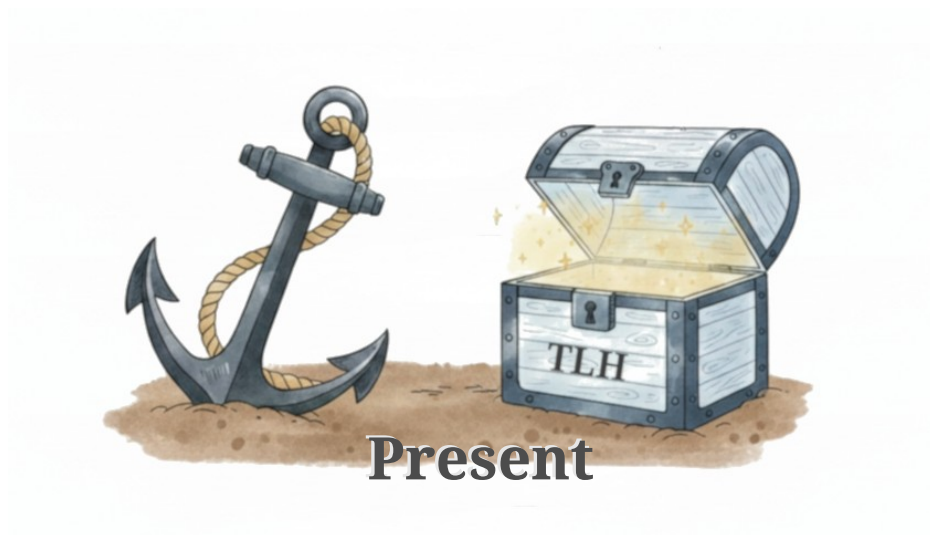


**FROM ABSENCE
TO PRESENCE**

The metamorphosis

Understanding grief and the transformation of the bond



Olivier Capuozzo

April 10, 2026

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ISBN: 979-10-985209-1-4

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For translations or adaptations, please contact:

contact@le-lien-transforme.fr

Purpose of the booklet

Grief is the process through which the brain transforms an external relationship into a stable inner presence.

You are entering one of the most challenging periods of human life. Grief is not only an emotional experience; it is a profound biological and cognitive upheaval.

The aim of this document is not to tell you what you should feel, but to help you understand why you experience these waves of pain, these emotional storms, and this deep exhaustion.

By putting clear and grounded words on what you are going through, this booklet seeks to:

- **ease guilt:** what you are experiencing is a normal response of a brain that has deeply loved;
- **provide orientation:** understanding the underlying “error” helps reduce the feeling of being lost in the apparent irrationality of pain;
- **offer a path:** helping you move through this turbulent phase toward a transformation of the bond.

This booklet is meant as a form of first aid for the mind: to be read in one sitting or in fragments, depending on your strength in the moment.

Olivier Capuozzo

March 2026

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Part One: The keys Concepts

Chapter 1 — Understanding the Brain’s Strange Behavior: The Predictive System

To understand why grief can be so physically and mentally painful, we first need to take a closer look at how the brain works.

Contrary to common belief, the brain does not simply perceive the world — it actively anticipates it. In many ways, it guesses more than it observes.

The brain as a prediction machine

At every moment, your brain generates countless hypotheses about what is going to happen — the presence of the other person, the sound of their voice, their place at the table. This is what is known as the predictive system.

- **In normal conditions**, your predictions match reality. Life feels fluid and self-evident.
- **In grief**, your brain continues to send the prediction “*the other person is here,*” while reality repeatedly returns “*the other person is no longer here.*”

This mismatch between what the brain expects (automatically) and what it actually perceives (the facts, the reality of the situation) creates a **dissonance**, which triggers an **error signal** that is experienced as pain.

- This is not just a thought. It is a biological alarm signal.
- It is this repeated error — occurring many times a day — that produces the persistent feeling of tension, alertness, and deep pain. Your internal system is out of sync.

Clarification

In this document, the word *prediction* does not refer to a conscious anticipation. It refers to automatic *anticipatory* processes, continuously generated by the brain, at a preconscious level, in order to organize perception and interaction with the world.

A useful way to understand perception

In familiar environments, a large part of what we perceive is not directly observed, but predicted by the brain and then adjusted using sensory input. In a sense, we live inside a simulation generated by our own brain.

Grief disrupts this simulation.

Why does the mismatch persist?

The brain does not update its internal models after a single event, even when that event is intellectually understood.

The deeper the bond — built over years — the more evidence the system requires before it can revise its predictions¹.

The only way to protect yourself during this period of instability is to rely on factual data. This is a very effective way to create some breathing room and act with peace of mind, as the illustration below illustrates.

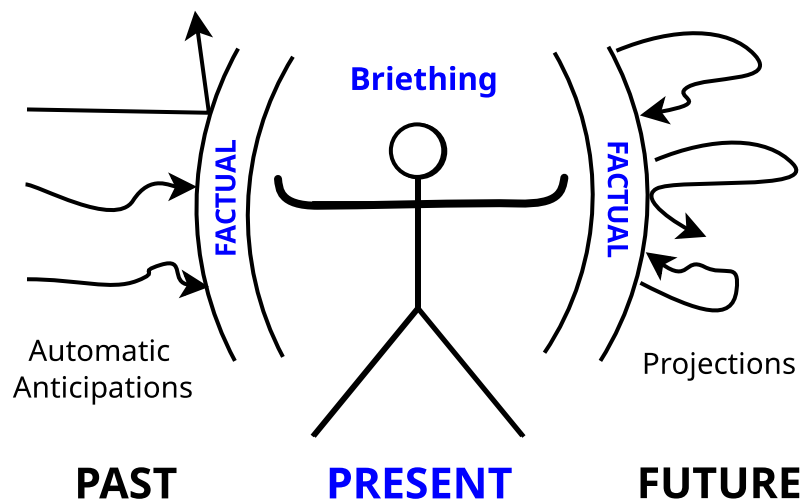


Illustration: During the grieving process, we find ourselves caught between, on the one hand, the pressure of expectations that anticipate the other person's presence—the pull of habit—and, on the other, projections into the future that have become obsolete. Facts serve as a shield; they protect us from the invasion of the past and the future by **keeping them at a distance** until we can regain our balance.

Key takeaway

The integration of loss is a biological process of recalibration that takes time.

Struggling to accept the loss is not a lack of willpower. The brain simply needs time to adjust its most deeply rooted expectations.

In the meantime, your only weapon is to focus on the present moment and stand your ground using factual evidence. **We'll take a closer look at how to apply this technique in the following chapters.**

¹ The predictive system model is highly complex and remains an active area of research. The best hypotheses, derived from observations of how it operates, tend to represent it as a hierarchical and/or heterarchical model.

Chapter 2 – Offline Mode: The Risk of Going in Circles

In everyday life, your brain alternates between two modes, much like a computer:

- **Online mode:** you act, speak, interact, and deal with daily life.
- **Offline mode** (Default Mode Network): when the external world fades away — during rest, quiet moments, or at night — the brain becomes active in a different way. It sorts through experiences, revisits memories, and searches for meaning.

