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Autopoiesis and the Limits of Closure in International Law: Interpretation, Social Practice, and the Temporal Life of Legal Meaning

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Abstract
This article re-examines the claim that international law is an autopoietic legal system. Autopoiesis remains attractive because it explains how a legal order may preserve a distinct identity through self-reference, recursive norm production, and operational closure in the absence of a central legislator, compulsory jurisdiction, or unified enforcement. Yet the theory, even in its most sophisticated recent applications to international law, explains the reproduction of legal *argument* far better than the stabilisation of legal *meaning*. Engaging systems theory at its strongest point, Luhmann's account of structural coupling and cognitive openness, the article argues that coupling explains how law is irritated by its environment, but not how semantic authority is accumulated, contested, and redistributed across dispersed interpretive communities. The article therefore proposes a model of *graduated closure*: international law exhibits strong operational closure, weak and regime-relative semantic closure, and a distinctive temporal closure managed through disciplined reapplication. The model is developed against three interlocutors, the autopoietic account of international law recently renewed by Kang, the structural-indeterminacy thesis associated with Koskenniemi, and the interpretive-practice account associated with Venzke, and is given observable indicia drawn from anthropological, semiotic, and temporal analysis of doctrinal practice. International law emerges as a partially autonomous interpretive order: real in its autonomy, relative in its closure, and dependent for its continuity on the social, semiotic, and temporal processes through which legal meaning is stabilised, contested, and renewed.

Keywords Autopoiesis · Graduated closure · Semantic authority · International law · Legal semiotics · Temporality

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1 Introduction

International law is repeatedly described in two unsatisfactory ways. In one register it appears as little more than a vocabulary of justification: a language through which states, courts, and institutions rationalise outcomes reached for strategic reasons elsewhere. In another it is presented as a coherent normative order capable of structuring conduct, disciplining power, and generating stable expectations of legality across a fragmented global field. The dilemma is not new, and it has a canonical formulation. Koskenniemi showed that international legal argument is structurally suspended between the demand for concreteness, which threatens to collapse law into an apology for state conduct, and the demand for normativity, which threatens to detach it into utopia; the discipline's distinctive 'grammar' is the technique by which lawyers manage that double bind without ever escaping it.[1] Any renewed account of international law's autonomy must begin from that diagnosis rather than behind it. The question this article asks is accordingly not whether international law is 'really law', but what kind of legality it exhibits once one accepts both that its argumentative structure is genuinely constraining and that its semantic content is genuinely unsettled.

It is at this point that autopoiesis has seemed attractive to international legal theory. By conceptualising law as a self-referential and recursively reproducing system of communications, autopoietic theory offers an account of how legal order may preserve a distinct identity under conditions of institutional dispersion, weak hierarchy, and incomplete enforcement [13, p. 335; 41, pp. 76–105; 66, pp. 11, 32]. That promise matters in a field which has long had to explain how a legal order lacking a central legislator and general compulsory adjudication can nevertheless display continuity, professional memory, and a recognisable argumentative grammar. Nor is the appeal merely historical. Kang has recently renewed the autopoietic description of international law in explicitly Luhmannian terms, arguing that the international legal system neither resolves nor suppresses the paradoxes of sovereign disagreement but institutionalises them, makes them invisible, by converting political conflict into 'technical legal problems about right and wrong' [30, pp. 317, 326]. On that account, the persistence of international law requires no theory of shared meaning at all: it requires only that legal communications keep connecting to legal communications.

This article argues that the autopoietic account, in both its classical and its renewed forms, is valuable but incomplete, and that the point at which it becomes incomplete can now be stated with more precision than the familiar observation that law is 'open' or 'contested'. The theory explains the reproduction of legal argument far more successfully than the stabilisation of legal meaning. International law returns disputes to law with remarkable regularity; it does not, with equal regularity, settle what the law that governs them means. The same treaty formula sustains opposed lines of authority; the same concept travels across regimes with only partial semantic continuity; the same court invokes continuity while disclaiming precedent. These are not peripheral

[1] 'A law which would lack distance from State behaviour, will or interest would amount to a non-normative apology, a mere sociological description. A law which would base itself on principles which are unrelated to State behaviour, will or interest would seem utopian, incapable of demonstrating its own content in any reliable way': [34, p. 17]. On the grammar of competence, [34, pp. 9, 563–589].

complications that a theory of closure may bracket. They mark the precise location at which systemic self-reference must be supplemented by an account of interpretation, social uptake, and temporally situated semantic change.

