Proposed Evolutionary Origins of Psychosis as a Defence-Mechanism Against Collusion

In this article, we present an underlying, explanatory mechanism for psychosis. We argue for the utility of this mechanism in promoting reproductive fitness on an individual level in our ancestral tribal environment.

The main purpose of the mechanism is proposed to be a ramp-up of simulated collusion scenarios, at the cost of (bi-directional) model drift. This can be viewed as enacting a latent mode of cognition, usually supressed due to its emotional and energitic cost, as well as inherent risk of drift.

Furthermore, we suggest that this drift could have been less rapid in our evolutionary environment, and that the modern day environment could have a destabilizing effect not present in the surroundings for which this defence-mechanism evolved.

I. The story of a young girl

What would you feel like if people you knew were actually colluding to kill you?

What would you do?

How would you have know in the first place?

This may be an unlikely scenario given our modern-day societal structure and punitive resources, but we suggest that it may have been more common in our evolutionary environment, consisting of self-goverened groups/tribes on the size of 100 individuals[cite]

Sexual competition exists in all species. Some peck their competitors to establish a mating hierarcy. Others defend their flock of mares against perpetual challengers.
Homo sapiens are heavily reliant on their group, perhaps more so than most 'group-animals'. Furthermore, unlike other group-animals, humans have the ability for long-term strategic planning and cooporation leveraging verbal language.

This opens up unique avenues of attack in mating competition.
In our evolutionary past, much like now, outright killing of group members would likely be one of the most heavily condemned and punished acts. This makes evolutionary sense for a species surviving in a harsh environment containing rival groups, where every pair of hands count.

So, outright killing of a reproductive rival would almost certainly backfire, with a net loss in reproductive fitness for the attacker.

However, there are still avenues of attack, opened by linguistic ability and strategic planning. Firstly, one could seek to lower the group standing of the individual[1].

- A low standing with the group would result in less investigation and less severe punishment if caught

This may be the evolutionary purpose of 'bullying', namely reducing the reproductive value of competitors whilst increasing one's own.

With their group-status lowered, one could then seek to

- Frame the victim, perhaps prompting exclusion or devastating permament loss in reproductive value
- Plot to kill the victim, and get away with it

The genetic driver would be to increase reproductive fitness, but the emergent driving states of mind would be those of e.g. jealousy, bitterness and hatred.

Evolution does not care about what seems wrong or right in hindsight, it cares about reproductive fitness, and will induce action-guiding emotions accordingly. The emotional state of a group of male lions taking over a pride and killing the cubs of the hard-fought, injury-inducing males may not be too dissimilar.

[1] Note that these behaviors are almost certainly not strategized in this manner, but more likely driven by what feels 'good', 'right' and/or 'deserving', perhaps with a gradual adoption a self-serving justification for continuing.

Two means of succeess

The collusion would not necessarily have to end in actual 'physical elimination' to be succesful.

In an environment where surviving alone is highly unlikely, if not impossible, exclusion from the group would have the same reproductive gain for the attackers. [2]
Reproductive gain would also be incurred in pursuit of this, while the defender loses sway with the group as a result of framing/slander and general counter-allegiance building. This would could however have a risk of back-firing, if discovered and socially reprimanded, and so perhaps a driver towards actualizing exclusion.

Failing this, the colluders might plot to get away with physically eliminating their threat.

This may have been easier to do in a small tribe focused on survival, surrounded by a vast, unsearchable landscape.

A. Prevalence

This type of scheming would likely be more prevalent in females, since they tend to be less inclined to resort to out-right violence in battling for reproductive status. The reason for this might be because the ability to psysically overpower others is not a reproductive marker in females, this being outsourced to the males.

As a result, one might expect mental illness[psychosis] to have a higher prevalence in females, but we're jumping ahead. On that note, one might also expect mental illness in males to be less prevalent in cultures where such physical disputes are more tolerated, as there would be less room for malicious plotting/backstabbing from cowardice.

So, what are the factors that would enable collusion intent on framing and/or harming, with mininal reprimand?

Key attributes of the target:
Key attributes of the attacker(s):
Catalyzing attributes of the group: Note: Global group properties likely play little to no role.
However, hardship and scarcity could create a voulnerability in individuals/families with a poorer standing with the group, especially if they are deemed an expense.

