

The Closure Complex

Drift, ρ/δ separation and the toll station as one structure — from the history of closure through the theory and its applications to relational ethics

Thomas Schüller

19 October 2026

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Preface

This book brings together what so far existed as thirteen works (FORSCH-0050 to 0195), a full version and eleven follow-up works. It can be read on its own: readers who have never seen the individual works will find the line of thought from the beginning.

The basic thesis is short. Three descriptions that first arose separately describe **one** structure: **drift loss** (ontological: those who lose the option to move away or to change), the **p/δ separation** (operative: whoever bears the risk does not control) and the **toll station** $M = B \cdot L$ (instrumental: a bottleneck where a price is charged for passing). Together they form the **Closure Complex**.

How the book is built. Chapter 1 lays the foundations: the arc of the works, the red thread and a history of closure. Chapter 2 contains the integrating theory. Chapter 4 applies it to the AI supply chain, pharmaceutical value creation and further industries. Chapter 14 treats dynamics and regulation: repeated games, coalitions and the architecture of countermeasures. the appendix “Worked-out follow-ups” leads the theory into a relational ethics. Chapter 16 is the examination: self-critique, a map of the corpus, limits.

What the book is not. It is not a measurement report. The toll-station heights are a **heuristic** with market-empirical grounding; they say something about the ranking of bottlenecks, not about their exact size. The relation between the three descriptions is a **structural analogy**, not an isomorphism. The historical theory (Chapter 3) is derived from the existing corpus and framed as a hypothesis, not tested against primary sources. Each chapter keeps its own status; it is summarised in the appendix “Method and status” and in Chapter 16.

On the origin of the chapters. Each chapter goes back to a work of the corpus; the index of works in the appendix gives the correspondences. Cross-references of the individual works have been converted to chapter numbers. Sources are collected per chapter in the appendix. Page-level citations are not yet consistently supplied there; this is named as an open point in Chapter 16.

Vienna, 19 October 2026

Thomas Schüller

Reader's guide

If you want to know ...	... read
the core idea in ten minutes	Preface, Chapters 4.1–4.3, Conclusion
where the idea comes from	Chapters 1–3
whether the theory holds empirically	Chapters 5–7, then 14
how countermeasures can be built	Chapters 8–10
what follows ethically	Chapters 11–13
where the weaknesses lie	Chapters 14 and 16

Part I — Foundations

1 The Arc

1.1 The line in one sentence

From spiral geometry through the political anthropology of sedentariness to the structural theory of protection racketeering, from there to the AI-specific application of 2026, and finally to the general structural ethics of multi-tier hierarchies — thirteen volumes, three thematic clusters, one continuous analytical arc of about 92,000 words (roughly 76,500 German, 15,500 English).

1.2 Phase 1 — Theoretical foundation (cluster *Sequence May 2026*)

The sequence began on 26 May 2026 and was complete by the morning of 9 June 2026: six volumes, about 44,400 words, cluster Werkstattlinie v1.2.

FORSCH-0050 *Spiral versus Cycle* (~10,000 words) is the natural-science beginning. From thermodynamics (Second Law, Prigogine), biology (evolution, plasticity), mathematics (Fibonacci, logarithmic spiral, Lorenz attractor) and philosophy (Hegel, Vico, Nietzsche, Deleuze 1968 *Différence et répétition*, Gadamer, Freud), the thesis is developed: the cycle is a cultural image, the spiral is structurally more precise — it grasps *recurrence and difference at once*.

FORSCH-0051 *Sedentariness, Border, Spiral* (~8,700 words) translates the geometric argument into a political anthropology: the spiral course of the history of sedentariness (Neolithic → city-state → empire → nation-state), the border as structural form, the “dog in the corner” as an ethological-political image of movement closure. Sources: Sahlins, Clastres, Scott, Graeber-Wengrow, Deleuze/Guattari 1980.

FORSCH-0052 *The Perfect Protection Racket* (~9,700 words) delivers the structural end-form: the first definition of the perfect protection racket as a constellation — as the “end-form of the closed space,” in which the referee is not bought but the referee position itself is empty.

FORSCH-0053 *Game Theory of the Three Options* (~5,500 words) gives the formal definition: four conditions for the perfect protection racket; three pure strategies for the affected actor (pay, play along, do not pay) — all loss-bearing. Sources: Axelrod, Schelling, Hart-Moore.

FORSCH-0054 *The Mafia Threshold, Empirically* (~5,500 words) validates empirically against four cases (HSBC, Purdue/Sackler, Tobacco MSA, Panama Papers) and introduces the threshold scaling: $S = w_1G + w_2K + w_3V + w_4D + w_5T + w_6N$.

FORSCH-0055 *Digital Protection Racketeering* (~5,000 words) shows the platform economy as a structural optimum: the most efficient form of the constellation ever developed, because digital architectures produce the structural binding that the physical world denied.

