The Human Lifespan as a Closed Path

From Paths of Change to Lifespan Topology, Resonant Systems and MAZE

The concept of the human lifespan developed on Hans Konstapel's Constable.blog over more than three decades. What initially appeared to be an application of Will McWhinney's Paths of Change to life-course guidance gradually became something much more ambitious: an attempt to describe human development as a cyclic, adaptive and ultimately topological process.

The central proposition can be stated simply:

> *A human life is not a straight line from birth to death. It is a changing, self-maintaining path through a multidimensional space.*

This proposition is the thread connecting the early work on life-course guidance, the later work on life events and experiential knowledge, the application of Panarchy and fractal thinking, the development of SWARP and AYYA360, and the recent work on lifespan topology and MAZE.

1. The original question: how does change actually happen?

The intellectual starting point is not neuroscience. It is Paths of Change (PoC), the theory developed by Will McWhinney.

Konstapel encountered the work in the 1990s and subsequently spent decades exploring its implications. In his description of PoC, McWhinney identifies four fundamental worldviews through which people can approach reality and change. These four perspectives are not simply personality types. They describe different ways of relating to reality during a process of change.

The crucial concept is the word path.

A successful change is not merely a movement from one state to another. It is a complete cycle in which different perspectives become active and eventually return the system to a new version of its starting condition.

A system that moves from A to B has experienced displacement. A system that moves through a cycle and returns to itself in a transformed state has experienced change.

2. From a theory of change to a theory of life

The first major application was deceptively simple: apply the four-phase logic of change to a human life.

The document Van de Wieg tot het Graf: Over Levensloop-Begeleiding was originally written at ABN AMRO in 1993, following the appearance of Paths of Change. It was later used in discussions surrounding a proposed Centre for Vitality in the Leiden region.

The basic image is the human life course:

child -> adolescent -> adult -> older person -> child

This is not intended as a simplistic biological classification. It is a structural representation.

At birth, the human being is radically dependent on others. During childhood, autonomy develops. Adolescence introduces separation, identity formation and affiliation with peers. Adulthood brings production, responsibility, family and social participation. Later life introduces declining physical autonomy and an increasing dependence on others.

The end of the cycle therefore resembles its beginning.

But the older person is not simply a biological repetition of the infant. The cycle has accumulated experience, knowledge and relationships. The system has returned to a structurally similar position while being fundamentally different.

That is precisely what makes it a cycle of change rather than a circle.

3. Life-course guidance

The practical consequence of this model was the idea of lifelong guidance.

Traditional social systems tend to divide human problems into institutions: education, employment, healthcare, welfare, retirement and social care. The individual has to move between these institutional compartments.

The life-course model proposes the opposite direction: start with the person.

Then ask: Where is this person in the life cycle? What transition are they experiencing? What capabilities are developing? What relationships are changing? Which life events have disrupted the previous equilibrium? And what kind of support is appropriate at this particular point?

The original life-course document therefore envisioned a coordinated support environment rather than a collection of isolated interventions.

This is an important conceptual shift. A problem is no longer treated as an isolated event. It becomes a perturbation of a life trajectory.

4. Life events turn the abstract cycle into an individual history

The next major development concerns the difference between a generic life cycle and an actual human life.

No two lives follow the same trajectory.

People encounter divorce, illness, migration, unemployment, relationships, children, death, accidents, success, failure, discovery and loss. Some events are minor. Others reorganise the entire trajectory.

Konstapel's work on experiential knowledge makes this explicit.

In the proposed method, the individual's life course is represented on a timeline and significant Life Events are placed upon it. The Holmes Life Event Scale can be used to identify events likely to have substantial psychological impact. After such events, the subsequent process can be examined using the Kübler-Ross pattern.

The resulting life history can be represented metaphorically as a wave containing peaks.

This produces a second layer of the model: the structural life cycle plus the individual event history.

5. From life stages to nested cycles

The next conceptual step is the introduction of adaptive-cycle and Panarchy thinking.

Here the human life is no longer regarded as a single cycle.

Instead, cycles exist inside cycles.