The trap of grief

In offline mode, the brain tends to simulate scenarios in an attempt to “repair” what has been lost:

“What if I had done this...”

“What if things had been different...”

This is **rumination**.

The problem is that the brain is trying to solve a situation that can no longer be changed. It keeps running the same loops, searching for an answer that does not exist.

Rumination is an attempt to solve a problem that has no solution.

This booklet does not aim to stop these processes, but to help you recognize them.

Understanding how offline mode works can help you:

- identify when you are caught in a loop;
- step out of unproductive mental scenarios;
- return to a more stable state.

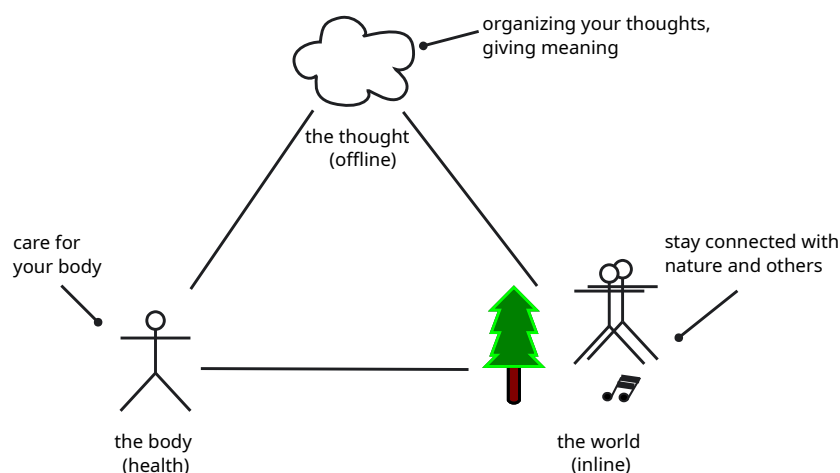


Illustration: A well-balanced anchor triangle

Chapter 3 — The Representation of the Other Within Us (TLH²)

Grief does not strike an empty space.

It affects a living and meaningful structure that you have built over time: the *Harmonious Bond Treasure* (TLH).

What is the TLH?

The TLH is not a specific location in the brain.

It is a network of neural patterns that gradually form a stable internal model of your relationship with the other person. This model evolves over time, shaped by shared experiences.

It includes:

- your shared habits — everyday gestures, routines, and ways of being together;
- your mutual regulation — the way you could calm or support each other, sometimes with a simple look.

The TLH is a living inner imprint of the relationship.

A bridge that collapses on both sides

A deep relationship can be compared to a bridge supported by two pillars.

When the other person disappears, the balance is broken in two ways:

1. **What you received**

You lose the person who contributed to your sense of safety, stability, and emotional balance.

2. **What you gave**

You also lose your role as a source of support for the other.

The attention, care, and love that used to flow toward them no longer have a clear direction.

This creates a form of internal disorientation.

2 TLH comes from the original French “*Trésor des Liens Harmonieux*”, retained for consistency with the underlying model.

Why does the bond remain so active?

Death ends the relationship in the external world, but not within you.

Part of your neural system is still organized around the presence of the other person. The TLH continues to generate impulses:

- preparing words to say,
- anticipating responses,
- initiating interactions.

These processes occur automatically.

They are not a malfunction.

They are the persistence of the bond within your biology.

Essential point

Grief is not the story of a love that ends.

It is the story of a love that has lost its external interaction.

The direction of the process

The goal of the grieving process is not to erase this inner structure.

It is to allow it to evolve.

The TLH gradually shifts:

- from a bond that expects responses from the outside,
- to an inner presence that can exist on its own, without triggering pain.

This transformation will later be described as *metamorphosis*.

Chapter 4 — The Origin of Pain: The “Absence Error”

Grief pain is not an enemy.
It is a **vital alarm signal**.

It is very likely that this mechanism was shaped by evolution: it is observed in mammals, and its effect is to trigger actions aimed at preserving group cohesion — and therefore survival.

Why does it hurt so much?

At first, thoughts directed toward the person who has died activate, despite you, attachment circuits whose effects are almost opposed to other, more conscious and rational signals of the loss.

Imagine two orchestras playing on the same stage, each following a different score:

1. **The orchestra of the past:** your attachment circuits (dopamine, oxytocin) activate out of habit. They “expect” the other.
2. **The orchestra of the present:** your reality circuits (cortisol, alarm signals) indicate that the other is no longer there.

This collision creates an “**Absence Error**.”

It is not a pathological malfunction, but the normal result of how the predictive brain operates.

The pain is the result of this chemical and electrical conflict in your brain, felt throughout your body.

Errors involving deep models (for example, an attachment bond built over decades) require a **longer adjustment period**, because they involve a reorganization of higher-level hierarchies.

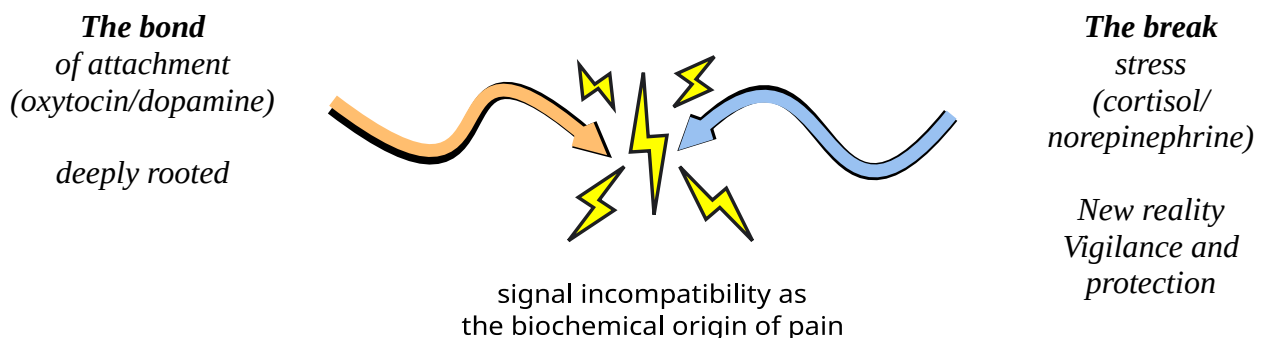


Illustration: Clash of incompatible chemicals
Pain signals share the same pathways as physical pain.

“Useful” Pain and “Circular” Pain

Not all pain is the same:

- **Adaptive Pain (the kind that helps):** it arises in response to facts (“He is no longer here”). It hurts, but it forces your brain to update its internal model. It prepares future stability.
- **Circular Pain (the kind that traps you):** it arises from imagined scenarios involving the person who has died (“If only...”). It maintains the illusion that the past can be changed and keeps the brain stuck in a persistent, unresolved error.

A disoriented body

Your body does not distinguish between physical pain and social pain.

