

EDUCATION TO CRITICAL THINKING

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EDUCATION TO CRITICAL THINKING

*HOW DOES OUR ENVIRONMENT CONDITION
OUR CRITICAL THINKING DEVELOPMENT?*

ACKNOWLEDGEMENT

Thanks to my school supervisor for their accurate pieces of advice: H      THEBAULT, Ishita MEHRA, Mickael BLACKMORE, Marion JHUNJA, Baptiste FLUZIN, Emma PAULAY, Matthias RISCHWSKI.

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Shortly said but so dear to my heart.

ABSTRACT

To live in a community, as a human being is a social being, rules and conditions are needed. However, some third parties can try to take advantage of this set of conditions we have been used to tolerate.

That is why being aware of this ambient conditioning we steep in is essential, in order not to leave the door open to manipulation.

Within this context, this study aims to determine how our environment conditions our critical thinking development. It results in the need for each one of us to become critical thinkers to avoid being manipulated and prevent the unconscious manipulation we can evince.

In this dissertation, we will go through the state of the critical thinking ability implementation; the steps involved in the critical thinking process: the questioning, the collect of information, the opinion building and the action; and how this nurtured skill needs constantly to be practised as it is a moving dynamic that can be used in any situation to face any issues.

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INTRODUCTION

¹ It means India in Hindi

² DR. N. MAHAPOON-YAMONT, The Causal Model of Some Factors Affecting Critical Thinking Abilities, 2012, 5 pages, available on reader.elsevierw.com

My reflection started as I was spending a full year in India for my studies.

I discovered the numerous facets of Bharat 1 and the diversity of Indian's ways of life, by meeting them, discussing with them, learning to know them from cities to villages.

India has brave workers highly committed to work lavishly. I also noticed this common will Indian have to succeed in life on many levels. And as I observed the wealth India has on several levels, I started to understand its functioning.

I noticed the societal structure in place, the social pattern followed, its tacit rules, its expected behaviours, its people labelled, having their place defined according to criteria (skin colour, name, origin, etc.).

And that is how expectations exist and rise. All the issues that I noticed were calling for critical thinking.

Seeing all this unquestioned societal machine in place, I started digging and tried to understand why it was this way. Why critical thinking did not have a place here.

It can be explained by history and religion, the importance of traditions and culture, the education and respect of values.

As I was discussing with Indians, I understood that calling things into question were not common to practise here. And most people used to accept their fate, fulfilling the expectation of their status. Because of the pressure around it. Profession, marriage, relationships, material goods, etc.

This pattern is part of the Indian societal structure. It is followed without being questioned as it is difficult to get out of it. Everything is done to stay on the predefined track.

After spotting this lack of critical thinking, it seemed relevant that this issue solved would benefit so many other fields.

“Be a free thinker and don't accept everything you hear as truth. Be critical and evaluate what you believe in.”, Aristotle.

An absence of critical thinking leads to leaving the door open to manipulation and to repeating the same mistake from the past.

Being skilled up with critical thinking would impact our actions by improving our thinking process. Critical thinking proves to be a precious tool to become the master of one's life. It would enable benefits from personal order as national order², as its application is limitless and can be used in any field to face any issue, to be an informed, conscious and become an enlightened decision-maker and actor.

As I was noticing how the Indian societal structure works, I realised that the French one is not that different, in terms of expectations and social pattern presets for all of us to reach. This Indian specific context in the one I immersed myself, made me take a critical look at my own country. The physical distance from my country home enabled me to step back and triggered this reflection.

Thus I started to question our freedom, and how are we free to think, free to choose, free

to act. What does influence, condition and orientate the way we think and behave?

All in all, **how does our environment condition our critical thinking development?**

That is what we are going to explore...

MENTAL PROCESS

*HOW TO BUILD THE NURTURE SKILL WHICH
CRITICAL THINKING IS?*

MENTAL PROCESS

How to build the nurture skill which critical thinking is?

NURTURED SKILL CRITICAL THINKING CURBS

¹ PHILOPRO, La pensée critique, un outil philosophique, presentation, available on [slideshare.net](https://www.slideshare.net)

THE CRITICAL THINKING PROCESS

First, let's define what critical thinking is exactly. According to the Cambridge Dictionary, critical thinking is "the process of thinking carefully about a subject or idea, without allowing feelings or opinions to affect you".

So there is this dimension of tending towards objectivity, trying to put aside conventions, pressure, influence, judgements from others or oneself, or any kind of bias.

This process of thinking can happen through questioning.

Questioning oneself. Questioning others. Questioning what is happening, how is it happening, why is it happening. Questioning everything, even the basics, or especially the basics, leads to critical thinking according to me.

Critical thinking pushes us to be aware of all the facts by collecting information, to build then our own clear and relevant opinion. And having an opinion often impacts our actions. So critical thinking is not only a passive way to think. It can also be a trigger leading to change and improvement.

That is how critical thinking reveals itself as a precious tool. And as a tool, we need to learn how to use it. This is not in any case an inborn skill.

However, laying the groundwork to welcome it more easily is possible. Indeed, thinking critically echoes with open-mindedness. Being able to call into question and consider other

viewpoints require some flexibility. From my experience, travelling highly heightens this ability. It highlights the relationship with other people, the understanding of the world's diversity and definitely brings up differences to notice. Being open to these differences and trying to understand why they exist, is a first step in the mental process' construction of critical thinking.

REFLECTIVE TOOLS

Certainly, travelling is not the only way to be initiated into critical thinking. And travelling does not ensure you either to turn you into a critical thinker.

As we mentioned above, building this skill requires calling things into question. It keeps us away from believing everything gullibly. To step back is also necessary to detach yourself from any kind of influences: the situation, others' judgement, the affect, etc. Anything that can condition you in an unwanted manner.

We also need to inform ourselves to be able to analyse the situation in its entirety. We can have a first view on everything. However, it is essential not to stick to it until we are informed or the fact is checked.

We can state that thinking critically makes us tend towards objectivity, even if full objectivity does not exist. But we will dig in later on, with experts' outlook.

SOCRATIC & ZETETIC METHOD

Other methods exist to reach critical thinking. Socrates thought that everything, including common sense, should be the object of questioning. It is named the Socratic method¹. It consists of giving a counterexample about something to reformulate, to specify and perfect its definition, targeting accuracy. It is based on calling into question even the things we are sure of.

We will agree that this method is not the most efficient in terms of daily use. It finds application in reflections about more philosophical topics such as trying to define love for instance; but it does not match with a quick decision to make during the day, as paying or not your electricity bill. You won't redo all the math to make sure the price is correct. But you might just check if the fees correspond to a rough estimate you would already have in mind. This being said, it can always be the object of further research or probe if it is considered as your topic of interest.

In this sense, critical thinking should hold us back. A curb to decision making and surely to action, which is the useful and logical consequence of thinking.

That is why it is important to **adapt the deepness of the reflection** according to the context and topic in question. In other words, the use of critical thinking needs to be balanced between the questioning and the acceptance

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How to build the nurture skill which critical thinking is?

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¹ TEDX TALKS, Comment développer l'esprit critique avec la Zététique ?, Victorien Draperon, TEDxPoitiers, 2019, video, 17 min 45, available on YouTube

² ETYMOLOGY ZETETIC, available on etymonline.com

³ AFIS, La zététique ou l'Art du doute, 2019, available on afis.org

⁴ an emotion that changes or influences what you do or think, definition available on macmillandictionary.com

⁵ Specialist of the relations and emotions mechanisms, using the body-psycho approach in the formations she conducts

of a certain basic set of common sense. With this subtle combination, **it can optimally be used as an efficient daily tool, accelerator of accuracy, to move forward.**

In this way, the zetetic method ¹ seems to be the most appropriate tool. The term zetetic ² comes from *zetein* in Greek and means "to seek for", "inquire into". It is a method of investigation using scientific methodology. Henri Broch, a French biophysicist known as the Father of the zetetic, defines it as the Art of doubting. This method has been mainly used for the study of supernatural phenomenons from the 70's.

The zetetic method is seen as a means ³, not an end in itself. Contrary to the Socratic method, this one is less passive and leaves the door more open to potential action after results.

REASON & EMOTIONS

We mentioned previously the importance of stepping back from a situation as we try to have a critical look at it. This is a step to lower the ambient influence, external and internal, as it would make us dive into subjectivity. It is by trying to be objective that we can be clear-sighted, and so critical.

However, flouting inner perceptions, flouting our emotions is not entirely the right solution. The affects ⁴ we feel are instinctive and already give us information on the nature of the situation.

Paradoxically to what we mentioned previously, almost entirely ignoring them could slow down

the critical thinking process. These intuitive signs need to be taken into consideration, bringing them to a certain level of consciousness. Here again, we need to find the right balance between emotions and reason to be connected with our deep self needs. These are the insights my interview with Olivia ⁵ gave me.

It is not an exact science, as it highly depends on the type of situation we have to deal with. Some will require more consideration of our affects than research and case studies: the social pressure we can suffer at our workplace for example; some others will require more fact-checking and less emotional indicators: for instance, what really triggered the epidemic of Covid-19. All in all, we can see emotions and affects as indicators to consider, analyse and look closer. That is why **we need to combine, in a certain measure, reason and emotions.**



Critical thinking is not a natural skill. It requires to be learnt and practised to be used properly. Trending towards critical thinking reflection involves asking the right questions, searching for information and checking the reliability of sources, building from it our opinion and acting according to it.

As we process information, we have to try being the most objective, flouting ambient influence. However, we may find a balance between questioning and acceptance of a

certain basic set of common sense, in order to move forward.

From our perspective, critical thinking is not a fixed method but an evolving tool to be practised, improved empirically and that can be adapted according to the situation. Critical thinking is a precious tool bringing lucidity and that can enlighten many different situations.