A child develops physically, cognitively and socially through many overlapping developmental cycles. A family has its own cycles. An organisation has cycles. A community has cycles. Societies and ecosystems have still larger cycles.

The same structural principle can therefore appear at different scales.

This is where the concept of the fractal becomes important.

A fractal does not mean that every scale is identical. It means that structural relationships can recur across scales.

Consequently, the human lifespan becomes one manifestation of a more general property of adaptive systems.

A human being is simultaneously an organism, a personality, a member of a family, a participant in organisations, a citizen and a component of an ecosystem.

Each level has its own dynamics, but the levels interact.

6. The fourfold structure

The persistence of four elements in Konstapel's work is not accidental.

PoC describes four worldviews. Later formulations describe four fundamental ways of relating to reality. The lifespan topology work subsequently identifies four major turning points.

The fourfold structure therefore moves from being a model of perspective to becoming a hypothesis about system architecture.

Initially, the four elements belong to human interpretation. Later, they become part of a theory of change. Eventually, they become candidates for structural coordinates of a system.

The 2026 work makes this explicit by asking whether the human lifespan can be represented as a path through a four-position structure.

7. The empirical challenge: lifespan connectomics

The most important recent development is the confrontation of this theoretical structure with empirical neuroscience.

A large lifespan connectome study analysed structural brain networks from 4,216 individuals aged approximately 0-90 years. Graph-theoretical measures were used to characterise integration, segregation and centrality, and manifold-learning techniques were used to represent the trajectory of brain topology across age.

The striking result is that the trajectory is not simply smooth.

Four major turning points appear around:

9 years 32 years 66 years 83 years

These divide the lifespan into five broad topological epochs: 0-9, 9-32, 32-66, 66-83 and 83-90.

The exact values and their interpretation require care, but the general observation is highly relevant to the lifespan model: the organisation of the brain changes non-linearly.

8. The four turning points as structural transitions

Konstapel's 2026 interpretation goes further.

The four empirical turning points are treated as possible structural bends in the lifespan trajectory.

A stage says: you are now in period X.

A turning point says: the rules governing the trajectory have changed.

The lifespan can therefore be represented as a path containing structural bends rather than as a sequence of age categories.

9. The apparent paradox of maturity

This produces an interesting interpretation of adulthood.

The period between approximately 32 and 66 appears comparatively stable in the connectome trajectory.

This does not mean that people stop changing. People continue to learn, form relationships, change occupations, raise children, create institutions and acquire knowledge. But the underlying structural topology may change more slowly.

The system has entered a regime in which it can operate for a prolonged period without requiring fundamental reorganisation.

This suggests a distinction between functional change and structural change.

10. Ageing as structural drift

The traditional conception of ageing is often expressed as decline.

The newer model is more subtle.

Ageing can be understood as structural drift.

A system continues to operate while its internal topology gradually changes.

Integration may decline while segregation and local redundancy increase. In engineering terms, this could be interpreted as a shift from flexibility toward robustness.

The question therefore becomes: What balance between integration and segregation allows a system to remain viable at a particular stage of its life?

11. The brain as a living resonant system

In The LifeSpan of a Resonant System, Konstapel explicitly connects the lifespan topology findings with a proposed theory of resonant computing.

The brain can be treated as a physical system in which multiple scales interact: microcircuits, mesoscopic modules, large-scale networks and whole-brain dynamics.

Integration describes the capacity to coordinate across the system. Segregation describes the ability of subsystems to maintain specialised local structure. Centrality describes the role of particular nodes or modules in coordinating the network.

From this perspective, the lifespan is a controlled movement through different regimes of coherence.

12. Exploration and exploitation

This interpretation connects naturally with a classic problem in adaptive systems: exploration versus exploitation.

A young system benefits from exploration. It must discover possibilities, form connections, test behaviours and establish a stable model of the world.

A mature system benefits from exploitation. It has accumulated knowledge and can rely on established structures.

Later in life, maintaining functional coherence may become more important than continually expanding the global network.

The lifespan could therefore represent a sequence of changing optimisation regimes.

13. The lifespan as a dynamical system

At this point, the concept of lifespan has changed fundamentally.

