RUNNING HEAD: SOM-R--CREATIVITY AND MIND-WANDERING

HLM Equations and Materials

When the muses strike: Creative ideas of physicists and writers regularly occur during mind-wandering

HLM Equations from Results section in Text.

Level-1: Prob(IDEA CONTEXT =1|B) = P
$\log[P/(1-P)] = P_0 + P_1*(\text{IMPASSE})$

Level-2 Model
$P_0 = B_{00} + r_0$
$P_1 = B_{10}$ [Equation 1]

Level-1 Model

$\text{IDEA QUALITY} = P_0 + P_1*(\text{CONTEXT}) + e$

Level-2 Model
$P_0 = B_{00} + r_0$
$P_1 = B_{10}$ [Equation 2]

Level-1 Model

$\text{IDEA QUALITY CHANGE} = P_0 + P_1*(\text{CONTEXT}) + P_2*(\text{PHENOM.}) + P_3*(\text{CONTEXT} * \text{PHENOM.}) + e$

Level-2 Model
$P_0 = B_{00} + r_0$
$P_1 = B_{10}$
$P_2 = B_{20}$
$P_3 = B_{30}$ [Equation 3]

Complete List of Variables Collected in Daily Form: Study 1 and Study 2

* = variable analyzed for the current paper

How would you describe your mood today?

- Excited
- Inspired
- Happy
- Irritable
- Distressed
- Nervous
- Troubled

Energetic

Today, I felt happier or more cheerful than usual.
Today, I felt more self confident than usual.
Last night, I needed less sleep than usual.
Today, I talked more than usual.
Today, I was more active (either socially, sexually, at work, home, or school) than usual.
Overall, please rate how you feel your close relationships and connections with other people were today

Please rate how strongly you agree or disagree with the following statements

Someone close to me (romantic partner, close friend, or family member) made me feel wanted or accepted today.
-Someone close to me was inattentive or unresponsive towards me today.
-Someone close to me criticized something I said or did today.
-Today, I felt uncomfortable sharing my private thoughts and feelings with those close to me.
-Today, I worried that my partner, a friend, or a family member did not care about me as much as I cared about him or her.
How much time did you spend at work today (e.g., at your office, in your work space at home)?
How much time did you spend specifically working on problems pertaining to your creative interests?
To what extent were you excited about the projects you focused on today?
To what extent did you feel stressed about your work and/or projects pertaining to your creative interests?
How much time did you spend in physical exercise?
How many hours did you sleep last night?
Did you nap during the day?
Did you meditate?
Did you have any ideas today that you think might represent a meaningful advance on any project?
What time of day did the idea occur?
*What were you thinking about when the idea occurred to you?
*What were you doing when the idea occurred to you?
What situation were you in when the idea occurred to you?

-In conversation?
-In a talk?
-In a presentation?
-Reading?
-Attending to other media (ie, film, television, internet)?

Was it a conversation directly bearing on the topic on which you had the idea?
Was it a talk directly bearing on the topic on which you had the idea?

Was it a presentation directly bearing on the topic on which you had the idea?
Was it reading directly bearing on the topic on which you had the idea?
Was it media directly bearing on the topic on which you had the idea?
To what extent did the surrounding environment contribute to your idea?
Did the generation of this idea at all involve napping, sleeping, dreaming, falling asleep, waking up, etc.?
*What was the state of the problem/project that you had an idea about?
*Would you say the idea felt like an "a-ha!" moment?
*How important do you think this idea is?
*How creative do you think this idea is?
How significant of an advance would this idea represent if it proves to be useful?
How confident are you that this idea will prove useful in your work?
To what extent do you feel motivated to continue working on this idea?
To what extent did you feel the following immediately after having the idea?

-Inspired
-Competent
-Fatigued
-Relieved
-Desire to tell others about the event

Did you tell your partner, friend, colleague, or a family member about your idea?

The person I told about this idea reacted positively and enthusiastically.

Complete List of Variables Collected in Follow-up Survey for each idea

* = variable analyzed for the current paper

How well do you remember this idea?
What were you thinking about when the idea occurred to you?
What were you doing when the idea occurred to you?
*How creative do you feel the idea was?
*How important has the idea proven to be overall?
How useful has the idea proven to be for the specific project you intended it to be used for?
How useful has the idea proven to be for any other project(s) besides the one you intended it to be?
How useful has the idea proven to be overall?
To what degree have you continued to build on this particular idea?
How often have you re-visited this idea?
To what degree have you received positive reactions from others regarding this idea?

Please read each statement and check any and all that apply (Physicists ONLY).

-I have talked about this idea informally with colleagues.

-I presented this idea at a symposium/talk/conference.
-I am preparing a manuscript that includes this idea for publication.
-I published a paper with this idea.
-I have a patent or patent application for this idea.
-I have gained financially from this idea.
-My career has advanced as a result of this idea.
-This idea has been covered by the popular media.
-Although I have not used this idea as written, it was the basis for another idea which is incorporated into a work in progress or completed work.
-Although I have not used this idea, I am likely to return to it someday.
-I have not used this idea and have abandoned it completely.
-Other outcomes, please specify:

Please read each statement and check any and all that apply (Writers ONLY).

-I have talked about this idea informally with colleagues.
-I have presented or pitched this idea to a publisher, director, producer, etc.
-I incorporated this idea into a work (e.g., essay, script, story) that is in progress.
-I incorporated this idea into a finalized or completed work (e.g., essay, script, story).
-This idea has been published, sold, or performed.
-I have gained financially from this idea.
-My career has advanced as a result of this idea.
-This idea has been covered by the popular media.
-Although I have not used this idea as written, it was the basis for another idea which is incorporated into a work in progress or completed work.
-Although I have not used this idea, I am likely to return to it someday.
-I have not used this idea and have abandoned it completely.
-Other outcomes, please specify.