Create Visiting Scholar Grant Report Asimina Lazaridou University of Macedonia, Greece

From September 2010, I joined Dr. Langer's Mindfulness lab, Psychology Department, Harvard University.

As a doctoral student, I rarely get the opportunity to be trained in alternative research methods for my health psychology projects. As I stated in my application, there was an interventional pilot study in my plans for the forthcoming year and my hope was to be able to collaborate and develop it with Dr. Langer.

My 16-day stay in Boston, included weekly lab meetings, talks, private meetings with Dr. Langer and seminars organized by the Psychology Department in Harvard University.

Ellen Langer and her Lab

Prof. Langer is a warm, kind and very intelligent person always helping young researchers to reach their initiatives. She has a very clear mind and she is very hearty.

Even if her time was very limited due to several international contributions in research, conferences, medical and educational settings, she kindly devoted a lot of time to develop my idea. Moreover, I participated in her talks and teaching on Health Psychology, Decision Making and Social Psychology. Her contribution in my Phd is critical as she one of the leading people in Mindfulness and Social Psychology. Dr. Ellen Langer is a professor in the Psychology Department at Harvard University. Her books written for general and academic readers include *Mindfulness*, *The Power of Mindful Learning*, *On Becoming An Artist*, and *Counterclockwise*. Dr. Langer has described her work on the illusion of control, aging, decision-making, and mindfulness theory in over 200 research articles and six academic books. The citation for the APA distinguished contributions award reads, in part, "...her pioneering work revealed the profound effects of increasing mindful behavior...and offers new hope to millions whose problems were previously seen as unalterable and inevitable". Ellen Langer has demonstrated repeatedly how our limits are of our own making.

During my stay in Boston, we developed an intervention based on the principles of Mindful learning in medical students. Additionally, I was lucky to have access to Harvard's Library which provides comprehensive access to library holdings across the boundaries of individual faculties, disciplines and rare collections.

The study

Mindfulness is a state of openness to novelty in which the individual actively constructs categories and distinctions (Langer, 1989). Initially, mindfulness involves cultivating self-awareness and noticing new things in each action we are performing. For example, when we drive, wash, work, learn, watch, feel, act, perform etc (Langer, 1989). Langer has separated the idea of mindfulness from meditation. Instead, she defines it as mindfulness includes situational awareness, sensitivity to changes in the context and control over our thoughts. There are two types of awareness: internal and outward. Internal awareness involves attention towards the activities of the mind. Outward awareness involves observation of sense experiences or the activities of the body. Awareness is related to practically every experience in life. The body is here. The mind and senses are active in the body. The faculties, perceptions and expressions of the body and mind are active at present. Self-awareness refers to what Socrates stated as "know thyself". Shakespeare said "to thine own self be true". There are dormant centers of perception, of energy, which we can know and tap inside ourselves. The aim of mindfulness practice is to become fully aware. That awareness is not superficial. Even the simple concept of developing physical awareness is very difficult in practice. Full awareness is developed by deepening internal awareness. Both types of awareness are required for our everyday life. However, the main problem is that consciousness is either on one or the other mode of awareness which causes distraction and ailments in the mind.

In this study, we assessed whether mindfulness (active categorization) can prevent automatic behavior and learning in medical students.

Participants (n = 40) were randomly assigned to one of 2 conditions (mindful or mindlessness). The mindfulness group (n = 20) received three mindful instructions every day via sms and were asked to notice 3 new things in their clinical practice. Langer's Mindfulness questionnaire and student-burnout questionnaire were distributed to all participants before and after the intervention period. The Mindlessness group (control) was being taught the clinical skills but they didn't receive any sms. Greater mindfulness predicted better performance in clinical practice. Mindful learning engages people in what they are learning and increases performance. By just noticing new things in their environment, "mindful" medical students could improve performance and avoid mistakes in their clinical practice.

Evidence suggests that regular mindful awareness practice changes how our body and brain respond to stress, possibly strengthening connections in the prefrontal cortex and reducing reactivity in our limbic system, supporting self-reflection and self-regulation. These functions play a critical role in education.

Future Directions

Since Create is ultimately about knowledge and scholarly exchange, this visit promoted strong bonds with Dr. Langer's lab. I collaborated closely with the other members of the lab and had the opportunity to exchange useful feedback and ideas.

This visit created long term relationships with Dr. Langer and her lab's members and engaged me to additional studies they are conducting. I am still participating in the lab's meetings through Skype and emails and work closely on different research objectives.

References

Langer, E. (1989). Mindfulness. Reading, MA: Addison-Wesley.