

The birth of ideas

Beyond brainstorming, « the other method » to creativity
(a three-step approach, a sensitive posture)

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Preface

This concept note essentially revolves around the birth of ideas.

Of course, **an idea alone** who hasn't been included in a global process of innovation has little chances of developing just like a grain can't grow without soil, water or sun.

This is why we'll later present the exact moment when the birth grains of ideas are "planted" in the big approaches to innovation.

Nevertheless, a global process of innovation **that doesn't stem from an original idea** has little chances of standing out from the crowd, being noticed, or offering a comparative advantage.

In this concept note we do not under-estimate the decisive importance found in every phases of the innovation process, but we essentially take a look at the sequence that leads to offering an idea, because this sequence is often under-estimates as we base it on beliefs in random magical phenomena called "coincidence" or "genius".

Our beliefs are opposite: the process enabling us to create original ideas is not magical. It can be described, methodically implemented, taught and developed. This will be the central theme of our reasoning.

The two paths.

In order to function, the brain uses two complementary modes: the logical process and the creative process.

The logical approach is the one who moves forward while holding a series of reasonings, the same way we put down pieces of a puzzle: either "it fits" or "it doesn't fit".

By series, such as the teeth of a gear, each step of the thought is locked by the nails that make it stand up, like notches that allow metal sheets to adjust themselves creating a bridge to cross the river of uncertainty. It is a characteristic of the logical process to constantly link causalities with disablers of thought who are constituted of words such as: because, therefore, hence.

But in consideration of its admirable efficiency, logic generates a sort of "confinement" due to its mechanical dialectic.

It is necessary to leave this confinement in order to invent new systems, if a great quantity of inventions come from a systematic logic obsessively pushed to its extreme, other innovations will come from an incoherence, a "mistake" or an "accident" of logic.

We integrate errors, accidents, unforeseen events, as Cedric Villani ¹ writes, "the error of logic is not a mere obstacle on the road, it is also part of the journey" ... "it is out of imperfection that great progress is born".

When at a certain moment logic is blocked, when it is trapped in its dialectical confinement, when it is stuck by the tyranny of "so", it must explore another way of thinking or return to a way of thinking that is sometimes called "intuitive" thinking or "magic" thinking² or "creative" thinking

Since the beginning, since the history of humanity, in order to invent fire or to invent the wheel, penicillin or the television, **humans have made "deviations" in relation to logic.**

Each and every researcher has described this "exit road" of logic with different words. We say, such as De Bono³ has said, that one borrows a "lateral" thought; or like Guildford, that we are "diverging"; or as Souriau⁴, who we thought was "beside"; or, like Anzieu⁵, that we were taking a "gap"; or, as we say in our current language, that we proceed to a "distancing" to the imaginary.

1. Cédric Villani (Field Medal of Mathematics). "*Les mathématiques sont la poésie des sciences*". Champs, 2018.

2. "*Pensée magique, pensée logique*" by Brabandere. Claude Lévi-Strauss. "*La Pensée sauvage*" Paris, Pocket. 1st ed. Plon, 1962.

3. Edward De Bono, "The Toolbox of Creativity" Organizational Editions, 2004.

Indeed, when all logic is stuck, escape, leave the “highway of thought” by taking a “detour”.

Describing a detour would be switching from “straight-line” thinking to “rounded” thinking. It’s describing a curb, an inflexion.

It is the case to say that the concept of detour is a very "silly" idea. It has been described by animal psychologists such as Wolfgang Köhler⁶ who compared basic behaviors, like the chicken, with more elaborate behaviors, for example a chimpanzee.

On one hand, the hen is placed in front of a fence and food is placed behind, obsessed by the dogma of the straight line, the hen will rather die than consider a change. On the other hand, the monkey has the ability to trigger "a detour" after one failed attempt at direct seizure. This means the monkey is able to perform a fabulous creative mental process at a given moment in reverse of his goal.

Therefore, the process that enables us to birth new ideas, to invent, consists of describing a “detour”: as the word already indicates, at certain moments we deviate from the straight-line before coming back.

Taking a detour sometimes leads to getting lost like Tom Thumb, or falling to the ogre of abominable mistake, but sometimes, if we took the precaution of placing small white pebbles, it leads to finding. The "detour" is usually followed by a "return" where the mind reintegrates the laws of logic.

Taking a detour in logic also means putting a risk the resources of the unconscious.

