

### **Rest is Not Idleness** by Immordino-Yang, Christodoulou and Singh, 2012

When people wakefully rest in the functional MRI scanner, their minds wander, and they engage a so-called default mode (DM) of neural processing that is relatively suppressed when attention is focused on the outside world. Accumulating evidence suggests that DM brain systems activated during rest are also important for active, internally focused psychosocial mental processing, for example, when recalling personal memories, imagining the future, and feeling social emotions with moral connotations. Here the authors review evidence for the DM and relations to psychological functioning, including associations with mental health and cognitive abilities like reading comprehension and divergent thinking. This article calls for research into the dimensions of internally focused thought, ranging from free-form daydreaming and off-line consolidation to intensive, effortful abstract thinking, especially with socioemotional relevance. It is argued that the development of some socioemotional skills may be vulnerable to disruption by environmental distraction, for example, from certain educational practices or overuse of social media. The authors hypothesize that high environmental attention demands may bias youngsters to focus on the concrete, physical, and immediate aspects of social situations and self, which may be more compatible with external attention. They coin the term constructive internal reflection and advocate educational practices that promote effective balance between external attention and internal reflection.

*Questions : How can we be sure students will use the time to think and not just to daydream? Is there a way to make day dreaming more intentional? How can we fight this tide of social media that is indeed swamping our classrooms?*

### **We Feel, Therefore We Learn** by Immordino-Yang & Damasio, 2007

Recent advances in neuroscience are highlighting connections between emotion, social functioning, and decision making that have the potential to revolutionize our understanding of the role of affect in education. In particular, the neurobiological evidence suggests that the aspects of cognition that we recruit most heavily in schools, namely learning, attention, memory, decision making, and social functioning, are both profoundly affected by and subsumed within the processes of emotion; we call these aspects **emotional thought**. Moreover, the evidence from brain-damaged patients suggests the hypothesis that emotion-related processes are required for skills and knowledge to be transferred from the structured school environment to real-world decision making because they provide an emotional rudder to guide judgment and action. Taken together, the evidence we present sketches an account of the neurobiological underpinnings of morality, creativity, and culture, all topics of critical importance to education. Our hope is that a better understanding of the neurobiological relationships between these constructs will provide a new basis for innovation in the design of learning environments.

*Questions : What needs to be changed in our school learning environment to strengthen emotional thought? How can we do this in an already super-packed school day?*