

Taft Center Fellows Cover Sheet

Date of Application: 8/28/13

Applicant name: Peter Langland-Hassan

Department: Philosophy

Rank: Assistant Professor

Title of research project: Inner Speech, Metacognition, and Thought
Itself

Intended results of a funded research, e.g., concrete plans for
publication or conference presentations: Publishable book on the
nature of inner speech

Other funding applied / received for this project Conference (list
source and amounts requested and awarded): None

Potential external funding that might arise from this project:

As this work is interdisciplinary and partly empirical in nature,
publishing the planned book would greatly increase my eligibility for
NSF or NIH funding for future collaborative work on inner speech.

Checklist

- A narrative of 1000 – 1,400 words that entails the following:
 - Justification of the project as a major work that will result in significant contributions to the applicant's field and established record of research (see Taft website for more details).
 - An explanation of how the project may be moved forward through the specific experience of serving as a Taft Center Fellow.
 - A project schedule that details how the project will be completed during the Center Fellowship year.
- Letters of support
 - Two letters from outside experts (to be uploaded by external reviewers).
 - A letter from the department head (uploaded at the time of departmental review)
- A 2-page, recently updated curriculum vitae.

Review Taft website for full application

Taft Grants Received in the Last Five Years

1. Type and Dates: Summer Research Fellowship, Summer 2012

Amount: \$8000

Project Title: Knowing what you are Thinking: Inner Speech, Visual Imagery, and Introspection

Resulting Publications and Presentations:

- Forthcoming publication in *Mind & Language*: "Inner Speech and Metacognition: In Search of a Connection"

2. Type and Dates:

Amount:

Project Title:

Resulting Publications and Presentations:

3. Type and Dates:

Amount:

Project Title:

Resulting Publications and Presentations:

4. Type and Dates:

Amount:

Project Title:

Resulting Publications and Presentations:

Inner Speech, Metacognition, and Thought Itself

Peter Langland-Hassan

Introduction: Inner speech is the little voice in the head, sometimes called “thinking in words.” It is the familiar phenomenon of saying things to oneself, silently. While individual reports vary, formal estimates have it that inner speech occurs, on average, during 25% of waking life (Heavey & Hurlburt, 2008).

Suppose that someone suddenly lost the ability to engage in inner speech, while all else in her mind remained the same. Would she still know what she was thinking, failing only at finding the right words to (inwardly) express it? Or would it be more accurate to say that she simply could not have many of the thoughts she formerly had? There is surprisingly little consensus in philosophy and psychology on these important questions—questions concerning the relationships among thought, language, consciousness, and “metacognition” (awareness of one’s own thinking). Nor are there well-accepted empirical methods for addressing them.

My wish is to pursue these and related questions concerning inner speech as a Taft Center Fellow during the academic year of 2014-2015, with the end result being a book-length manuscript on the nature and cognitive role of inner speech. The book will develop some of my earlier theoretical work on inner speech (Langland-Hassan, 2008, forthcoming), while bringing to bear new research that I will undertake in the academic year 2013-2014.

Background: Inner speech is an important theoretical construct to a number of research programs in cognitive science, including work on executive control¹ (Fernyhough & Fradley, 2005), working memory (Baddeley, 2007), introspection (Carruthers, 2011), self-awareness

¹ Executive control is the capacity to override automatic cognitive reflexes, in order to adapt to changing circumstances.

(Morin, 2005), and delusions in schizophrenia (Frith, 1992). However, much of this work remains speculative, and many of the claims made within one research program fail to connect in any meaningful way with those made in the others. The proposed book will be unique both in its extended focus on inner speech, and in the different literatures and traditions it seeks to unite.

The project will use critical reviews of the existing literatures in empirical psychology, linguistics, neuroscience, and philosophy to generate and defend new conclusions and hypotheses. However I also hope to bring to bear new empirical data from an interdisciplinary research project that I will lead in the fall of 2013. The study stems from a University Research Council grant I received last year to research the cognitive impact of inner speech impairments in people with aphasia.² It is now a collaborative effort with Dr. Aimee Dietz (a speech pathologist in the University of Cincinnati's College of Allied Health Sciences), a colleague in philosophy (Dr. Christopher Gauker), and a professor in the UC psychology department (Dr. Michael Richardson). We expect the data to speak directly to a number of questions about inner speech, including whether a person lacking inner speech can think about abstract categories (e.g., "living beings", or "musical instruments"), and know that she is thinking about them.

Of course, it is too early to say whether the study will generate significant results. However, in devising the experiment, I have had to reflect deeply on the methodological challenges to scientifically studying a "private" phenomenon like inner speech. This experience will undoubtedly inform the work as a whole. In addition, my involvement in empirical research of the kind that I will be discussing will enable me to speak from a place of greater experience than is often the case with philosophers of mind. Finally, the study is evidence of a track record in collaborating with faculty across disciplines; I would hope to establish other such collaborations in my time at the Taft Center.