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¹ CAMBRIDGE DICTIONARY, Definition of cognitive bias, available on dictionary.cambridge.org

² M. LU, Fifty Cognitive Biases in the Modern World, 2020, available on visualcapitalist.com

³ Expérience de Asch, le conformisme, 2010, video, 4 min 11, available on YouTube

COGNITIVE BIASES

Apart from our environment or our interactions with it, some inner curbs exist and interfere within our mental process. Those are named cognitive biases. They are defined as "the way a particular person understands events, facts, and other people, which is based on their own particular set of beliefs and experiences and may not be reasonable or accurate" ¹. Away from reason, they take us away from critical thinking.

Fifty cognitive biases ² had been listed and classified by Marcus Lu, in six categories: memory, social, learning, beliefs, money and politics. This list points out our unconscious mental activity preventing us from being objective. Here are some examples. "The availability cascade: tied to our need for social acceptance, collective beliefs gain more plausibility through public repetition."

It is almost an instinct bias for survival that conditions us as the social human beings we are. Flouting other's viewpoints makes us in a potential position of rejection from them. That is why we more easily adopt what we see or hear often as a learnt and known pattern that we acknowledge through repetition.

"Reactance: we do the opposite of what we're told, especially when we perceive threats to personal freedoms."

Some cognitive biases, like the reactance bias, can be used to build techniques of manipulation. Especially if the manipulator knows the tendency we have for which cognitive bias.

"Confirmation bias: we tend to find and remember information that confirms our perceptions."

As any proof, true or false, can be found, confirmation bias must be completely avoided at least when we search for a piece of information.

This list and definition of the existing cognitive biases make you aware of things you do unconsciously. It is extremely important to understand how we process information and zoom in the instinctive deductions we use to do. Because we know we are not always fully critical in certain contexts. It will impact our decision making and lead our actions. That is why it is essential to be aware of it and train and practise to reinforce it.

PSYCHOLOGICAL EXPERIMENTATIONS

ASCH'S EXPERIMENT

Solomon Asch, the Polish-American pioneering social psychologist, experimented ³ in 1951, to study the individual's behaviour under social pressure.

He made a group of one real participant and five fake other participants (comedians). The invented motive of the experimentation was the study of the length line perception. A pretext to cover the real study about the manifestation of the individual's critical thinking.

The accomplices were all told ahead of time to



Image: D-janous, <http://goo.gl/KwuGGM>

give wrong answers to some of the questions. And we observe that 37% of the subjects went along with the group of the critical trials, even if the answer seemed obvious.

What are the reasons for this surprising conformity? Several explanations can be made.

The subject can genuinely believe that the group is correct. And follows the group's idea rather than his own even if there is a divergence.

This behaviour is unconsciously based on the fact that our brain learnt that, in general, the group is right. We will detail this argument in a few lines below.

There is also the subject knowing he is right but who avoids the discomfort of the difference by giving the same answer than the group.

These behaviours can result from different factors. They depend on the personality of the individual. The capacity they have to remain independent or not, which echoes with the

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¹ ARTE, Quelle influence le comportement collectif a t il sur nous ?, 2017, video, 26 min, available on YouTube

² T. J. H. MORGAN & K. N. LALAND, The biological bases of conformity, 2012, paper, available on frontiersin.org

³ W. KOENING & J. DICKINSON, Animal social behaviour, 2012, paper, available on britannica.com

importance granted to belonging. The need to be part of a group, contributing to define our collective identity. The fear to be rejected. A fear which is understandable and explainable. As the American psychologist Nahan De Wall says: "social rejection was synonymous to death, in terms of evolution."¹

In this experiment, Asch also noticed that when the subject writes his answers rather than speak them out loud as the others, conformity drops by two-third. As he is not exposed to others' judgement anymore. It proves the existence of **conformity due to group pressure**.

More than being understandable because of our human being status, all these reasons can also be explained scientifically.

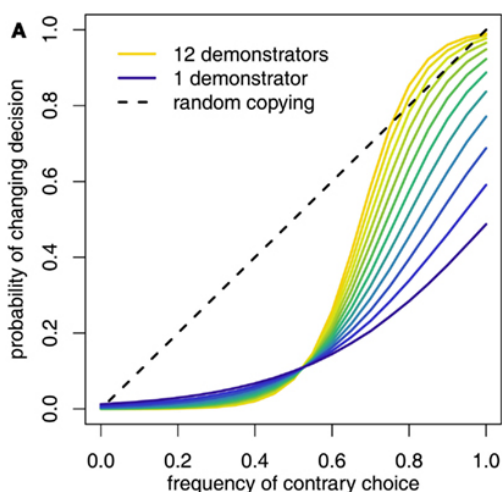
Dr Jan Gläscher's experiment¹ sets the hypothesis that the bigger the group is, the easier the individuals change their opinion.

He tries to determine how much does the zone of the brain treating the social information influence the decision making.²



Screenshot from ARTE's video ¹

In his experiment, the individual's decision is continuously confronted by diverse group decisions. And he observes effectively that others' social decisions influence our own decisions, as the cerebral zones in charge of social interaction and decision making are highly linked and active simultaneously. It conditions our choices and makes us correct them according to the group decision.



Graph from the paper *The biological bases of conformity* ²

This graph mentioned in the paper *The biological bases of conformity* supports that “adult human subjects were disproportionately likely to switch their decision to that favoured by the majority only when they were presented with a large group of demonstrators, they were uncertain in their own abilities to solve the tasks and the majority was very large.” ² Our brain learnt, under certain conditions, that

the group takes the best decisions, explains Gläscher.

This is a behaviour revealing our human instinct. And we can also observe this social behaviour in animals. Indeed, Walter Koenig & Janis Dickinson mention in *Animal social behaviour* ³: “group living often selects for sophisticated systems of communication and cooperation that enhance the group’s overall foraging success”. This way, the group ensures a certain amount of strength and intelligence exceeding the one of an alone individual.

Dr Andrea Cavagna, a physicist studying animal behaviour, also mentions the power of the group. For instance, in a flock of birds or a shoal of fish, each one moves at the same pace, in the same direction as its neighbours. They follow the group as the individuals in front of them might have more information than them. But it is not always the case.

The behavioural biologist Jens Krause studied how possible it is to influence the collective behaviour of fishes. Manipulating a lure leading a two-fish shoal, he can make the small group adopt a behaviour they would not have usually followed; in this instance, turning away from worms.

However, when he makes the same experiment with a bigger shoal of fish, the group does not obviously follow the lure leader. It is conceivable as the one at the head of the group does not always take the best decision.

We can retain from these proven and analysed human and animal behaviours that **the group intelligence does not result in one individual**

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intelligence followed but in the accumulation of them, increasing *de facto* the probability of truth.

That is why we naturally tend to follow the group decision, switching ours if needed. These observations strengthen the initial hypothesis of Dr Jan Gläscher saying that the bigger the group is, the easier the individuals change their opinion.

All in all, following the group decision can prove to be a good thing resulting from a group intelligence. The group thought has also other benefits such as social facilitation, support, mutual assistance.

However, group influence can also be an opportunity for manipulators to take advantage of the situation; if it is a small group (as we saw with Gläscher's experiment) or if enough persons are misleading one individual in the group (as we saw with Asch's experiment).

As the influence is not always clearly stated, we can unconsciously be the ones conveying it. Trends are an example of an influence carried by a group: social conventions, aesthetic codes, physical requirements. We are used to going with the flow to ensure our **social acceptance**. Even if we call them into question and we do not fully agree with the trend going on, we might still follow suit as it can turn out more difficult to stand alone against a majority than coping with our discomfort.

In our current world, we do not need to follow the group to perform and enhance our foraging techniques anymore. We built our societal system on the division of tasks to be

more specialised, more efficient and be able to enjoy the standard of living it is possible to reach today. The basic needs being more easily answered, it provides enough comfort not to have to survive, hunting the beast. Nonetheless, it raises other concerns, notably social concerns. Indeed, once the basic needs are answered, it is the psychological needs that require to be fulfilled as Maslow's pyramid shows it. This includes belongingness.

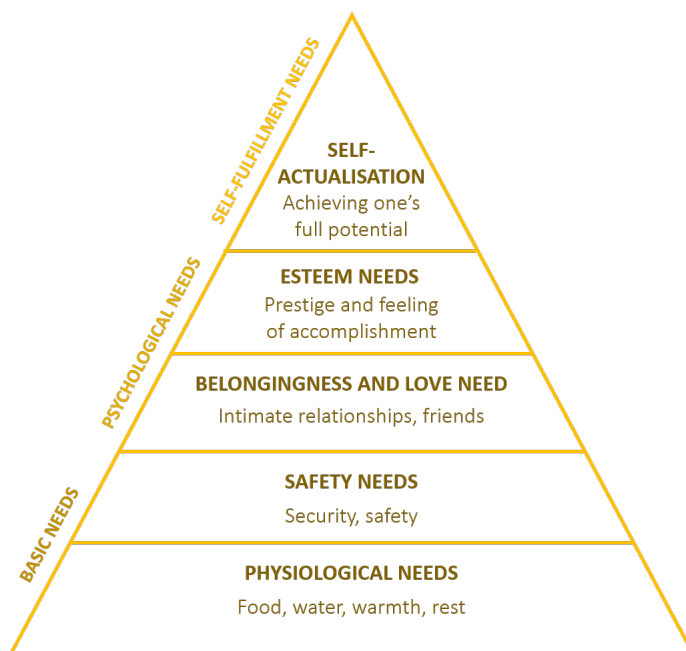
So, we can state that social needs are a current concern for a lot of us nowadays, becoming the new common priority, as the basic needs

are more easily reachable.

We certainly observe the increasing importance of social networks, the diverse applications connecting us, making us part of groups.

Our tools are indicative of our lifestyle and, by extent, of our needs. Our behaviour and the access to these tools make us pay over-attention to our social facade to be more integrated, to be more loved.