Three bodies of scholarship already occupy this terrain, and the article's contribution must be measured against each. First, within systems theory itself, Luhmann did not ignore law's environment: the concepts of cognitive openness and structural coupling are his answer to the objection that closure cannot explain social responsiveness [4, pp. 1992–2003; 41, pp. 381–422]. Section 1 takes that answer seriously and Sect. 2 explains why it does not reach the semantic problem: coupling accounts for how law is *irritated* by politics and economics, not for how dispersed interpreters come to treat one construction of a shared formula as more authoritative than another. Secondly, the critical tradition has drawn from indeterminacy the conclusion that outcomes are governed by 'structural bias' rather than by law's semantics [33; 34, pp. 590–615]. The present argument accepts the structural character of indeterminacy but resists the inference that semantic stabilisation is therefore epiphenomenal: patterned stabilisation is real, observable, and in need of explanation, not explanation away. Thirdly, interpretation scholarship has shown that legal meaning is made in practice, through the accumulation of what Venzke calls semantic authority and through the disciplining force of interpretive communities [8, 29, 72]. What that scholarship has not supplied, and what systems theory, suitably chastened, can, is an account of *why* the field's argumentative forms remain so stable while its meanings migrate, and of how the two levels interact over time.

The article's claim, stated compactly, is that international law exhibits *graduated closure*. Its closure is strong at the operational level: what counts as a legal argument, a legal source, a legal institution is reproduced recursively and polices the boundary between legal and non-legal communication. Its closure is weak and regime-relative at the semantic level: the operative content of shared formulae is stabilised, where it is stabilised at all, by socially and institutionally concentrated practices of interpretation rather than by the system's coding. Moreover, it possesses a distinctive *temporal* closure: inherited concepts are held recognisable across time not by semantic immobility but by disciplined reapplication, in which the distinction between faithful specification and rupture is itself a juridical achievement. Each grade of closure has observable indicia, set out in Sect. 5, which allow the model to be confronted with doctrinal practice rather than merely asserted. The result is a description of international law as a partially autonomous interpretive order, a formulation that preserves what is strongest in autopoietic theory while locating precisely what it cannot do.

Because this argument concerns the production and circulation of legal meaning, its natural disciplinary allies are semiotics, legal anthropology, and the theory of interpretation, and the article draws on each in a manner intended to be explanatory rather than ornamental. Semiotics supplies the distinction between a shared *langue* and a dispersed *parole* through which the investment-law material in Sect. 2 is analysed [71]; anthropology supplies the account of uptake, ritual, and justificatory burden through which Sect. 3 explains how norms remain socially compulsory where sanction is thin; and the hermeneutics of temporality organises Sect. 4's account of semantic change. The article thereby also speaks to the concerns of this special issue: to the tensions and interconnections through which legal orders hold contestation

within form [77], and to the Ricoeurian insight that law mediates conflict by giving it a form in which reasons, categories, and institutional distance matter [35, 55, pp. 127–144].

The argument proceeds in five sections. Section 1 reconstructs the autopoietic account of legal autonomy at its strongest, including structural coupling and its most sophisticated recent application to international law. Section 2 identifies the limits of closure: the system stabilises legal argument far more reliably than it fixes legal meaning, and neither coupling nor structural bias explains the difference. Section 3 turns to the social and semiotic life of norms, showing how uptake, symbolic legitimacy, and concentrated sites of interpretive repetition confer the stability that coding cannot supply. Section 4 addresses time and semantic change, treating the reapplication of standing concepts, due diligence above all, as the mechanism through which a partially autonomous order both conserves and revises itself. Section 5 draws the strands into the model of graduated closure and specifies its indicia. The Conclusion restates the central claim: international law is held together not because meaning is closed, but because contestation over meaning is channelled through recurrent legal forms.

The doctrinal material assembled below is selected on a single principle: the article proceeds not by compiling a representative sample of regimes or decisions but by close analysis of a small number of critical, most-revealing cases, each chosen because it subjects a distinct element of the graduated-closure model to the conditions least favourable to it or most apt to expose its workings. Investment law is taken as the hardest case for semantic closure: a shared langue of treaty formulae and open-textured standards is dispersed across the widest available field of parole [71], an open and still-growing set of separately constituted, ad hoc tribunal readings answerable to no apex court, so that if the operative content of a formula is stabilised anywhere here it can only be by socially and institutionally concentrated interpretation rather than by coding [41]. Due diligence is taken as the clearest documented diachronic trajectory, its passage from *Corfu Channel* through *Pulp Mills* and the Seabed Disputes Chamber to the ITLOS climate advisory opinion offering the most traceable instance of a concept held recognisable across time by disciplined reapplication; the advisory opinions are taken as the clearest instance of interpretive authority exercised in the absence of enforcement, isolating the accumulation and distribution of semantic authority [72] from any coercive residue. These sites accordingly illustrate and motivate the model rather than test it in any systematic empirical sense; the observable indicia by which such a test might be conducted, and the conditions under which the account would be falsified, are set out in Sect. 5 and left there as a research agenda.

