Dopamine regulates our motivation to act, according to new study

Latest studies conducted by researchers in Spain show that dopamine may be involved in the regulation of motivation, which means that previous beliefs according to which this neurotransmitter is involved in the generation of pleasure can be of the past. Now researchers have shown that dopamine underlies motivation and cause individuals to act or to persevere to get what they want. Discoveries made by researchers at the Universitat Jaume I of Castellón, have implications in many neurological diseases such as Parkinson’s, multiple sclerosis, fibromyalgia, and in addiction.

Mercè Correa explained that a long time it was thought that dopamine is associated with pleasure because it is released when we get something we want. In fact, recent studies show that dopamine acts before, in other words make us act. He added that dopamine is released to get something good or to avoid something bad. Studies so far have shown that dopamine is released not only in terms of pleasure but also under stress, pain or loss. However, according to Correa, this research has been done to highlight only the positive influence of dopamine. The new article is actually a review of several investigations on the role of dopamine in motivated behavior in animals.

Dopamine level is different for each man separately, some are more motivated to take action to achieve their purpose while others are more lax. Correa explained that dopamine is involved in maintaining the level of activity required to achieve a goal. He added that although it is generally positive, it largely depends on the stimuli. Increased levels of dopamine could explain the behavior of some individuals with various addictions. Understanding the biological parameters underlying human motivation has applications not only in medicine but also in other areas such as education or work.

Because of this these latest findings, dopamine is now seen as a neurotransmitter that can compensate for the lack of energy and motivation that occur in certain diseases such as depression. Correa explained that depressed people are not motivated to act and this is due to low levels of dopamine. Lack of energy and motivation are also found in other diseases such as multiple sclerosis, fibromyalgia, Parkinson’s and others.

On the other hand, dopamine is involved in addictive behavior because high levels can cause a compulsive attitude. Correa suggests that dopamine antagonist therapy that have been applied so far had no effect perhaps because of inadequate treatment which was based on a misunderstanding of the mechanism by which dopamine function.