The recurring factor in this framework is:

* ***Group status and sway***

It is:

- The basis for the choice of target
- The means by which a successful exclusion or reprimand-free elmininationoccurs
- Likely often the optimal defensive strategy the target could employ

Key differentiating factors making this defense-mechanism less viable/successful in the modern environment

- ***Known symptomology and adherent category.*** It is therefore not something novel and alarming to be investigated by taking the target seriously, especially in the presence of strange, wild clames and
- ***A more thorough and extensive law-enforcement and punitive system.***
  This makes successful collusion to kill by hand or exclusion much less likely, further reducing the credibility of the target and her claims. The intent and defence-mechanism however, remains the same as in our tribal ancestors.
- ***A higher rate of drift*** [3] as a result of living in an environment for which this defense-mechanism did not evolve.

Key advantage for performing a successful collusion

- Considered a reproductive threat/rival to some extent
- Poor standing with the group, overall
- Weak family protection
- Resources scarcity
- Seasonality
- Poor ability to convincingly formulate/present such plots to group authorities

The last enabling factor is often a bi-product of bullying. Whether this is a happy coincidence, or a driver for bullying is not known. Communication abilities are selected for across both sexes, so it could be that this is the driver inducing reduced verbal abilities (not necessarily irreversible).

[2] Perhaps even greater, since there is less risk of punishment, having turned the group against the defender. This is assuming she isn't accepted into another tribe/group...

[3] We'll explain this in detail in section [cite]

So, let's go back 50 000 years. We're with an adolescent female, perhaps in her early teens. Liked by the group/tribe, but perhaps not so much by her parents.
The tribe has a rather small social circle of even-aged girls, and she ends up on the bottom of the pecking order as a result of less fear of reprecussion from parents.
So, she is bullied and becomes timid, anxious. She becomes less likely to reach out for help, which opens the door for escalating bullying, perhaps escalating maliciousness.
As a result, she has a significantly lowered reproductive value on the mating market of the group during her formative years. Caused by mentally induced barriers from her adolescent peer group.
These mental barriers are not something she can just dispense with whenever she wants, they are learned survival behaviors, adopted by the brain to survive in an unusually harsh social enviroment.

However, their reduction to her reproductive value on the market is no longer tolerable. Most of her friends have had children with good mates, and time is running out. An alarm is growing in volume, perhaps with subconscious origin.

It's either breaking out now, or accept the induced mental effects and the resulting permanent loss to reproductive success.

Breaking out is not without risk however. If deemed a resurfacing threat, her reproductive rivals now have fertile grounds for collusion.

And this is what we propose to be the main evolutionary purpose of psychosis; a collusion alert-and-defense-mechanism.
[Note: The collusion-defense-mechanism we're about to propose does not require that actually collusion occurred every time.
This is a sufficiently dangerous outcome that evolution may have set the threshold for activation quite low to avoid false negatives.
It is better for the defence-mechanism to activate in error, than to not in the face of actual collusion.]

So, let's say the victim is entering/showing success on the reproductive market.
Sexual rivals ('bullies' from childhood) may then actually plot to kill the her to protect their reproductive gain, and may get to a certain stage in their plans. Whether it be continue searching for an optimal plan, or already being prepared to go through with it.

This possibility and its signs may go undetected by the conscious (perhaps too anxiety-inducing to perpetually keep in mind, while also functioning in the same group), but the subconscious still registers it. Processing it in dreams.

This possibility and its signs may go undetected by the conscious. Perhaps because it is too anxiety-inducing to perpetually keep in mind, while also functioning in the same group. And so the data may be gathered, but the patterns kept supressed from being recognized at the time. She keeps the puzzle-pieces, but doesn't put them together just yet.

As the signs reach a certain threshold, the defense-mechanism is triggered. One would presume that the more likely a collusion is to actually take place, the more likely it is for an episode to occur during such a break-out attempt.

The degree of detected malice behind the pecking/bullying would then perhaps be a key factor for how likely it is that the defence-mechanism is activated rather than e.g. a successful break-out.

Note: Like every other trait, this 'threshold', or proclivity for defense-mechanism activation is likely variable in the population to an extent.