Phase 1 point: protection racketeering as a perfect structural end-form — precisely defined, empirically validated, optimized in platform mode.

1.3 Phase 2 — AI-specific application (cluster *AI*)

Follow-on cluster, completed midday to afternoon of 9 June 2026: four volumes, about 17,800 words, Werkstattlinie v2.0.

FORSCH-0189 *AI-specific Protection Racketeering* (~4,500 words) identifies six lock-in mechanisms (prompt, custom-tuning, agent framework/MCP, compute, embedding, capability), three intensifications relative to 0055, and five resolution levers.

FORSCH-0190 *Comparative AI Regulation 2026* (~4,600 words) examines six jurisdictions (EU AI Act; USA Trump EO 14179 plus Stargate \$500 bn; China CSL amendment; Japan AI Promotion Act 2025; South Korea AI Framework Act; UK DMCC). None addresses the structural constellation systematically.

FORSCH-0191 *Quantitative Threshold Calibration AI* (~4,400 words) applies the S function from 0054 to AI providers: all reach $S > 9$ — systematically above HSBC (7.83), Purdue (6.50), Tobacco (8.00).

FORSCH-0192 *Ethics of the Complicity Strategy m* (~4,250 words) develops six forms of strategy m (M1-M6) and draws on four classical references (Arendt 1963, Bauman 1989, Young 2011, Walzer 1973). This work is the only point in the arc where the $\rho/6$ Master Theory (0083) is already explicitly referenced in the original — the bridge between arc and parallel line.

Phase 2 point: the AI industry of 2026 is *closer* to perfect protection racketeering than the industries documented in Phase 1 — yet the regulatory response is absent in all six jurisdictions.

1.4 Phase 3 — General structural ethics (cluster *Structural Ethics of Multi-Tier Hierarchies*)

Completed in the evening and night of 9 June 2026: three volumes, bilingual DE+EN, about 14,300 German and 15,500 English words, in main-work architecture (one central work plus two single volumes).

FORSCH-0193 *Multi-Tier Hierarchies and Relational Ethics* is the cluster's synthesis main work (~4,070 DE / ~4,470 EN). It formulates the interlocking thesis: multi-tier protection-racket constellations call for relational ethics for *structural*, not contingent, reasons.

FORSCH-0194 *Multi-Party Game Theory of Vertical Nesting* (~4,650 DE / ~5,100 EN) extends the actor model from 0053 to k tiers (k-tier Stackelberg) and the four conditions by a fifth: *propagated extortion*.

FORSCH-0195 *Relational Complicity Ethics* (~5,600 DE / ~5,960 EN) opens up three non-Western relational traditions — Confucian (Wang Yangming, *zhi xing he yi*), Buddhist (*paticca-samuppada*, Macy, mutual causality) and ubuntu (*umuntu ngumuntu ngabantu*, Tutu, Metz) — and connects them with Iris Marion Young's social connection model.

Phase 3 point: whoever seriously wants to address multi-tier protection racketeering — for instance in the AI industry of 2026 — can no longer remain conceptually at the primacy of the subject.

1.5 The substantive core chain

Each volume builds substantively on the previous one, not merely chronologically:

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0050 (spiral)
→ 0051 (anthropology)
→ 0052 (protection racket)
→ 0053 (game theory: 4 conditions)
→ 0054 (empirics: S function)
→ 0055 (digital)
→ 0189 (AI-specific: 6 lock-ins)
→ 0190 (regulation: 6 jurisdictions)
→ 0191 (quantification:  $S > 9$  for AI)
→ 0192 (complicity: M1-M6)
→ 0194 (k-tier Stackelberg)
+ 0195 (relational ethics)
→ 0193 (MAIN WORK: interlocking thesis)
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Over roughly thirteen days of production, the Werkstattlinie sharpened from v1.2 to v2.0 (from 28 to 36 rules), the source discipline from a T1/T2 standard to a DOI/publisher requirement, the accompanying-file set from README-only to the full set, and the cluster model from a linear sequence to main-work architecture.

2 The Red Thread: Drift Ontology

2.1 One structural principle, declined thirteenfold

The continuous red thread is **one** structural principle: *drift versus closure*. It is played out across thirteen volumes at a different level each time — geometric, anthropological, social-philosophical, game-theoretic, empirical, digital, AI-specific, regulatory, quantitative, individual-ethical, formal-hierarchical, traditional-relational, and finally synthetic.