Your heart, your digestion, and your sleep are affected because you have lost your external regulator.

Grief is a physical task as much as a mental one.

Good to know

Your pain is the emergence of preconscious processes that have become dysregulated.

It is the language of your body as it searches for a new balance.

Chapter 5 – ZTIR: An Unavoidable Chaotic Path

The grieving process can be compared to a weather landscape: a sudden flash of lightning, a thunderclap that stuns, followed by an emotional storm before the gradual return of a more stable sky.

After a loss, many people feel as if they are moving forward and then backward, getting better and then falling back again. This impression is common, but misleading.

This document refers to the **ZTIR** as the *Temporal Zone of Rupture Integration*:

the idea is to highlight the transition period during which the brain gradually reorganizes its relational predictions in order to integrate the irreversible reality of the absence.

The ZTIR contains a zone of **functional instability**, where old habits and a new reality still coexist.

During this time:

- some anticipations inherited from the past continue to reactivate,
- the reality of the absence is already known,
- the system is searching for a new balance with an acceptable energy cost.

This coexistence produces oscillations: moments of relief followed by returns of pain.

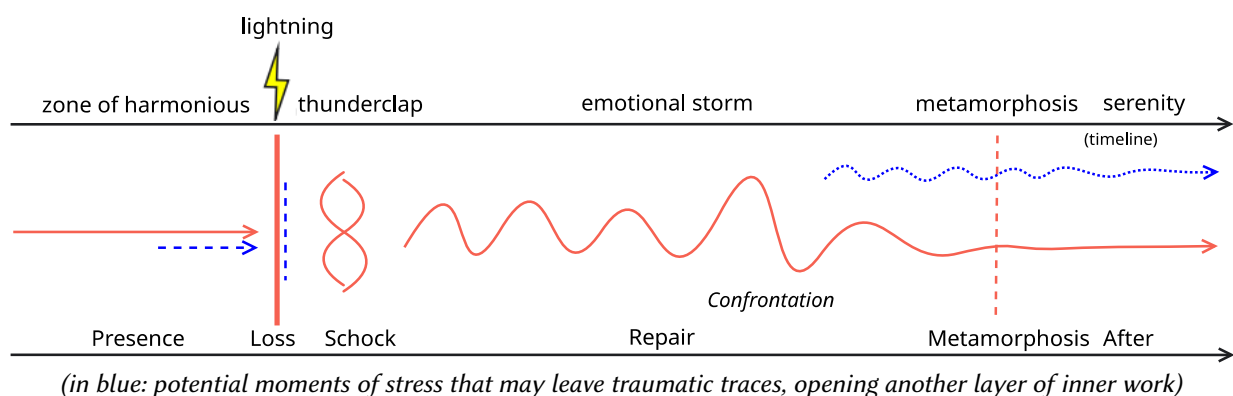


Illustration: ZTIR

In disturbed phases, progress does not follow a steady upward path, but rather a succession of waves.

What you experience:

One day you feel “lighter,” the next the pain returns with the same intensity as on the first day.

The trap:

Believing that you are going backward or that you have failed.

The reality:

This is not a regression. Your brain is simply “testing” the reality of the absence from different angles, in different contexts. Each wave, even when painful, is an update of your internal system.

Energy:

If you feel exhausted, it is normal. Your brain is currently performing the most complex update process of your life.

Four practical guidelines to move through this phase

1. **Do not overinterpret:**

A painful relapse is not a return to the starting point. It is a sign that deeper work has been identified by the predictive system. An opportunity.

2. **Identify “sterile loops”:**

Be mindful of rumination and “What if..” scenarios, which act like quicksand and keep you in instability.

3. **Do not expose your TLH to criticism:**

Its model is no longer there to correct it.

The only confrontation that truly matters is the factual — and often painful — confrontation with the definitive absence.

Also keep in mind that the TLH is your internal representation: it is not the person themselves (and even less the TLH that another person may carry in relation to your loved one).

4. **Grounding:**

Since your inner world is in turmoil, look for stability outside (the body, the present moment, simple routines).

Essential point

The disruptive phases of the ZTIR come to an end when the reality of the absence is no longer experienced by the predictive system as a “bug” or a permanent conflict, but as an integrated fact.

This is when **Metamorphosis** occurs.

Chapter 6 — The Present: Your Only Ground for Action

Grief often pulls us elsewhere: either backward (nostalgia, regrets), or toward a future we imagine as empty.

Yet your brain can only recalibrate in one place: **here and now**.

Why is the present “therapeutic”?

Your predictive system is like a GPS trying to recalculate a route.

To do so, it needs your **actual current position**.

- If you are in the past (memories) or in imagined scenarios involving the person who has died (“What if...”), the GPS keeps running without progress.
- By returning to the present, you provide your brain with **factual data** (your breathing, the contact of your feet on the ground, your relationship with nature, with others...).

Bodily awareness is the key to reorienting yourself in space and time.

Rumination or Reflection: Don’t fight the wrong battle

It is easy to confuse “thinking about the other person” with rumination.

- **Reflection:** it seeks to understand, to make sense. It moves forward.
- **Rumination:** it is a closed loop. It revolves around what “should have been.” It takes place outside the present and blocks the adaptation process. It exhausts without ever repairing.

The body, your safe anchor

When the mind accelerates, thought cannot calm thought.

Only the body can.

- **The present does not erase love:** returning to the present does not mean forgetting the person you love.
- **The present clarifies the bond:** it allows you to separate the pain of absence (physical) from the suffering of the mind (imagined scenarios).

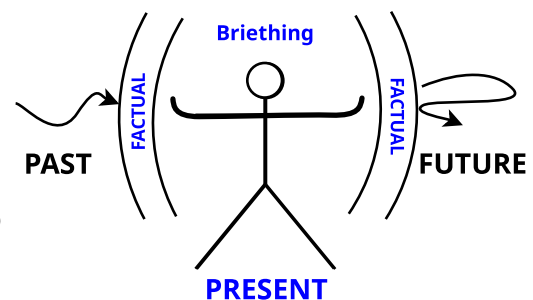


Illustration: ground oneself in the present moment

Factual point

The present is neutral.

It does not judge.

It is simply the only place where adaptation to the new reality can truly take place.

Chapter 7 — Sorting Your Thoughts: The Factual vs the Imaginary

In the turmoil of grief, not all our thoughts are equal.

Learning to distinguish them is like learning to sort what helps us move forward from what keeps us stuck in rumination and plunges us into guilt (known to be a major obstacle to metamorphosis).

The Discernment Table

<i>Factual Thought (The Anchor of Reality)</i>	<i>Rumination or Counterfactual Thought (The “What if...” Trap)</i>
What IS.	What could have been (“If only...”).
Based on tangible evidence and the present.	Based on imagined scenarios and the past.
Effect: produces adaptive pain, which fades with repetition. It grounds.	Effect: generates guilt, anxiety, and circular pain.
Example: “He/She is no longer here,” “The physical bond is broken,” “Today, the chair is empty.”	Example: “If I had said this...,” “If only he hadn’t gone out that day,” “If I had called five minutes earlier...”

