Organisations and decision making
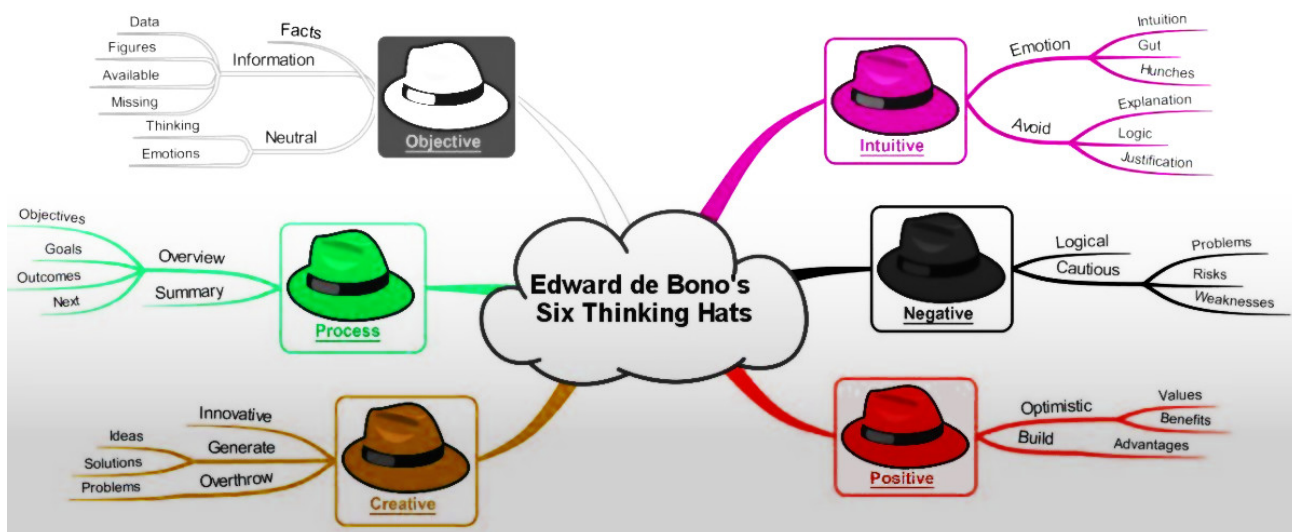
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Incipit

Consider the following post of Dr. Travis Bradberry:

> People aren't against you; they are for themselves. − April 1st, 2017

which aims to teach us that other people are acting on their own selfish agenda and have nothing personal against us[1]. It makes me think about Nash equilibrium and how a group of people could reach the best results for all. So, I am report here the collage of the seven comments, I did that day to reply at the post.

Everybody against the blond

Nobel prize John Nash (1928–2015), demonstrated that "*being by themselves*" as Adam Smith (1723-1790) claims is equivalent to be against others and do not bring at any major opportunity for the single nor for the group. In the "*A beautiful mind*" film, there is a scene in which the Nash's group of peers wonder to approach a beautiful blond woman surrounded by her girl friends. Nash shows that competing for the blond will lead to a worse result than approaching her friends.

In that scenario, everybody plays against the blond girl. The Nash equilibrium does not bring to the maximum optimal results anyway. The level of the conflict in the Nash's equilibrium is reduced respect Adam's approach but it still not bring to the maximum total results because a conflict remains inside the group of the girls. The best result is realised by another strategy which is very similar to Nash but driven by the girls. I saw that strategy implemented in France and Sweden, two countries in which Adam theory is not pre-eminent (socialist oriented countries) among people and women are used to take the initiative (differently than Latin countries).

Iterated Nash strategy

Moreover the similar Nash strategy above − which at first sight is a Nash strategy reiterated over a hierarchical group of buyers, those has the pre-eminent power of decision, if no any external apply to distort the scene, named it as Nash^N − determines the success of companies in a highly competitive market. So, basically there are three elements involved into successfully decision making strategy:

- 1) common values among group about hierarchy determination (no values conflicts, value alignment);
- 2) random pick over same level peers (no time or debate waste over irrelevant decisions or secondary relevant decisions);
- 3) Nash strategy iterated down to the hierarchy levels;

The n. 2 does not grant the best each single time but the best over multiple times (recurrent decision making model). Value alignment depends on leadership and communication model. However, if the chain of command or leadership and executive power are detached or deviated then the entire hierarchy and decision making model is broken. Example: those not speak English being lead by English then the execution depends by translators.