I turn now to outlining the project as I envision it.

² People with aphasia have language impairments, typically caused by stroke.

Research Plan: The manuscript will proceed by asking three interrelated, large-scale questions over the course of eight chapters. The three large-scale questions are:

1) What is the *basic representational structure* (or “content”) of inner speech? When we say a sentence in inner speech, we are presumably thinking about whatever it is that the sentence is about. So, when one says, in inner speech, “It is starting to rain,” one is presumably thinking about rain. However, it seems one is also thinking about (or *representing*, as philosophers say) the sound and phonological characteristics of the spoken English sentence ‘It is starting to rain.’ This is evident from the fact that we can tell whether two words—such as ‘crane’ and ‘rain’—rhyme simply by repeating them in inner speech. We can call the component of inner speech relating to the sounds of words its *auditory-phonological* component, and the component relating to the meaning of those words its *semantic* component. An important unresolved question is how these two aspects of inner speech fit together. Can each part—semantic and auditory-phonological—occur without the other? Are we typically conscious of both aspects of inner speech when they occur, or only one? Drawing on my forthcoming (written with the support of a Taft Summer Research Fellowship, 2012), these questions will be honed, and options for answering them considered, in Chapters 1 and 2 of the manuscript. I then move to the second large-scale question:

2) Does inner speech have special characteristics that allow us to think thoughts that we simply *could not* think if confined to other available forms of thought (e.g. visual imagery, or the so-called “Language of Thought” (Fodor, 1975)). The answer depends both on how we conceive of inner speech, and on what other forms of thought we think there are. The study on inner speech impairments in aphasia may shed some new light

here. A closely related issue is whether inner speech utterances are (like normal “out loud” utterances) mere *expressions* of pre-existing thoughts, or whether they are thoughts themselves. These questions will be addressed in Chapters 3 and 4, setting the stage for the discussion of the third question:

- 3) What are the *specific behaviors and cognitive capacities* that inner speech makes possible? This is where most current empirical research focuses. In discussing this literature, my goal to arrive at a conception of inner speech that explains *why* it is able to play the cognitive roles it does, by connecting those functions to the conclusions about its basic nature reached in Chapters 1-4. Chapter 5 will address the role of inner speech in working memory and executive control, with an eye toward clarifying those theoretical notions in a way that coheres with the lessons of Chapters 1-4. Chapter 6 will pursue similar aims with respect to understanding the role of inner speech in enabling us to know what we are thinking. It is here especially that the study on people with aphasia may be relevant. Drawing on my 2008, Chapter 7 will then apply the conclusions of earlier chapters to the symptom of “thought insertion” in schizophrenia (often hypothesized to result from impairments in inner speech). Chapter 8 will conclude by mapping out the most plausible overall account of inner speech’s place among the other faculties of the mind, given the theoretical and empirical considerations of the preceding chapters.

Timeline: During the academic year of 2013-2014 I will complete the research and literature reviews relevant to all aspects of the project. I expect to spend July and August of 2014 expanding my forthcoming into Chapters 1 and 2 of the manuscript. In September and October I plan to write Chapters 3 and 4, leaving November through March 2015 to draft Chapters 5

through 8. April will be spent proofreading and writing an introduction to the volume. In May 2015, I plan to submit the complete draft to a leading academic publisher (most likely MIT Press).

Conclusion:

The planned research would result in a manuscript that is distinctive in a number of ways. First, it would be the most comprehensive examination of inner speech in the contemporary philosophical and cognitive science literatures (there simply are no other book-length treatments of the topic). Second, it would help bring into contact several research programs that have so far remained distinct. And, third, it would be written from the uncommon perspective of a philosopher of mind who is currently engaged in empirical work that speaks to the questions being addressed. It is a project that I am eager to undertake; with the support of the Taft Center, I am confident that it can be accomplished.