As we have everything to polish and promote our self-image, we are also surrounded by these same tools that can ruin our social



Content of the graph from www.simplypsychology.org/maslow.html

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¹ The Milgram Experiment 1962 Full Documentary, video, 44 min, available on YouTube

² FRANCE 4, Le jeu de la mort, Expérience de Milgram, documentary, 1h30, available on YouTube

profile; depending on how they are used. **This endless loop reinforces the run for social acceptance.**

I think we talk about social survival as the new concern shared by a lot of us nowadays. That is why being able to perceive and understand social influences is a necessity, not to let it take over. Only **the use of critical thinking from each one of us will be able to break this loop** that sometimes makes us forget to think by ourselves.

MILGRAM'S EXPERIMENT

So, we can think that if the social structure of the group is not perfect, maybe to stand as an individual would be a better call.

Stanley Milgram, an American psychologist, made an experiment ¹ published in the 60's to measure the level of power an authority can have on individuals.

It indirectly measures how critical a human being can be in certain conditions. And how much he can link their thoughts and feelings to their actions. To summarise, how critical they can be from head to hands, from thought to action.

The experiment conveys two candidates: one teaching, one learning. The learner memorises a list of words and then has to recite them. In case of a wrong answer given, the one teaching sends an electric discharge to the learner sitting in the next room.

This study pretexts to target a memory evaluation to cover the real experiment measuring

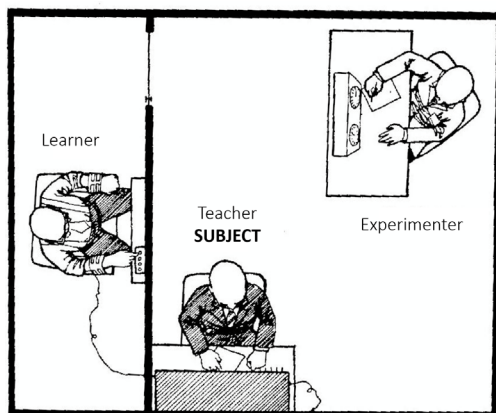


Image: crab.rutgers.edu

the power of an authority on individuals. To give you a bit of context, this experiment comes after World War II. There is a need to understand the atrocity of the nazis acts. Of course, no one during this experience had been ever tortured as the one called the learner is a comedian. Fortunately, because 62,5% of the subjects administered discharges until the last and biggest electricity shock of 450 volts. Only one third refused and stood up against the authority figure.

We see that a **human being is highly suggestible as he is alone**. Isolated from others, he has not anymore someone to refer to. That is how the figure of authority starts to carry weight.

In 2010, Milgram's experiment had been remade ² to measure the evolution of the power this type of influence can have. But the research leader, Jean-Léon Beauvois, had to

adapt it to the current context. He and his team created a fake TV emission launch named Zone Extrême. 81 subjects were volunteers selected from a large panel of the French population to participate in this first test version of the emission. As in Milgram's experiment, the second candidate who is accomplice, fakely picked at random their role. They are, in this scenario, the candidate who will receive the electric shocks, hidden from the other's look, in case of the wrong answer. The punishment is given by the candidate examined for the experience. The outcomes show that 81% of the subjects administered all the electric shocks, even the ones mentioned as extremely dangerous, that could result in the candidate's death.

Even if the context of this new experiment is not exactly the same as the Milgram's, this adaptation raises the same concerns: **the influence a figure of authority can have on individuals**. So, the outcomes can be compared and we clearly see that from 1960 to 2010 the number of subjects completing fully the experimental process, in spite of the torture's risks, increased by 20%.

In our daily life, we use to obey certain autho-



Screenshot from the documentary *Le jeu de la mort* ²

MENTAL PROCESS

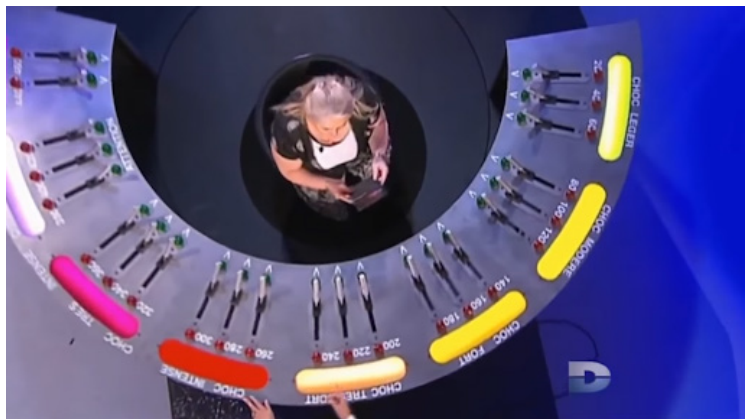
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¹ FRANCE 4, Le jeu de la mort, Expérience de Milgram, documentaire, 1h30, available on YouTube

rity figures that we consider worthy as the parents, the teachers, the doctor. But we do not consider ourselves bowing to any authority while following these ones. We tolerate them because we still feel free as we choose who we obey. Or we think we choose.

Here, television reveals itself as a hidden



Screenshots from the documentary Le jeu de la mort ¹

authority to the one 8 persons out of 10 obey. It can be explained by diverse reasons. First, because it is an unusual context for most of the participants. The TV set, the staff, the star presenter in front of them, the game going on and the good image they want to give on this special event.

Secondly, the subjects initiate the process in a constraints-free frame. They are volunteers and come on their will. These are called the compatible values, enabling them to accept the contract.

However, during the TV show, the subject is exposed to such pressure from the TV context that they adopt an automatic mode and unconsciously proceed to a reorganisation of their values' hierarchy. Giving a good image of themselves comes back in the spotlight of their mind. That is how they turn to do what the presenter expects from them and **what they think is expected from them**.

The individual alone becomes more obedient. This is exactly where it becomes dangerous for them, especially under an authority abusing its power.

We can observe from the post-experiment subjects' feedback that even if the administration of the discharges at a certain level was almost unbearable for a lot of them, they were not able to make their action match with their feeling, with their mind. They just could not act consequently as the step to defy authority was too difficult to overcome.

So, the insights we get from these experiments, Jean-Léon Beauvois sum them up saying: "In Zone Extrême we expected mas-

sive disobedience. Because there is no risk of repression. So why so little disobedience? Because knowing how to say no is an attitude that you learn through previous experiences, education, transmission. Everyone did not have this chance. No one is resilient from birth." ¹ Definitely, this experiment triggers questions on our freedom when it comes to voting for instance. This decision that we have to take alone, that can be presumed influenced in a third party's interest.



To conclude, we must be aware of cognitive biases as they can turn out to be a source of manipulation, by themselves or used intentionally by others.

We can also recall that the group, as a social structure, can prove to be the appreciable result of the accumulation of individual intelligence from which we can benefit. We may, however, remain careful and more than ever be critical because the group, as the individual, can also unconsciously suffer from pressure, conditioning actions.

Indeed, in group or alone, we can be the target of manipulation, as we saw in Asch's experiment and Milgram's experiment. So, we need to be critical thinkers by calling into question and stepping back, collecting information, building our opinion and taking actions towards changing and improvement. And especially make sure to make our actions match with our thoughts and feelings.

**KNOWING
HOW TO
SAY NO IS AN
ATTITUDE
THAT YOU
LEARN
THROUGH
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MENTAL PROCESS

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CONCLUSION

From this first part, we can keep in mind several insights. I would say that there is no need to always complete entirely the process of critical thinking, from questioning to action. But, at least, not state too fast and just leave room to trigger questions.

As previously mentioned, being critical is quite a long process that involves: starting with receiving the piece of information, then calling it into question, reflecting on it, researching and getting to know more about it to answer or confirm what we thought and then be able to act if needed.

The undesirable consequences of this process may be thinking too much regarding actions. There definitely is a need to adapt the deepness of the reflection according to the situation and the need. And to find the balance between sensing emotions, that can turn out to be a precious indicator to consider, and the reason.

I won't recommend to you strongly enough that critical thinking is highly required, as we can more easily than we think, be subject to manipulation. It can be from social conditioning, social pressure and even from our own brain, with cognitive biases.

But are there any other actors or situations we should beware? From our environment, and in our society, what does contribute to condition us and influence our decision making?

That is what we are going to see in the next part.

FRENCH SOCIETY

*HOW DOES SOCIETY CONDITION OUR CRITICAL
THINKING DEVELOPMENT?*

FRENCH SOCIETY

How does society condition our critical thinking development?

POWER
PEOPLE
INFORMATION
FREEDOM

¹ A cult promoting adulation of a living national leader or public figure to extend his power, definition available on wordreference.com

² WIKIPEDIA, List of cults of personality, 2021, available on wikipedia.org

³ EDWARD BERNAYS, Propaganda, 1928, book, 168 pages

⁴ Principles of propaganda, Edward Bernays, available on propagandaprinciples.wordpress.com

Being critical acts as a filter to protect oneself from any sort of conditioning. It can be the thought conditioning, the social pigeonholes or the reassuring societal pattern gently set for everyone to follow as one, obscuring the uniqueness of each individual. So, **to think critically can definitely be used to reach freedom**. On the contrary, the ban on freely thinking is a way to maintain a population under the yoke of its supremacy.

You would tell me that to ban the possibility to think freely is impossible, as thinking is the last thing that can be taken away from us. But, **can we consider that keeping the tools and the methods to access critical thinking away from a population is a way to prevent the use of our full thinking potential?**

LEADERS

Modern dictatorships are a good example of this. In totalitarian regimes, it is not about either or not it is forbidden to think the opposite of the authority in place. It is that the authority in question is so strong and imposing, that taking action according to your thought without repression is extremely difficult. So, people are free to be critical thinkers but everything is done in a way that they won't embody their divergence.