Resilience in the mesh

In order to increase the resilience of the decision making structure and strategy:

- 4) a complementary <u>mesh structure</u> of information and interactions across the hierarchy made the hierarchy stable over the time and innovative ideas gain the momentum.

The n. 4 mesh structure as complementary to the hierarchy is mandatory to avoid the deviation and the crystallisation of the hierarchy structure: rigid and fixed hierarchy versus elastic dynamic hierarchy. The n. 4 is also mandatory in the above scene to grant the best result over multiple choices when each choice is not related to the same vertical knowledge.

This means that n. 2 is not random anymore among same level peers but determined by the "*who is the best in this field among in our group of peers?*" then random pick is restricted to those "*knowledge specific equivalent peers on the same level of hierarchy*".

In exceptional or critical decision making a level of hierarchy may access to specific expertise on others branches for a quicker convergence over a difficult and debated decision, like a tertiary arbitration by someone others repute source of specific knowledge.

Information is a conservative quantity

The entire decision making model obtains the best results when the way in which it arrives to the decision respects the minimum action principle: the relative minimum effort, relative because the null effort is equivalent to a totally random decision or no decision at all. This may be demonstrated as long as

- 5) information is considered something "*true or false by common sense*"

The n. 5 is equivalent to have a "*anti-tampering and counter-counterfeiting system*" (AT+CC) that enables everyone to determine if the piece of information has been arbitrary adulterated by some else. Which is equivalent to say that "*the agreement on common values*" includes three principles {transparency, simplicity, correctness} AND individual embrace to these principles is both formal and factual ways. Which is equivalent to the scenario in which nobody lies to or misleads others deliberately.

Zero risks is never a real scenario

The AT+CC system is an over-structure that enforces these principles and like any control system is expensive which means that its efficiency depends over how much tolerance admits (quality control enforced over the information) compared to the cost of a possible misleading. Unfortunately in a real scenario in which X is the probability of a deliberated misleading trough information and command chains, the risk of a total failure could be never zeroed because a single deliberated misleading may still have a small but not zero probability to propagate among the structure and determine its total failure. Example: the leader is the only one that does not know to be the top leader but everyone else believe that s/he is in charge. This single misleading is equivalent to makes random decisions.

Even the best decision making model and structure − in the real world − is affected by the risk of a total failure by the existence of a single counterexample. This implies the need to account of the best result among different models and structures by statistics over multiple all lines of universe because it exists one in which the counterexample takes place and lead to the total failure over the time. [2]

The cost of the control

Comparing these with what expressed in the project management articles − and put all together − we could arrive to the conclusion that the best {X,Y,Z} in a real world is a well designed {X,Y,Z} in which the control system operates at its optimum of efficiency but not at the best control possible and its long term success depends in how long it takes to detect and correct misleading and errors − said in other terms how long it takes to enforce the three principles {T, S, C} of the common values set.

No any "*command & control system*" (C&C) could be perfect in a real world, under limited resources constrains, because a perfect C&C costs infinite amount of effort.

The French revolution

The scenario "*everybody plot against the blond*" as demonstrated by Nash example could be effectively emerges as dominant strategy − in general − "*the blond*" may be a little group of people. This is called leadership inversion: an oligarchy that have the title to lead, is abused by the system instead of being challenged. Which is the equivalent to French Revolution.

In the French Revolution, the royals has been beheaded because Cardinal Mazzarino's plot which misled the obvious leadership creating an informative fracture between the royal and the base.

The counter revolution (oligarchy restoration) takes place for the same reason: once the informative fracture as been eliminated because royal deposition, the real centres of power needed to emerges in order to avoid that the leadership void lead to a democratic system.

The same set of corrupted common values, did its job down to the hierarchy, destroying progressively the structures, level by level, up to lead to the democracy which means that the previous centres of power need to collect consent by the base in order to exercise the political power. In absence of a strong leadership, buying consent lead to the change of oligarchy from the not so any more rich nobles to the increasingly rich industrial bringing us in the modern era and this was before the information technology revolution that switch the power from goods production to information management.

Innovation perspective

Most of the *best practices* − it do not exist best practices but good practices that could be improved − about enterprise decision making are based on a list of guide lines that tend to make the consent converging. However this works because before making a decision and put it in action, every parties makes its own game in order to enforce its own position at the tables of winners which are the decision makers, at the end of war.