The unconscious contains a considerable stock of information, but it also has its own system of storing and grouping. It is the only one able to detect "forms", structures among innumerable options: it is not only a question of using a stock but also of having a "navigator". Between the conscious and the unconscious is generally organized a fuzzy area, a zone "in margin", conducive to creation.

4. Paul Souriau, « *Théorie de l'invention* », Hachette, 1881.

5. Didier Anzieu, « *Le corps de l'œuvre* », Gallimard, 1981.

6. Wolfgang Köhler « *L'intelligence des singes supérieurs* » (1927). Paris, Félix Alcan. Experience described by Paul Guillaume. « *La psychologie de la forme* ». Flammarion 1939. Commented by Arthur Koestler. « *Le cri d'Archimède* ». Calman Levy 1961

It should be noted that when leaving the safety of the straight line to make a detour, one takes the risk of venturing on the territory of "the illogical".

The "illogical" thought originates from either a sort of madness or a sort of genius, as one prefers. It consists of not following the straight line of sequences dictated by the law of causality, but to make a "detour" by creating "illogical" associations between information. The creative process often worries as it requires to take an intellectual risk.

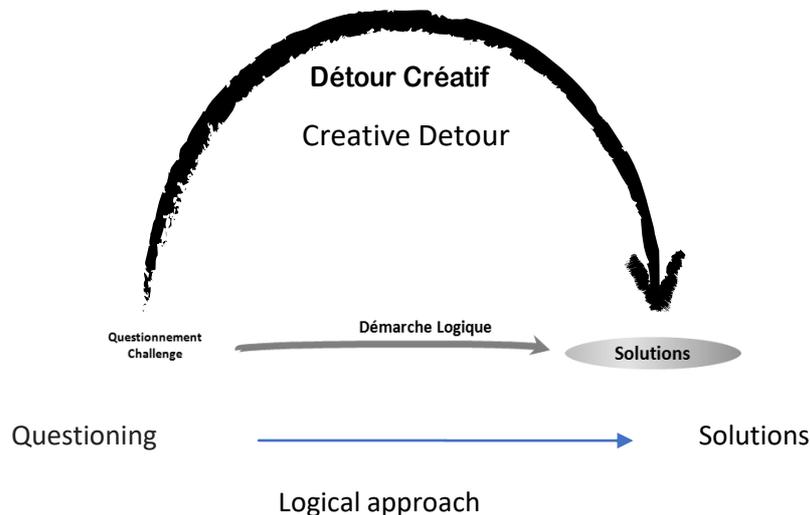
To summarize these two ways of thinking, logical thinking and the detour, and especially to describe a pedagogy, we usually use a different graphic symbol.

Logic is symbolized by a straight line:



Compared to the straight-line of logic, the trail of the imaginary takes a “detour”.

It is basic schema of the creative process



These two paths do not create an alternative where one would say: "we take one or we take the other". Our hypothesis is that **in the majority of cases, we use both** (alternatively or simultaneously) **the straight line and the detour path.**

Our point of view is that there is no frontal opposition between these two notions and that we should rather speak of "kinship", "cohabitation" or even "consanguinity". Instead of opposing them, it would be better to bring them together in a global concept.

In a metaphorical way, illogical thinking revolves around thinking in a straight line, like an ivy growing around the trunk of a branch.

These two intersecting information beams, conscious and unconscious, make one think (it's an analogy ...) to the two intertwined strands of DNA

2) The pedagogy behind the creative process

In order to implement the production of ideas, in order to take the detour route, two strategies have been historically explored in a pedagogical aim.

- **Strategy 1:** We can simplify the detour by describing two opposite straight lines, one that we call "divergence" and the other that we call "convergence":



Divergence



Convergence

This approach gave birth to a methodology called "**brainstorming**"⁷.

The methodology is based on simple rules and does not require long training: "freely associate with one another, the wildest imagination is welcome, aim for an abundance of verbal statements, do not judge yourself, do not criticize "

This methodology is exercised in a climate described as "dynamic": spontaneous, fast, quantitative, playful, a "a picnic atmosphere" (Osborn).

It is qualified as a "**two-stroke engine**":

Stroke 1: a possibly illogical production, ("say everything that goes through your head") quantitative, unbridled, based on associations.

Stroke 2: reintroduce judgment, criticism, evaluation.

1) How to evaluate this practices of creativity?

