact with people outside your professional sphere in these ways?

- I talk about my scientific research with entrepreneurs or managers from the artistic world (editors, producers, etc.)
- I talk about my scientific research with professional artists (painters, sculptors, writers, filmmakers, etc.)
- I talk about my scientific research with the audience of my artistic work (readers, spectators, etc.)
- After becoming aware of my artistic work, entrepreneurs or managers from the artistic world have contracted me to develop my research facet
- Entrepreneurs or managers from the artistic world that produced my artistic work exhibit my research facet as an extra quality in its promotion
- Entrepreneurs or managers from the artistic world have given me research ideas that I have developed in my research facet
- Professional artists have given me research ideas that I have developed in my research facet
- The audience of my artistic work has given me research ideas that I have developed in my research facet

Answers in a 5-point Likert scale from 1 (Never) to 5 (Very frequently).

Table A3. Science-Art Balance Questionnaire (SABQ)

| How do you combine your research and artistic facets? | Notes |
|--|-----------------------------------|
| My artistic work counts as a merit for my professional CV | |
| I try to make colleagues aware of my artistic facet | |
| The fact that colleagues know about my artistic facet has been a disadvantage | Dropped for variable construction |
| I wish there were more links between my research and my artistic work | |
| My artistic work opens up new professional opportunities for me | |
| My artistic work is a useful way to highlight my professional competences | |
| If I could, I would leave my job to devote myself to art | Dropped for variable construction |
| The fact of having two facets (research and artistic) causes me personal tension | Dropped for variable construction |

Answers in a 7-point Likert scale from 1 (Totally disagree) to 7 (Totally agree). The elimination of three items indicated as "dropped for variable construction" increased the Cronbach's alpha score.

Table A4. Correlation coefficients (1/2)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|-------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 Science communication through art | 1.00 | | | | | | | | | | | | | |
| 2 Public outreach through art | 0.87* | 1.00 | | | | | | | | | | | | |
| 3 Public engagement through art | 0.86* | 0.51* | 1.00 | | | | | | | | | | | |
| 4 Scientific impact | -0.09* | -0.06* | -0.10* | 1.00 | | | | | | | | | | |
| 5 Scientific impact squared | -0.08* | -0.04* | -0.09* | 0.98* | 1.00 | | | | | | | | | |
| 6 Science-art balance | 0.64* | 0.61* | 0.50* | -0.08* | -0.07* | 1.00 | | | | | | | | |
| 7 Multidisciplinarity | 0.09* | 0.07* | 0.10* | 0.04 | 0.03 | 0.06* | 1.00 | | | | | | | |
| 8 Medicine | -0.11* | -0.10* | -0.10* | -0.12* | -0.13* | -0.09* | -0.19* | 1.00 | | | | | | |
| 9 Life Sciences | 0.01 | 0.06* | -0.04 | 0.10* | 0.09* | 0.01 | -0.05* | -0.24* | 1.00 | | | | | |
| 10 Other Natural Sciences | -0.07* | -0.06* | -0.06* | 0.14* | 0.12* | -0.05* | -0.13* | -0.28* | -0.23* | 1.00 | | | | |
| 11 Engineering | -0.09* | -0.09* | -0.07* | 0.08* | 0.08* | -0.04 | -0.06* | -0.19* | -0.16* | -0.19* | 1.00 | | | |
| 12 Art and Literature | 0.13* | 0.08* | 0.15* | -0.15* | -0.12* | 0.09* | -0.04* | -0.11* | -0.09* | -0.11* | -0.07* | 1.00 | | |
| 13 Madrid | -0.03 | -0.01 | -0.04 | 0.01 | 0.01 | -0.03 | 0.02 | 0.03 | 0.01 | 0.04 | -0.03 | 0.00 | 1.00 | |
| 14 Barcelona | -0.04 | -0.05* | -0.02 | 0.01 | 0.00 | -0.01 | 0.02 | 0.02 | 0.03 | -0.03 | 0.00 | -0.02 | -0.19* | 1.00 |
| 15 Valencia | 0.05* | 0.03 | 0.05* | 0.01 | 0.01 | 0.01 | -0.01 | -0.05* | 0.02 | -0.04 | 0.01 | 0.05* | -0.17* | -0.10* |
| 16 Foreign residence | 0.02 | 0.01 | 0.02 | 0.03 | 0.03 | 0.04 | -0.01 | -0.09* | 0.03 | 0.05* | 0.04 | -0.01 | -0.17* | -0.10* |
| 17 University researcher | 0.11* | 0.09* | 0.09* | -0.00 | 0.01 | 0.04 | 0.03 | -0.26* | -0.07* | -0.04 | 0.11* | 0.11* | -0.13* | -0.07* |
| 18 Woman researcher | -0.09* | -0.08* | -0.08* | -0.02 | -0.01 | -0.02 | 0.01 | 0.06* | -0.02 | -0.07* | -0.10* | 0.10* | 0.04 | 0.01 |
| 19 Age | 0.13* | 0.10* | 0.13* | -0.05* | -0.05* | -0.03 | 0.08* | 0.06* | 0.04* | 0.01 | -0.14* | 0.00 | 0.09* | 0.02 |
| 20 Foreign nationality | 0.00 | -0.01 | 0.01 | 0.03 | 0.04 | -0.00 | 0.02 | -0.04 | -0.03 | 0.04* | -0.03 | 0.04* | -0.03 | 0.04 |
| 21 Non-Spanish first language | 0.00 | -0.01 | 0.01 | 0.01 | 0.01 | -0.02 | -0.01 | -0.06* | 0.01 | 0.02 | 0.01 | -0.01 | -0.21* | 0.29* |
| 22 PhD | 0.08* | 0.08* | 0.06* | 0.17* | 0.15* | -0.02 | 0.08* | -0.22* | 0.02 | 0.10* | 0.04* | 0.01 | -0.01 | -0.02 |
| 23 Married or domestic partner | 0.00 | 0.01 | -0.01 | -0.01 | -0.01 | -0.05* | 0.01 | 0.11* | -0.01 | -0.03 | -0.04* | -0.05* | -0.02 | -0.02 |
| 24 Number of underage children | -0.04 | -0.01 | -0.06* | 0.00 | 0.00 | -0.02 | 0.01 | 0.05* | -0.02 | -0.01 | -0.02 | -0.05* | 0.03 | -0.03 |
| 25 Number of organisations | 0.08* | 0.05* | 0.09* | -0.05* | -0.04 | 0.04 | 0.05* | 0.13* | 0.01 | -0.10* | -0.08* | -0.02 | 0.03 | 0.11* |
| 26 Directive position | 0.09* | 0.05* | 0.10* | -0.02 | -0.02 | 0.00 | 0.10* | 0.02 | -0.05* | -0.04* | -0.01 | 0.02 | -0.01 | 0.04 |
| 27 Public organisation | -0.01 | -0.01 | -0.01 | 0.07* | 0.06* | -0.05* | -0.02 | -0.02 | 0.01 | 0.09* | -0.01 | 0.02 | 0.01 | -0.08* |

