

NEUROSCIENCE COURSE
MODULE 9

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MOTIVATION

Motivation is defined as the stimulation of behavior in the pursuit of an objective. It is a fundamental element of our interaction with the world and each other. Thus, motivation is a basic concept that helps to explain how an individual's past history and current state, interact to control activity directed towards an objective.

At present, it seems logical to consider that motivation is an important aspect in the success of any action. We now know the anatomical elements that are involved in the process of motivation. However, as surprising as it might seem, this concept as a whole is relatively modern.

Like neuropsychology, the development of behavioral neurology is recent. Before the 1980s, it was not even deemed necessary to focus on the motivational aspect when treating disorders like addiction. However, its importance seems obvious.

Motivational impulse must be adjusted based on both internal states and external environmental conditions. Motivated behaviors are regulated through the coordinated response of molecules (peptides, hormones, neurotransmitters, etc.) that act within specific circuits that incorporate multiple signals in order to make complex decisions. Over the past few decades, numerous studies have been conducted into the biology and psychology of motivation.

Nowadays, motivation is such a popular concept that it is used in the professional, educational, sporting and of course therapeutic spheres. But what is motivation? Does it always manifest itself in the same way, and is it possible to stimulate it?

The origin of motivation

Since the first theories were proposed on biological motivations like hunger, thirst and sex, research has been carried out into various aspects of human motivation to extend its conceptual limits and understand the dynamics of motivation.

This issue can be addressed from two angles: purely anatomical, and psychological.

✦ Anatomical aspect

At first sight, it seems obvious that motivation is a primarily psychological concept. We know that it is not innate and that it is important to develop it. However, several studies have shown that there is a system for managing motivation in the nervous system.

One of the first studies in this domain was conducted by Mathias Pessiglione and his team. The aim of the study was to understand whether there is a main center of motivation that controls both mental and physical efforts. To do this, they conducted a test made up of 360 exercises, combining mental and physical effort using a scanner.

The 20 voluntary participants had to lie down with their heads in a functional MRI machine and perform several series of tasks. The tasks allowed them to accumulate rewards they could win, but that were capped for each series at the first incorrect answer given.

These tasks combined a cognitive action and a motor action. The participants had to find the number that was numerically largest out of numbers of different sizes and select it by squeezing the handle on their left or right, depending on the side the number was on. They also had to apply more or less

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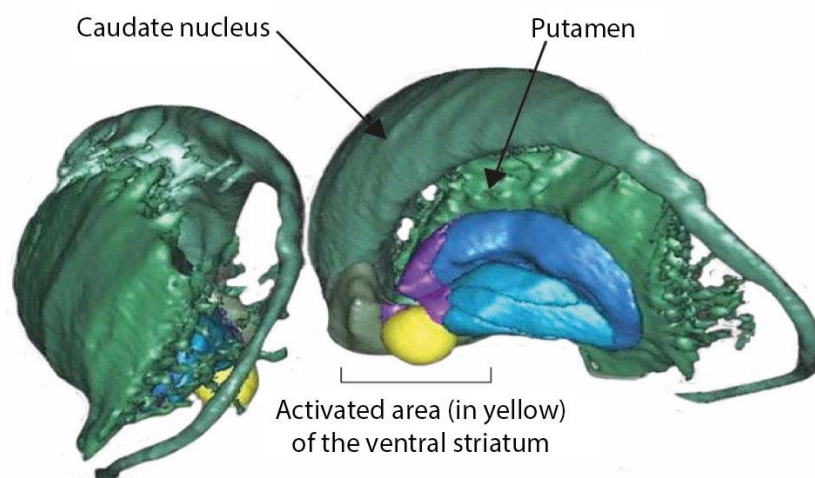
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pressure to the handle based on the number's value. At the end of the exercise, a summary of the rewards was shown to motivate the participant.

The researchers found that the ventral striatum was activated proportionally to the amount and that the higher the degree of motivation was, the more significant the activation was. Furthermore, the ventral striatum is connected to the middle part of the striatum (the caudate nucleus) when the task to be completed is challenging on a cognitive level (when the physical size and numerical size of the numbers does not correspond).

Conversely, this ventral region solicits the lateral part of the striatum (the putamen) when the task is challenging on a motor level (when strong pressure has to be applied to the handles).

The nervous system controls an auto stimulation system. Indeed, it is this network that is partly responsible for the emergence of addictions.



Management is carried out in the mesolimbic system, which originates in the ventral tegmental area, or more precisely the dopaminergic neurons that are found there. The tegmental area is located in the upper part of the brainstem, which passes through the lateral hypothalamus before ending in the preoptic areas, then the nucleus accumbens. Recent studies conducted into the latter have shown that it can be considered the central element of the brain's 'reward systems'.

Mathias Pessiglione limits the center of motivation to the ventral striatum. He explains that "the ventral striatum may commute connections in accordance with the request, i.e. enhance the neuronal activity in the caudate nucleus for a cognitive operation and in the putamen for a physical action".

In fact, the nucleus accumbens generates the basis of the limbic striatum in the ventral side of the head of the caudate nucleus and extends into the front side of the putamen. It then passes over the ventral side of the pallidum, creating the limbic pallido-striatal pathway. The nucleus accumbens is divided into two parts:

- the shell, which is connected to all the primary limbic structures. This is the oldest part of the formation;
- the core, which is more connected to the regions involved in motor control and cognition.

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What is it that causes us to focus on the anatomy of this nucleus? Its function! The shell has a decisive influence on the management of affect and motivation. It serves as a substrate to Pavlovian conditioning, to the reaction to novelty, controlling nutrition (from the mother to her offspring) and gustatory pleasure.