The cult of personality ¹, for instance, is a flagship means to extend the power of the leader and his regime, reciprocally. It raises the profile of the leader to adore, erasing any eventual emerging critical thought, and that from the youngest age.

Across the ages and all around the world, several leaders used the cult of personality ² to establish themselves. Notably using “mass media, propaganda, the arts, patriotism, and government-organised demonstrations and rallies to create a heroic image, of a leader, often inviting worshipful behaviour through uncritical flattery and praise.” ²

By eliminating their competitors, the leader avoids confrontation and consequently makes the questioning even more difficult to reach for people, because there is no direct comparison. That is why dictators govern alone, benefiting moreover of the exclusivity of the power.

“In almost every act of our daily lives, whether in the sphere of politics or business, in our social conduct or our ethical thinking, we are dominated by the relatively small number of persons... It is they who pull the wires which control the public mind.” ³

In his book *Propaganda*, Edward Bernays proposes to use the words *public relations* rather than *propaganda* ⁴, as the latter has a negative connotation from World War I. “If you could use propaganda for war, you could certainly use it for peace”.

Indeed, manipulation can be used to unethical ends to oppress a population or keep it under the yoke of the leader. But it can also be seen as a tool to lead a population towards a better way.

This subjective viewpoint from the writer, naming the same concept with two different words, enables other perspectives with what is already in place.

POLITOLOGY

Politics is a game of seduction. Politology is a science itself, analysing the activities, the behaviours, the thoughts and also the diverse manipulations detected in politics and the concerns around it.

Our society is based on a capitalist structure. Advertisements more and more seducing and intrusive, unbeatable prices, new trends. Everything is done to make us consume. Without calling it into question. Without taking too much into consideration the concerns that it raises or the consequences involved. To buy and sell is the way to make our system work and exist, everything has become sellable.

Politics is no exception to the rule. **We are the product of our own system.** We are bribed to contribute to someone's election who will enjoy using his power.

The vote is an individual choice conditioned by speeches, promises, self-selling of the one pretending to the crown. And we saw in the previous part that the individual alone can more easily be manipulated.

So, it is not in the power pretendent's advantage to make us critical thinkers as they use techniques of manipulation contributing to their rise to power.

However, there are still ways to express oneself, and disagreement also if so. Demonstrations and civil disobedience are means people used to express themselves.

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¹ LE MONDE, Les événements de Mai 68 résumés en 3 minutes, 3 min, video, available on YouTube

² MERRIAM WEBSTER, Definition of civil disobedience, available on merriam-webster.com

³ F. REYNAERT, Qu'est-ce que la désobéissance civile, video, 4 min 21, available on nouvelobs.com

⁴ GEORGE WASHINGTON UNIVERSITY, Who Governs the Globe?, video, 9 min, available on YouTube

CIVIL DISOBEDIENCE

First, let me clarify something here. **To be critical does not obviously mean to disagree.** To be critical is being able to step back not to be manipulated; which requires information and analysis. I would add to this definition the notion of action. Being able to adjust our actions according to our thoughts is, in my opinion, essential to complete the process of critical thinking.

France is known for its revolutionary penchant. *Mai 68*¹, known as the biggest strike in French History, gathering 9 million strikers, is one of the iconic revolutionary periods from the last century. It was initiated with students and kept going with the workers union, revealing a social crisis. After damage, negotiations and agreements, it resulted in life improvement on several levels in two fields in particular: social improvements (as the increase by 35% of the minimum wages and an overall rise of 10% on salaries) and societal improvements (improvement of the French women's status, liberalisation of the mores).

Daniel Cohn-Bendit, one of the figures of this movement, considered it only as an update needed between what people thought and the rules in place.¹

If it has been seen as a springboard to free speech for a lot of people, it has also been considered as a symbol of laxity for some. It was a way to make an opinion seen from all and incite to changes. **A form of concretisation of the critical thinking process.** This one

started with peaceful movements and turned up in violent actions. But it is not always the case.

Indeed, the definition of civil disobedience² is the refusal to obey governmental demands or commands especially as a nonviolent and usually collective means of forcing concessions from the government.

Gandhi and Martin Luther King, respectively fighting against the British colonies and the racial segregation, are symbols of the nonviolent struggle.

According to the journalist François Reynaert³, civil disobedience has its place in dictatorships as well as in a democracy. The aim of these pacific illegal actions is to be heard and seen from others about a moral cause which is not respected. It is also used to be noticed by the authority, reach court and ask for justice, making a general realisation of the public opinion.

Martha Finnemore, professor of political science and international affairs at George Washington University, says that rules (formal or informal) come from all kinds of levels, global sample society, by all different kinds of actors.⁴

She raises an interesting element which is the responsibility. Rules have been established for us to be able to live in a community. So, it contributes to our freedom (we will come back on it in one of the following parts). And we are part of this frame made of rules that we call society. By respecting these rules, we embody them: through our actions, our behaviour, our

words and thoughts. **So we definitely have our part of responsibility in whether the rules set for us are relevant or not. And we need to use our critical thinking for that.**

That is what we are going to see in the next part.



To conclude, our society exists thanks to the frame that structures it. This societal frame is designed for us to live in community and enables a certain form of freedom from its organisation. But it can be a double-edged sword. In some conditions, the frame can turn out to be a means for the one managing the power to control, manipulate, restrain and keep the population under its yoke. This kind of abuse of power, often motivated by the interest of minorities, needs to be called into question. Even if it is not such a big abuse of power, we should be aware of it and act as critical thinkers. We actually have on this particular point our part of the responsibility as we embody these rules when we follow them.

Do not misunderstand me here. I do not encourage you to undertake civil disobedience, but at least to be conscient of the concerns going on around power and its application. We are part of this system which is ours and in the one we live. We indubitably contribute to its definition. So, let's lend back credibility to our democracy by choosing to make it what it is. Let's see that in a more detailed outlook in the next part.

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¹ DICO PHILO, Le déterminisme, available on la-philosophie.com
Translated by me from French to English

² R. A. WATSON, René Descartes, available on britannica.com

³ Theory in Action: Constructivism, video, 5 min, available on YouTube

⁴ PROF. N. ZERB, Critical Theory- Constructivism, video, 15 min, available on YouTube

⁵ CLASS CENTRAL, Développer sa pensée critique, available on classcentral.com

⁶ MERCER METTL, Critical Thinking & Decision Making Tests- Competency Screening Test For Hiring, available on mettl.com

DETERMINISM & CONSTRUCTIVISM PARADIGMS

To understand how our system works, it is required to understand how the ones composing it interact and conduct themselves. Sociology enables the analysis and understanding of the behaviour of a population.

A paradigm is a framework of ideas, a school of thought, a certain vision of the world. This theoretical vision is used by sociologists to understand the social behaviours of individuals. One of them is the **determinism paradigm**. It refers to social constraint from societal conditioning. From Latin *determinare*, it literally means to mark out the boundaries, to limit.

“Determinism is as a doctrine, a conception according to which, certain conditions being known and explicit, coming facts are predictable with precision.” ¹

Spinoza confirms this theory by saying: “Humans are mistaken when they think they are free; this opinion is based on the fact that they are conscious of their actions and ignorant of causes determining them.” ¹

The determinism paradigm, inspired by Descartes’ philosophy ², is driven by the reason. Indeed, Descartes, father of modern philosophy in the 17th century, is well known for

his dictum Cogit, ergo sum meaning I think, therefore I am. This viewpoint makes human beings exist only through their mind. Whereas, as we saw previously, flouting our emotional alerts, is distancing ourselves from a non-negligible source of truth that can be revealed by our instinct.

It illustrates well the rationalist perspective that the determinism is made of. The prediction of human behaviour, making **the perception of the future fixed and established**, does not leave any space to changes or margin of improvement

Another paradigm that can be opposed to determinism is **constructivism**. The constructivism paradigm is based on mutual understanding and co-construction of knowledge. Caleb Gallemore, Ohio State University's Professor from International Affairs, talks about constructivism in an interview and gives a simple example. "If everybody wakes up tomorrow morning and decides that the United States does not exist, well it really does not exist anymore. Because what makes up the United States is not the buildings, the bombs and the votes, it is everybody thinking that those things make up the United States. And we agree and we act and we treat each other as if the United States was there. And it's all of that agreement and all of those beliefs and ideas that give us the United States."³

To summarise, we contribute to making things exist. Through our ideas, our opinion, our

actions. We behave according to a structure or what we think the structure is. That is why constructivism is seen as a moving paradigm, as beliefs evolve and our world is based on collective beliefs.

Social interactions themselves create a shared understanding that shapes material reality⁴. And Martha Finnemore, a constructivist scholar confirms that "interests are not just out there waiting to be discovered, they are constructed through social interaction".⁴

The constructivism paradigm is quite pleasant as it sparks hope letting us think that **we still have the power to change things, as we are part of them**.

WHO NEEDS CRITICAL THINKING THE MOST?

We previously stated that critical thinking is, in part, conditioned by the power set in our society and the actions taken or not: as fighting for everyone to become a critical thinker or let it as it is and take advantage of an uneducated population. So, if it is linked to the power in place and the structure of the system, could critical thinking also depend on the social level of the individual?

That has been one of the issues I faced during my research. **How to measure critical thinking?**

There are some tests existing^{5 6}, measuring your ability to think critically in front of a text or

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a specific situation. But can they certify the use of critical thinking in every field of life: professional, personal, in front of informal information, through social interactions, relationships, etc.?

We learnt from the experiments detailed in the first part of this book and the feedback of the subjects that, alone, the individual cannot display a critical attitude and support their ideas by taking action if they have never been exposed to a similar attitude. This was common feedback from numerous subjects of experiments indirectly testing their level of critical thinking and gathering all kinds of subjects' profiles, with different gender, social status, level of education, etc.