It is no longer simply birth -> childhood -> adulthood -> old age -> death.

Instead, it becomes:

initial condition -> transformation -> stabilisation -> structural drift -> closure -> new cycle

This is much closer to the language of dynamical systems.

A state is defined not only by its current properties but by its trajectory.

Two people can have similar states at one moment while having completely different trajectories.

Consequently, the trajectory contains information that a static profile cannot capture.

14. AYYA360 and the computational life course

The development of SWARP and related applications introduces another layer: operationalisation.

A theory of lifespan becomes useful only if it can eventually be represented computationally.

The broader AYYA/SWARP work extends this logic to individual development.

The intention is to combine personal characteristics, developmental phases, life goals, professional orientation, resilience and energy into an integrated profile.

The significance of this development is not the software itself. It is the assumption behind it:

a life course can be represented as structured information without reducing the person to a static data record.

A computational lifespan model must therefore represent both state and trajectory.

15. From profile to path

This leads directly to MAZE.

The latest development is not primarily another personality profile. It is a representation of paths.

The MAZE prototype describes a network of addresses and routes. Its design deliberately avoids a conventional database, index and search engine. Instead, relations such as proximity, opposition and scale are calculated from the structure of the network itself.

This is a conceptual continuation of the lifespan work.

If a life is a path through a structured space, then the important information is not necessarily the content stored at each location.

The important information may be where the path is, where it came from, what lies nearby, what lies opposite, and how the path changes scale.

The life story becomes geometrical.

16. The address of a life

A conventional biography describes a person through events.

A topological representation asks different questions:

What structural position did the person occupy? Which transition followed? Which direction did the trajectory take? Which alternative routes were available? Which patterns recur? Where are the turning points?

The resulting representation can be called an address of the lifespan.

An address does not contain the whole story. It tells us where the system is located within a larger structure.

17. The 24 possible paths

The 2026 lifespan-topology article takes the argument one step further by considering paths through four structural positions.

If a successful path has to close, then the number and arrangement of possible routes becomes mathematically interesting.

With four positions, different closed permutations can be generated. Konstapel identifies twenty-four possible paths and three basic rounds associated with different choices of opposite pairs.

This is not yet a validated psychological taxonomy.

The value of the proposal at this stage is that it converts a vague metaphor - people go through phases - into a formal question:

What are the possible trajectories through a four-dimensional relational structure?

18. The two unresolved degrees of freedom

The most interesting aspect of the latest work may actually be what it does not claim.

The empirical turning points are approximately 9, 32, 66 and 83.

But their intervals are approximately 23 years, 34 years and 17 years.

These intervals do not yet map cleanly onto the theoretical periodicities Konstapel is investigating.

A second unresolved issue is whether the turning points occur at precisely the same ages for everyone.

The connectome study is fundamentally a population-level analysis. A population average does not necessarily describe an individual's trajectory.

The individual turning point could occur earlier or later.

If that proves to be true, the lifespan model becomes substantially more interesting: the four turns would become structural events whose timing varies between individuals.

19. The lifespan as a closed flow

The most recent theoretical formulation describes the human lifespan as a slow structural drift of a throughflow closure.

Throughflow emphasises that life is not a static structure. Energy, information, matter, attention and relationships continually pass through the system.

Closure emphasises that the system must maintain some form of self-reference or circularity if it is to remain coherent.

Structural drift acknowledges that the system does not remain unchanged.

It slowly reorganises itself.

The lifespan is therefore neither static nor chaotic. It is a constrained trajectory. The human being maintains continuity while changing structure.

20. From the individual to society

Once this framework is accepted, its application cannot stop at the individual.

The same logic can be applied to organisations.

An organisation is born, explores, establishes routines, becomes mature, loses flexibility and eventually either renews itself or disappears.

Families do something similar. Cities do. Technologies do. Civilisations do.

This returns the lifespan theory to its original roots in Paths of Change.

The human lifespan is not an isolated special case. It is one example of a more general pattern of adaptive systems that maintain coherence through transformation.

21. A new interpretation of death

This perspective also changes the meaning of the end of life.

