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Nonconscious

In his widely acclaimed and bestselling 2011 book, <u>Thinking, Fast and Slow</u>, Daniel Kahneman (psychologist and winner of the 2002 Nobel Prize in Economic Science) describes how our thinking can be understood as consisting of two systems. System 1 operates automatically and quickly, requiring no effort and no sense of voluntary control. System 2 is the slower, deliberate, and effortful reasoning that requires attention and can result in complex /logical plans and decisions. Quite simply, System 1 is nonconscious while System 2 is conscious.

Most of us like to believe that most of what we do or say is driven by System 2, but System 1 is actually responsible for the majority of our behavior. Fortunately, System 1 typically keeps us on track and behaving appropriately. Driving an automobile, a process of complex behaviors, is largely a product of System 1 for experienced drivers when driving in a familiar place. System 2 is engaged for someone learning to drive or when driving to an unfamiliar location.

Consider how Systems 1 and 2 affect our health behaviors. System 1 jumps to conclusions: "That supersized meal is a great bargain so get it now!" System 2 allows one to think about how important it is to eat moderate-size servings at a meal with an emphasis on whole grains and vegetables. But at the end of a long workday when self-control may be depleted, a person may open a bag of potato chips and finish half the bag without realizing what is being done... without thinking! That again is System 1. A recent review in the journal <u>Health Psychology</u> discusses the impact of nonconscious processes on health behaviors. One study cited in the article found that children watching a cartoon that included food advertising ate 45% more snacks than did children watching the same cartoon without food advertising. Similar results were found with adults watching a television program. In both situations, the advertised food was different than food available for snacking, and food consumption was not affected by self-reported hunger. It has also been found that exercise behavior can be affected by having research participants (prior to their exercise) complete scrambled sentences that contain words related to effort and persistence, compared to sentences that contain neutral words.

With respect to improving health behavior, it is undesirable and impossible to strive to eliminate the impact of nonconscious processes. A more realistic goal is to affect these automatic processes in a manner that will cue healthy behavior, rather than unhealthy actions. Certainly some of this needs ti involve public health efforts that aim to increase environmental and situational cues for desirable behavior rather than harmful behavior.

On a personal level, there are opportunities for us to use System 2 to impact System 1. With respect to self-control, we can allot some of our willpower to plan activities and routines that minimize vulnerability to situational cues. "When I order food at a restaurant, I will ask for a container in which I will put half of my food to take home, before starting to eat." This is a form of an implementation intention, that is, an if-then plan that is rehearsed prior to a situation. It has been established that practicing implementation intentions does affect subsequent automatic behavior. One key is to translate broad goals ("I'm going to eat less chocolate") into more specific action plans ("When tempted to put a piece of chocolate in my mouth, I will chew a piece of gum instead").

System 1, the nonconscious fast thinking, is not an enemy of health. However, most of us have automatic impulses and behaviors that are unhealthy, products of many longstanding factors. The challenge is to use our System 2 abilities to mold and shape System 1 so that a greater proportion of nonconscious behaviors are health-enhancing.

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