And so the triggering factors are: * Attempting to regain baseline reproductive value on the mating market, becoming a threat/competitor to perceived malicious rivals
* Low pre-existing group defense
... [continue if possible]
—- * Note: if(f(a, b, c, ...)) ¿ threshold: start episode here a, b and c are factors like reproductive threat, group-standing and so on —-

II. Dreams and the subconscious

One main purpose of dreams may be to comb through the past and simulate future possible scenarios while imbuing them with emotions, so as to provide rapid emotion-guided decision-making during waking life.
The purpose of episodes may be exactly the same. To find undetected patterns in the social data you've gathered, and simulate the ways in which they might be plotting against you, to make better and faster decisions if something along that line were to actually come true.

So why don't she just sit down and think 'really hard' about all the ways they might plot against her?
Try to do that while eating dinner, and you'll find it doesn't take long before you deem it a pointless and unimportant effort.

In our ancestral environment, actually simulating a bunch of such unlikely scenarios in length and detail would have been wasted time and energy by the most

calorie-expensive organ in our body, and would do you no good in the absence of such danger.

So, to promote function within this group, her subconsciously has supressed these patterns. Being in perpetual death-angst for years would not be reproductively advantageous.

III. episode

So, a danger threshold has been reached, and the subconscious activates an episode, the collusion-defense-mechanism.

However can you defend yourself against it though?

You could

- Run away, perhaps to another tribe
- Inform trusted tribe members, try to reqruit help
- Strike first, pre-emptively

The last option would incur heavy costs to reproductive fitness, if used as first as first choice. Likely leading to exclusion or death, even if the successful.
So, let's say the episode is triggered by conscious or subconsciously detected warning signs in the social environment.
Our protagonist might start thinking more and more about social aspects, particularly relating to her reproductive rivals.

IV. The error-correcting dialogue

We've all had arguments with ourselves in the shower in preparation for, or in the aftermath of a 'public' argument, although some might like to deny this at this point.

A sort of simulation is performed, where one agent plays the role of/is oneself, the other of one's adversary.

This, is a scaled-down version of what we propose the *defense-mechanism* to be.

A rev-up of the simulation engine, with the purpose of exploring and preparing for potentially relevant future scenarios, made pertinent under an imminently predicted threat.

However, instead of being stumped in front of everyone at an argument you didn't simulate, the predicted danger is now much more severe, and so is the preparatory simulation rev-up.

A. Importance weighting through external agentification

Let's imagine our thoughts as a stream, constantly 'choosing' amongst branching pathways[4]. We may not notice the unchosen branches, but they're there, and could have been chosen under different circumstances.

Like when typing a sentance, or even a word. After the first letter of a word has been chosen, the rest follow with quite high certainty. For a sentance, there will be many more possible paths, each subsequent word chosen with greater uncertainty amongst a larger repository.

A simulation expansion, if you will. This is one key aspect of the defense mechanism. Probabilities get reallocated away from the standard horizontal path.
But how is this achieved?
We might imagine assigning a probability to each branching, an importance weight between 0 and 1, determining the likelihood of our stream going down that branch.
During a shower argument with oneself, one might then imagine that importance weighting is redistributed away from the standard tought-patterns/branchings and towards the ensuing dinner argument.

Something similar needs to happen in episodes, but to a much greater extent, and with more pertinance.

How can this be achieved?

The underlying mode of modelling seems unchanged, namely that of the bi-agential dialogue of normal thought.

Note: This internal dialogue likely serves as a world model error-correcting mechanism, likely adapted as an advantagous trait some time after the advent of language. There are at least two advantages to having such an internalized sparring world-model constructor.

- It provides error-correction in the absence of actual sparring partners. In time, the simulation accuracy will likely drift due to lack of new data and 'contamination'[5] of old, and so one might expect an

[4] In this model, we do not presume this path-selection to be done consciously (though sometimes it is). Most branch choices are likely made by a rapid and automatic pertinance/cost-calculation mechanism.

[5] Each time we access a memory, it may get contaminated with bias. Two sentral biases we'll explore are self-serving bias and harm-prevention bias.

increasing degree of world-modeling errors, particularly one would expect the simulated response of others to become less accurate/rich and drift towards being more self-serving. This does make sense on a functional level as well, if the price of accuracy is no longer worth paying in the absense of a social environment.

- It enables independent planning, preparation, world-modeling. An interesting question might be why an internal monologue would not work. How could such a model generator work? Either one would accept every proposal without counter-argument, or one would choose between multiple proposals. The latter seems to be what is happening during an episode. Here, the self of normal bi-agential sparring is retained as is, but the sparring partner is externalized and promoted to proposition judge.