2 Autopoiesis and the Promise of Legal Autonomy

The attraction of autopoiesis in legal theory stems from a simple but powerful intuition: a legal order must be able to reproduce itself *as law* if it is to remain distinct from the wider social and political world in which it operates. The concept originated in the biology of Maturana and Varela, for whom living systems are defined by their

capacity to produce the components of which they are composed [42, pp. 78–89; 70]. The biological origin matters chiefly in a cautionary sense: the transposition to law is not self-justifying, and what is carried over is not organicism but the abstract idea that a system can remain operationally closed while being affected by an external environment. Some criticisms of legal autopoiesis attack it as a crude biological metaphor; its sophisticated versions are in fact theories of communicative differentiation, and it is against those versions that any serious assessment must proceed [46; 59, pp. 6–8].

Luhmann's decisive move was to argue that social systems are constituted not by individuals but by communications. Law, on this account, is a functionally differentiated subsystem of society that reproduces itself through specifically legal communications, coded by the binary lawful/unlawful [40; 41, pp. 76–141]. Two refinements protect this claim from caricature, and both matter for what follows. The first is the pairing of operational closure with cognitive openness. Closure does not mean insulation: 'self-determination would not be possible without operative closure, not more, but not less either' [41, pp. 84–90]. External events irritate the system, provoke adaptation and doctrinal development; what they cannot do is enter law as ready-made legal meanings. The second refinement is the distinction between code and programme. The code marks a communication as legal; the more elaborate task of giving content to legal judgment falls to programmes, treaty provisions, doctrinal formulae, jurisdictional rules, interpretive canons, through which the code acquires operational specificity [41, pp. 173–210; 66, pp. 32–41].

To these Luhmann added the concept on which any fair assessment of the theory must concentrate, because it is his direct answer to the objection this article presses: structural coupling. Structural couplings are durable institutional arrangements, contract and property coupling law to the economy, the constitution coupling law to politics, that 'reduce and so facilitate' the influence of the environment on the system, channelling irritation into forms the system can process while increasing its indifference to everything else [41, pp. 381–422, esp 382]. Coupling presupposes closure rather than qualifying it: the environment cannot instruct the legal system, but through coupled institutions it can reliably perturb it. Whatever else may be said against systems theory, it cannot be said that it has no account of law's social responsiveness. The question, deferred to Sect. 2, is whether that account reaches the phenomenon that matters here, the stabilisation of meaning, or only the phenomenon of responsiveness as such.

Teubner's jurisprudential reworking sharpened the theory in a direction international lawyers have found congenial: legal autonomy is a matter of degree and of structure, achieved through the self-referential reproduction of legal elements rather than through withdrawal from society [4, pp. 1992–2003; 66, pp. 32–41]. Hart's account of secondary rules, though not autopoietic in vocabulary, is illuminating in structure for the same reason: a legal order remains itself because it contains operations, recognition, change, adjudication, for identifying and transforming its own norms [19, pp. 79–99]. International law's sources doctrine can then be seen not merely as a catalogue of valid materials but as part of the machinery of systemic self-identification: when counsel and courts argue over whether a proposition belongs to custom or whether a resolution evidences *opinio juris*, they are reproducing the

conditions under which arguments count as legal arguments at all [20, pp. 8–9, 18; 64, art 38(1)].

Applied to international law, this apparatus explains features that voluntarism and realism leave mysterious. The field lacks a central legislator, comprehensive enforcement, and a unified hierarchy of courts, yet it displays recognisable source-identification, interpretive technique, doctrinal memory, and a professional vocabulary of jurisdiction, responsibility, and remedy. Treaties are interpreted through inherited rules; courts cite earlier decisions although Article 59 of the ICJ Statute confines their binding force to the parties and Article 38(1)(d) demotes them to 'subsidiary means'; new disputes are absorbed by analogy to older categories rather than treated as unprecedented [59; 64, arts 38(1)(d)]. D'Amato drew the natural conclusion: whatever else international law may be, it is not a random sequence of disconnected claims, and a theory richer than compliance-when-convenient is needed to explain its recursive, self-maintaining character [12, p. 2; 13, pp. 336–358].