Why do we fall into this trap?

We often believe that replaying these scenarios is a proof of our love, or a way of keeping the bond alive.

This is an illusion.

The true bond does not feed on imagined regrets, but on a direct inner relationship — something that will become possible through the metamorphosis of the *Harmonious Bond Treasure (TLH)*, in its own time.

Letting go of “If only...” is not forgetting.

It is choosing the shortest path toward the release of pain — toward no longer harming yourself over time.

How to defuse a toxic thought (quick exercise)

For each painful thought, ask yourself these two questions:

1. **Do I have any real power to act on this thought today?**
2. **Does this thought harm my inner representation of the person? (my TLH)**

If so, let it go by replacing it with a slow exhalation and a simple observation of your immediate environment (the ground under your feet, a sound, a color).

Essential point

Pain will only fade if we stop feeding impossible scenarios.

Factual thought is the way out of circular suffering.

Faithful inner representation

Letting go of “If only...” is not betraying the person you love.

It is allowing yourself to recognize — without distorting it — a more peaceful external and internal reality.

Chapter 8 — The Memory Paradox: Why Memories Hurt

We often hear that we should “remember the good moments” to feel better.

Yet, at the beginning of grief, during the unstable phase (Shock and Repair), recalling happy memories can be intensely painful and even counterproductive.

This is not a sign of failure.

It is a biological reaction.

The risk of reactivating the “Absence Error”

Before the inner bond has been transformed (Metamorphosis), your brain does not yet know how to distinguish between a memory and an expectation of real presence.

- **The mechanism:** thinking about a happy moment activates areas related to pleasure and bonding (your TLH). But immediately, you become aware of the physical absence of the other.
- **The result:** this short circuit creates intense social pain. The memory acts like an “unanswered call,” abruptly reactivating the brain’s alarm signal.

Protecting your “treasures”

There is a second, more subtle risk: that of “contaminating” your memories.

Each time you recall a memory, your brain “reopens” it in order to process it, and then “stores” it again.

- If you reopen a beautiful memory while you are in distress, your brain may associate it with that pain.

- **The danger:** if repeatedly recalled in a state of suffering, a memory that was once bright can become durably dark. It loses its function as a source of comfort and becomes an additional source of pain.
- **Protective advice:** temporarily place your memories “in a safe place” so they are not contaminated by pain.

Caution

placing your memories “in safekeeping” while the storm passes is not forgetting. It is a temporary protective measure, so that you can later recover them intact and peaceful, once Metamorphosis has occurred.

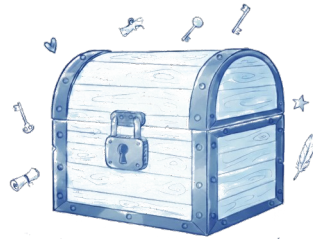


Illustration: the TLH temporarily placed in a safe container
We haven't forgotten them; we're keeping them safe while we wait for calmer days.

Patience

The ability to remember with gentleness will return.

Respect the rhythm of your predictive system, which needs stability before reopening the files of the past.

Part Two – The Path of Grief

Phase 1 – Presence: The Construction of the Treasure

The first phase of grief paradoxically begins before the loss.

It is the time of the living relationship.

1. The time of co-regulation

In this phase, the bond is a two-way process.

You and the other form a system in which each regulates the other: a presence, a word, or a shared silence is enough to stabilize your nervous system and your biochemistry (oxytocin, dopamine).

2. The anchoring of the TLH

This is where your *Harmonious Bond Treasure (TLH)* is built.

Each shared moment leaves a trace in your predictive brain. These traces become “givens”: you do not question whether the other will be there tomorrow – your brain simply anticipates it.

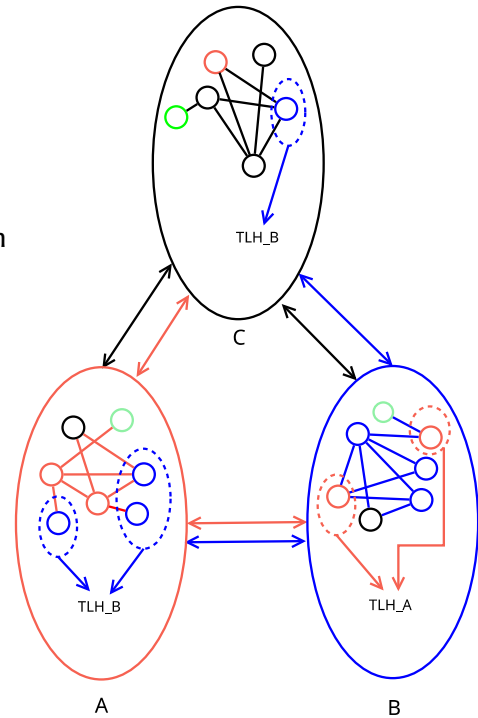


Illustration: representation of a group, interconnected by definition.
A and C each have their own dynamic way of representing B.
The same applies to all members of the group.

3. Why is it important to understand this phase?

Understanding “Presence” means realizing that:

- The richer and more stabilizing the relationship has been, the more substantial the TLH becomes.
- The grief that follows will be proportional to this imprint.
- The pain is not a pathology – it is the other side of a deep and successful attachment.

Phase 2 – Loss: The Breaking Point

Loss is the factual event, the moment when real interaction stops.

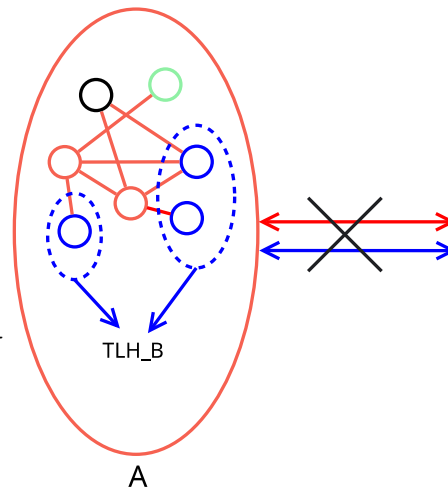
The lightning strike that breaks the bond.

- **The biological shock:**

This is the moment when the bottom-up flow (information coming from the external world) sends a red alert signal: “The other is no longer here.”

- **The shift of the TLH:**

The Treasure, which was a source of fluidity and well-being, suddenly becomes a source of internal conflict when activated: relational anticipations persist, despite the integration of the reality of the absence.



*Illustration: loss of “B.” “A” instantly loses its co-regulation functions with “B”: support function **for** “B” support received **from** “B”*

Did you know?

Your **brain** took years to automate the presence of the other.

It is normal that it cannot deactivate these automatisms in a single day.

Phase 3 – Shock: A Biological Shield

Shock is not the absence of reaction.

It is a protective response of the system to the shock wave produced by the loss – the thunderclap that disrupts your balance.