It means that critical thinking would not be a skill that is linked, or could be evaluated, to your social status or your level of education. That can explain why it is so difficult to evaluate the critical thinking level of a population. However, from my experience, I would say that, in the absence of properly countering it, it is something you can perceive and sense by observing the mores of a population, the general path it takes and the penchants it has.

So, which part of the population would need the most to use critical thinking and so to learn this skill?

As we do not know precisely how to measure it, knowing who would need it the most was also quite complex to determine. In other words, I tried here to ascertain which section of the population is the most influenceable. From what we have seen, it would depend

neither on gender, nor on social status, nor on education level. So, we could think that it is linked to the age of the individual. But a lack of critical thinking can be anywhere. The oldest can be the target of manipulation as the youngest can also be. So, maybe the question is not who is the least able to be a critical thinker, because it is not in a particular age group or a specific social status; but maybe **who is the least able to deal with information, as our critical thinking also is in this ability**. Information from the media but also the informal one, occurring all around us, oral or written, from friends or strangers, from experts or impostors.



From a sociological perspective, we saw that several outlooks exist. Some are more fixed and established about the vision of the future, as the adepts of determinism. Others are based on a moving perspective considering knowledge co-built and inclined to evolve, as believers of constructivism. This latter enables a perception making us having the power to change things considering that we are part of them. This second paradigm necessitates from us to be critical. But who can or cannot be critical? Who is or is not critical? That is what we tried to determine. We saw that measuring critical thinking is possible but limited. The current techniques to measure it does not take into consideration its use on the field and in everyday life. From that, it is quite complex to determine who would need the most to learn this skill first.

This is why, to be able to move towards improvement, critical thinking ability should be taught to everyone, from the youngest to the oldest, as we all need it as an enlightening frame of reference not to be manipulated and, moreover, to be clear-sighted. And it starts with our ability to deal with information; the one we receive and the one we disseminate. You guessed well if you think that what we are to see in the next part.

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¹ Inborn unconscious psychic material common to humankind, accumulated by the experience of all preceding generations, definition available on [dictionary.com](https://www.dictionary.com)

² WORD REFERENCE, Definition of media, available on [wordreference.com](https://www.wordreference.com)

³ MERRIAM WEBSTER, Definition social network, available on [merriam-webster.com](https://www.merriam-webster.com)

⁴ Education aux médias et à l'information - écoles, collèges, lycée, available on cdn.reseau-canope.fr
Translated by me from French to English

⁵ CAMBRIDGE DICTIONARY, Definition of disinformation, available on dictionary.cambridge.org

⁶ ARTE, Covid-19 : une désinformation massive, video, 28 min, available on YouTube

THE INFORMATION PROVIDERS

The collective unconscious ¹ often makes us stick attributes of manipulation to the media, being this one channel through which we can access the major part of the information. But what is it properly?

Media ² embraces the means of communication, as radio and television, newspapers, and magazines, that reach or influence people widely.

So, the media stands as the channel batching these different mediums providing information. Even if there are several means involved in the process, it still conveys only one part of the population, one sector, an elite managing it all. And, as the definition mentions, that could influence or even manipulate the output to influence us, consumers of this built, framed and reframed information.

It indeed seems to be the only channel we can refer to know what is happening around us.

If we consider information from the media unsafe, in the sense of potential manipulation from a group of professionals acknowledging their power through a tacit agreement, well we can still opt to consume information from another medium: social networks.

They give us a large view on what is happening worldwide, that we could not have alone. A social network ³ is defined as an online service or site through which people create and maintain interpersonal relationships.

"A major part of humanity is now an Internet user. Almost half of them use social networks. The quasi totality uses mobile devices, with an average time connection of 6h39 per day (Study Hootsuite and We Are Social on the use of an, social network and mobile device during the first quarter 2020). This data shows the scope of the numeric revolution which overwhelms the methods of production, diffusion and sharing of information." ⁴

The social network is another link in the chain of media, but led by non-professional individuals. It enables the freedom of expression as everyone who accesses it can express themselves. The accessibility to create and share content is the main difference with the other media. It does not play on the same ground, this media letting the door open to subjectivity, opinion spreading but also information spreading. Information not checked that can easily lead to fake news, to disinformation.

Disinformation ⁵ is a piece of false information spread in order to deceive people. According to Christine Dugoin-Clement, researcher and cyber-security expert ⁶, there is room for disinformation when the topic is complex enough to be partially true and partially false. In this way, it raises an opportunity to lead people to make their mind toward one direction and build their opinion on it. It can also occur when the information is relayed and shortcuts are made. It is here another opportunity to distort information and take advantage of it.

For instance, the covid situation has been the

stage of disinformation, because of the incertitude covering it all.

*Covid-19 would have been created by HIV.
Covid-19 would be a biological weapon.
Eating garlic would cure of the disease.* ⁶

So, people searching for something that will save them when the situation seems desperate can easily cling to the solution they will see, the first piece of information they will receive. This is a bias of control illusion. You feel you take control of a situation where you were lost. This is where disinformation can orient decision making. It can definitely be used as a tool of manipulation which is used either consciously or unconsciously.

Also, social networks enable us to spread information very quickly, almost instantaneously. This factor of rapidity lets here even more room for disinformation. In general, the time to cross-check the information is not taken before its diffusion.

So, the responsibility when it comes to spreading information which has not been checked is on the one sharing it but also on the others relaying it.

The solutions to avoid this kind of situation is: always to start with stepping back to analyse the situation; check the source of the information.

Here is where the role of journalists takes on its full meaning which is to look for the truth. After discussing with journalists from several

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¹ M. ESPAZE, Les réseaux sociaux chez les 16-25 ans en 2019, 2020, available on journaldu-net.com

editorial boards and freelance ones, they confirmed to me that it is part of their job to cross-check information by interviewing actors, going on the field.

This process takes time and we can guess that is why social networks are used to get news, especially from the youth. In fact, 78% of the 16 to 25 in 2019 follow the news on Facebook.¹ This figure does illustrate the importance which is attached to instantness. This process is part of this era of consummation.

In response to that, we could think that simplified information might be the solution to spread checked information faster. But it seems at first sight to be a source of biases. The risk with popularisation is to misunderstand the topic and its concerns.

Contrary to what I thought, Agathe, a journalist from Le Monde, outlined to me her view, saying that simplified information can be seen as a port of entry rather than a risk. Indeed, this introduction to the topic in question can be the first step to understand what it is about. Then the reader can dig into it with the section To go further for instance. But when people want to know about the topic, popularisation can be a useful first step, letting the door open to go deeper into the complexity of the topic later on. However, it does not stand as a shorter means to write and release information as it needs precision in the terms used to be clear the most possible and avoid confusion from this first step.

**SCIENTIA
POTENTIA
EST ***

* knowledge is power,
said by the English philosopher Thomas Hobbes

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¹ S. PUECH, Peut on croire les medias, video, 14 min 20, available on YouTube

² J. FABRE, Médias français qui possède quoi ?, 2020, available on monde-diplomatique.fr

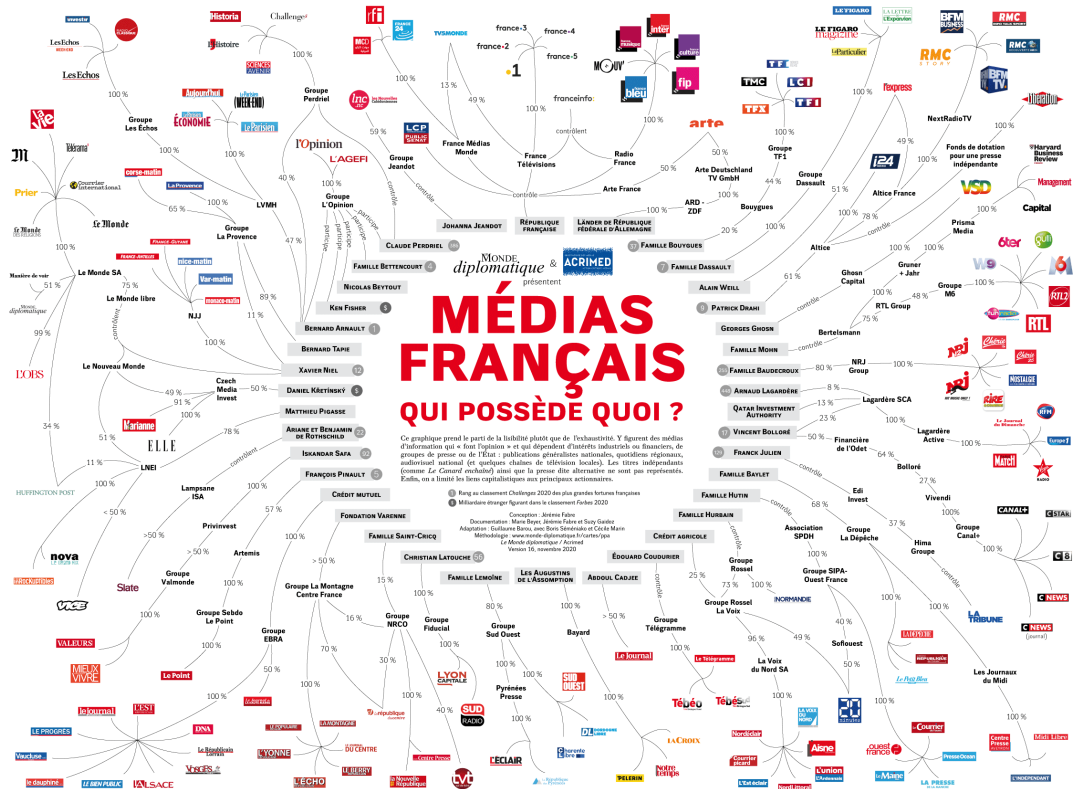
OBJECTIVITY & SUBJECTIVITY

In contrast to the speed spreading that social networks can have, medias stand out with fact-checking. It would imply that as they have to look for the truth, they are fully objective in the diffusion of the information.