The strongest recent statement of the autopoietic case deserves particular attention, both because it appears in the systems-theoretical register this article contests and because it anticipates the objection from indeterminacy rather than ignoring it. For Kang, the fact that one state claims a practice lawful while another claims it unlawful is not an embarrassment to be theorised away: paradox is the normal condition of the international legal system, and the system's achievement is to 'make paradoxes invisible', to convert the conditions of impossibility of consensus into bounded, permitted contradiction, through contingency formulae such as equitable utilisation and reciprocity [30, pp. 315–334]. On this account law 'falsifies' conflict: 'when the law observes conflicts, it simply transforms them into technical legal problems about right and wrong, because this is all the law can understand' [30, p. 326]. Kang's renewal is explicitly anti-hermeneutic. Legitimacy derives 'not from the official truth of validity claims' but from the coordination of learning processes; law's achievement lies not in its content but in organising reliance on a normative order. Meaning, in short, is system-relative, and no theory of shared or stabilised meaning is required.

This is the position at its most consistent, and Sects. 2 to 4 are in effect an extended reply to it. But the reply must begin by conceding what the theory gets right, because much of it survives the critique. Autopoiesis explains why international legal actors do not simply argue anything they wish even when powerful interests are at stake: politics must be translated into a recognisably legal idiom before it can function persuasively within the field. It explains why reform projects characteristically take juridical rather than anti-juridical form, arguments for human rights mainstreaming, environmental obligation, or decolonial reconstruction are framed as arguments about better interpretation and sounder source analysis, so that even transformative critique reproduces the field's legal grammar. And it explains why novelty is absorbed by re-specification of inherited materials: cyber operations are processed through sovereignty, due diligence, and intervention; environmental risk through prevention and procedure; investment conflict through standards already sedimented in treaty practice [51, paras 101, 204; 58, rules 6–7]. In each case, the unfamiliar is rendered tractable by being narrated as continuous with what the order already knows.

Two further features of the international field deserve notice before the assessment turns critical, because both will matter later. The first is multilingualism. International law is often articulated in multiple authentic texts, interpreted across legal cultures, and received by institutions whose internal traditions are not identical.[2] The resulting plurality does not destroy legality, but it complicates any assumption that legal meaning can be secured once and for all by a single, internally homogeneous discourse: the field preserves enough common grammar to remain recognisable while accepting a degree of semantic variation as structurally inevitable. The second is the depth of the field's professional inheritance. Rhetorical vocabularies do not ordinarily generate disciplined recurrence of the kind visible not only in famous judgments but in pleadings, memorials, separate opinions, *travaux* references, and patterns of institutional response. Lawyers do not merely borrow international law opportunistically; they inherit it, and the inherited character of the field places practical constraints on what can plausibly be said in its name. Not every politically attractive claim can be rendered juridically persuasive, and not every morally compelling aspiration can be inserted into law without argumentative work. Constraint of that kind is one of the signs of autonomy, even where the autonomy remains partial.

Where the theory begins to strain is captured in a distinction that will organise the remainder of the argument. The field reproduces legal *argument* far more successfully than it settles legal *meaning*. It is one thing to show that international law contains recurrent forms of legal communication, that much the autopoietic account establishes. It is another to show that those communications stabilise the operative content of legal concepts, and here the account runs out precisely where the interesting questions begin: why some formulations travel across regimes and decades while others do not; why a shared vocabulary generates convergent outcomes in one institutional setting and semantic dispersion in another; why certain interpreters, without hierarchical warrant, come to speak with an authority that others must engage. Those are questions about the social, semiotic, and temporal life of legal meaning, and they are the subject of the parts that follow.

3 The Limits of Closure in International Law

If Sect. 1 reconstructed the theory at its strongest, the task now is to identify exactly where its explanatory force gives out. The argument of this section proceeds in three steps. It first documents the gap between argumentative and semantic closure in doctrinal practice. It then shows why structural coupling, the theory's designated answer to objections from social responsiveness, does not close that gap. It ends by distinguishing the resulting position from the critical inference that semantic instability simply hands outcomes over to structural bias.

[2] [73, art 33]. Article 33 governs plurilingual authenticity; its presumption of common meaning is itself an interpretive programme rather than a semantic guarantee.