Investing on the idea that put everybody in agreement because otherwise somebody complains and will resist putting in action counter manoeuvres is the best way to delay decision and makes them be very expensive. Buying anyone approval will make us to fail. On the other hands, the internal and external conflicts are expensive. In any case if we like to do something that matters − this is going to change the game or the game rules − therefore it will raise strong oppositions. Innovation is the best example of a good willing attitude that have its own dark side.

People aren't against innovation, they are for themselves. Because of this, it is important to change the organisation structure in order to change the decision making pre-process in order to minimise the adverse risk of conflicts because diverse agenda's got in clash among them. Usually the very common and subtle request is "*you are going to change something and this will affect me negatively, so far you should compensate me*" − that is the point: innovation pays by itself and the compensation of it will emerge if the organisational structure allows people to see the opportunity instead of the danger. Both exist but it is important on which one we focus our mind.

How to select people for making innovation happens

The best way to challenge a new collaboration is to submit to the new entrant person a plausible false statement or partially incorrect. If s/he supports the idea against the evidence or did not challenge the idea, we are in front of a "*yes-man*" or in the worst case, in front of someone who is

trying to exploit in her/his favour our statements. Beware of those are trying to exploit the "*mistakes*" of others instead of correcting people because out of its proper context, everything could be shown as a mistake. Moreover, these people will do the same with you, soon or later.

Fear is the ultimate innovation enemy

As soon as the system rules change, the way in which decision are made changes. This is equivalent to say "*change the heads*" and it could happen very quickly. Instead, controversy settlement is slow because implies that people change ideas and this hurt their inner sense of coherence. People think that their ideas are very personal and obviously right but they are not. Ideas are contextual and changing the context makes the magic. Interests are the same: everyone is focused on their own but they are related to the context, as well.

So, the effort in changing ideas, is moved into changing the system and then 94% of people will follow coherently with the new context bringing with them their "*own*" ideas. Those 6% will not follow are not by themselves but against. They are not specifically against the change but worried about who is driving the change: not about "*what*" rather than "*who*". Changing the system is scary for the same reason because clowns are scary: it initially displaces some elements out of usual context and some few people out of the their roles. Usually those few leverage the fear of many.

The key-skills to drive innovation

- leadership, which does not mean "*trust in me*" but "*trust in me for a little while because I am going to explain you what I am doing*";
- lateral thinking, which means the ability or the close and immediate availability to refactoring information out of the box and see it from different point of view;
- integrity, which does not mean "*playing good with everybody*" but "*playing fair with everybody in such a way their own Karma will find then as soon as possible*";
- bravery, which does not mean gambling but because exploring new ways is very difficult.

Most of today middle-upper people were innovators that accepted to return conservative. This is because it easier to say "*I am going to enforce changes that will affect you but I will not in exchange of your social applause that cost you nothing*" rather than convince them that "*the today 1 loss will be returned 2 times or more in the future because the changes I am going to make with you*". This is not because people are bad but because are naturally oriented on a risk-aversion due to survival instinct which do not play a good role when from surviving, we like to grow. Which is a perfect example of the statement about innovation that claims that "*what drives us here, do not drive us further*" and "*to change is not mandatory, if failure is an option*".

Conclusion

In order to make innovation happens, it is required to change the organisational structure in a way that change the way in which decisions and actions are made.

Because of 94% problems are from the system and not people related − it is the system in which people work, live and decide their own agenda that makes the difference.

The system could be oriented to exploit their fear and to mangle the information in order to be conservative or, instead, oriented to exploit creativity in order to better adapt to external changes.

Usually a conservative system will face more adversities, crises and failures than a same system oriented to innovation. Unfortunately adversities trigger fear, uncertainty and usually a *story telling* that is oriented to consolidate the *status-quo: everything is fine, we need to push harder.* Pushing harder in an old and wrong direction will not make the magic happens but the opposite, preventing it will happen in the future.

Note

[1] The single individual and any group of people resemble the behaviour of the entire mankind within itself. Here below a diagram about how decisions and actions are usually taken despite or consciousnesses about their underling dynamics.