After interviewing journalists on how they work and process the information, they all had the same main vision of their job regarding objectivity: “**Full objectivity does not exist.**” And they seem to all agree on it.

Even if the words are chosen to be objective, the topic is not random. It has been chosen among others. This choice made according to the current news, the sensitivity of the journalist, the importance attached, the demand of the audience, is already a step away from objectivity.

Then, there is the proportion of types of information. How many news stories are about dangerous cases relaying violence (theft, rape, murder)? If this type of information takes one-third of all the news stories time, for instance, it gives a sensation of insecurity to the inhabitants of the area in question. No matter how many news stories of this kind there actually is. I am talking here about the focus that can be made on certain types of information, flouting the proportionality to the real quantity of facts. It does orient the perception of our environment, has an influence on our judgment, our



Médias français qui possède quoi ? (French news media, who owns what?)²

opinion, our actions. Actions, involving decision making as voting for example.

Or how many times a same piece of information had been relayed in different contexts. This latter was one of the techniques used by Emmanuel Macron to make them talk about him according to Elise, one of the journalists I interviewed. In this way, it enables him to give more importance to his words.

And even apart from the content: the words, the topic selected, the proportions of types of information; there is still the external look: the layout. Here is another door opened on potential biases. Biases of expression and biases of interpretation.

In front of this complexity which the circulation of information is, people are doubtful. That creates a paradox in the way people get informed. As a matter of fact, the less trusted media

are the internet (23%) and the television (40%) after the radio and the written press. But, they remain the most consulted: internet 32 % and television 48%, radio 15%, written press 4%.¹

So, in the end, **journalists do shape a certain vision of the world** through the information they provide. Whether they want it or not. Whether they are conscient of it or not. From this realisation, several behaviours can emerge. Some will build ethical guidelines, some will have less or none.

Journalists can have their personal ethic but they often remain under the authority of the one owning the media.

Here is an overview mapping the French news media² depending on multimillionaires, industrial interests, press groups, State.

The reason for owning these news media is the power of influence it offers. The owner can

**FULL
~~OBJECTIVITY~~
DOES
NOT EXIST**

put pressure on the editorial policy of their media, put their ideas across, and so, have an influence on the public opinion.

This influences peddling results in another form of manipulation of the information, serving the interest of a minority and being not without consequences for the large majority getting informed from it.



To sum up, there are several ways to be informed. It notably includes media, managed by professionals and enabling in general fact-checking in the absence of instantaneity; and social networks that are almost in the instantaneous sharing but that can more easily convey disinformation.

Acknowledging that information is power, raises the information providers to a level of consideration we must have as we are informed. We saw that objectivity does not exist, so information providers, by definition, induce and shape a certain vision of the world; serving more or less their interest.

So, it is extremely important not to forget the concerns taking place around information and not disregard the influence it can have on the construction of our opinion, and by extent on our decision making and actions.

In other words, it is essential to be critical, and more than ever in front of the theatre of information.

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¹ AMARTYA SEN, The Argumentative Indian, writings on Indian history, culture and identity, 2005, book, 426 pages

PERSPECTIVE OF FREEDOM

In The Argumentative Indian, Amartya Sen talks notably about Tagore. The latter is a famous Indian literary poet, but it is not how Sen introduces him. He sees the man behind the figure. The persons he met, what built him, his thoughts and outlooks, his beliefs. Sen highlights how Tagore was dually perceived. In India and Bangladesh, he was considered as “a deeply relevant and many-sided contemporary thinker”. Whereas in the West, he was “a repetitive and remote spiritualist”¹ who was first accepted and then rejected.

“For Tagore, it was of the highest importance that people be able to live, and reason, in freedom. His attitudes towards politics and culture, nationalism and internationalism, tradition and modernity, can all be seen in the light of this belief.”¹

Freedom is the space towards the one it is developmental, fulfilling and rewarding to tend, where life and reason can exist without complex nor restrictions. Through all these domains mentioned above by Sen, Tagore tries to aim at this wise, and maybe utopic, philosophy of freedom, where reasoning will be fully experienced and will be able to be enriched. However, according to me, the real key which is not highlighted here is not reaching the freedom to be able to think freely but rather the journey to reach this freedom using reasoning. Reasoning in freedom, being different from reasoning for freedom.

This is a proof of the importance of being

critical through reasoning to reach freedom; I would even say to reach inner freedom at first. Then, sadly, physical freedom does not always depend on oneself, especially in Covid-19 situation for instance.

Let's come back on the restrictions that I mentioned above. According to me, freedom can exist only with some restrictions. To prosper, freedom needs a frame which will enable its emancipation.

Tagore talked about national freedom, even international freedom. But the notion of restriction to succeed reaching it is not mentioned. Maybe that it would have come later, as the next step from the one you get closer after transforming this utopic pattern into concrete possibilities. So, **limits have to be established to preserve the freedom of each one.**

And in my opinion, this duality in the ideology of freedom has to do with the critical sense that we should be equipped to notice it.



But how to learn freedom made of critical thinking? Can this freedom be taught? And is this freedom taught?

To understand these concerns, let's have a closer look at education in the next part.

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HOW DOES SOCIETY CONDITION OUR CRITICAL THINKING DEVELOPMENT?

CONCLUSION

A societal frame has been defined for us to live in, and leaders are designated to make it work. It does condition us to be able to live together, in a community.

Society also includes the ones composing it. As we are part of it, we have our part of responsibility in its evolution. It is the constructivism paradigm. That is where we have to be critical to lead our society towards improving changes. And this critical sense can be built from the information. We get informed of what is going on around us and all over the world mainly from the media. To play the role of the information providers provides power as information is power.

Once again, we need to stand as critical thinkers in front of the dissemination of information as information is always subjective, either it is wanted or not. The profit made out of this non-objectivity depends on the ethic and the awareness of the person. That is why, to redouble awareness about information is essential as it is one of the steps the critical thinking process requires and which conditions the construction of our opinion, and so, of our actions.

Finally, this is thanks to **this ability to call into question the commonplace that we will be able to reach our part of freedom.**

EDUCATION

*WHAT ARE THE DETERMINING FACTORS AFFECTING
EDUCATION TO CRITICAL THINKING?*

EDUCATION

FAMILY SCHOOL

What are the determining factors affecting education to critical thinking?

¹ LEGIFRANCE, Code civil, available on legifrance.gouv.fr
Translated by me from French to English

² A young person between 13 and 19 years old, definition available on dictionary.cambridge.org

³ J-C. CHAMPAGNAT, Le statut juridique des enfants, 2019, available on droitsenfant.fr

We will agree that the education of the youth is essential as **the children of today are the adults and citizens of tomorrow**. They are the one who will shape the world into the one we will age in, and who will pass down to the next generation. So, we need to be clear about what we want to perpetuate.

I chose to focus on the education given to them, even adults too can benefit from education as it is never too late to learn, or so goes the adage.

Again, critical thinking is this one precious tool applicable to any situations that need to be part of their education. So, whose mission is it? As I tried to understand who has this responsibility to educate the youth to critical thinking, the answer was quite confusing.

As nothing is properly set in stone, the three main parties concerned: the parents, the teachers and the journalists (providing information so who can also have their part of responsibility here) played pass-the-parcel between each other when I was interviewing them. Which makes the situation unclear and the learning inefficient.

FROM CHILDHOOD TO ADOLESCENCE, PARENTS' GESTION

Family is the cradle of education. Indeed, when a couple decides to have a child, they have to embrace responsibilities. Until the child becomes an adult and stands on

their own two feet. That's how it works in the French system.

From 0 to 18 years old ¹, the child is under their parents' responsibility. It is only when s/he will reach the legal age that they will be independent.

And that is what the law mentions.

Article 371-1; modified by LOI n°2019-721 on 10/07/2019 - art. 1. ¹

"Parental authority is a whole of rights and duties in the child's interest.

It is parents' until the child comes of age or until their emancipation, to protect them in their security, their health and their morality, to ensure their education and enable their development, in the respect due to people.

Parental authority is to be applied without physical or psychological violence.

Parents include the child to the decisions concerning them, regarding their age and their degree of maturity."

Article 371-2; modified by LOI n°2019-1480 on 28/12/2019 - art. 8. ¹

"Each of the parents contributes to the care and the education of the child proportionally to their resources, the ones of their parents, and the child's needs.

This obligation does not cease ipso jure neither when the parental authority or its exercise are taken away, nor when the child comes of age."

So, during this timespan and even after the legal age, the parents are legally in charge of raising their child. The education must be given in the child interest. As they do not have yet

the discernment ability, to know what is good or bad for them.

The parents have a key role here in the sense that they have to be critical thinkers for their child. This involves being a critical thinker for themselves in the first place.

Then, their child becomes a teenager ²; this hinge-age between the kid and adult age, usually when questions arise and the parents' authority is often rejected as a whole. And with these questions emerge critical thinking skills reinforcing discernment abilities ³. Both of these skills are not linked to a specific age and can either arise before the adolescence, after, or very late in the adult-age or sometimes never.

This period of time is a real shift in life. On the one hand because of the physical changes of puberty the teenager has to go through and on the other hand by this new perception of things they start to build as they become a *new person*, a more grown-up one.

It arises through calling things into questions as we said previously but it can be stronger through a full rejection commonly called the teenage angst.

But should teenage angst be considered as a common thing?

When we think about it, all the learnings given by the parents are taught through a certain authority. The obligations, the limits, the frame set by the adults have to be followed and should not be called into question, as it is in the child's interest, even if it seems unpleasant at first sight.

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¹ Différence entre éducation et apprentissage, available on sawa-kinome.com

Thus, it seems logical that when the child becomes more mature and is in the age of questioning things more deeply, the confrontation to the parent's authority can turn to be violent.