- **Positive**
 - Offers a **new way of behaving** as a group for all humans on the planet. Associated with very simple rules to understand, this method has opened a new way to thinking. There is a "no cogito ergo sum" side in his approach. Indeed, it solemnly affirms that from time to time and for a limited time,

everybody has the legitimate right to "suspend their judgment" and make possibly irrational even "crazy" proposals in order to propose new things. This method objectively and undoubtedly promotes the production of new concepts. The "brainstorming language" is a language common to all creatives regardless of the technique they use. It's "the esperanto of creativity" ...

- **Having created a brand**, "brainstorming" has given an incredible "advertising" strength to this approach. "Are you interested in creativity?" or "So you brainstorm ..." are the reflections that we hear most often ...

The word "brainstorming" has historically known an extraordinary fortune and is used worldwide nowadays. The same thing happened to the word "brainstorming" as to the word "refrigerator": it has become generic. No matter where on the planet, if you feel that a discussion is going around in circles, there will be a moment when someone raises their hand and suggests, "what if we brainstormed?".

- Behind this **very simple method is a very positive**, generous, humanistic attitude as on the one hand, everyone is potentially creative and on the other, everyone can voluntarily, with desire and with energy, express his talent that sleeps within him. Trust yourself, and you will be creative!

- This is a **globally "working" method**. Objectively, it generally produces results and makes it possible to produce ideas, in particular for the well formulated problems, or for certain types of subjects, with a good animation.

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- **Negative:**

- Brainstorming **is not the only method** for producing ideas: it must be removed from its universal and unique character that some want to give it, as if it was the only method of creativity in the world. We must consider all the techniques (see our book "99 idées pour trouver des idées"), brainstorming being one out of many families. The brainstorming technique lends itself to caricature

- **By caricature**, we mean the tendency to call "brainstorming" an informal meeting where in a limited time, without animation, without training, without method, everyone is **invited to say "anything"** and if possible, suggestions that will make others laugh. This is often the description of brainstorming of the people who criticize it but who presumably have never attended a lively creative meeting in their lives.

- Brainstorming **"drowns" the connection** phase which is the most important phase of creation. In our opinion, this is the essential, deep and structural difference between brainstorming and the other approach that we present in this concept note.

Roughly, brainstorming alternates a sequence where "we can say everything", "including foolishness" with the phase where we take an attitude of criticism and rational judgment.

But by definition, **ideas are never born in either of these sequences**. They are born in the sequence where we organize a meeting, a crossing, a connection, between the two. In fact, in the chaotic profusion of brainstorming, the mind operates many connections (proof is the production of ideas) but these connections are random, rarer, sometimes drowned in the flow. Conversely, in a three-step approach (which we will describe later), after the "madness", we will slowly proceed to a specific connection sequence, not to produce solid and evaluated ideas (it will more be the object of the convergence phase later) but to propose "sketches of ideas". Ideas are still vague, they are emerging, still floating proposals that will then solidify. This malleable, flexible space of production is the one that is most conducive to creation.

- Finally, brainstorming is a method that is well **suited to certain types of problems** (including advertising and marketing, for which it was invented) and to a particular stage of the creative production where one must "purge" ideas that are "on the tip of their tongue". Then you are free to invent something else.

7. Alex Osborn used his method for the first time in 1940 in the BBDO agency. The first book "*Your Creative Power*" was published in 1948, popularized in 1953 under the title "*Applied Imagination*", translated into French in 1962 under the title "*L'imagination constructive*" (Dunod). Since 1966, Sidney "Sid" Parnes has changed the method of brainstorming to a more complete and more structured method, the *Creative Problem Solving*. *Creative Problem Institute*. Buffalo. NY. US

- **Strategy 2:** We can break down the detour into three segments: "divergence", "emergence" and "convergence". This approach gave birth to another practice of creativity (which we have named the "three-stroke engine").

Stroke 1 aims to stimulate imagination, desire, dreams.

Stroke 2 transforms these dreams into beginnings of ideas, into sketches of ideas.

Stroke 3 transforms these drafts into solid and realistic proposition



The introduction of an additional sequence (of emergence) is not an anecdote but symbolizes a substantial change.

It changes from a purely associative functioning to a dissociative functioning that organizes connections, encourages projective processes and uses other languages than the verbal mode (in particular the graphic mode). It favors a "sensitive" climate that, unlike the dynamic climate, values slowness, blur, and emotion.

Principal "inventors" of creativity describe that creation, and especially the creation of ideas, has for central purpose to process the connection between these different sequences. In relation to the associative mechanism, it is a mechanism that one calls "dissociative" (Koestler) or "intersecting" (Aznar). In short, creativity is the art of connections.