Through language, humans can explore and consider world-model propositions, such as 'he did this because of x', or 'the bees get dizzy from the smoke, so we can take the honey without getting stung'.
Through a back-and-forth sparring, one can correct for biases that tend to creep in by default in solitude[6].
In building our world-model, we often have multiple choices in what pieces we choose to include. Two pieces may provide explainations for the same observed phenomenon, but differ in their reflection of reality and ease of integration into our existing modelling structure.
We want the world to be one way, and the ability to reject this in favor of model accuracy could perhaps be defined as rationality. It is often painful, and therefore hard to consistently do alone.

Thus, sparring partners may be considered one anchor of rationality. Model accuracy is generally appreciated and expected, and so one is more encouraged to do the hard work of rationality to meet the standard, than when alone.

Another anchor are group-wide beliefs/world-models. In general, groups tend to converge on more accurate world-models than individuals on their own. Likely due to this conversational error-correction and baseline standard of rationality.

B. The Stochastic Background

Our ancestral environment was quite different to what we've become accustomed to today.

Most sources of variation in our environment (the stochastic background) were continuous in nature; the rustling of the trees as the wind picks up speed, the increasing heat from the sun as it emerges behind the clouds, the waves of the ocean growing in force.

There were also discrete variations in the stochastic background; a thunderbolt flashing beyond the distant mountain hills, a short-lived cloud formation, a drastic change in weather or an avalanche flattening the steep mountain forest.

These fluctuations were part of the background, and are always 'present'. Normally, such random fluctuations in the background are recognized as just that; random.
However, when this emergency mode of cognition is activated, they are attributed meaning to varying extent, with the purpose of guiding simulation pathways as well guiding decision-making through emotional imbuement.

One of the strongest action-guiding emotions is meaning, which plays a key role in this emergency-response. As a highly social species, meaning is perhaps most readily generated in relation to others.
[This to be another advantagous aspect of external agentification during episodes].

Instead of the internal error-correcting dialogue, the sparring partner has been externalized and promoted in status. It is promoted to a wiser, highly knowledgable, well-meaning and trust-worthy agent.

Fluctuations that normally would be correctly classified as random are instead attributed to emergent branch proposal, according to how needed the subconscious deems this direction to be, presumably.

This 'external projection' of the subconscious, provides the importance weighting needed to continue exploring simulation/solution space.

Without it, one would be less inclined for potentially costly exploration, more inclined to dismiss the branch-proposal outright.

It is these sudden, discrete variations in the background that are the main source of such 'signs'. Being few and far between in our enviroment of origin, they likely limited the extent of such episodes.

Today, our stochastic background is filled with such discrete variables. Environmentally responsive LED status lights, random plumbing sounds, building vibrations, discrete periodic noises from various appliances and so on.

If our rate of simulation branching was tuned by evolution for the natural environment, one might expect that

[6] These biases can for example be combated through meditation, discipline and active exercise of rationality in whatever form.

the modern day environment sets the stage for more frequent signs and branchings, and thus a higher rate of *drift*.

[***prediction***: Branching rate and resulting drift would be increased in a modern-day city apartment compared to out in nature by oneself.
By this, we mean that delusions would grow more absurd/non-realistic in nature, faster. This may be a key factor, as being given enough time to contemplate each accepted thought/branching, may also provide much needed error-correction.]

C. Bi-Directional Bias Accumulation

We propose two primary sources of bias: self-serving bias and harm-prevention bias.

- ***Harm-prevention bias***: A product of being an agent susceptible to harmful outcomes. Overestimating the likelihood of dangerous scenarios makes one more cautious, thereby reducing the actual probability of it occuring.

- ***Self-serving bias***: A product of promoting one's own internal sparring partner (subconscious?) to the role of a (hidden), externally guiding agent of god-like status

The advantage of projecting one's own subconscious as a an external omnipotent sparring partner are

- It provides the importance weighting to perform the necessary simulations
- Provides a sense of safety, someone on your side during the downwards part of the branchings
- Provides needed self-confidence to warn/reqruit help from the group after the formation of an adequate plot-proposal

However, the danger of projecting one's own subconscious as an omnipotent guide is it's your own mind. And so, it will be subject to the same self-serving biases. These are the forces that drift the branchings upwards.

