Advancing the Science of Imagination: Toward an “Imagination Quotient”

REQUEST FOR PROPOSALS

An international grants competition for research and intervention projects on the measurement and improvement of imagination

Click here to submit a Letter of Intent for this grant competition.

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Timeline of Events

July 1, 2014: RFP announced

September 30, 2014: Letter of Intent due

November 15, 2014: 20-30 finalists will be invited to submit a full proposal

February 15, 2015: Full proposals due

May 15, 2015: Up to 15 winners announced

July 2015: Funded projects begin

June 2017: Three-day research retreat with project council, award winners, and key senior scientist advisors

July 2017: Conclusion of research projects

Contact

Please direct all inquiries to: info@imagination-institute.org
Overview

How Can Imagination be Measured and Improved?

Supported by a grant from the John Templeton Foundation, the Imagination Institute, a non-profit organization based in Pennsylvania dedicated to advancing the understanding of and research on imagination, has established under its initiative, Advancing the Science of Imagination: Toward an “Imagination Quotient,” a grants competition targeted to psychologists, neuroscientists, and educators who conduct research on theory of mind, mental imagery, mental simulation, perspective taking, prospective thought, daydreaming, mind wandering, counterfactual thinking, creativity, memory, curiosity, child development, aging, social cognition, and related fields, to support projects that seek to test and validate a proposed measure and develop an intervention for imagination/perspective. This initiative encourages such researchers to collaborate with individuals in corporate, military, school, health, university, governmental, and artistic settings to demonstrate that the proposed measure and interventions work in such a setting. Proposals from around the world will be welcomed.

In 2015, up to fifteen (15), two-year grants in the range of $150,000 to $200,000 will be awarded to scholars from around the world. The awards are intended to generate new scientific information in order to further clarify the construct of imagination and its measurement for the purpose of advancing an understanding of the human mind and its role in the optimization of human potential and flourishing. The award recipients will be brought together for a retreat at the conclusion of the program in the summer of 2017 in order to compare the results of their projects and to discuss longer-term efforts at generating an “Imagination Quotient”.

Background

Given the many meanings of imagination and creativity in the literature, a working, summary framework of key constructs in the “Imagination Spectrum” is presented below. We stress that this is just a “working framework” and we welcome amendments:

The core skill is “Imagination” (root: imaging), which consists of mental representations (visual, verbal, and auditory) of things that are not present to the senses. Imagination is about some alternative to the present stimulus environment, and includes all of the following: mental imagery of things that may not exist, counterfactual conjecture, alternative pasts, daydreaming, fantasizing, pretending, other minds, mental rehearsal, and aspects of dreaming.

Although the term “imaginative” has positive connotations in everyday speech (“an imaginative movie script”), imagination itself is neutral: Imagination includes adaptive activities (like effective scenario planning in a business setting) and maladaptive activities (like frightening imagery that fuels phobic avoidance). Similarly, imagination implies novelty.
to the layperson, but imagination need not be original: Mentally rehearsing one’s golf swing, or repetitively worrying about leaving the oven on, are examples of banal imagination.

“Prospection” is imagination about possible futures. These possibilities by definition contain elements that are not present now. Prospecting can have visual, verbal, kinesthetic, and auditory representations. One vital function of prospection is that it motivates action: We act because we desire something, and we desire something because we have imagined future things we do not have.

“Originality” is prospecting that introduces novelty. One can prospect without originality by taking past data and merely projecting it into the future. Originality, on the other hand, introduces new variables, perspectives, and possibilities into those simulations (Amabile, 1988; Sawyer, 2012). Originality does not imply usefulness, nor does it imply an audience that might desire the object.

“Creativity” yields ideas or products that are novel, and in addition they are useful, beneficial, and desired by an audience (Sternberg & Lubart, 1999). All creativity begins with imagination: before people can contribute something novel and useful and desirable in a given domain, they must explicitly mentally represent something that does not yet exist. Therefore, we can have imagination without creativity (e.g., redundantly daydreaming about a white sand beach), but we cannot have creativity without imagination.

“Innovation” is taking a creative idea and bringing the product to scale, usually by organizations.

The Imagination Spectrum and the relationship among these constructs is represented in the figure below:
Each of these five processes can be facilitated by various psychological assets. Among these assets are curiosity, future-mindedness, openness to experience, optimism, perseverance, perspective, purpose, and wisdom. We welcome proposals that measure these assets as well as others and their influence on the five processes in this “Imagination spectrum.”

**Topics**

We seek to support highly original, methodologically rigorous projects which address the Big Question – *How Can Imagination be Measured and Improved?* Each applicant will be required to:

1. Develop an objective measure of a particular aspect of imagination, an “Imagination Quotient,” with clear operational definitions and criteria for imagination and a draft scale/measure to be submitted with the full proposal.