- **Emotional anesthesia:**

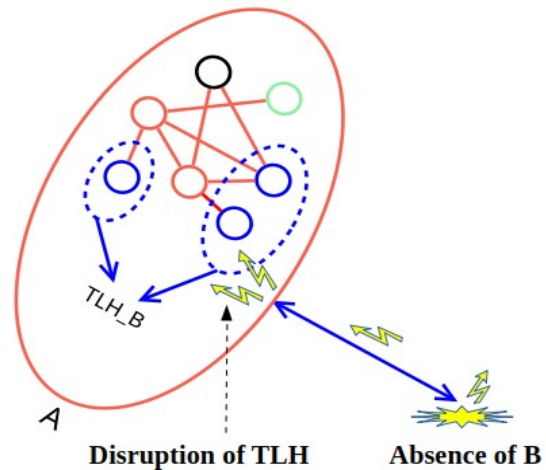
Faced with a prediction error too massive to be processed, the brain becomes overwhelmed. It temporarily “shuts down” to prevent a total emotional overload.

- **Automatic functioning:**

The person may appear strangely calm or “efficient.” This is the brain delegating survival to its most basic automatism, while it gathers its resources.

- **The danger:**

Believing that you are “doing well” because you feel nothing. This is only a temporary suspension.



*Illustration: “A” loses its balance following the absence of “B.”
Its internal functioning is disrupted,
with the risk of altering the TLH.*

Phase 4 – Repair: The Time of the Waves of the Emotional Storm

This is where you fully enter the zone of instability of the ZTIR.

The repair phase is a phase of biological learning: the brain gradually learns to live in a world where the other is no longer accessible.



*Illustration: the time of repair is not
a calm, steady flow (oscillations).*

The protective shield of shock falls, and the updating process begins.

- **Repeated confrontation:**

The brain tests its predictions in every situation (upon waking, during meals, when facing a project). Each time, the anticipation of interaction meets the reality of absence. This marks the entry into a phase of learning and training.

- **The role of adaptive pain:**

As we have seen, this pain is the signal that engages the system to “force” changes in its internal models.

- **Oscillation:**

You alternate between moments of factual clarity and moments of acute distress, when the TLH “calls” for the other — a sign that the predictive system has identified the need to update part of its model.

Preconceptions

It is in this phase that misconceptions are the most persistent, deeply rooted — wrongly — in the collective unconscious.

Recent advances in neuroscience shed clear light on what is happening here:
the brain is learning a new reality.

Distinguishing between **adaptive factual thoughts** and **circular counterfactual thoughts** is an essential guide for moving through this phase without becoming stuck.

By accepting the pain when it arises from adaptation to the new reality, you support the recalibration of your predictive system.

You turn pain into an ally.

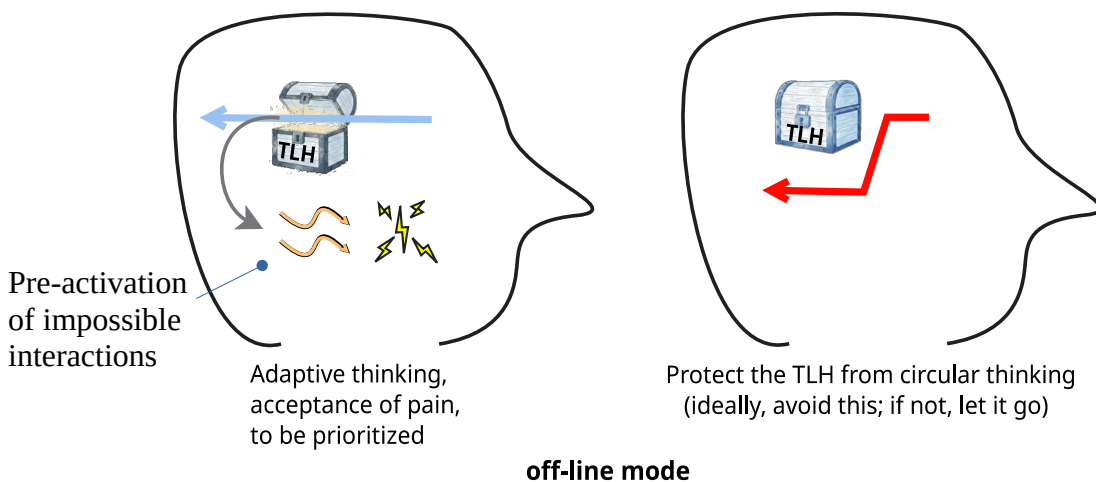


Illustration: sorting thoughts to retain only those pains that are useful

Confrontation with external triggers

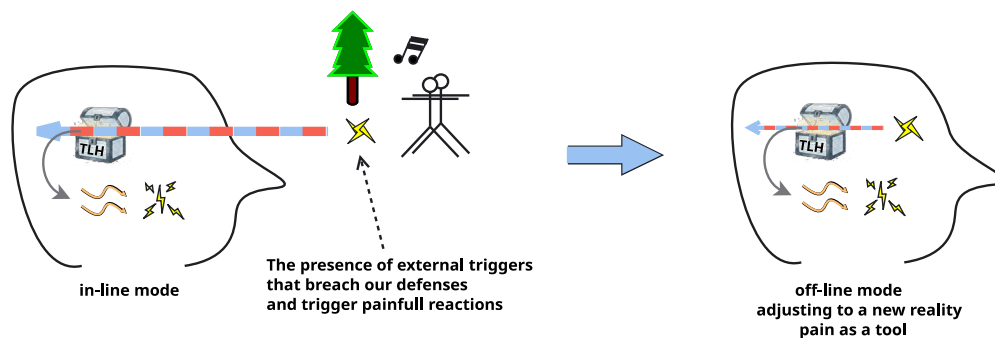
This is a key stage of the repair phase.

Even if you have learned to protect the TLH from your internal thoughts — especially non-adaptive triggers (counterfactual scenarios) — you remain exposed to **external triggers**, conveyed (bottom-up) through your sensory systems (images, sounds, touch...).

For example, a song refrain such as “say goodbye” can overwhelm you.

Such triggers break through your defenses³.

They activate impossible demands for interaction, provoke intense pain, and arise at unexpected moments.



*Illustration: an external trigger emerges
(breaks through the line of defense), then becomes a tool*

In the case of death, for example, the day of the funeral is often when these triggers are most active.

They occur at the worst possible moment, as people are usually still in the shock phase, while the triggers are numerous and highly staged.

This confrontation comes too early, but responds to sanitary and sometimes cultural constraints.

However, during the repair phase, such factual triggers become **valuable indicators**.

When one appears, pay attention to it, as it is a **valuable key** for training your predictive system.

This way of supporting the ongoing process consists in reversing your relationship to pain.

This technique is presented in the appendix: “*For a Complete Reversal of the Relationship to Suffering.*”

³ This type of trigger reveals your attachment. The fact that you have shielded your bond from certain painful aggressions demonstrates an attachment to past interactions. The lucid yet painful confrontation with external triggers prepares the way for a change in the relational nature of the bond (a precursor to metamorphosis).