Upwards drift
Once one self-aggrandising model proposition is accepted, the next one builds on it, with an upwards bias. Each branching raising one to a higher level, and the world becoming more and more how one would like it to be, with oneself occuppying a more and more satisfying place in it. To the detriment of world-modeling accuracy, and thus function.
Downwards drift The main force here is likely the 'better-safe-than-sorry' bias.
Here dangerous model propositions are more easily accepted.
We are generally wired to skew towards over-estimating the credence of dangeous outcomes. This makes us more likely to take precautionary measures and to avoid them, thus reducing their likelihood of actually occurring.

However, this bias is also present during the collusion-defense simulation/solution/decision-making mechanism.

Meaning that, overly dangerous/harmful model propositions are likely to be accepted as true. Or perhaps more accurately, they are given a higher credence. Once 'accepted/(***temporarily granted for the purpose of the simulation***)', the next branching builds upon the previously biased model proposition, itself also with a bias downwards. The simulation thus drifts in this direction, to increasing degrees of perceived danger.

To provide escape from the one might then switch back to the positively-biased branching. This provides a temporary escape, but not a solution. Both world-models diverge from the norm if drift continues, and the urge to get help somehow increases. The original collusion scenarios may now lie on the shallower end compared to one's current world model, and one of the purposes of the episode: presenting a coherent and alarming collusion plot to the tribe, may no longer be so coherent or convincing.

D. External agentification through selective sampling

[not yet filled]
* She's more unlikely to explore sufficient options, and to a sufficient extent.
During episodes,
** Signs**
A Successful Episode progression ——————————
—
What would be a successful outcome of such an episode? –¿ Revealing the colluders, or creating sufficient suspicion against them
* Remember: Religion played a greater role in this environment. Episodes may have been seen as religious events, a rare communication with the gods. Signs weren't necessarily immediately categorized into predefined buckets of illness, nor the victim as quickly castigated and dismissed as delusional*.
People lived hard lives, and perhaps such episodes would result in a shaman/which-doctor -like position in the group
Delusion: ——————-
General biases in humans and other species:

Overestimating the likelihood of harmful events
Note: In warning the group and recruiting help against the colluders, it would likely have been advantageous to have simulated the outcomes with a bias towards harm. A bias in the other direction would perhaps be dismissed more frequently, and future alarms taken much less seriously, even if more severe this time.
Furthermore, as is generally the case, biasing towards harmful outcomes is advantageous in preventing them. Better safe than sorry. Better avoid the snake even if you don't know it to be venomous.

V. Drift correction

Downwards steering

upwards steering

VI. Theory

We typically behave differently when we have a strong credence in the belief that we are alone, compared to when we believe we are in the presence of our peers[7].
Generally, the difference in behavior is in promoting behaviors that are favorable towards group inclusion and our status within the group, whilst suppressing behaviors that are at odds with this.
This belief, that one is in the presence of one's group, would be a frequently accessed one by our brain in our ancenstral environment.
In the face of potential group exclusion, this belief would perhaps be the most readily available and low-cost option to use as a modifier/filter of behaviors.

A. The Behavioral Filter

Advantageous traits during group-quarantine:

1. Increased credence in the belief that someone (from the group) is watching [Explain in detail why this is advantageous. Come with concrete examples as well]

2. Higher sensitivity to subtle signs of allegiance/sympathy

[7] We will assume that our brain has a set of beliefs, with a corresponding set of credences that determine the degree to which we hold these beliefs.
A credence of 1 would then be complete certainty in the proposition, whilst 0 would be a total dismissal.

B. Prevalence in the population

Most people do not display psychotic symptoms when integrated in their groups (family, collegues, friends etc.).
If seperated by their groups, one might expect (over) biasing of beliefs, information sampling and pattern recognition to occur, especially if it is believed that the groups actively rejected them.
The sensitivity to over-biasing likely varies, and genes may or may not be a part of this.
Childhood and early adulthood likely plays a key role in setting the 'tuning sensitivity' of a person.
If you don't have a solid group to fall back on, as would be the case in an abusive home, your sensitivy to biasing might be greater. This would have as intent to not get excluded by your peer group in your 'reproductively formative' years.