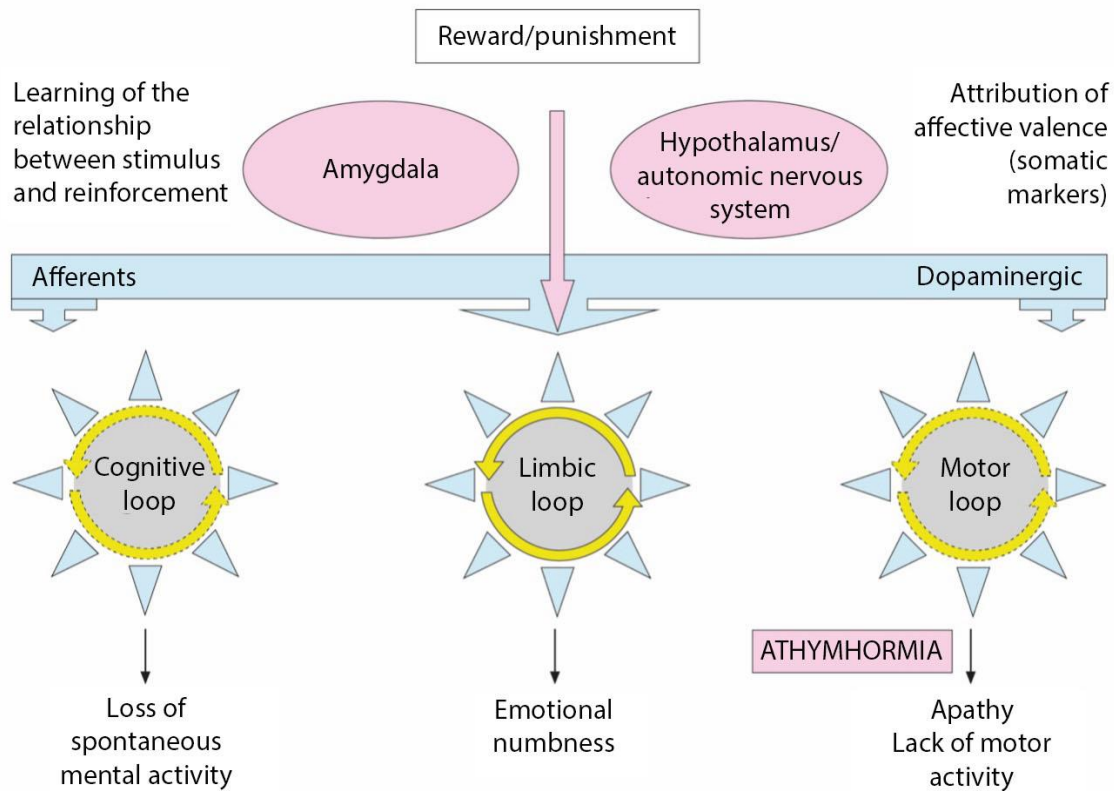
Overall, the nucleus accumbens deals with managing the balance between motivation and action. It acts as a crossroads between the systems responsible for the perception and integration of emotions, and those responsible for the action triggered by these emotions. These same systems are also involved in both the conditioning mechanisms (particularly in the aspects of reinforcement and extinction) and the mechanisms involved in drug addiction and other addictions.

Outside of this nucleus, the motivation system functions like a cortical-subcortical loop with several stages. In parallel to those of the basal ganglia, these loops can vary. Overall, however, the anatomical model remains unchanged. They originate from the frontal lobe:

- first stage in the striatum;
- second stage in the pallidum;
- third stage in the thalamus.

The loop ends in the thalamus, before going back towards the cortex of the frontal lobe.

The diagram below depicts how the cortico-striato-cortical loops work, as well as the repercussions caused when they malfunction. The first loop is cognitive, the second motivational and the third motor.



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✦ Malfunction of the center of motivation

The anatomical aspect is just one part of motivation. Someone who is lazy and who deliberately refuses to make the slightest effort in the hope that others will do it for them cannot use poor functioning of the nervous system as an excuse. However, we sometimes observe a malfunction in the nervous system that does lead to a total lack of motivation. This is true in cases of athymhormia.

This very rare condition leads to a complete loss of life force, dynamism, affectivity and interest in the outside world. This disorder is very often the result of damage to the basal ganglia after a severe head injury. Patients who suffer from this syndrome are like 'deactivated robots'. They are totally indifferent to any form of external stresses. The behavioral change can be completely radical. Someone who was once calm, mature and polite can become strangely passive and depressive, but also very aggressive.

✦ Case study

➔ MBD patient, formerly an officer in the Algerian secret service (secret police)

Road traffic accident 16 June 1994: Head trauma + Right occipital condylar fracture.

Scanner: Bilateral frontal contusion, left intra-frontal hematoma, small left subdural lamina opposite.

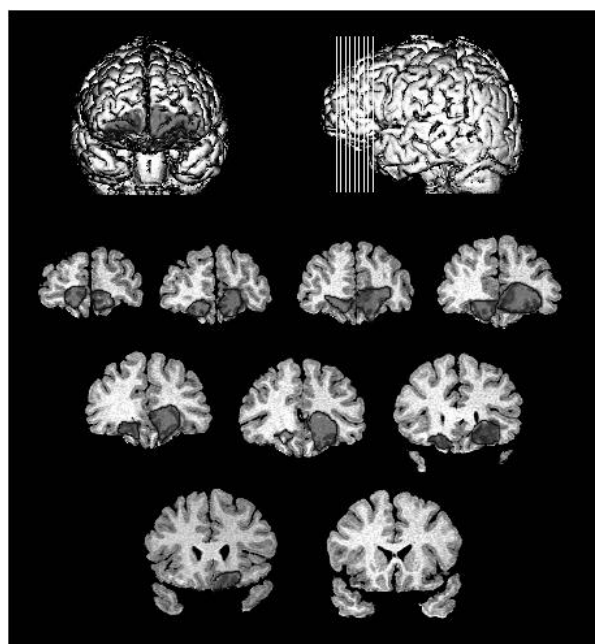
Confusion lasting 3 days, came out of intensive care after 5 days.