Come prendiamo le decisioni e come le attuiamo (old way)
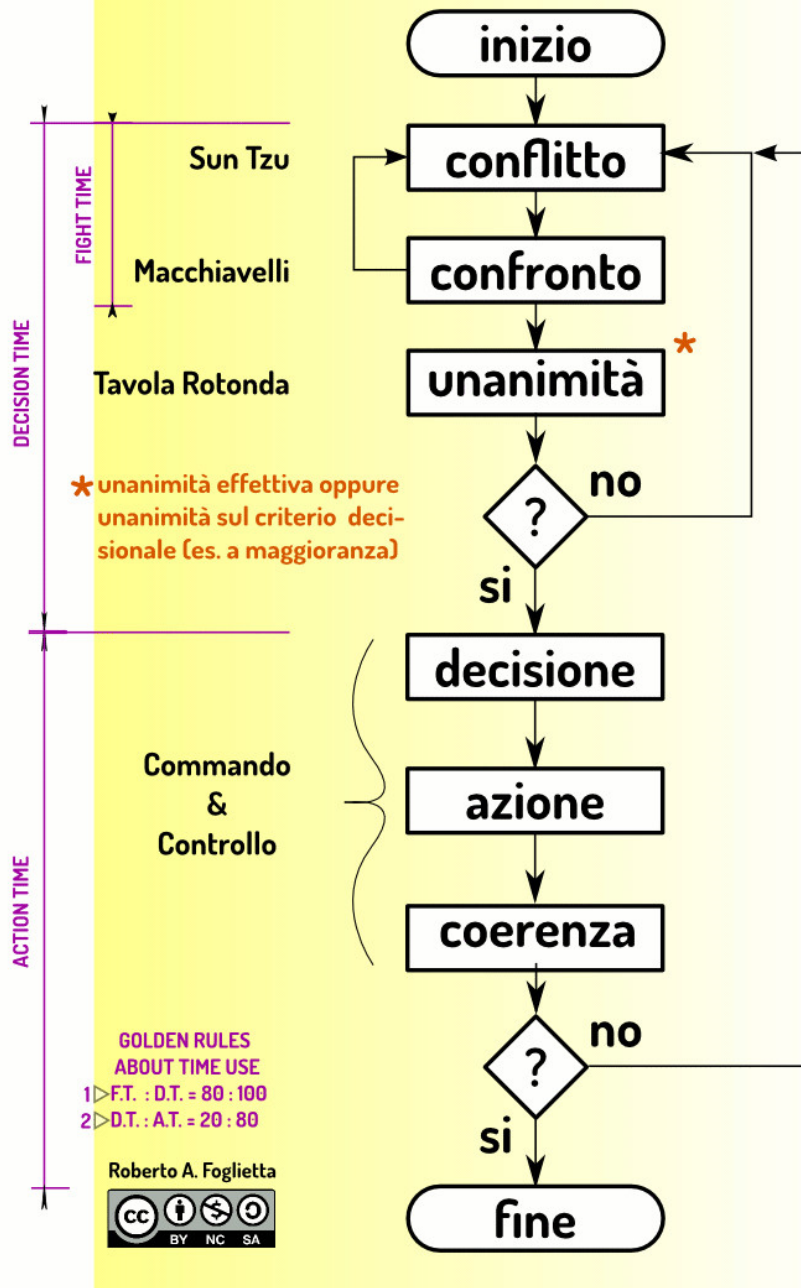
Productivity is not affected by the people debating (GR1, FT:DT=80:100) rather than the time consumed for deciding what they have to do (GR2, DT:AT=20:80).

[2] This is equivalent to say that such calculation requires quantum computing power to be numerically computed. So, the demonstration needs to be analytical but it could determine only that an X model, Y structure with Z set of values is better than another one within a certain [t0, t1] time interval. It would never determines which is the best of all because {X, Y, Z, t} are not finite nor numerable infinite. Anyway it could be demonstrated that any violation about the {transparency, simplicity, correctness} set of values (fundamental principles) could determine a better result in one line of universe for a certain Δt but on overall a decrease of the result. For this, it could be used the Fraunhofer analogy in which only coherent outcomes display over the end wall. Transparency means that information and not energy is a conservative quantity. Simplicity means that entropy is a statistic macro variable related to our perception of the time but it has no meaning on fundamental level. Correctness means that any information exchange between a part of and the rest of universe is counterbalanced not on a single line of universe but overall. Any deviation over {T, S, C} propagates back and forward the time line and its interference will be counterbalanced on overall lines of universe. A lie is going to change the future but also the past: we tell a different story about the observed past, in order to change the future because the future will come from the observed past is not going to fit our will. This is equivalent to switch over two lines of universe and the switch will propagate back and forward in two intersection, like a wave, until it will hit an obstacle (a node) and re-bounce back and refract over. A node is a decision put in action that bifurcates a line of universe permanently. By our point of view, a node is a irreversible action which is not irreversible by itself but because not all the information we would need to reverse it has been transmitted over our line of universe (information split). A node is similar to our idea about an objective fact.