In the case where the child has been raised into this cocoon of the unspoken reasons of the decisions made for them; where they had no chance to experiment critical thinking as they were kept out of the choices made for them in the name of their interest. When the parents could think "no consultation with the child needed".

Could heavy teenage angst be the result of education with a considerable lack of critical thinking implementation during child education?

DISCLAIMER

Let me precise here that there is no judgement on the education given or on the education givers. Just an analysis of what is done in preparation for the best ways to give and receive an education.

These are only food for thought and questions for us to think about, and maybe find together the best ways to educate the youngest but also the adults. Education goes on as we never stop learning.

It is also a way to keep a certain parental authority. But facing this adolescence period, this strategy may not last working.

This reflection triggers the following question. Is more awareness of critical thinking through education would result in smaller angst?

This question remains unanswered at the moment or without any scientific experiment that I could find. Thus, I will let you make your experiments and your mind on it.

The parents' authority definitely needs to evolve as the child grows up. But it also needs to include the one receiving the education, for them to understand it and not to apply it blindly. The child has to be the actor of their own education. Then, we could state that it is the parents' responsibility to involve their child in the process of education they are given, in the aim of their long term interest.

We also have to keep in mind that education does not only come from parents but is also provided directly or indirectly, consistently or inconsistently by the other parts of the family: the grandparents, the uncles and aunts. But also the friends, and more widely by the neighbours, the sellers and every individual that the child will meet or not meet. Education can also be given by the children themselves to other children or even to the parents.

Even if it is said that education ¹, as the process of learning, is received up to a certain age, it should be seen as a perpetual process that keeps existing through self-education. Learning, which is defined as the acquisition of knowledge, is without contest a lifelong process. Education and learning do not have the same meaning but are both connected to knowledge.

VALUES, MORALS, WEIGHT OF TRADITIONS, HERITAGE

We mentioned previously (in *The information providers* part) that pure objectivity does not exist. Let's not focus on whether it is a good thing or a bad thing, if only it would have been possible. Instead, let's concentrate on what to do with this subjectivity which surely takes place through education. Because education is not only about the conscient process of raising a child. It also has its part of a less conscious transmission, which could echo with an instinct aspect.

The family carries values, morals, traditions. Sometimes common to other families, inspired by others, sometimes personal and unique. It can be seen as a package that the child receives. The family name lasting through time and generations is one concrete proof of this identity passed down.

This equipment arises in the family centre and handed down to the kid is going to constitute their base on which they will build themselves.

It is required for the child to take it as their foundation by default as they start from scratch. However, it is the reality of the parents, not theirs. That is why they need to **step back to keep questioning the learnings and not accept it at face value**. Maybe it will fit the vision of the child, maybe not.

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¹ ARISTOTLE, *Politics*, book, 368 pages

² D. M. Ruiz, *The Four Agreements (Les Quatre Accords Toltèques)*, 1997, book, 160 pages

³ COLLINS, Definition of ethic, available on collinsdictionary.com

⁴ COLLINS, Definition of moral, available on collinsdictionary.com

I agree that it can seem quite complex at first sight for a child to have enough maturity to go through this thought process. But I think it mainly depends on how their education and their environment are opened to let some space, open-mindedness and tolerance for this development to happen.

When we are kids, we can learn a language from scratch, even several if we are exposed to. So, couldn't we learn the language of critical thinkers too?

LEARNING A SET OF MORALS & ETHICS

When we call things into question, it is to build our own opinion. This opinion will lead us to action.

This process of decision making is based on the information we are getting, and how they echo with the experiences that built us, with who we are.

So, our actions depend on the opinion that we have built but also on our past experiences, our sensitivity.

If we can flout the social conditioning around us, there is still our own conditioning, implemented from the start as we were born. Language, the judgement of what is pretty, what is not, moral, ethic, inner judgement, please others for acceptance, obey the elder's authority, etc.

As freedom needs limits and restrictions to exist, we also need a frame and codes to co-exist. Aristotle said "Man is by nature a social

animal”, “Man is by nature a political animal.” ¹

Don Miguel Ruiz, in his book, *The Four Agreements* ², sees this social conditioning as a smoke braking us from embodying our purer superior self. But what would we be without this frame taught by our parents, themselves taught by their parents? Would we even be able to communicate?

Here is the paradox that we need to live with great precautions. We need structure to reach freedom. We need rules to live together. However, a balance must be found keeping this axiom in mind that one person’s freedom ends where another person’s freedom begins.

This makes us question, are there common ethics and morals for all of us to follow? And could an ethic common goal be defined, leading us towards the same direction?

For that, we should first state what is this same direction targeted. And how exactly to define what is ethical from what is not.

Ethics ³ is the study of questions about what is morally right and wrong. And moral ⁴ means relating to beliefs about what is right or wrong.

What these two terms include is clearly subjective as it is based on what is right or wrong. That is why it is quite complex to set a common moral or a common ethic as it gathers values specific to each.

Indeed, we are not sensitive at the same level for each value. And that also impacts what we target in life. Or what we learnt to target.

However, I guess that a consensus can be

found and a common set of values could be taught at school. That is what we are going to see in the following part.



Family is the first environment into the one the child takes place. It is by definition the cradle of education.

It makes parents have this great responsibility, as the law confirms it, to be involved in their child's education.

Through this growing-up journey, parents may try to help their children without doing for them as it would infantilize them. It can sound paradoxical as we are talking about children, but it means that adaptation and confidence in the child's abilities are required. There is a balance to be found between imposing rules to make it work in the short term, and triggering questioning as a background mental process that the child will keep feeding as they grow. Both are in the interest of the child. But the proportion of these methods needs to be reviewed as the child grows.

To involve the child in their own education is the best way to teach them how to **become a critical thinker**.

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¹ MINISTERE DE L'EDUCATION NATIONALE, Les grands principes du système éducatif, 2020, available on education.gouv.fr

² G. ATTALI, A. BIDAR, D. CAROTI, R. COUTOULY, Esprit critique, outils et méthodes pour le second degré, extract available on reseau-canope.fr

Translated by me from French to English

³ *Troisième* in French

⁴ *Brevet des Collèges* in French

⁵ I. PEREIRA, Développer l'esprit critique: un enjeu à l'ère du numérique, 2016, available on lecourrier.ch

Translated by me from French to English

⁶ HEICK T., Correcting The Deficit In Critical Thinking, 2019, article, available on teach-thought.com

If we saw that the first actors concerned by the child's education should be the parents when they engage to have a child, they are not alone in this mission. Indeed, our society is based on the segregation of tasks for better performance in specific fields. That is how the government helps the families to raise their children, by providing **free, lay and mandatory education for all since Jules Ferry's law in 1882**¹. It enables the children from 3 to 13 years old in the first place, then until 16 years old in 1959, to access knowledge taught by professors, experts in their field.

This organisation assists and frees the parents, notably to enable them to work and earn money.

STATE OF THE CURRENT EDUCATIONAL SYSTEM

Critical thinking ability is part of the French National Education programme.

"Registered in the reference document of the education and teaching occupations since 2013, critical thinking has become a national object of interest within the scope of the great mobilisation for republican values, triggered after the attacks on January 2015."²

It is one of the skills on which the pupils are evaluated in year 10³, for the school diploma⁴.

However, all the teachers I interviewed noticed that the 13 to 15-year-old pupils still have difficulties to set out arguments even simply about what they like or dislike. And argumentation is

one of the tools used to be critical.

This low level is quite paradoxical as young teenagers are in general already able to be critical in certain aspects of life, as the equity between the classmates or within the siblings for instance. But as they do not experiment it on every aspect of life they do not use it in every situation where it should be used. This is the vision shared and brought by the school system. Critical thinking does not occupy a central spot, as it should in my opinion. The learning of this ability seems still secondary and only practised through the subjects in place like French and Fine Arts mainly, and Philosophy later on. Some other subjects tend slowly to include it as a prism to look through. There is also *La Semaine de la Presse*. A week dedicated to media understanding.

It is noticeable for the pupils that these initiatives exist. But is that enough?

In 2016, Irène Pereira reported that “one young person out of five would join conspiracy-theories. The jihadist relied on the Internet as its recruitment way”.⁵

So still, pupils turn out to be the target of predators and manipulators. Still, young teenagers are following influencers in mass. Still, there is this gap between the education given and reality. The outcomes do not reach wanted expectations.

Maybe because the use of critical thinking has not been pushed yet to a concrete use in our daily life. A use overcoming the step of argumentation practices, which is needed, with all

due respect, but that remains one tool among others. I think it is not taught widely enough at the moment.

From conversations I had with teachers, some will tell us that it is the parents’ responsibility. And the parents will plaid the reciprocity. I agree that parents should support the role of education givers. It is their responsibility to be actively engaged in the critical thinking development of their own child, as we saw in the extract of law mentioning it previously. However, parents are not educational specialists and learn to be parents as they become ones; whereas schools should be the centre of educational experts. **Giving tools, either for pupils than for the parents** could be a solution from the school system.

TOWARDS INNOVATION

We stated the current level of the French Educational system, its ongoing benefits and its lacks. But this question of reframing it towards an innovative education is also targeted by others.

In its article *Correcting The Deficit In Critical Thinking*, Terry Heick testifies the absence of critical thinking and skills taught at school, in an American context. “Is education designed to promote affection, curiosity, inquiry, and critical thinking?”⁶ A question that also is worth being asked as it also has its place in the French context.