Returned to his post, service weapon removed, fired from the police. Immigrated to France.

Hired as a security guard at a department store; put on leave from work due to depression following sanctions imposed for mistakes at work.

Treatment: Antidepressants and neuroleptics, little improvement. Released from psychiatric clinic as a disciplinary measure.

➔ Patient's injuries



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➔ Patient's neuropsychological assessment

- ➔ No apparent memory problems, well orientated in time and space, expresses himself and reasons in an appropriate manner.
- ➔ Similarities (WAIS): 12/19 (good but no doubt lower than his former level).
- ➔ Word pairs from Wechsler's scale - Memory: 14/20.
- ➔ Frontal tests:
 - ❖ Lexical evocation: 18 words starting with the letter P in 1 minute.
 - ❖ Stroop: A few errors in the interference aspect (moderate attentional disorder).
 - ❖ Wisconsin: Met the first four criteria of the test without difficulty.

➔ Behavioral changes

- ➔ Aggressive in his words, relationship problems (family and social).
- ➔ Period of excessive consumption of alcohol.
- ➔ Kleptomaniac tendencies.
- ➔ Strained relationship with his spouse, divorce proceedings initiated.

His wife: "I haven't rediscovered the husband I had before: he's lost all his maturity, he can't handle himself anymore, he doesn't take any initiative in our relationship, he's become temperamental. He's never regained his passion for ornithology; he doesn't do anything anymore, he doesn't want to do anything. He's lost all his friends who couldn't handle his change in personality, he refused to see them, left or sulked with no explanation. He doesn't make any concessions socially, makes rash decisions and needs people to satisfy his desires immediately."

➔ Changes in moral judgement

The patient found himself having thoughts of murder that he would never have had before and even came very close to acting on them, but was held back at the last moment by the fear of upsetting his wife.

Furthermore, he often needs to defer to his wife's opinion in order to "know what is good or bad and decide what is right or wrong".

"I need to think before I act and weigh up the pros and cons a lot more than I did before. The other day, I saw a police officer; he hadn't done anything to me, but I decided that he should pay for the others. I managed to hold back by thinking that my wife would have advised me against attacking him."

His wife's response when asked whether she thinks her husband's moral judgement has changed:

"Yes, completely. Before, he was a thoughtful man with very strong morals; a man of decision and of his word. He wouldn't have hurt a fly, not for fear of being punished – he was above that – but because he had a high opinion of his duty, of the value of life, because he felt suffering in his own body whenever he saw someone else suffering. He thought justice was very important, he couldn't stand inequality, and would never have accepted the idea of benefiting from the suffering of others in any way.

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Now, he's completely different. It's like he doesn't believe in anything anymore, he doesn't know what's wrong or right, like a child who still has everything to learn; it's like he's lost all of that. When we were still living together, we went to the cinema to see a war film. Before, he would never have chosen that genre of film.

Most of all, his reactions scared me. He took delight in the suffering of injured people, as if he didn't feel anything anymore. The comments he made were frightening, he didn't understand why a criminal was put in prison, claiming that it was an abuse of power and that he would never have let that happen when he was in the police. That night, I decided to divorce him..."

✦ Signs of improvement in the patient's condition

Currently, subtle improvements:

- has stopped drinking;
- no longer engages in criminal behavior, but states that he only stopped drinking and stealing because he was told "he shouldn't do it anymore";
- has no feeling of guilt towards his wife or others close to him, nor towards potential or actual victims of his past or future wrongdoing.

This behavior is common to most patients who have suffered an injury to the center of motivation. Besides obvious apathy and a tendency towards depression, patients tend to become very aggressive and not be aware of the dangerous nature of their behavior. Studies conducted and the condition of patients suffering from this problem help us to understand that the anatomical aspect of motivation must not be overlooked.

✦ Psychological aspect

This is the aspect that is focused on most. It is pleasing to note that many researchers are taking an increasing interest in this area. Nevertheless, it is also important to emphasize the number of myths that arise as a result of this interest. This is reminiscent of the situation that exists in relation to neuroscience as a whole. It can generally be observed in the fields of education and work.

Many theories have emerged, and a large number of them are not necessarily founded on scientific evidence. As a result, there are all kinds of major psychological theories on motivation, including the theory of learning through reinforcement, the theory of needs, attribution theory, the theory of self-efficacy, self-determination theory, the expectancy-value theory, achievement goal theory and interest theory.

There is no doubt that these theories have helped to deepen our understanding of complex human motivation, but it is time to adopt a new approach to overcome the fundamental limitation posed by traditional theories.

Before dealing with motivation itself, it is important to make a distinction between a love for action, dynamism and motivation. The first two concepts are more related to the subject's energy and vitality, whereas motivation refers to the desire the subject would like to express in order to release this energy. Motivation is a primarily cognitive process. It is the process that arouses the desire in an individual to perform an activity:

- learning;

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- getting involved in an activity;
- receiving information.

Psychological motivation develops from birth. From the first few days, long before the child becomes aware of its own personality, it is important to encourage and praise it, and arouse its attention and curiosity. Motivation must not be automatically linked to success.

The principle of success at any cost destroys the basic principle. Indeed, by connecting motivation with success, we indirectly push the individual to constantly seek the approval of those around them. This disposition creates a sense of dependence. If the subject does not receive the congratulations and praise they hoped for, they will lose their motivation. The same will be true if they are surrounded by people who are better or more competent than them.

It is therefore beneficial to associate motivation with personal satisfaction above all. It should be noted that we are very often motivated to perform actions even if they remain unknown to those around us. One such example is the relatively banal desire to do housework. Ultimately, no one other than the homeowner will be aware of the extent of the work done, especially if the individual lives alone. However, they will still feel intense satisfaction due to having done it and appreciate the cleanliness of their home.

This approach is not supported by behaviorists, who associate the notion of motivation with need. They start from a simple premise: the greater the need, the greater the motivation. This vision is largely justified and it is sufficient to pay attention to human behavior in order to realize this. Let's return to the example of an infant.