* Significant at 5%.

Table A5. Correlation coefficients (2/2)

| | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
|--------------------------------|--------|--------|-------|--------|--------|--------|--------|-------|-------|-------|--------|-------|------|--------|
| 15 Valencia | 1.00 | | | | | | | | | | | | | 1.00 |
| 16 Foreign residence | -0.09* | 1.00 | | | | | | | | | | | | -0.09* |
| 17 University researcher | 0.09* | 0.04* | 1.00 | | | | | | | | | | | 0.09* |
| 18 Woman researcher | 0.00 | 0.00 | -0.04 | 1.00 | | | | | | | | | | 0.00 |
| 19 Age | 0.03 | -0.26* | 0.03 | -0.21* | 1.00 | | | | | | | | | 0.03 |
| 20 Foreign nationality | -0.02 | 0.24* | 0.00 | 0.03 | -0.07* | 1.00 | | | | | | | | -0.02 |
| 21 Non-Spanish first language | 0.13* | 0.04* | 0.03 | -0.01 | -0.04 | 0.24* | 1.00 | | | | | | | 0.13* |
| 22 PhD | 0.01 | 0.01 | 0.22* | -0.09* | 0.19* | -0.03 | -0.03 | 1.00 | | | | | | 0.01 |
| 23 Married or domestic partner | 0.00 | -0.12* | -0.00 | -0.14* | 0.28* | -0.02 | -0.01 | 0.11* | 1.00 | | | | | 0.00 |
| 24 Number of underage children | -0.02 | -0.11* | -0.02 | -0.05* | -0.04 | -0.02 | -0.01 | 0.07* | 0.36* | 1.00 | | | | -0.02 |
| 25 Number of organisations | -0.02 | -0.01 | 0.07* | -0.02 | 0.07* | 0.05* | 0.05* | 0.03 | 0.06* | -0.02 | 1.00 | | | -0.02 |
| 26 Directive position | -0.02 | -0.13* | 0.02 | -0.07* | 0.23* | -0.06* | -0.02 | 0.09* | 0.14* | 0.06* | -0.04 | 1.00 | | -0.02 |
| 27 Public organisation | 0.08* | -0.09* | 0.17* | -0.06* | 0.18* | -0.09* | -0.05* | 0.12* | 0.07* | 0.02 | -0.17* | -0.02 | 1.00 | 0.08* |

* Significant at 5%.