Your responsibility

While your predictive system works tirelessly to rebalance its model of the world, your role is — despite the turbulence — to take care of your body (nutrition, exercise, sleep...), to balance moments of reflection and action, and to remain patient, as the time required for the brain to integrate the new reality cannot be predicted in advance.

Do not give in to clichés such as “you have to hit rock bottom to rise again” or “the intensity and duration of pain are proportional to your love.”

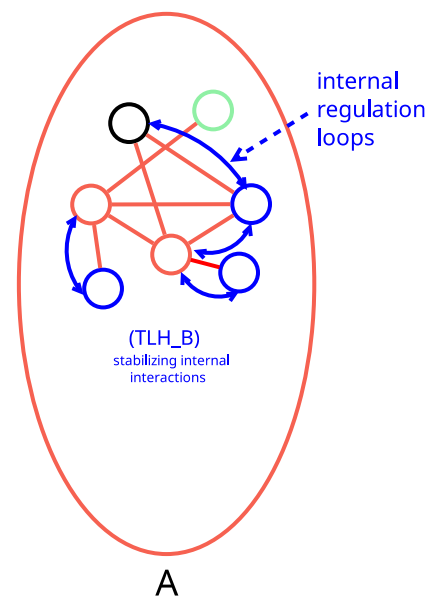
We can already benefit from recent advances in neuroscience, even if much remains to be discovered.

Phase 5 — Metamorphosis: The Shift of the Bond

Metamorphosis occurs when the predictive system has “decided” to stop activating functions that expect responses from the outside, as they have become too costly.

It can be identified by a shift in functional dominance, which has been observed through brain imaging (see appendix).

- **Deactivation of the expectation system:**
The brain eventually integrates the permanence of the absence as a new stable condition.
The prediction error fades as anticipation finally adjusts, releasing the tension it had been generating.
- **Autonomy of the TLH:**
The Harmonious Bond Treasure does not disappear — it changes in nature.
It becomes an inner structure that no longer needs the external world to exist.
- **A new emotional signature:**
The bond shifts from the “pain of absence” to a sense of “soothing inner presence.”
It becomes possible to think of the person without triggering an alarm signal.



*Illustration: the bond does not disappear — it changes its mode.
From a relationship lived between two people,
it becomes an inner source of balance.*

This is not your decision

The metamorphosis of the bond is a natural transformation.

It happens in its own time.

Any attempt to force it only delays its emergence.

It unfolds without your awareness, because the decision to initiate it belongs to your predictive system — preconscious by nature.

Testimony

Some people report that, at a certain point in the process, an inner shift may occur unexpectedly, sometimes accompanied by a bodily sensation of relief.

This phenomenon can arise even while attention is focused on another activity.

This suggests that the reorganization of the relational system takes place largely outside conscious awareness.

Phase 6 – After: A Free Inner Presence

The journey does not end with the end of pain.
It leads to a new balance.

- **Stabilization:**
The ZTIR has been crossed.
The reality of absence has become a stable ground on which you can rebuild, without everything trembling again.
- **Redefinition of meaning:**
The transformed TLH becomes a resource.
The values and learnings inherited from the relationship are now integrated into the survivor's own identity.
- **Openness:**
You regain availability for new bonds, without these replacing the previous one, because it has found its definitive place within you.

Good to know

By protecting your inner representation of the person who has died (the TLH), you are engaging in the **functional preservation of the bond**.

This practice allows you to preserve a living memory, which – through metamorphosis – will regain its place in the present as a biological component supporting consciousness.

This perspective may contrast with more traditionally conservative approaches, represented by concepts such as grief, melancholy, or sadness, which often arise from imagined counterfactual scenarios – not grounded in the present by definition.

More generally, approaches that sustain rumination may unintentionally prolong suffering.

The storm has passed.

Life continues.

This new balance becomes a strength, helping you adapt positively and gradually to the absence of the person who was so dear to you.

Conclusion — What Remains

Grief, and its pain, is often seen as a process of “letting go.”

Yet the science of the brain and the experience of the heart suggest the opposite: grief is a process of **inner reattachment**.

From the pain of real absence to inner presence

At the end of this journey, the loved one is not “forgotten.”

Their inner representation — first placed under adaptive protection, then released through metamorphosis — has simply changed its place.

- **Before:**
The bond was oriented outward, dependent on a response, a gaze, a voice.
- **After:**
The bond has become an autonomous structure within you.
The **TLH** (*Harmonious Bond Treasure*) is now an integral — and evolving — part of your identity.

The strength of metamorphosis

The path you have traveled — with its “bugs,” its waves, and its pain — has allowed your predictive system to perform the most difficult update it can undergo.

What remains is everything the relationship has built within you:

- your inherited values,
- your capacity to love and to be loved,
- a new inner strength, born from having crossed the *ZTIR* (*Temporal Zone of Rupture Integration*).

An open ending

The end of grief pain is not a return to the life “before.” It is the beginning of a life “after,” where absence is an accepted fact and memory has become a soothing resource.

You are no longer alone.

You are now **accompanied again** — by your own story, firmly anchored in the present.

At the same time, remaining attentive to circular thoughts is still essential.

Glossary – Key Concepts for Understanding Grief

- **Predictive System:**
This is how your brain operates. It does not simply perceive the world — it anticipates it, generating thousands of predictions per second based on past experience (such as the presence of the other).
- **TLH (Harmonious Bond Treasure):**
(from the French “*Trésor des Liens Harmonieux*”)
The living imprint of the relationship in your mind.
It is a functional structure that governs your habits, expectations, and shared emotional balance.
- **Dominant Predictions (or Priors):**
These are deeply ingrained patterns.
The brain relies on these long-established certainties to stabilize its perception of the world.
- **Absence Error:**
The intense pain signal that arises when a prediction of interaction (“he/she will walk in”) abruptly collides with the reality of absence.
- **ZTIR (Temporal Zone of Rupture Integration):**
The transitional space between the former and the new equilibrium.
It includes a period of active recalibration during which the system learns to function without the external support of the other.
- **Rumination or Circular Counterfactual Thought:**
Imagined scenarios (“If only...”) that attempt to alter the past or construct an impossible future.
Although tempting, these simulations keep the brain in a painful conflict with reality (rumination), and — when they involve the person who has died — disrupt the adaptive work of the predictive system.
- **Anchor (The Present):**
A stabilization technique consisting of bringing attention back to physical sensations and raw facts in order to interrupt rumination (bodily awareness).
- **The Safe Container (The Treasure):**
A symbolic safe mental space, which can be understood as a membrane enveloping the TLH (memories and functional bonds), designed to protect it from overwhelming pain.
- **Metamorphosis:**
A natural and profound evolution of the predictive system’s model:
the TLH no longer waits for external responses — it becomes autonomous and soothing.
Another way of saying that it resumes its inner regulatory functions while preserving its capacity for adaptation and evolution.