If everyone around them always lifts them up and carries them, it is highly unlikely that they will start walking themselves. Thus, it is possible that they may still not be walking by the age of two or three years, even though they are physically able to do so. They will wait patiently for someone to come and pick them up. On the other hand, if they realize that no one will come to help them, they will make progress more quickly. The desire to move will motivate them to make more of an effort.

This notion is not static. We are not motivated by all actions in the same way. Someone might be motivated to exercise every morning, but not to invest themselves in their studies or career. Motivation is linked to the individual's needs and preferences. It is innate.

In spite of the body's reward system, motivation is a process that is learnt and needs to be refined. Just one thing must always be taken into consideration: the personality of the individual concerned. There is no universal solution or approach. But then how do we perceive motivation from a psychological perspective? Is it something we acquire, that is developed as the need increases, or something that our parents and those around us help us to improve?

The existing theories on motivation have some limitations. The first is the imprecise nature of the concept of motivation. It is practically impossible to draw a clear line between motivation and other concepts like impulse, need, intention, desire, objective, value and will.

Due to this conceptual vagueness, it is difficult to form a consensus on whether motivation refers to a state or a psychological process, not to mention its definition. Various constructs in different theories of motivation overlap and often cause confusion.

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For example, the vague conceptual distinctions between intrinsic motivation and interest, self-efficacy and perceived competence, value and reward, self-determination and volition impede effective communication and constructive arguments on the identical phenomenon of motivation.

The second limitation is the absence of an overarching theory on motivation. Although some theories on motivation have been proposed, each of them only addresses a specific aspect, and they lack a deeper understanding of the process of motivation as a whole.

The third limitation is how to measure motivation. The choice, frequency and continuation of action, as well as the amount of time and effort dedicated to maintaining the action, are direct indicators of motivation. These measurements can be obtained objectively through long-term observation. Due to practical limitations, however, they are most often taken in the form of self-assessment tests on psychological constructs, which are highly correlated with the behavioral measurement.

However, as motivation is largely implicit and dynamic, the measurement from the self-assessment is very limited to aspects of motivation that are consciously accessible.

All the approaches are accurate; the manifestation of motivation depends mainly on the state the subject is in.

Theories of motivation

Over the past decade, more than 40 theories of motivation have emerged in the United States alone. In general, however, there are two forms of motivation:

- independent (or intrinsic) motivation;
- dependent (or extrinsic) motivation.

Both of these forms of motivation give an idea of the reasons why the subject wants to act in a given situation.

★ Independent (or intrinsic) motivation

You've probably already heard this quote from Confucius: "Choose a job you love and you'll never have to work a day in your life." This is a definition of intrinsic motivation. Independent or intrinsic motivation is a personal motivation.

The individual acts not because they are expecting a reward or praise from those around them, but solely because the action itself brings them a great deal of pleasure (like in the previous example of someone doing the housework). Here, the result is not an end in itself, it is the process that spurs the action.

★ Dependent (or extrinsic) motivation

This form of motivation depends solely on external stresses. Dependent or extrinsic motivation pushes the subject to act solely with the aim of obtaining a reward. This form of motivation is the type that pushes a student to surpass themselves to get a good grade.

It is also what leads sportspeople, lawyers, doctors and architects to excel in their domain, to gain recognition from their peers and increase their earnings and prestige at the same time. However, dependent motivation has a significant disadvantage: its inconsistency. The subject remains

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motivated as long as the pressure that motivates them remains strong. Once it wears off, motivation diminishes.

Looking at these two forms of motivation, we attempt to compare them. Which one is 'superior'? Is there a form of motivation that gives better results? In theory, we may be inclined to consider intrinsic motivation as superior. The subject will always act alone, without any pressure and with a sufficient amount of enthusiasm. Furthermore, we know they will not give up prior to having achieved their objective because the process itself brings them a great deal of pleasure. This is both correct and incorrect.

Motivation rarely manifests itself in just one form. Let's return to the example of the person doing housework. They live alone, so in theory, no one else will see the fruits of their effort. This is only the case in theory, however. In reality, the person is not isolated from the world. Sometimes their friends or acquaintances come round and they see how clean their home is.

They will not praise the individual for this openly, but they will be inclined to visit again because they feel good in their home. This means that, beyond the personal pleasure they feel due to performing these tasks, they also benefit from a reward: the willingness of their friends and family to come to their home.

Note that intrinsic motivation itself can disappear if the extrinsic motivation is not strong enough. Let's take the example of an employee who loves their job. They chose it because it brings them real pleasure and they are prepared to get as involved in it as possible. If the company they work for does not pay them enough, they will lose their desire to be involved sooner or later, regardless of the passion they feel for their profession.

Motivation is a highly complex concept that needs to be analyzed from several angles. Returning to the theories themselves, it is of course impossible to cover all of them. We will focus on some of them, grouped into three main categories:

- **Content theories:** these encompass needs-based and process theories and take into consideration satisfaction of needs as well as the reasons that push the individual to commit to an action.
- **Cognitive decision theories:** these focus on the reasons that push the individual to engage in an action.
- **Self-determination theories:** these take into consideration the objectives pursued by the subject.

Content theories

There are many of these, but we will group them into two main categories here: needs-based theories and process theories.