“In France, the EMI figures in the programmes

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¹ Centre pour L'Éducation aux Médias et à l'Information
(Meaning: The information and media education centre)

² CLEMI, Education aux médias et à l'information- écoles, collèges, lycée, available on cdn.reseau-canope.fr

³ G. ATTALI, A. BIDAR, D. CAROTI, R. COUTOULY, *Esprit critique, outils et méthodes pour le second degré*, book, extract available on reseau-canope.fr

⁴ S. CAROLINE, *Et si on initiait les enfants à la philo pour développer leur esprit critique*, 2017, article, available on onletemps.ch

⁵ AFIS, *La zététique ou l'Art du doute*, 2019, available on afis.org
Translated by me from French to English

⁶ A. LAURENT, *Pourquoi la France philosophe ?*, available on slate.fr

since 2015 as a field of interdisciplinary competences. The consideration of the pupil's informational practises, notably on social networks, became an inescapable educational concern. These evolutions involve reinforcement of formation capacity and teachers' accompanying; a mission mobilising the CLEMI ¹ and its network of coordinators in academies. [...] The CLEMI's pedagogical resources aim at guiding the whole increasing number of the educational community members leading EMI's activities in class, in primary, secondary and high school." ² This is how Serge Barbet introduces the booklet created by the CLEMI for the new teachers entering the profession.

As you understood, education to critical thinking is essential. And National Education tries to go along with it. But its concretisation still seems difficult. We can suppose that it is because it gets off the beaten track and, in a sense, goes against the French traditional educational methods.

However, and even though it is a minority at the moment, educational initiatives from different actors can be noticed like: extra classes, the CLEMI from the Réseau Canopé, the Lab 110 (innovation committee) for instance. Charged supports as pieces of training reserved to education professionals or booklets suitable for all audiences as *Esprit critique* ³ proposed by the Réseau Canopé also exist and give concrete tools and methods to use in the current educational system in secondary schools in every discipline.

Moreover, I would like here to share a reflection with you.

In my opinion and from a bigger perspective, the separation of powers (legislative, executive, judicial) should also include education. Not making the education provided by schools linked to the powers is necessary to conserve the knowledge the most objective possible, not biased, and inclined to improvement by questioning. **So, democracy might benefit from education. But education should not be used to serve any power and should stay apart from any influence.**

PHILOSOPHY

Here in France, our schools make the study of philosophy mandatory for the 17 and 18-year-old pupils in the general and technology stream, not in technical colleges. It is clearly a subject that leaves room for critical thinking practice. But why does this learning come that late in the pupil's life? And is it a common subject taught in other countries? Let's answer these questions one after the other.

AGENDA



le 25 novembre 2020
Se former - Développer l'esprit critique par le débat

Formation



le 02 décembre 2020
10 idées pour se lancer en EMI

Animation



le 04 janvier 2021
Se former : s'approprier des ressources clés pour développer l'esprit critique des élèves

Atelier



le 12 avril 2021
Comme par hasard ! : Comprendre et élaborer une théorie du complot en classe

Formation



le 05 janvier 2021
Se former à reconnaître et déjouer les fake news

Formation



le 09 décembre 2020
Un média par établissement

Formation

**NOT TEACHING
THOUGHTS,
BUT TEACHING
TO THINK**

Philosophy classes start indeed from the last year of high school. It is one year of learning leading to the philosophy paper part of the Baccalauréat. Could it not be taught earlier as the pupils are building themselves? They would benefit from these learnings and hopefully make good use of it, at school but also in their daily life.

Philosophy is often judged too complex. Learning from philosophers paradigms indeed makes the discipline quite theoretical. I think it would gain to be more concrete. It could be implemented at a younger age, adapting consequently the learning to pupils. Initiatives, like *Les Petits Platons*⁴, have the merit of existing and awakening to philosophy through educational games in primary education, linking this learning to civic responsibility.

“The philosopher Emmanuel Kant explained the importance of a dynamic information research processus, precisely that we might not, at any time, teach thoughts but teach to think. He used to say that we might not carry the learner but lead them if we want them in the future to walk by themselves. Kant concluded: The proper methodology of the philosophy teaching is the zetetic method.”⁵

The actual state of philosophy teaching can seem outdated. Maybe that we like to know this discipline exclusive, elitist, echoing here the French ego?

Indeed, philosophy is a subject with something around it that we could almost consider as ma-

gic, untouchable. It is the class where thought masters are invoked. It is the one which gets the ball rolling for the high school diploma exams. The one that will lead to extensive press coverage like each year, as the topic will be released, raising debates, mind confrontations and thought food for everyone.

Philosophy claims to be the one subject embodying open-mindedness, deep reflection, critical thinking and is named as the key paper. Paradoxically, the proportion of time to learn and practice this discipline is surprisingly short over all the school curriculum: one year of study among fifteen.

What about other countries? How philosophy is taught? And is it taught worldwide?

As I did my research on that, I was surprised to note that only a few countries in Europe teach philosophy.

In certain parts of Germany, "the fourteen years old pupils have to choose between philosophy and religion classes."⁶ In some other countries, the subject in question is also named *History of Ideas*⁶.

“It is in the perspective of training enlightened citizens that Napoleon created the philosophy paper in 1808.”⁶

So, the philosophy class seems to be a French trademark. An undervalued exclusivity that we do not consider enough; even this learning only lasts one year. This short amount of time assigned to this subject does not make it seem primordial and that is maybe why it does not take place yet in the classes of young pupils.

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And its aura does not help in the demystification process into the one we should enter, because it is still perceived as not attainable, put lauded on a pedestal. Popularisation of the philosophical principles, for the youth, and by extension for all is required. To make these tools available and free for everyone who would learn.



To conclude, even if critical thinking is a skill required by the French National Education programme, the general level of pupils does not let it guess though. This gap between theoretical learning and practice, of critical thinking or other subjects, is a curb to apply the nurtured skills in the child's daily life. The same goes for the application of critical thinking skills to life situations.

Pupils but also parents should be equipped with educational tools to ensure the continuity of the learnings at home, fulfilling the lack of concrete life-applications, involving the child in the learning process even more. It will be the entry point of the application of critical thinking in our lives.

There are surely still improvements to be made on our educational system. However, we should also consider ourselves lucky to be able to access knowledge in schools. As we mentioned, France is one of the rare countries teaching philosophy, a key subject to training critical thinking.

Besides, education should be considered as an independent power, just like the legislative, executive and judicial ones, keeping away any

influence and or political positions that could bias the knowledge. It would enable us to freely **criticise** the system we live in, **in order to improve it**.

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*WHAT ARE THE DETERMINING FACTORS
AFFECTING EDUCATION TO CRITICAL THINKING?*

■ CONCLUSION

Improvements and innovation around educational methods exist in France. We can already witness the noticeable pedagogical advances compared to the previous decades. However, the experience of learning is not fully optimised yet. We still observe gaps between these new approaches, the will to do better and the actual outcomes. It could be explained by the long time needed to make things change, from traditional to innovation. But one thing is certain: there is still a progression margin where we can do better, targeting to raise awareness, especially among the youth. By making them become the enlightened citizens of tomorrow. But also responsible adults equipped with critical thinking applicable to any circumstances. Enabling these abilities start with **an education at school which continues at home.**

For the smooth running of this educational co-working, keys and tools may be given to teachers and parents.

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CONCLUSION

How does our environment condition our critical thinking development?

We are conditioned. It is a fact, we are conditioned by our environment and from plenty of factors: the society we live in, the social conventions, our customs, our social relations, even from our own brain with the cognitive biases. But it is how we can tend to live together, as the human being is a social animal, get organised and reach our part of freedom.

This ambient conditioning entails a form of influence we have been used to tolerate. But everyone is not well-intended and we do not live in a utopian world. That is how some can prove to manipulate, often motivated by self-interest.

Then, how not to leave the door open to manipulation?

Critical thinking turns out to be the one tool to be used in any situation, face any issue and make the best decisions keeping the manipulation away.

Critical thinking is about getting the influence, listening to it, and flouting it; tending to be objective by gathering pieces of information and building our own opinion when we are informed enough.

We cannot be fully objective as we are built from our experiences. But acknowledging the impossibility to be objective and the obligation to be somehow conditioned is the first step required to start the journey of becoming a critical thinker.

However, we can not state having critical thinking, as it is a moving dynamic. We need to maintain and reinforce this nurtured skill by

practising it. The critical thinking process is as an inquiry. Doubting is needed. I always suggest to call everything into question, even the commonplace, or especially the commonplace. But find the right balance to still keep moving forward.

My final piece of advice, to bring the topic to an end here, would be: **do not believe me. Conduct your own research and be critical.**

FROM THEORY TO PRACTISE, FROM RESEARCH TO SOLUTION

As a designer, but also as a human being concerned by the place each one can have, I think education is the right sphere to infuse this precious tool which critical thinking is. That is why I chose to target the solutions that I will be designing and implementing to the French secondary-school pupils, to make them acknowledge the role they have to play as critical thinkers and citizens of tomorrow.

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FOOD FOR THOUGHT TO GO FURTHER

BOOK

*"Philosophy determines your decisions and your decisions determine your future, so **philosophy is an essential part of the future**" (quote from this book).*

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VIDEOS

*This video (in French with English subtitles available) introduces the concepts from the research on **bias and heuristic**, inspired by Daniel Kahneman's book **Thinking, fast and slow**.*

HYGIÈNE MENTALE, Les deux vitesses de la pensée, et le "Bullshitomètre" [Youtube], 23/10/17, 23min, available on <https://www.youtube.co/m/watch?v=eLLIm-GpJh4>, [consulted on 29/04/20]

***Introspection** is one of the tools I do use. It is, according to me, narrowly linked to critical thinking, as they both involve a **questioning process**.*

*Seeing who we are in a **holistic perspective** is in my opinion essential for balanced growth.*

SECRET TO SUCCESS, Designing Your Ultimate Life Free Training- Lifebook Online Jon & Missy Butcher 12 Life Dimensions [Youtube], 2019, 1h25min, available on <https://www.youtube.com/watch?v=Gv8anJ7Eyqc>, [consulted on 17/05/20]

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EDUCATION TO CRITICAL THINKING

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2021