3.1 Argumentative Closure Without Semantic Closure

The gap is most visible where the field's recursivity is most intense. International adjudication is heavily citational without being formally precedential: Article 38(1)(d) of the ICJ Statute treats judicial decisions as subsidiary means, Article 59 confines their binding force to the parties and the particular case, and yet the Court's practice runs on accumulated doctrinal memory [64, arts 38(1)(d), 59]. In the *North Sea Continental Shelf* cases the Court developed an account of custom, *opinio juris*, and treaty–custom interaction that later lawyers and institutions have treated as an authoritative reference point for over half a century, not because the judgment created a rule of *stare decisis*, but because the field kept returning to its formulations [3, 45, 47]. A later tribunal may rely heavily on an earlier judgment, but it does so through persuasion, analogy, and uptake, it may equally distinguish it, narrow it, or redescribe its *ratio*, all while speaking the language of continuity. Continuity of argument, in other words, is secured; continuity of meaning is negotiated case by case.

The same pattern governs the ascertainment of custom itself. The International Law Commission's two-element approach, requiring a general practice accepted as law, furnishes a shared grammar of proof rather than an algorithm of application: it does not itself fix which instances of conduct count as relevant practice, how sparse or divergent practice is to be weighed, or whether a given act is evidence of legal obligation or of mere usage, and each of these determinations demands an evaluative judgement that the two elements structure without dictating [25, concls 2–3]. Custom-identification is therefore an interpretive practice, not a mechanical reading-off of state practice and opinio juris; the inquiry into what *North Sea*'s 'settled practice' and its correlative sense of legal obligation require reproduces, at the level of the source, the very gap between disciplined method and contested result already visible in treaty interpretation [47, para 77]. Here too argumentative closure and semantic openness coincide: everyone argues custom through practice and opinio juris, so that the langue of ascertainment is shared and stable, while what any particular custom is, its content, its threshold, and its reach, remains the disputed parole, settled where at all by the socially concentrated interpretation this article has been tracing.

Treaty interpretation exhibits the same structure. Articles 31 and 32 of the Vienna Convention are invoked across boundary disputes, trade law, investment law, and environmental litigation as if they supplied a common interpretive infrastructure, and in one sense they do; they furnish a shared sequence of text, context, object and purpose, and supplementary means [73, arts 31–32]. However, a shared interpretive language is not a unified practice of outcomes. WTO adjudication internalised the Vienna rules early, explicitly, and within a comparatively structured institutional setting [76]; other regimes deploy the same vocabulary while producing a far more variegated practice. The *South China Sea* award makes the point from within a single case: the tribunal applied the canonical sequence with evident rigour to the Convention on the Law of the Sea, and reached conclusions, that claimed historic rights within the nine-dash line were incompatible with the Convention's allocation of maritime zones, and that the disputed high-tide features were rocks within Article 121(3), that no prior application of those provisions had compelled [62, paras 261–278, 473–553]. A uniform method, rigorously applied, yielded a deeply contested

result. The sources doctrine reproduces the form of legal reasoning far more reliably than it closes the meaning generated under it.

Investment law supplies the sharpest illustration, and a semiotic vocabulary earns its keep in describing it. Tribunals recurrently speak the language of fair and equitable treatment, legitimate expectations, and umbrella clauses; the shared signifiers create an appearance of systemic coherence under which the signifieds diverge. The same treaty formula sustained the expansive reading of *Tecmed*, which treated the standard as a near-guarantee of total transparency toward the investor, and the restrained readings of *Waste Management II* and *Saluka*, which tethered it to conduct that is arbitrary or grossly unfair and insisted that legitimate expectations be weighed against the state's right to regulate; *Glamis Gold* pressed further still, anchoring the standard in the customary minimum [18, paras 614–627; 57, paras 304–306; 65, para 154; 75, para 98]. Vargiu's analysis captures the structure: the field operates through a shared *langue* whose *parole* is realised, and contested, in each successive award [71, pp. 297, 311]. The umbrella-clause jurisprudence, *SGS v Pakistan* reading similar language narrowly where *SGS v Philippines* read it broadly, shows that the divergence is not an artefact of one standard but a general feature: recurrent legal vocabulary coexisting with unresolved semantic competition [60; 61]. Nor should the divergence be read as mere doctrinal noise. Behind the competing constructions of fair and equitable treatment stand competing background visions of what investment protection is for, stability and reliance on one side, regulatory freedom and contextual proportionality on the other, translated into law through treaty text, arbitral method, and institutional role. The shared signifier is the site at which competing legal imaginations struggle for dominance. A strong theory of closure flattens that struggle; an interpretive theory makes it analytically central.