★ Needs-based theories

Although there are a large number of these, we will limit ourselves to just three:

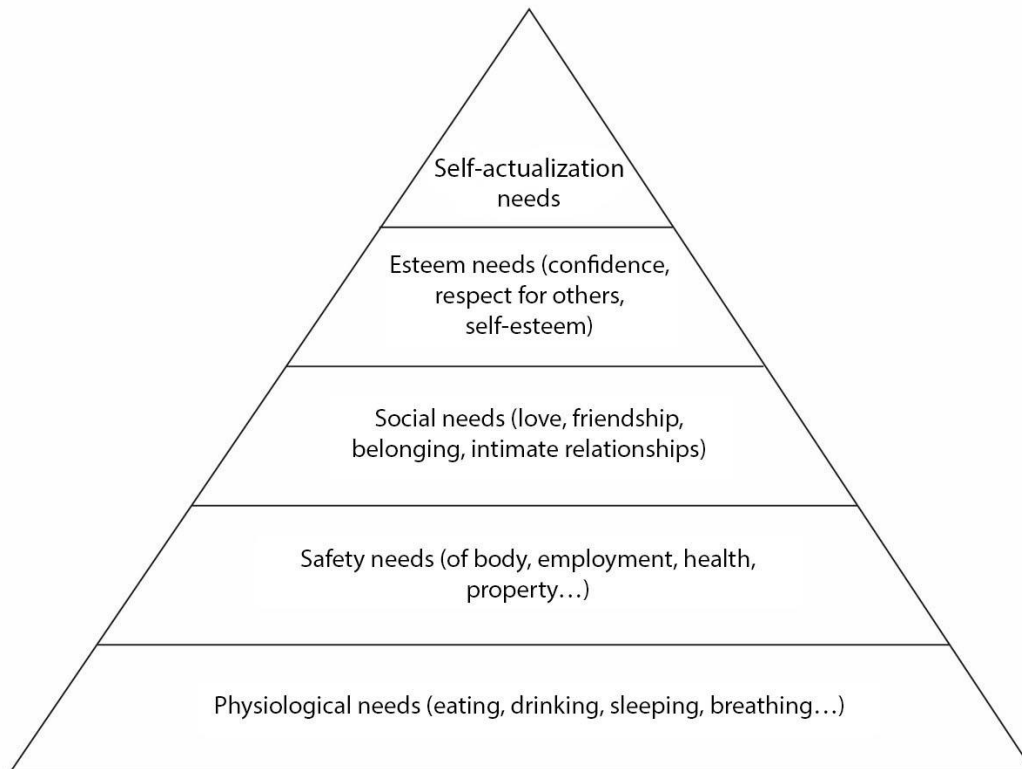
- Maslow's hierarchy of needs;
- Alderfer's ERG theory;

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➔ McClelland's theory of needs.

Maslow's hierarchy of needs – This is one of the oldest theories. It was developed by Abraham Maslow in 1943 and stipulates that motivation is a process that is constantly repeating and renewing itself. Every time the least important needs have been met, the individual's priorities change and so does their motivation. Maslow created a pyramid that makes it possible to rank needs.



The principle of the theory is simple. Physiological needs take precedence over everything else. Motivation is at its peak when they need to be satisfied. Next come safety and security needs, which are placed above love and belonging needs. Once the latter have been met, the individual will move onto esteem needs.

Self-actualization needs are least motivating because they only interest individuals who have already fulfilled all the other needs. Maslow's theory shows that the strongest motivation is almost equal to the survival instinct.

Alderfer's ERG theory – This was developed by Alderfer in 1966 and draws on some of Maslow's hypotheses. Starting from the principle that motivation arises from the desire to satisfy needs, Alderfer put together his own list of essential factors that make all humans react. He identified three categories of needs in total:

- ➔ existence needs, which is similar to Maslow's primary physiological needs and security needs;
- ➔ relatedness needs, which constitute the need to build relationships with the external world;
- ➔ growth needs, which can be connected with esteem, accomplishment and self-actualization needs, etc.

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This theory is less categorical than the previous one.

McClelland's theory of needs – Proposed by McClelland in 1961, this theory retains the same vision as the previous two, namely that need gives rise to motivation. However, McClelland tackles the issue from a totally different angle. He created a list of three groups of needs and affirmed that, although every individual tends to satisfy all three groups, one will attract their attention more than the other two. This noteworthy group differs for every individual. The three groups are as follows:

- the need for power: the need to impose oneself and guide others towards specific objectives;
- the need for affiliation, which is reminiscent of Alderfer's relatedness needs: the individual feels the desire to cooperate with others;
- the need for achievement, which represents the desire to surpass oneself and achieve all the goals one sets.

Like Alderfer's, McClelland's theory is relatively flexible and lacks Maslow's hierarchy. It does not explain, for example, why a specific category of needs will end up representing the driving force that will dominate the subject's behavior.

★ Process theories

It is helpful to focus on two theories, which are also the most popular to this day:

- Herzberg's two-factor theory;
- Hackman and Oldham's job characteristics model.

Herzberg's two-factor theory – After conducting a detailed analysis of several subjects, Frederick Herzberg and his team developed the two-factor theory in 1959. It stipulates that there are two groups of factors:

- motivators, which encourage the individual to engage and bring them a high degree of satisfaction. This category includes doing individual work on oneself, accomplishments and personal development;
- hygiene factors, which, if not met, can create negative sensations in the individual. These include interpersonal relationships, working conditions and salary.

Herzberg believed that the best way to motivate an individual is to encourage them to focus their attention on motivators. These are linked to positive sensations and will push them to surpass themselves in order to succeed. From a professional point of view, he proposed a dual action on the content of work:

- horizontal enlargement, which involves offering the individual more tasks (ideally varied ones). Here, it is important to help the individual integrate into the group;
- vertical enlargement, which involves giving the individual a great deal of autonomy, regardless of their role.

This theory has received a considerable amount of criticism, however, which is largely justified due to the fact that Herzberg tends to place personal satisfaction and motivation on an equal footing.

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Hackman and Oldham's job characteristics model – Like Herzberg, Hackman and Oldham start from the premise that the best way to influence motivation is to act on the process. In a professional setting, this relates to the content of work. The two theorists distinguish several characteristics that have a decisive influence on motivation:

- autonomy, which gives the individual confidence;
- feedback, which refers to the individual's desire to know the results of the work they do. In the absence of information about these results, their desire to engage will disappear.

