

Open Your Class With This Tomorrow- *Never Enough: The Neuroscience and Experience of Addiction*

Opponent-Process Theory of Emotion

The opponent-process theory proposes:

1. An emotional reaction triggered by a stimulus will be followed by an opposite emotional reaction when that stimulus is removed. For example, fear is followed by relief, and sadness by happiness.
2. After each subsequent experience with the same stimulus, the initial emotion becomes weaker, and the opponent emotion becomes stronger.

Directions:

Explain the likely emotional experiences for each of the following examples according to the opponent-process theory of emotion.

- First, identify the first emotion (process A), followed by the opposite emotion (process B).
- Second, identify what happens to the two processes (A and B) over time.

1. Skydiving

- The first time an individual goes skydiving, they may be extremely frightened (process A) by their first jump and then experience extreme calmness (process B) when they safely land.
- After many experiences, skydivers report that they become less frightened (process A) when making a jump and calmer (process B) when they land.

2. Horror Movies

- The first time an individual watches a horror movie, they are terrified (process A) and then experience extreme calmness (process B) when the movie ends.
- After watching many horror movies, they may start to be less scared (process A) and have increased calm or enjoyment (process B).

3. Donating Blood

- The first time an individual donates blood, they experience anxiety (process A) when donating and then calmness (process B) when it is over.
- After donating blood many times, they become less anxious (process A) and have a stronger sense of calm (process B) when it is over, causing them to donate blood more often.

Opponent- process Theory and Substance Use Disorders

4. Cocaine

- The first time an individual uses this powerful stimulant, they experience pleasure and extreme alertness (process A) and then negative feelings and lethargy (process B) when the drug wears off.
- After many experiences with the drug, individuals report that they experience less pleasure and alertness (process A) followed by worsened negative feelings and lethargy (process B) when the drug wears off.

5. Heroin

- The first time an individual uses this powerful opioid, they experience intense pleasure and relaxation (process A) and then negative feelings of pain and anxiety (process B) when the drug wears off.
- After many experiences with the drug, individuals report that they experience less pleasurable feelings (process A) when they take the drug and stronger negative feelings (process B) when the drug wears off.

6. Caffeine

- The first time an individual uses this stimulant, they experience energy (process A) and then tiredness (process B) when the drug wears off.
- After many experiences with the drug, individuals report that they experience less energy (process A) followed by tiredness (process B) when the drug wears off.

Answer the following questions.

7. What will individuals likely do to avoid the decrease in the initial pleasurable feeling after taking a drug repeatedly?

Take a stronger or larger dose (tolerance, habituation)

8. What will individuals likely do to avoid the increase in the subsequent negative feeling after taking a drug repeatedly?

Take more of the drug

9. What is the name for the increases in negative emotions when the effects of a drug wear off?

Withdrawal

Disclaimer: The examples provided above suggest the opponent-process is valid. However, other examples do not always follow this pattern. The opponent-process does not fully account for situations involving several emotional stresses occurring simultaneously. This theory is one of many explanations involved in motivation and addiction.

References

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