Volume	Level	Drift vs. closure
0050	geometric/ontological	spiral (drift) vs. circle (closure)
0051	political-anthropological	open movement space vs. closed border
0052	social-philosophical	evasion options vs. perfect closed space
0053	game-theoretic	strategy drift vs. three loss-bearing options
0054	empirical	criminal prosecutability vs. threshold constellation
0055	digital	provider switch vs. platform lock-in
0189	AI-specific	model switch vs. six lock-in mechanisms
0190	regulatory	referee plurality vs. systematic vacancy
0191	quantitative	negotiable threshold vs. $S > 9$ for all AI providers
0192	individual-ethical	individual responsibility drift vs. structural complicity
0194	formal-hierarchical	horizontal tier switch vs. multi-tier nesting
0195	traditional-relational	subject-centered ethics vs. relational apparatuses
0193	synthetic	drift loss at every level as common form

The drift property — the possibility of evading a closed constellation — is at every level what is systematically withdrawn. What is lost has a different name in each volume (movement space, referee, choice option, switching possibility, prosecutability, responsibility-addressability, tier drift, subject exit), but it is everywhere the same phenomenon: the structural closure of the drift option.

2.2 Anchored textually, not merely chronologically

The connection is explicit in the material. FORSCH-0051 calls the closed border topologically a circle and thus “the geometric figure that was identified in FORSCH-0050 as structurally deficient for living, drifting phenomena.” FORSCH-0052 calls the perfect protection racket “the end-form of the closed space (FORSCH-0051).” FORSCH-0055 describes the platform economy as a “structural optimum” of protection-racket logic. In the final cluster the cross-references are dense: 0193–0194 (16 mentions), 0193–0195 (14), 0195–0194 (12), 0194–0195 (4). This is not loose thematic neighborhood but tightly networked argumentation.

2.3 Precision: one strand ontologically, two methodologically

Here is the most important precision the critical audit demands, and which holds in this full edition from the outset:

Ontologically the arc is a single strand — the drift ontology runs through all thirteen works.

Methodologically and source-traditionally they are two strands with a common endpoint. Cluster 1+2 (the protection-racket arc, 0050–0192) is rooted in Schelling, Hart-Moore, Axelrod, Tilly, Khan, Zuboff. Cluster 3 (relational ethics, 0193–0195) is rooted in Young, Macy, Mbiti, Tutu, Metz, Wang Yangming. The fusion of the two strands occurs only in Cluster 3.

Whoever sees the full red thread looks at the ontological level. Whoever sees methodological breaks looks at the source traditions. Both views are correct. Splitting into two separate lines would nonetheless be a loss: it would give up the ontological foundation (0050 explains *why* closure is structurally deficient), the bridging function of the political anthropology (0051), and the explicit self-reference of the works. The methodological variety is not a contradiction to the one principle but its consequence: a genuine structural principle *must* meet a matching method when tested at different levels. A uniform methodology across all thirteen volumes would be more an indication that genuinely different levels are not being captured.

3 History of the Closure Complex

Four forms of closure and how they connect

3.1 Chapter overview

FORSCH-0051 describes the closure of movement space as a political, not naturally occurring act: border, property, administration and registration take away the participants' option to move away. The main work describes the same structure as the closure complex, with the toll station as its instrumental form. This work asks how the two connect historically. It distinguishes **four forms of closure** — space (outer border), property (inner border), registration (legibility to administration) and toll station (bottleneck with a price) — and reads them as a **typological series, not a sequence of stages**. The series shares one quantity: **exit costs** (Hirschman 1970). The height of the toll station, more precisely its factor L , is in this reading a measure of exit costs; that is a structural analogy, not an identity. The work states three testable implications and names what it does not claim: no linear history of decline, no equation of sedentariness and closure, no statement about causes in individual cases.

Keywords: closure complex, exit costs, border, property, registration, toll station, political anthropology, spiral.

3.2 Question

FORSCH-0051 shows that conflicts are resolved by moving away where movement space is open, and tip into aggression, rigidity or submission where it is closed. According to FORSCH-0051 closure is neither naturally occurring nor irreversible. The main work shows the same structure in present-day supply chains (AI, pharma, finance, construction, food). The connection remained open: is it the same phenomenon on different levels, or merely a verbal resemblance? This work examines the first possibility.

3.3 Four forms of closure

Form	What is closed	Example in the corpus	Exit costs arise from
Space	movement across the outer border	wall, passport, border regime (FORSCH-0051, 3.2)	prohibition or risk of leaving
Property	movement within the border	land ownership, fence, yard (FORSCH-0051, 3.3)	price of residence and access
Registration	unobserved evasion	registers, tax lists, standardization (Scott 1998)	loss of invisibility; being findable again
Toll station	access to a desirable "inside"	patent, platform, hardware bottleneck (MAUTFORM, Chapter 5)	switching costs, legal protection, network effect

Two observations. *First*, the forms act on the same quantity: they raise what a participant must give up when moving away. *Second*, the fourth form is not a novelty of the present but the form in which closure expresses its outward effect economically: where a border is no longer visible as a wall, it remains effective as a price. The double function of the border (protection and confinement, FORSCH-0051, 3.2) recurs in the toll station: it protects the "inside" and at the same time holds those inside.

3.4 Connection to $M = B \cdot L$