There are a total of five factors to consider: skill variety, task identity, task significance, autonomy and feedback. It is therefore crucial to establish a balance between the different characteristics in order to increase the individual's motivating potential score.

There is a formula to calculate a job's potential to motivate people.

$$\text{MPS} = [(\text{skill variety} + \text{task identity} + \text{task significance}) * \text{autonomy} * \text{feedback}] / 3$$

MPS = Motivating Potential Score

This theory, despite having been created to meet companies' needs, can also be adapted to suit other areas, such as education.

Cognitive decision theories

These take into consideration the vision the individual has of the situation they are in. According to these theories, the individual's degree of motivation depends on both the objectives they set themselves and the chances they think they have of meeting them. If they think the efforts they make will lead to the results they hope for, their motivation will be greater. Cognitive decision theories include:

- Adams's equity theory;
- Organizational justice theories (Greenberg's procedural justice theory and Bies and Moag's interactional justice theory);
- Vroom's expectancy theory.

🌟 Adams's equity theory

Also known as the 'theory of distributive justice', Adams's equity theory emerged in the 1960s. Adams believed that all individuals in their professional environment pay attention to the treatment they receive to make sure it is honest and fair. The assessment is based on two factors:

- their personal involvement in the smooth functioning of the company where they work;
- the compensation they receive in exchange for this contribution.

First, they calculate their own ratio, then they compare it with their colleagues' ratios. There are two possible scenarios:

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- They consider the results to be proportional. This means that they work in a fair environment where their efforts are appreciated for their rightful value. Their motivation will therefore remain unchanged as they experience a degree of social justice.
- They consider their results to be disproportionate, which will inevitably lead to a feeling of frustration. Several options are then possible:
 - ❖ They think the imbalance is due to a low contribution on their part. In this case, and only to the extent that they think this could improve their situation, their motivation will increase. If they think an extra contribution will not change the situation in any way, their motivation will diminish.
 - ❖ They think that the cause of the imbalance is not a mistake or failure on their part. They will analyze the behavior of those around them to identify the origin of the problem. They will not become more engaged. Their motivation will remain unchanged, but they will tend to copy their colleagues' behavior in order to enjoy the same advantages.

If none of the aforementioned options is feasible, this will lead to a drop in motivation that is highly likely to be accompanied by a drop in personal contribution.

This theory has given rise to many others, including organizational justice theories.

★ Organizational justice theories

These start from the premise that an individual's motivation is closely linked to the treatment they receive in the environment where they work. The fairer it is, the more motivated they will be. We will focus on:

- procedural justice theory;
- Bies and Moag's interactional justice theory.

Procedural justice theory - Greenberg, Leventhal, Cropanzano and Forgel all developed similar theories. In general, procedural justice theory draws on the principles set out by Adams, but it also focuses on the compensation procedure followed in the organization where the subject works.

In 1976, Leventhal and his team explained that procedural justice is closely linked to specific factors. These are:

- consistency, which is the need for the organization (or company) to place all its employees on an equal footing;
- impartiality, which means the management in said organization must always remain impartial and unbiased towards all employees;
- correctability, which means the organization must be able to modify the processes used if this proves to be necessary;
- representation, which means that decision making must be done based on all the criteria the subjects affected by this decision, deem to be important;
- ethicality of the company.

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All employees want to receive signs of recognition from the company where they work. This is why it is beneficial for managers and directors to pay attention to each of these aspects to develop effective methods to motivate employees. Any decision, even if it is a harsh one, will be accepted if the employees agree that it was made based on fair principles.

Cropanzano and Forgel developed the theory, but described the models of behavior that individuals may adopt:

- the constructive approach, which stipulates that individuals who consider themselves victims of injustice will increase their productivity to prove that the behavior adopted towards them is unjust. They will only adopt this attitude in the hope of seeing positive changes;
- the destructive approach, which pushes the individual to adopt the opposite attitude. They will be less engaged and will be content to do the minimum required to not be dismissed by the organization. This will be a form of protest.

Greenberg, like all the researchers mentioned previously, draws on Adams's theory but develops employee evaluation techniques. These should help companies to explore effective reward procedures that will increase employee motivation.

Interactional justice theory - Bies and Moag focused on directors' behavior towards employees. They set out two approaches to interactional justice:

- The first involves allowing employees to be actively involved in the management of the organization. To achieve this, the directors deliberately transmit certain important information and then examine employees' opinions. This boosts motivation because it increases the sense of belonging. Every employee knows they are being listened to, given that the management are asking them to share their opinion.
- The second involves adopting an extremely respectful attitude towards all staff. The benefits will be exactly the same. Indeed, although their opinion is never taken into account, every individual will feel important to their directors, which will encourage them to get involved a little more to please them.

★ Vroom's expectancy theory

Vroom starts from the premise that motivation is based on three factors:

- expectancy with regard to performance or expectations, which translates for the individual as the result of their action;
- instrumentality, which can be considered as a reward in relation to a behavior or through the implementation of a strategy. Here, it is about determining the reward mechanisms in detail;
- valence, which is the value the subject places on an action. More specifically, it is an assessment that takes into consideration the expectations, efforts made and result achieved.

According to Vroom, motivation is a variable concept, and above all wholly individual, that is based essentially on the individual's perception. If the individual believes that being actively involved in an action will get them the desired result, their motivation will increase. Otherwise, it will be average, or even minimal.

Self-determination theories

It would be more accurate to refer to self-determination and metacognition theory. These analyze the processes that take place between the individual's cognitive and affective mechanisms when they are trying to achieve goals. Once they have made a choice, cognitive and affective processes guide behavior, allowing the individual to achieve their goal.

Two theories merit particular attention:

- Deci and Ryan's theory;
- Locke's theory.

★ Deci and Ryan's theory

Deci and Ryan believe that the subject must be able to reach a certain level of intrinsic motivation that will free them of the need for an extrinsic motivation or some form of external regulation. They identify three forms of motivation:

- amotivation, which is the complete absence of motivation;
- extrinsic motivation;
- intrinsic motivation.