One should nevertheless resist the assumption that semantic plurality always weakens legal order. In some settings a controlled degree of plurality is a condition of durability: broad concepts travel across heterogeneous institutions precisely because they are not over-specified at the outset. Due diligence, proportionality, equitable principles, and legitimate expectations coordinate argument across regimes with different functions because they leave room for context-sensitive elaboration. The danger of plurality is real, but so is its utility, a partially autonomous order may depend on concepts stable enough to anchor legal discourse and flexible enough to survive institutional diversity.

Fragmentation generalises the phenomenon. Fischer-Lescano and Teubner, writing from within systems theory, drew the honest systems-theoretical conclusion: the search for legal unity across colliding global regimes is vain, because regime rationalities are irreducibly plural; the most law can achieve is a weak 'inter-regime' compatibility [15]. Koskenniemi and Leino, from the opposite theoretical shore, diagnosed the anxiety about fragmentation as itself a positioned move in a hegemonic struggle among institutions [33]. The ILC's Fragmentation Report responded with technique, *lex specialis*, systemic integration under Article 31(3)(c), which is to say, with more shared *langue* [27]. What none of these positions establishes is semantic unification; what all of them presuppose is the continuing legibility of legal argument across regimes. That combination, one grammar, many meanings, is precisely the datum a theory of international legality must explain.

3.2 Why Structural Coupling Does Not Answer

It is tempting for the systems theorist to absorb all of this through the concepts introduced in Sect. 1: semantic dispersion is just the system processing irritation; programmes vary while the code holds; coupling explains the traffic between law and its environments. The response fails for two reasons, one internal and one empirical.

Internally, structural coupling is a theory of *perturbation*, not of *authority*. Contract, property, and constitution explain how economic and political events reliably reach the legal system in processable form. They do not explain, and are not designed to explain, why, once an event is inside the system, one construction of a shared formula accumulates deference while another withers; why *North Sea Continental Shelf* became a repository of method while contemporaneous judgments did not; why the ILC Articles on State Responsibility, never adopted as a treaty, are treated across courts and tribunals as a quasi-authoritative restatement whose provisions on attribution and reparation are invoked as though their cogency were settled [11, pp. 42–46; 24]. These are differential facts on semantic authority, Venzke's term is exact, and they are generated by practices of citation, uptake, and professional recognition that systems theory registers only as undifferentiated 'communication' [72, pp. 37–77]. Luhmann's own account of legal argumentation comes closest: argumentation manages the ratio of redundancy and variety, consistency against case-driven novelty [41, pp. 305–356]. But redundancy and variety describe the *distribution* of semantic stability; they do not explain its *production*, which occurs in concrete institutional sites, under identifiable conditions, through the labour of identifiable interpretive communities. At the decisive point, the theory redescribes the explanandum.

Empirically, the coupling concept was built for a legal system paired with a state: constitution and contract presuppose the very centralised political and economic counter-structures whose absence defines the international field. Luhmann saw the difficulty himself. His late remarks on world society concede that global law lacks a centre, that at the global level cognitive expectation styles, learning, adaptation, dominate over normative ones, and that fully positive law might prove a 'European anomaly' whose significance levels off in world society [41, pp. 464–490]. The concession is fatal to any strong transposition of the domestic model: if the couplings that discipline irritation are themselves weak or missing at the global level, then whatever stabilises international legal meaning must lie elsewhere. Authority in international law is stabilised, when it is, outside strict hierarchy: draft articles, General Assembly declarations, and advisory opinions become obligatory reference points because any serious argument must take a position on them, an infrastructural authority generated by citation practice rather than secured by a chain of validity [36; 37; 38; 68].

That concession does more than register an absence of centre; it discloses the positive form the international field assumes in its place. Because law couples not to a single social system but to several at once, to politics through the making and unmaking of obligation, to the economy through the pricing and allocation of risk, the aggregate at the global level is not one hierarchy of coupling but a plurality of couplings whose rationalities will not reconcile: a polycentric, networked ordering of colliding regimes rather than a pyramid [15]. It would be an error, though, to read this polycentricity as an international anomaly. The same multiplication of cou-

plings is increasingly legible within national legal orders, which, as they bind to plural and functionally differentiated social systems, themselves take on a networked and decentred character; the graduated-closure account, though developed here for international law, thus describes a condition of functionally differentiated law more generally, of which the international case is simply the least cushioned instance.