The other approach": a three-stroke engine

- **Origine**

- Initially inspired by the synectic method founded by William J.J. Gordon⁹ and George Prince (1944). It is based on an analogical approach that favors the mechanisms of connections and aims for the conscious use of unconscious psychological mechanisms. The French School of Creativity was created by Guy Aznar in 1966 from a small company called Synapse. It associated the elements of the Synectic with the practices of projective methods, integrated a dimension of corporal expression, the use of drawing and awake dreams. Through Synapse was born a development towards the contribution of creativity to qualitative studies and research for ideas. A genuine nursery for practitioners of creativity, a real "school" of creativity developed over the years and many animators come from this said "school". : Guy Aznar founded Crea France, Crea University, Crea-Conference, and is an honorary member of Crea Quebec. Developed especially in France, Belgium and various European countries, this approach is presented in various conferences including Crea France, Crea-Conference, etc.

- **The concept**

- Contrarily to the two simplified lines of brainstorming, the "other approach" essentially proposes to break down the creative movement in 3 steps in order to implement the detour process:

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- We separate the two branches (that of divergence and that of convergence).

- We let the emergence zone appear, which is the central phase of creation

We slowly and methodically explore the three strokes

9. William J.J. Gordon. « Stimulations des facultés créatrices dans les groupes de recherche par la méthode Synectique ». Published in French at 'Hommes et Techniques', in 1965, this book is nowadays out of stock. It is the translation of the book: « Synectics, the development of creative capacity » published at Harper and Row in 1961.

Stroke 1: aims to produce imagination

It is not a question of simply saying "everything that goes through your head" like in brainstorming, but it's about producing dreams, desire, the imaginary distance after being "impregnated" with the subject.

We learn a new language to express ourselves

To associate words is the b, the a, and the ba of creativity, but the decisive step is to move to thought through images. While the word is a symbolic construction corresponding to a high level of intelligence, the image is the childlike, primary, archaic form of representation that occurs from a deep level in the brain. The training to think in images, practiced in groups, is the essential condition of collective creativity. The perceived sharing of an image is a stage of a fusional construction that will later allow the sharing of an emerging idea.

To short-circuit rational, intelligent and cultivated language, we often use *non-verbal techniques*¹¹ (gestures for example) and especially methods of graphic expression (drawings, sculptures, modeling, collages, etc ...).

The goal is to seek a *distancing towards the imaginary*. The word "distance" is associated with "taking a step back"; "distancing" evokes a journey to another continent, another planet, to the unknown

To "distance" ourselves we have a selection of several techniques described in various educational books¹², such as:

Keeping a naïve look over the treated subject, a child's gaze, the look of mythical characters, to consider it from the point of view of an animal, a plant, to consider it with the symbolism of the cardinal points, the symbolism of colors, the symbolism of the four elements. The use of projective techniques based on collections of inspiring, figurative or abstract boards. Diving into an awake dream or magically identify with elements of the problem in question.

The entire production constitutes "basic material" which will then be put in connection with the constraints to enter a process of formal adaptation requiring him to make use of his judgment. Contrarily to the law of brainstorming of "postponing the judgment", the law of emergence is to "postpone ideas".

2: baptized stroke of "emergence" of ideas and is considered the essential phase of creation.

Ideas "emerge" in the precise moment when these two registers, these two "logics" are intertwined.

Instead, ask creative people to produce "*pieces of ideas*", "*bits of ideas*", "*ghosts of ideas*", vague "*ideas*" still unclear, with sentences beginning with "I feel something", "I have the intuition of something", "I feel a trail"... It's the

moment where you barely get a glimpse of the idea that will be born, the process of crossing with the constraints has hardly begun and the reality scarcely touched.

This is called a **connection process**.

The connection phase is the central element of creativity. In short, creativity is "the art of connections".

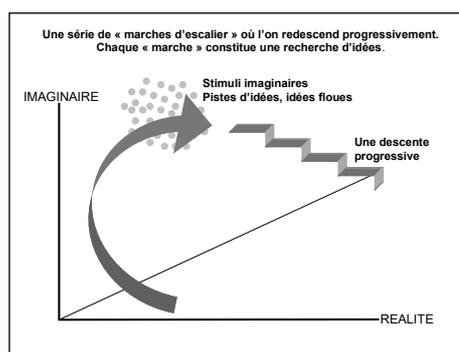
In order to promote connections, a selection of techniques such as:

Connections from analogies; two party connections; connections in two groups simultaneously (the aquarium); connections in two groups deferred (the lookout); connections by methodically balancing imaginary support with constraints (pendulum method); connections by crossing ideas based on an identification; connections from three drawings; connections from an object or a model (design thinking); connections with abstract supports, etc

Stroke 3: aims to transform the "vague ideas" into clear ideas that are suited to the demand.