By setting objectives and becoming aware of their own strengths, the individual will gradually increase their intrinsic motivation. This will lead them to take complete control of their existence at the same time.

★ Locke's theory

Developed by Locke in 1968, this theory stipulates that the best way to optimize an individual's motivation is by setting them goals. Each of them must meet strict specifications:

- be precise and concise so the individual knows exactly what is expected of them;
- be challenging enough to encourage the individual to surpass themselves, but realistic enough so they are not discouraged;
- be automatically accompanied by an evaluation so the individual is aware of the external perception of their efforts;
- be accompanied by rewards once the goal has been achieved;
- if the efforts made to achieve the goal are not individual, all the people involved in carrying out the project must play an equally active role in it as the individual themselves.

Locke believed that to fuel motivation, the objective needs to be complex but specific. Locke's theory acts as a foundation for many management doctrines.

None of these theories are perfect. Each one has advantages and disadvantages that need to be considered when developing a therapy program.

Methods of motivation and myths

How can you encourage an individual to increase their motivation potential? Is it possible to motivate anyone? In theory, it is indeed possible to motivate anyone, as long as the person does not have head trauma that has paralyzed this cognitive function. However, motivation techniques need to steer clear of myths, which are becoming increasingly numerous.

★ Methods of motivation

There are many different methods of motivation and the methods selected depend on both the specific characteristics of each individual and the objectives set, as well as the environment the individual is in. Regardless of the domain, the specialist will need to avoid presenting themselves as a sermonizer.

Most people are subconsciously resistant to the ideas and opinions that they consider to be shared with them against their will. Even if this is not really the case, only the subject's feeling counts. It is therefore important to make the subject understand from the start that this is an interactive process in which their involvement plays a decisive role.

★ Understanding the causes of an absence of motivation

Therapy can only be effective if the cause of the lack of motivation is established. As such, it is vital to communicate with the patient before doing anything else and analyze the foundations of the problem. No area should be overlooked. An absence of motivation at work is not necessarily due to complications or disharmony in the professional sphere. It is not uncommon for the cause to be a problem in the family or health issues.

If the situation is complex (for example in the case of drug addiction), the therapist must not hesitate to get the patient's family and friends to be actively involved and reflect on the following points (non-exhaustive list):

- What was the family atmosphere like during childhood?
- Were there any particularly significant moments that made a mark on the patient and left permanent scars on their mind?
- What was their adolescence like?
- What is the subject's current environment like?
- What relationship do they have with their family and friends?

No aspect should be overlooked because the more the clinician knows, the better understanding they will have of the subject's difficulties.

Setting objectives

It is impossible to be motivated if there is a complete lack of goals to achieve. As such, the clinician will need to encourage the patient to create a list of goals. However, it is important to keep in mind

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that these goals must not be vague. Wishing for world peace is not a concrete objective, it is a vague vision. To create a workable list, the SMART method can be used.

The ideal goal must be:

- S for 'specific';
- M for 'measurable';
- A for 'achievable';
- R for 'realistic';
- T for 'time-bound'.

★ Specific

Very often, goals that seem precise are in fact not. Here are some examples:

- To put an end to my addiction.
- To find a house as soon as possible.
- To find a good job.
- To learn French.

All of these goals are vague because they lack concretization.

Putting an end to addiction is a need shared by all people suffering from addiction. Thus, we can start from the general principle that it is important to put an end to addiction. However, for a heavy smoker for example (more than 20 cigarettes a day), the ideal goal would instead be "to smoke no more than five cigarettes a day by the end of [month]".

The goal is sufficiently concrete and encourages the subject to focus on a clear approach. The same principle applies to all goals. Thus, the previously mentioned goals can be modified as follows:

- To save £X every month in order to have enough to rent a house in X months' time.
- To send my CV to sites A, B and C, then see if companies D, E and F are looking for employees (the target companies will of course need to offer the best working conditions possible).
- To be able to communicate in French on forums and social media by the end of the year.

★ Measurable

To maintain motivation, it is crucial to be able to analyze the path taken clearly. To return to the previous examples, it is easy to see the evolution when going from smoking 20 cigarettes a day and deciding to reduce it to 5 cigarettes within two months. The patient can start by reducing the amount by two every week for the first month, then by another two every week for the second month. Ultimately, it does not matter what timing is selected; the key is to follow the evolution of the process.

★ Achievable

The goal must be honest and truly allow the individual to evolve. Setting a goal to rob the local bank by the end of the year or murder one's neighbor is not ethical and is therefore unacceptable.

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★ Realistic

To save \$1000 a month in order to be able to buy a house costing \$500,000 in five years' time: this goal is precise and concise, but fanciful. Even though the person who sets this goal would consider getting a loan, no bank would approve it. Regardless of the efforts made by the subject, they have no chance of achieving their goal for at least 30 years.

Whatever the goal may be, it must be feasible. Setting goals that are impossible to achieve will create a high level of motivation, but this will be very short-lived. However much of a dreamer the subject may be, they will soon become aware that it will be impossible for them to achieve the goal they have set and their motivation will be reduced to nothing.

★ Time-bound

Every goal needs a deadline. Goals like "To buy a castle in the South of France before I die" or "to earn at least \$2,000,000 quickly" are meaningless. The clinician will need to do their best to prevent the patient from setting goals like these. If the patient persists, the professional will need to gradually make them understand that they have everything to gain themselves from avoiding taking this approach. Setting strict deadlines will boost motivation.

It is also important to note that the deadlines need to be fair. Giving oneself two weeks to stop smoking after having smoked 20 cigarettes a day for several years is not realistic. It is not impossible to achieve, but 99% of smokers would not succeed.

If the subject has called on the help of a specialist to motivate them, this amounts to saying that they are among the majority. It will therefore be up to the clinician to ask the patient to be honest with themselves. It is better to set a longer time limit (going from 20 cigarettes a day to 5 a day in six months) than to rush the situation (going from 20 cigarettes a day to 5 a day in two months) and fail.