2. Develop the plans for a manualized intervention with baselines and controls that will be administered to relevant populations for increasing one’s imaginative capacities that will be assessed using the scale/measure once it has been validated.
- Deliver the intervention to the relevant populations and measure changes in Imagination and/or one or more of the five processes in the “Imagination Spectrum,” Compared to a well-chosen control group.

We emphasize that it is not just traditional questionnaire measures of imagination that will be eligible for consideration. We call for research in several areas of the measurement:

- Reliable and valid self-report and other-report questionnaires measuring individual differences in imagination;
- Non-questionnaire measures of individual differences in imagination, employing such techniques as experience sampling and content-analytic verbatim reports;
- Behavioral tasks, such as thought experiments and measures of creative cognition, for assessing aspects of imagination and creativity;
- “Big Data” lexical measures of imagination using social media.

We believe that the time is ripe for new scientific explorations in these areas. However, no matter what powerful new scientific knowledge is generated from this research, the real value of this initiative lies in its ability to change the way humankind will think and behave in order to improve human flourishing.

To Apply

Interested applicants should submit a short Letter of Intent (no more than three pages, excluding project budget, with a font no smaller than 12 point) and a Curriculum Vita by September 30, 2014. To submit a letter of intent, please visit: https://imaginationinstitute.wufoo.com/forms/advancing-the-science-of-imagination/

The Letter of Intent should:

- Include a title for the proposed research;
- Describe how the proposed research addresses the Big Question - How Can Imagination be Measured and Improved?
- Outline a plan to develop an objective measure of imagination (or aspect of imagination), with clear operational definitions and criteria for imagination (and a draft scale to be submitted with the full proposal);
- Include the plans for a manualized intervention with baselines and controls that will be administered to relevant populations for increasing one’s imaginative capacities that will be measured using the scale once it has been validated;
- Specify research methodology and technology needed;
- Include a detailed description of the relevant population
• Identify likely, committed collaborators, if any. We welcome and encourage collaborations with people outside of psychology (e.g., business leaders, educators, artists, etc.)
• Include a project budget in a separate section and document the following direct costs plus overhead amount. Include personnel, equipment, travel and other budget items; see “Acceptable uses of grant funds” below).

Acceptable uses of grant funds include:
• Student or postdoctoral salary and benefits for part of the academic year;
• Summer salary and teaching buyout for academics;
• Support for specific projects during sabbaticals;
• Assistance in writing or publishing books;
• Modest allowance for justifiable lab equipment, computers, publication charges, and other supplies;
• Modest travel allowance;
• Overhead of at most 15%.

We will award up to 15 two-year awards in the range of $150,000 – $200,000, for a total of $3,000,000 in awards. Awards may vary somewhat depending on the specific budgetary needs of the proposed project, and we may raise or lower the budget that is awarded. Funds will be disbursed over two years based on the approved budget with project start dates no later than July 2015. We highly encourage prospective applicants to leverage funds from other sources where possible. Note that awards will only be made to IRS recognized nonprofit organizations. Individuals or for-profit groups and institutions should not apply for an award unless there is a nonprofit or governmental collaborating institution.

By November 15, 2014, twenty to thirty applicants will be invited to submit a Full Proposal and all applicants will be notified of the judging results. The following is provided for informational purposes only and should not be submitted at this time.

Full Proposals must include a Project Description of no more than 10 pages (8 ½ x 11 paper), be submitted in English, single-spaced, 1” margins on each side, using 12-point Times New Roman font, by February 15, 2015. Full Proposals that do not follow these font and length specifications will not be accepted. The Full Proposal must include:

1. Cover Sheet (1 page)
2. Table of Contents (1 page)
3. Project Summary (1 page)
4. Project Description (maximum of 10 pages including references and figures)
5. Project Timeline
6. Curriculum Vitae of PI(s) and Co-PI(s)
7. Detailed Budget (template will be developed prior to the applicant group getting invited)
8. Budget Narrative
9. Letter of Commitment from Relevant Population Source

Submitted Full Proposals will undergo a competitive process of external and confidential expert peer review, evaluated according to the criteria described below. A review panel of
scientists in the relevant fields will be convened to produce a final rank ordering of the proposals, which will determine the award winners, and make budgetary adjustments if necessary. Public award announcements will be made on or about May 15, 2015

**Evaluation Criteria**

For each application, the reviewers will consider the following evaluation criteria:

1. Relevance to program: Does the proposed project build upon prior findings? How does it advance the science of imagination?

2. Scientific merit (approach and methods): Are the proposed projects well-designed and commensurate with the central Big Question of the RFP?

3. Impact potential: Will the results be publishable in scholarly journals? Will the results enhance public awareness of the importance of imagination or increase knowledge about how it can be successfully measured and improved?

4. Innovation: Does the project employ novel and innovative ideas or methods? Would it be considered leading-edge research?

5. Capacity for success: What are the qualifications of the investigators? Can they carry out the project in a timely manner? Can they effectively communicate their findings to both academic and nonacademic audiences? Do they display scientific leadership?