A final nuance completes the picture of authority without hierarchy. The absence of a single final interpreter does not mean that all interpreters are equal. International law contains gradients of authority shaped by institutional design, reputational capital, frequency of citation, and the practical need for focal points. Some judgments become central not because they are formally supreme but because the field repeatedly returns to them when uncertainty arises; some draft articles become baseline references not because they bind but because they organise later dispute. The order is not flat; it is polycentric, and polycentricity is compatible with surprisingly strong forms of doctrinal memory. Once a line of reasoning is repeated across enough sites, it begins to harden into an expectation even without strict precedent: this is how concepts, tests, and formulae characteristically acquire authority in international law, not by one decisive act but by cumulative reuse. What emerges is not rigid hierarchy but patterned stabilisation, and it is this pattern, differential, site-specific, citation-borne, that any adequate theory must explain rather than presuppose.

3.3 Indeterminacy Without Reduction

The critical tradition draws from this material the opposite conclusion; if meaning does not close, outcomes must be governed by the structural biases of the institutions that happen to decide [34, pp. 600–615]. The inference should be resisted, for a reason Koskenniemi himself supplies. Indeterminacy in his sense is structural, competent arguments are available on both sides, yet he equally insists that legal competence is real: 'legal concepts and categories do have a degree of autonomy which cannot be explained simply by reducing them to apologies for class interests or ideologies' [34, pp. 67–68]. That autonomy shows itself in the differential fates of arguments. Not every politically attractive claim can be rendered juridically persuasive; not every construction survives uptake. If bias alone governed, the patterned stabilisations documented above, the canonical status of particular judgments, the infrastructural authority of particular texts, the convergence of some regimes and the dispersion of others, would be inexplicable except as coincidence. The better description is that international law is closed enough to distinguish legal argument from non-legal assertion and to absorb novelty through inherited categories, but not closed enough to eliminate semantic competition among institutions, regimes, and interpretive communities. Closure remains a meaningful concept only if detached from the expectation of semantic settlement, and once so detached, it demands the supplement that the next two sections provide: an account of how meaning is socially produced (Sect. 3) and temporally reproduced (Sect. 4) in a field whose grammar is common but whose semantics are not.

4 The Social and Semiotic Life of Norms

If argument is reproduced more reliably than meaning is closed, the next question is how such an order continues to matter in practice. A legal system cannot survive on recursive coding alone; it must generate uptake. Norms must be recognised as reasons, repeated by institutions, taught by professionals, and invoked by actors who expect legal language to matter. This section draws on legal anthropology and legal semiotics not to displace the insights of autopoiesis but to explain how those insights become socially operative, and, crucially, to identify the mechanisms of semantic stabilisation that Sect. 2 found missing from the systems-theoretical account.

4.1 Uptake, Ritual, and the Obligation to Justify

Legal anthropology's most important lesson for jurisprudence is methodological rather than romantic; law should be studied not only as a body of norms but as a set of practices through which normativity is produced, maintained, and recognised [21; 22, pp. 26–28; 50, pp. 1–6]. The lesson bears with unusual force on international law, where hierarchy and coercion are uneven. Merry's comparisons between international law and decentralised normative communities do not suggest that international law is primitive or less legal than domestic law; they illuminate how norms remain effective through reciprocity, reputational consequence, exclusion, and the burden of public justification when centralised coercion is weak [43; 44, pp. 219–230]. A state accused of breach does not usually respond by saying that law is irrelevant. It denies breach, contests attribution, re-characterises the facts, invokes countermeasures or necessity, that is, it stages its resistance within the legal repertoire, and in doing so acknowledges the normative arena it resists [16, pp. 24–49; 31, pp. 2638–2639]. International law's force lies partly in its capacity to shape the form of the opposition directed against it: the obligation to justify is among law's most durable effects, and it operates long before, and often without, compliance.