Focusing efforts

The list of goals must be set out at the same time as a list of priorities. The patient should be encouraged to tackle one goal at a time and focus all their energy on achieving it before moving on to another. At first sight, this technique only seems like it would be effective when working on a small, short-term project. However, this is not the case. This approach can be used regardless of the situation.

When required to perform a complex process, it is useful to split it into several phases and focus on each of them at a time. Let's return to the example of reducing the number of cigarettes smoked each day; the approach could be as follows.

Goal: To reduce the number of cigarettes smoked from 20 a day to 5 a day within two months

▶ Phase 1

To go without at least one cigarette in the first week. Most brands make packs of 20 cigarettes. The subject can therefore choose whether to display willpower and not smoke the last one, or get rid of it to prevent temptation.

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The patient benefits from buying only one pack a day and finishing it before the end of the day (or throwing away the remaining cigarettes) in order to avoid stockpiling. The subject needs to impose discipline during the first week.

➔ Phase 2

To go without two cigarettes from the second week. The approach remains the same and, like in the first week, the patient needs to adhere to a certain ritual.

By gradually getting the body used to this deprivation, it will be easier to cope with. The feeling of withdrawal is inevitable, but every time it arises, the patient will need to try to distract themselves. It is up to the patient to devise their own ritual, but they have to stick to it. This consistency will become a way of life and it will be easier for them to achieve other goals.

★ Adopt new habits

A lack of motivation is very often due to routine, especially when the latter is not particularly appealing. Modifying a few everyday elements will help to increase motivation. There is no need to point out that these changes need to have a positive impact on the subject's wellbeing. There are many different options:

- ➔ finding a hobby to practice regularly;
- ➔ walking and getting fresh air on a regular basis;
- ➔ stepping out of one's comfort zone and discovering new activities.

★ Learn to take care of oneself

Before motivating oneself, it is essential to love oneself. Motivation is an internal process, even when it is extrinsic. Taking care of oneself is not only about paying attention to one's physique, but also learning to defend one's interests. Teach the patient how to:

- ➔ tend to their physical appearance;
- ➔ treat themselves with kindness and love;
- ➔ learn to relax and have fun.

★ Never impose a solution

Regardless of the patient's psychological state, it is crucial to never impose a solution on them. Any decisions and approaches taken must come from the individual themselves. The specialist is primarily a guide who encourages the patient to take stock of their existence. Imposing a solution on them or forcing them to adopt a particular approach amounts to going against their will. They might stick to it for a while, but they will end up stopping sooner or later.

But what if this solution is what suits the patient best? Even in this situation, it is important to refrain. The correct approach involves gradually leading the patient to see the situation from the same perspective. If they end up arriving at the same conclusion, so much the better. Otherwise, they need to be helped to develop their own approach.

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Myths

Interest in the study of motivation continues to grow, and so does the number of myths. We will examine some of them in this section.

★ Myth no. 1: The reward system always works

In theory, this might be true, but the reality is quite the opposite. Even the carrot and stick system only has a limited effect. Motivation increases, but only for a given amount of time. The extrinsic motivation alone will always be short-lived because there will come a moment when the subject will no longer fear forgoing the reward.

★ Myth no. 2: Some people cannot be motivated

Anyone can be motivated. The key is to find the right approach. Talking to the patient will help the clinician to discover the things that are likely to make them react and encourage them to get themselves together.

★ Myth no. 3: Motivation makes people happy

The clinician has to set certain things straight if they do not want to see the therapy fail. Many patients perceive the motivation process as being like a magic potion. It will help them to finally have self-confidence and start doing exercise, etc.

It is crucial to get the patient to understand from day one that motivation is a process, not an exercise to be performed. It will not help them to improve their life. On the contrary, improving their life will increase their motivation.

★ Myth no. 4: Intrinsic motivation forms the foundation for everything

Although there are two types of motivation, the two always go hand in hand. However much intrinsic motivation the individual has in class, for example, if the result of their efforts is underestimated or unappreciated by those close to them, it will disappear relatively quickly. In some situations, intrinsic motivation takes precedence over extrinsic motivation, whereas in other cases, the opposite is true.

★ Myth no. 5: The clinician has to teach the patient to motivate themselves

The two previous mistakes are made by patients, but this one is common in clinicians. Motivation is not a subject; it is not taught. The clinician's task is to push the patient to take a critical look at their own existence and understand what is holding them back and preventing them from achieving their goals. The patient must then make the necessary decisions to rectify the situation. The impetus does not come from the clinician; it must come from the patient alone.

★ Myth no. 6: In order to succeed, the patient needs to be constantly engaged

Not quite! It is indeed important to make an effort to achieve the desired goal, but the patient should not devote all their time and existence to it. This is a principle the patient needs to understand from the start. The key to success lies in repetition. By making something a habit for a certain period of time, they will not need to tire themselves out.

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Before the start of therapy, the clinician will need to explain to the patient what the consequences will be and the benefits it will have. This will prevent any misunderstandings and failure of the treatment.

Conclusion

Motivation can be seen as an extension of instinct or simply a set of factors that push a subject to surpass themselves to achieve a specific goal. Generally, motivation is a form of communication between the individual and their own body. It is an individual process that encourages them not only to take charge of their life, but also to improve it.

We tend to only address the principle of motivation in certain contexts: professional, educational and therapeutic. This approach is not wrong, but it is extremely limited, because it prevents the individual from projecting themselves beyond these capacities. Many current theories show that individuals are more inclined to optimize their motivation than reduce it. At any rate, it is good to see the interest taken in this process.

The multitude of current theories that exist is not a problem; far from it. All these theories allow us to analyze individuals in all aspects, and above all to understand the origins and causes of their behavior. This understanding in turn facilitates interpersonal relationships and improves quality of life.