Appendix

Reversal in the Relationship to Suffering

Thoughts can be triggered by internal movements — shifts in mood, associations of ideas, reminiscences.

These thoughts most often arise in what is called an *offline* mode of functioning, when attention is not engaged in immediate action. They then relate to the activity of the Default Mode Network (DMN).

With some practice, this type of thought is relatively easy to identify and filter: automatic or deliberate, factual or non-adaptive counterfactual.

This is not the case with triggers coming from the outside.

A piece of music, a word, a phrase heard by chance occurs in an *online* context, in direct contact with the world.

These sensory inputs easily pass through attentional filters — and that is a good thing: they are part of our living engagement with reality.

When such a factual input triggers pain, it can, with hindsight, become a valuable signal — even if, at first, it is experienced as an ordeal.

Pain triggered by a factual input can be understood as an **indicator of the evolution of the predictive system**, which works at depth and, by definition, in the background of consciousness.

By replaying, in *offline* mode, a factual trigger of pain initially experienced in *online* mode, the predictive system can incorporate a new experience.

With each confrontation with the trigger, the pain felt reflects the **evolution of the prediction error**: relational circuits inherited from the living bond are activated, while reality imposes an irreversible absence.

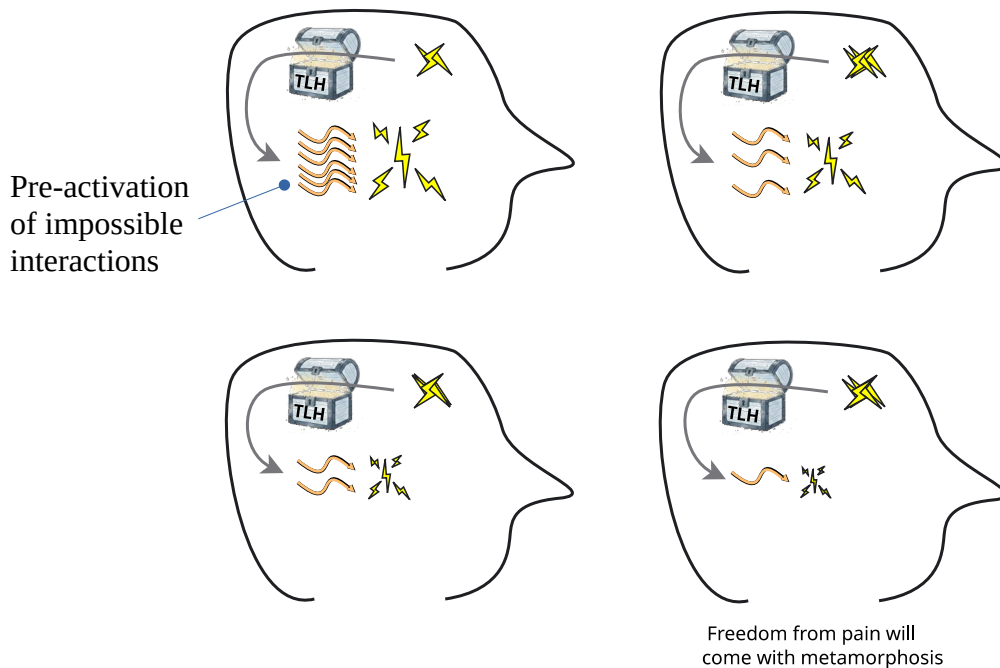


Illustration: Pain reduction through training of the predictive system

👉 This is one of the rare moments when one can indirectly observe, in real time, the adjustment work of the predictive system: with repetition, the intensity of the pain decreases.

👉 This practice of neuroplasticity can be compared to a personal *koan* in the Zen tradition: a word or image that first wounds, but which, when inhabited repeatedly, reveals reality.

Pain is no longer only a symptom, but a signal that moves through the body and teaches it.

In this sense, it becomes possible to distinguish:

- **Healing from pain**, by considering it as something foreign to oneself and to be eliminated;
- **Healing through pain**, by recognizing that it participates in the process of adaptation.

In this second movement, consciousness does not flee — it integrates.

- the TLH does not disappear; it is engaged differently,
- pain does not destroy; it informs.

What is described here is neither a method nor a necessary stage of grief.

It is a **possible additional step**, related to active accompaniment, when the inner conditions allow it (detachment, calm, trust, distance from pain...).

In all cases, the aim is less to refine one's guidance than to avoid interfering with the adjustment work of the predictive system.

The Metamorphosis of the TLH

The metamorphosis of the TLH refers to a set of changes observed through several complementary approaches drawn from affective neuroscience, grief psychology, and functional neuroimaging.

Here is how researchers have identified this shift in regulatory systems and the associated chemical recalibration.