C. Religion as a permanent biasing of beliefs to reduce the risk of group exclusion

Language

Physical exclusion is perhaps the most clear-cut example of harm to reproductive fitness for the individual, except for death.
However, our ability for language may make this a sliding scale, to a greater extent than what may be seen in other social species.
[Read up on sexual mating competition in evolutionary biology (papers)].
Our ability for language means that we can convey ideas about others (true or not), that could harm their reproductive fitness. Slander amongst sexual rivals might be one example of this, which would be reproductively advantageous for the slanderer if successfully pulled off.
The slander need not cause full-on physical exclusion to be reproductively advantageous/harmful, it need only cause a reduction in status and/or perceiver mating value within the group.
This strategy could of course backfire if revealed or framed as untrue by the victim or the group, and so this novel cat-and-mouse game enabled by language may have been a driver for increased intelligence and linguistic abilities.

[Could be already hypothesized... research this]

Belief tuning

(Beliefs have a large impact on how an individual acts, which again impacts that indivduals reproductive success.)

Modelling reality accurately is in many/most circumstances reproductivelly advantageous. However, rationality only serves an instrumental purpose; To increase reproductive fitness.
In a social species where survival and reproduction depends on group-status and inclusion, as well as group-cohesion, a rational and objective model of reality may take a back-seat to helping the group survive and being part of that group.

[mention religion]?

You could take a public video/description of a psychosis as an example to demonstrate the explanatory power of the theory

A. Appendix A: Externalizing the internal sparring partner

Sidenote: What happens when one's sparring partners from birth are harmful to one's model of self? Harmful to one's error correction abilities?
It seems likely that this harmful sparring partner(s) will be adopted internally as well. This could be the causal reason behind hearing voices.

Perhaps it is advantageous to one's self-image (and by extention function and RF) to have this sort of agent exernalized, rather than internalized. Adopting other, healthier alternatives[8]. One can distinguish and dismiss an external agents as wrong more easily, but not so during an internal dialogue.

Here one is lost in thought, and it is harder to dismiss the sparring partner, at least without mindful practice.

Interaction with externally received data seems to put us in a very different state of mind, one where such sparring partners likely can more easily be dismissed. —¿ What about visual hallucinations??

B. Appendix B: To include

1. A different attitude

[Include your discussion on how rather than being immediately dismissed as unworthy of being listened to, the ancestral tribe likely had very few data points compared to modern society.

Perhaps a few similar episodes had occurred before in recent group memory, and to some extent were considered insights/communication with god, thus potentially not incurring the same degree of status loss as in modernity. The accumulation of downwards bias in particular, would likely still be a driver for exclusion, but a lower drift-rate in the natural environment could have been a remedying factor. Perhaps taking on priest-like roles over time, or the group shaman/witch-doctor/sage.]

In a religious tribe lacking data on this sort of behavior, self-aggrandising religous claims may have provided real deterrence against colluders or a complete exclusion.

This would then be another advantage of the positive/upwards bias, besides increased self-esteem and therefore group-sway.

C. Terminology and definitions

We take some liberty in the terms used. We use existing terminology where there is sufficient conceptual overlap, and the following sets their definition in the framework of the 'theory'.

1. The subconscious

Not all data received by the brain enters consciousness, as is demonstrated in the following video [cite the video properly]:
https://www.youtube.com/watch?v=vJG698U2Mvo

We assume a filtering of received data, some being perceived/processed immediately in consciousness, while the rest is 'ignored' and sent to the subconscious.

During dreams, all data may be processed (consciously perceived or not), and sorted to keep or disgard.

Note: This likely isn't a binary process. Instead one might imagine, a 'decay-time' being given assigned to each 'memory'/pattern. If not re-activated, the memory is eventually erased and how fast depends on the decay-time.

If we picture the set of all memories formed by a brain through its life, the subset of memories present in the brain at any one time is a product of

- The decay-time designated to the memory
- Subsequent re-activation

[8] https://www.youtube.com/watch?v=iNyUmbmQQZg

Perhaps a new decay-time is set for each re-activation, altering the original deadline.

So, for our purpose, we define the subconscious to include the following properties

- Act as a buffer for input data deemed unhelpful for immediate conscious processing
- A selection of long-term accrued memories as well as medium- and short-term data[9]. Memories less distant in time have undergone less selection for long-term importance in environmental functioning and by extention reproductive success.

So, we propose the subconscious to not just be a storage of selected memories, independent and only accisible one by one, but also a sort of importance-weighted long-term integration that is used to guide actions and decision-making in the present.

It is both a long-term repository of important patterns, a sort of importance-weighted long-term integration but also a buffer against immediately harmful or useless data.

[9] Time is of course continous (at least at our classical scale), so these categories are just helpful linguistic buckets.