Vague ideas, bits of ideas can be "great" but unusable if you do not transform them. A selection of techniques can be used to "convert" them, including:

- *Convergence in stages by "going" down the stairs.*
- These three stages correspond to the different steps of a staircase that one "descends" while evolving from the imaginary towards the constraints and parallelly improving techniques.



11. see our collection of 50 creative animation techniques for groups at www.lulu.com

Positively transform criticism. To express criticism in positive way is very characteristic of the convergence phase, it is its golden rule. For this purpose,

we use a transformation exercise of American origin, summarized by the acronym P.P.C.O (Pluses of the idea, its Potential, the Concerns, the Overcoming of these concerns).

Selecting fertile ideas: when working in an intuitive style, each participant practices a form of "sensitive picking" in the field of ideas. It is about "wandering" in the quantity to let the solutions emerge.

Grouping ideas into "sets": constituting "clusters of ideas", families. Each set can become the starting point for an imaginary exploration, a new distancing, favoring another emergence, another convergence: the loop doesn't stop.

Evaluating ideas: We can classify ideas in different ways such as a rational matrix: according to their "degree of completion", they can be classified with a color code and can be evaluated by their strengths and weaknesses (see in particular the ALUO classification developed by the Creative Problem Solving), etc.

The taking of action. Finally, the work of convergence ends with the writing of "action ideas" who aim to identify the necessary steps to implement the solution: the deadlines, the means to mobilize, the communication of the project, etc.

The psychological climate of the three-stroke approach: "the other approach" is associated with a particular style, with a psychological "posture" called "sensitive posture"¹³, characterized by four principles:

Slowness

In the "sensible posture", rhythm is characterized by slowness. To convert an imaginary material too quickly into a written idea reduces the range of possibilities. Hence the importance of retaining the process by making cinema-like slow motion on this moment of birth

13. Guy Aznar, Stéphane Ely. "*La posture sensible*". Crea University. 2013. Amazon.

14. Wallas. "*The art of thought*" Harcourt Brace & cie.N.Y. 1926 and "*Les pionniers de la créativité*" Guy Aznar. Lulu.com. 2016

15. Anton Ehrenzweig. « *L'ordre caché de l'Art* ». Gallimard. 1974

The blur

Wallas¹⁴ wrote that most good ideas "do not come with a complete existence in the head but begin to appear with 'vague feelings, barely discernible intuitions'". Ehrenzweig¹⁵ wrote that at the moment of inspiration, "the reality seems intensely malleable and plastic".

Emotion

To be creative, you have to accept being carried away by your emotions. Going towards the register of emotion is the possibility of going to dig in "emotional memory".

Diving in the unconscious

The rapid proliferation of brainstorming can cause accidental, unconscious connections through the "postponement of judgment" rule. But in "the other step", the "dive to the unconscious" is more methodical, facilitated, organized, with techniques such as identification, daydream, etc.

How to evaluate this other practice of creativity?

Positive:

It is undeniably richer in terms of imaginary content compared to the dynamic approach

It leads to more innovative and original proposals that are oriented towards a prospective content

It is more satisfying for the participants as it is not only an ephemeral distraction, but also a rewarding psychological experience, which is linked to personal development.

Negative:

It is greedier in time as it assumes longer sequences.

It requires a time of training or at least some training to get used to different psychological approaches to logic.

It supposes, at least at the beginning, the presence of an experienced animator.

From the production of ideas to innovation process

- The production sequence of ideas that has been described here is a decisive phase that fits into the various innovation processes.
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- Generally, it intervenes
 - *in a second time, after phases of clarification* of the problem, of definition of the objectives, of analysis of the sociological, economic, technological context. It ends with the instruction: "we are looking for ideas for ...".
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 - *Before the stage of evaluation*, of the description of taking action, of the evaluation of technical and financial means, the positioning in regard to the middle.
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- This is the case in particular:
 - **for the Creative Problem-Solving process**
 - **in the case of the Design Thinking process**
 - **in the case of Triz method**
 - **in the case of the CK method**

In all these innovation processes, there is a risk that the production sequence of ideas, which determines the quality of the process, would be underestimated and is limited to the practice of brainstorming.

This is why most researchers and practitioners of innovation are now giving more attention to "the other way" in three steps.