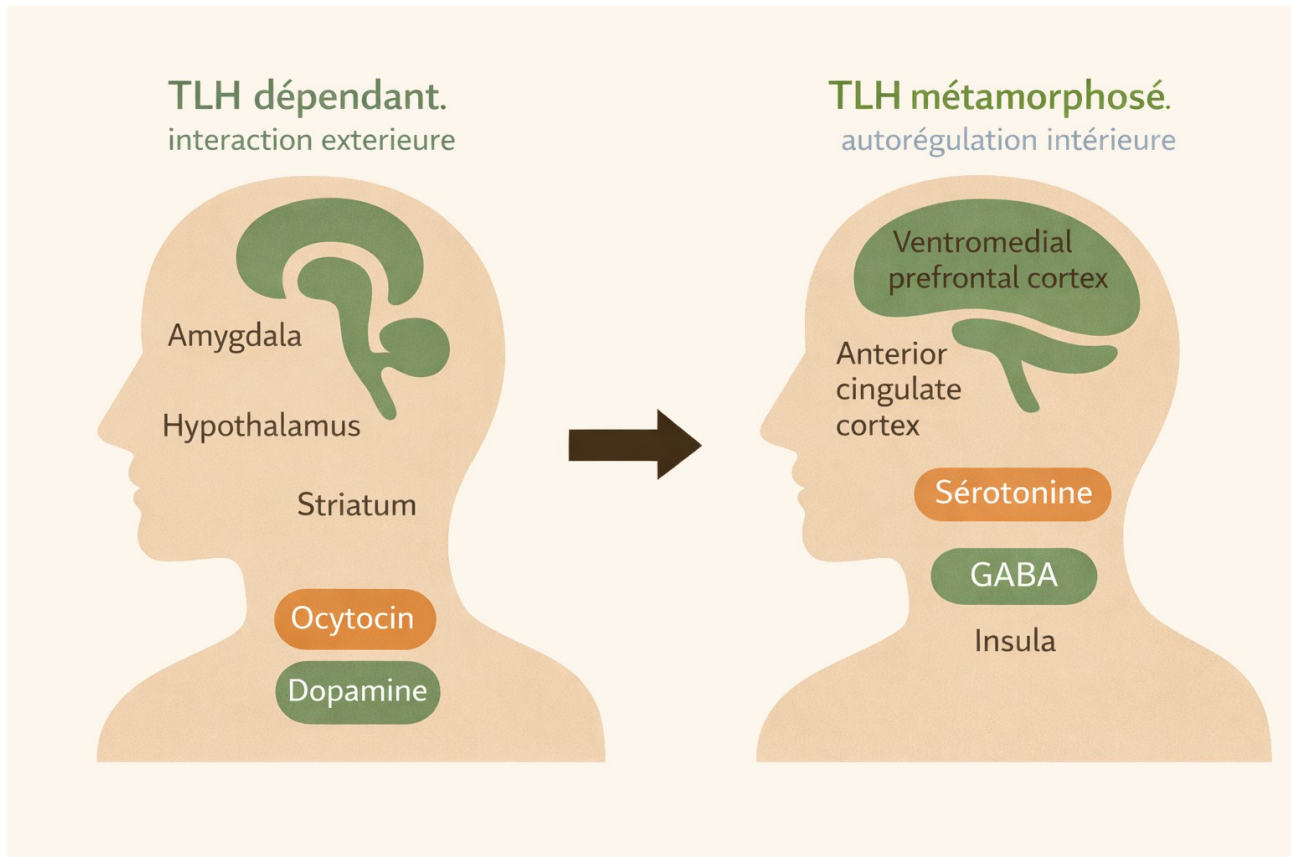


Illustration: TLH (Presence phase) → TLH (Metamorphosis phase)

1. Brain imaging (fMRI, PET scan, EEG)

Functional imaging studies have made it possible to **map brain activity** during tasks related to grief, attachment, and emotional regulation.

- **Before the loss or when recalling a living bond:**
 - activation of the **amygdala**, **ventral striatum** (nucleus accumbens), and **hypothalamus**,
 - these regions are rich in **dopamine** and **oxytocin receptors**, markers of reward and attachment circuits.

- **During the repair phase:**
 - increased activation of the **ventromedial prefrontal cortex (vmPFC)** and **anterior cingulate cortex**,
 - limbic activity (amygdala) is progressively **inhibited** by descending prefrontal connections.

These results are observed in longitudinal studies (tracking the same individuals over several months).

Reference: O’Connor et al., *NeuroImage* (2008)

2. Clinical and behavioral observations

These biological changes are accompanied by tangible modifications:

- a decrease in reflexive crying and immediate emotional reactivity,
- the emergence of a more stable affective tone,
- a shift in discourse: from “absence” toward “symbolic continuity.”

These clinical signs correlate with the neurobiological markers described above.

3. Synthesis of metamorphosis

Method	What was observed	Interpretation
fMRI / PET	Shift from limbic activity to prefrontal activity	Change in regulatory systems
Biochemical markers	Decrease in cortisol, increase in serotonin / GABA	Chemical recalibration toward soothing
Connectivity	Strengthening of prefrontal ↔ amygdala pathways	Top-down regulation (self-regulation)
Clinical	Emotional stability, introspection	Behavioral expression of recalibration

4. In summary

The transition from a relationship lived between two people to autonomous self-regulation is now an **established phenomenon**: it is observable in brain imaging, in neurochemistry, and in behavioral transformation.

The **TLH, once autonomous**, reflects an observed reality: the brain **physically and chemically restructures** itself to transform relational dependence into a lasting capacity for inner regulation.

Representation is Not Reality

A common—and understandable—confusion is to mistake the TLH for the person who has died.

This happens because the mere thought of the other person internally triggers the associated *embodied simulation*, which is then no longer in sync with reality



Illustration: “This is not a pipe” —it is a representation of a pipe which is not a pipe (Magritte, 1898–1967)

This illustration echoes René Magritte’s painting *The Two Mysteries*.

The pipe in the background can be understood as incoming sensory and perceptual data: a first representation of the model, already an abstraction (this is not a pipe).

The painting in the foreground represents the representation of that perception, filtered through the predictive system itself, produced by an invisible agent (a representation of what is not a pipe).

As in Magritte’s work, neither is “the thing” itself.

In the same way, the TLH is not the person who has died.

Confusing the representation with reality is an understandable error, one that we may accept during the first days following the loss.

However, it should remain exceptional, as it unnecessarily prolongs the time spent in the turbulent zone and feeds non-adaptive imaginary scenarios.

References

- **Gallese, V. (2005).** *Embodied Simulation: From Neurons to Phenomenal Experience*.
– Proposes that perceiving, imagining, or representing others often involves an “as-if” activation of perceptual-motor and affective systems. This helps explain how an inner representation can produce bodily and emotional effects.
- **Friston, K. (2010).** *The Free-Energy Principle: A Unified Brain Theory?* *Nature Reviews Neuroscience*.
– A foundational text presenting the brain as a system that minimizes prediction error.
- **O’Connor, M.-F. (2022).** *The Grieving Brain*. HarperOne.
– A recent synthesis of the neurobiological mechanisms of grief and the transformation of the bond.
- **Stroebe, M., & Schut, H. (1999).** *Dual Process Model of Coping with Bereavement*.
– A widely recognized model suggesting that healthy adaptation involves oscillation between loss-oriented processes (pain) and restoration-oriented processes (ongoing life), combining relearning the world with a complex transitional process.
- **CN2R (2023).** *Scientific Report: Prolonged Grief Disorder*. French National Center for Resources and Resilience (CN2R).
– The classification of prolonged grief as a mental health condition, integrated after a complex process spanning several years of research.
- **Dehaene, S. (2014).** *Consciousness and the Brain* (French edition: *Le code de la conscience*).
– An analysis of the mechanisms of human thought. The author invites the reader into his laboratory, where ingenious experiments reveal unconscious processes and uncover the biological foundations of consciousness.

Back Cover

Grief does not erase love — it changes its mode of presence.

About the book

When a loved one is gone, the pain does not come only from the absence.

It also comes from the fact that our brain continues to expect a presence that is no longer there.

Between yesterday's habits and today's reality, our inner world becomes unstable.

This book proposes to understand grief as the passage through a *Temporal Zone of Rupture Integration (ZTIR)*: a period during which the brain gradually reorganizes its relational predictions in order to integrate the reality of absence.

At the heart of this transformation remains the inner representation of the loved one, which the author calls the *Harmonious Bond Treasure (TLH)*. Far from having to disappear, this bond can evolve and find a new form.

Drawing on contemporary neuroscience as well as lived experience, this booklet offers simple reference points to understand the emotional storms of grief and to accompany the transformation of the bond.

This approach offers an **informed alternative to traditional views of grief**: preserving and then supporting the inner representation of the bond toward autonomy, rather than allowing it to be distorted by pain.

About the author

Olivier Capuozzo is a former computer science teacher and independent researcher.

Following a personal experience of grief, he began exploring the mechanisms through which the brain transforms a living relationship into a lasting inner presence.

The guidance offered here does not replace medical care or psychological support when such support is needed.