In a linear model, death is the termination of the trajectory.

In a cyclic model, death is simultaneously termination and transition.

The individual's physical system ceases to maintain itself, but information, relationships, institutions, genes, culture and accumulated knowledge continue through other systems.

The child at the beginning of the cycle and the older person at the end occupy structurally related positions.

The individual closes. The larger system continues.

22. Why the model matters

The value of the lifespan model is not that it produces another classification of human development.

Its distinctive proposition is that development should be understood as movement through a structured space.

This changes the central question.

Instead of asking: What stage is this person in?

we ask: Where is this person in the trajectory?

Instead of asking: What is wrong?

we ask: What changed in the system?

Instead of asking: What should happen next?

we ask: What routes remain structurally possible?

And instead of treating ageing as simple decline, we ask: How does the system reorganise its balance between integration, segregation, flexibility and robustness?

23. From biography to topology

The development on Constable.blog can therefore be understood as a sequence of transformations.

change -> cycle

cycle -> lifespan

lifespan -> life events

life cycle -> nested cycles

nested cycles -> adaptive system

adaptive system -> computational profile

profile -> trajectory

trajectory -> topology

This is the conceptual history of the lifespan project.

The human being is gradually transformed from a subject who has a biography into a dynamic system that moves through a space of possibilities.

24. What remains to be demonstrated

The theory is ambitious, but ambition should not be confused with validation.

Several propositions remain empirical questions.

First, the four connectome turning points need to be replicated across datasets, populations and analytical methods.

Second, it must be established whether the turning points are genuinely individual developmental events or population-level statistical transitions.

Third, the proposed fourfold topology needs to generate predictions that can be tested independently of the theory itself.

Fourth, the mathematical relationship between the observed age intervals and the proposed periodic structures needs to be demonstrated rather than inferred.

Fifth, the connection between brain topology and broader human life-course transitions must be established empirically. A change in connectome topology does not automatically imply a corresponding psychological or social transition.

These questions define the next stage of the research programme.

25. Conclusion: the life as a path that returns

The deepest idea emerging from the work is remarkably simple.

> *A life is not a line.*
>
> *It is a path.*

The path moves through different regimes of organisation. It encounters turning points. It accumulates history. It changes its internal structure while maintaining continuity. It exists within larger cycles and contains smaller cycles within itself.

> *The human lifespan therefore resembles neither a straight road nor a perfect circle.*

It is closer to a spiral.

The system returns to structurally related positions without ever returning to exactly the same state.

Childhood becomes old age, but old age is not childhood repeated.

The same principle operates at other scales. Organisations, communities and societies can return to structurally similar conditions while carrying accumulated experience.

This is where the early Paths of Change model and the latest lifespan-topology work meet.

The original question was how change succeeds.

The emerging answer is:

> *Change succeeds when movement becomes a path, when the path closes, and when closure permits the system to continue changing without losing its identity.*

The human lifespan is perhaps the most complex example of such a process that we can observe directly.

The recent connectome findings provide an empirical reason to take the idea seriously: the brain's structural trajectory is not smooth but contains identifiable turning points.

The theoretical work proposes that these turning points may be manifestations of a deeper topology of human development.

MAZE then represents the next logical question.

If a life is a path through a structured space, can that path be given an address?

And if it can, perhaps the ultimate purpose of lifespan modelling is not to predict what a person will become.

It is to understand where a person is, how they arrived there, which paths remain possible, and how the system can continue to move without losing coherence.

That would transform life-course guidance from a system of intervention into a science of trajectories.

And it would return the concept of the lifespan to its original meaning:

> *not a timetable of biological ages,*
>
> *but a living path of change.*

Sources

Constable.blog, Van de Wieg tot het Graf: Over Levensloop-Begeleiding (2018). Constable.blog, Paths of Change documentation. Constable.blog, Hoe Verzamel je Praktijk-Ervaring? (2024). Constable.blog, The LifeSpan of a Resonant System (2025). Constable.blog, The Spiral of the Lifespan Topology, Paths of Change and the Two Missing Degrees of Freedom (2026). Constable.blog, MAZE (2026).