References

- Baddeley, A. D. (2007). *Working memory, thought and action*. Oxford University Press.
- Carruthers, P. (2011). *The Opacity of Mind: An Integrative Theory of Self-Knowledge*. Oxford: Oxford University Press.
- Fernyhough, C., & Fradley, E. (2005). Private speech on an executive task: relations with task difficulty and task performance. *Cognitive Development, 20*(1), 103-120. doi: 10.1016/j.cogdev.2004.11.002
- Fodor, J. A. (1975). *The language of thought*. New York: Crowell.
- Frith, C. (1992). *The Cognitive Neuropsychology of Schizophrenia*. Hove, UK: Lawrence Erlbaum.
- Heavey, C. L., & Hurlburt, R. T. (2008). The phenomena of inner experience. *Consciousness and Cognition, 17*, 798-810.
- Langland-Hassan, P. (2008). Fractured Phenomenologies: Thought Insertion, Inner Speech, and the Puzzle of Extranity. *Mind & Language, 23*(4), 369-401.
- Langland-Hassan, P. (forthcoming). Inner Speech and Metacognition: In Search of a Connection. *Mind and Language*.
- Morin, A. (2005). Possible links between self-awareness and inner speech: Theoretical background, underlying mechanisms, and empirical evidence. *Journal of Consciousness Studies, 12*(4-5), 115-134.
- Smith, J. D., Beran, M. J., Couchman, J. J., & Coutinho, M. V. C. (2008). The comparative study of metacognition: Sharper paradigms, safer inferences. *Psychonomic Bulletin & Review, 15*(4), 679-691.

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PROFESSIONAL APPOINTMENTS

Assistant Professor of Philosophy
University of Cincinnati, September 2011 – Present

Postdoctoral Research Fellow, Philosophy-Neuroscience-Psychology (PNP) Program
Washington University in St. Louis, September 2009 – July 2011

EDUCATION

Ph.D. in Philosophy, The Graduate Center of the City University of New York, October 2009

B.A. in Philosophy (*cum laude*), Columbia College, Columbia University, May 1997

AREAS OF SPECIALIZATION

Philosophy of Mind, Philosophy of Psychology and Cognitive Science, Philosophy of Psychiatry

PUBLICATIONS

“Inner Speech and Metacognition: In Search of a Connection” *Mind & Language* (forthcoming).

“What it is to Pretend,” *Pacific Philosophical Quarterly* (forthcoming)

“Pretense, Imagination, and Belief: the Single Attitude Theory,” *Philosophical Studies* 159 (2012): 155-179.

“A Puzzle about Visualization,” *Phenomenology and the Cognitive Sciences* 10 (2011): 145-173.

“Fractured Phenomenologies: Thought Insertion, Inner Speech, and the Puzzle of Extraneity,”
Mind and Language 23 (2008): 369-401.

COMMENTARIES AND REVIEWS

“Metacognition without Introspection,” *Behavioral and Brain Sciences* 32 (2009): 151-152.

Review of L. Bortolotti’s *Delusions and Other Irrational Beliefs* (2009, OUP) in *Psychological Science* (2010)
40: 2101-2103.

GRANTS, AWARDS AND FELLOWSHIPS

University Research Council, Summer Research Grant: 2013

Taft Center for the Humanities, Summer Research Fellow: 2012

University of Cincinnati Faculty Development Council Grant: 2012-2013

University Fellow, City University of New York: 2008-2009

Sponsored Dissertation Fellowship, The Graduate Center of the City University of New York: 2007-2008

American Philosophical Association Graduate Student Paper Prize (Eastern Division): 2006

University Fellowship, The Graduate Center of the City University of New York: 2004-2005, 2005-2006

Geoffrey Marshall Fellowship, The Graduate Center of the City University of New York: 2003-2004

SOME RECENT PRESENTATIONS

“Craniopagus Twins and the Possibility of Introspective Misidentification”

- ◆ *The Fifth Online Consciousness Conference, February 2013*
- ◆ *The Southern Society for Philosophy and Psychology, March 2013*

“The Contents of Inner Speech” (invited speaker)

- ◆ *The Ohio State University Consilience Project, May 2012*

“On Choosing What to Imagine” (invited speaker)

- ◆ *Knowledge Through Imagination Conference, Claremont, CA, April 2012*

“Inner speech is not speech?”

- ◆ *The University of Cincinnati Philosophy Colloquium, March 2012*

“The ‘inserted thought’ delusion in schizophrenia” (invited speaker)

- ◆ *The University of Cincinnati NeuroSociety, February 2012*

“Are ‘inserted thoughts’ thoughts?” (invited speaker)

- ◆ *Schizophrenia and Selfconsciousness Workshop – Berlin, Germany. Hosted by CILS and Berlin School of Mind and Brain, May 2011*

“Recognizing Pretense: Does it require Mindreading?”

- ◆ *Washington University in St. Louis, Social and Personality Psychology Brown Bag Talk Series, February 2011*

“Pretending, Imagining, and Believing”

- ◆ *Washington University in St. Louis, Philosophy Colloquium, October 2010*

SERVICE

Book or article referee for: Oxford University Press, MIT Press, Philosophers’ Imprint (journal), Philosophical Psychology (journal), Philosophical Papers (journal), Southern Society for Philosophy and Psychology, Society for Philosophy and Psychology.

Director of Undergraduate Studies, Department of Philosophy, University of Cincinnati (2012-present)

Faculty Advisor, Undergraduate Philosophy Club, University of Cincinnati (2011-present)