Ritual belongs to the same register. Reporting procedures, treaty-body dialogues, the Universal Periodic Review, oral pleadings, and formulaic diplomatic notes may seem secondary if one looks only for command and sanction; they are in fact among the principal sites at which law is reproduced as a lived practice [23; 69]. They stage obligation, invite contestation in juridical language, and preserve the expectation that claims must be framed through recognised categories. Pirie's warning against defining law by command, adjudication, or sanction is apposite: law can equally be approached through legalistic thought, the categories and argumentative forms by which a community organises conduct and conflict as juridically meaningful, and international law is above all a way of constructing conflict as legally intelligible [50, pp. 13–18, 41–58]. Professional socialisation completes the picture: the field is reproduced in classrooms, handbooks, pleadings, and institutional training long before it appears in canonical judgments, and lawyers there acquire not only rules but hierarchies of authority, acceptable modes of citation, and shared instincts about what counts as a plausible legal move. Brunnée and Toope have built an entire theory of international obligation on such continuing practices of legality; the present argument differs from theirs in retaining the systems-theoretical insight that these

practices reproduce a *bounded* field of specifically legal communication, rather than dissolving legality into interaction.[3]

4.2 Signs, Semantic Authority, and Concentrated Sites of Meaning

Semiotics sharpens the anthropological point. If anthropology shows that norms live through practice, semiotics shows that they live through signs: international law consists not only of enacted texts but of the concepts, metaphors, and recurrent formulae through which legal actors stabilise meaning, contest authority, and connect one dispute to another [28; 74; 77]. To study a legal norm solely at the moment of textual articulation is to capture only part of its existence; the norm also lives in the discursive environment that makes it legible, repeatable, and contestable. Semiotics also explains why some concepts are unusually durable: a sign survives because it can carry a range of legal operations without losing recognisability. 'Sovereignty' anchors arguments about equality, territorial competence, non-intervention, and self-determination while remaining intelligible as the same concept; 'due diligence' organises knowledge, prevention, vigilance, and risk management across subfields. Durability of that kind is a semiotic fact, and Sect. 4 will give it a temporal analysis.

On the account advanced here the legal sign-system operates as a shared langue: the stock of recognised signs, 'due diligence', 'armed attack', 'equitable principles', each pairing a signifier with a signified, together with the syntactic rules for their combination; this is the level of operational closure at which the system reproduces what counts as legal communication [28; 41; 71]. Situated interpretations are parole: the rival realisations of a sign in use, where one formula is pulled towards incompatible outcomes. Semantic authority names the mechanism that links the two, the process by which certain paroles, backed by institutional position and accumulated uptake, sediment back into the langue and become reference points that later argument cannot simply bypass [72]. Symbolic legitimacy names the dimension of value that decides which sedimentations hold, the value-charge that renders a given fixing of meaning publicly defensible rather than merely imposed [7]. These are therefore not four vocabularies drawn from four traditions but one model of legal meaning working at four registers: a structural level (langue), a level of use (parole), a mechanism of stabilisation (semantic authority) and a dimension of value (symbolic legitimacy), each doing work the others cannot.

The decisive addition to Sect. 2's argument, however, concerns *where* meaning stabilises. Meaning is not produced everywhere equally; it is concentrated in particular sites of interpretive repetition. The International Court matters not only because its judgments are cited but because they are repeatedly treated as focal restatements of the law beyond their formal binding force; the ILC matters because it crystallises argumentative baselines that later actors find difficult to ignore; treaty bodies and specialised tribunals elaborate vocabularies that travel outward. This is the phenomenon Venzke names semantic authority: the capacity, accumulated through past practice and institutional position, to establish reference points for legal discourse

[3] [8]. The interactional account explains fidelity; it underexplains why fidelity is owed to forms whose boundary with non-law remains sharply policed.

that others cannot bypass [72, pp. 37–77, 135–194]. And it is disciplined by what Johnstone identified as interpretive communities: overlapping professional collectives that share enough of a legal grammar to make some constructions sayable and others untenable, so that disagreement remains legally legible rather than merely strategic [29, pp. 371–391]. These two concepts jointly supply what coupling could not. Authority differentials among interpreters, and community-borne standards of plausibility, are the mechanisms by which a field without hierarchy nevertheless exhibits patterned stabilisation, why the *langue* holds while every *parole* is fought over, and why some *paroles* harden into the *langue* of the next generation of disputes.

To say that meaning stabilises because certain courts, commissions, and professional communities acquire sufficient authority that their formulations become obligatory is to say that the concentration of semantic authority is itself a distribution of power, at once institutional and epistemic; the very mechanisms by which the langue is held steady are therefore also mechanisms of exclusion, since to be positioned to stabilise a formula is to be positioned to determine whose renderings of it will not count. The sociological frame for this is Bourdieu's juridical field: a field of struggle in which the competence to interpret is unequally distributed and the power to say what the law is, the power to make one's parole authoritative, is precisely the stake for which the field's occupants compete [7]. Interpretive communities, on this reading, are not the consensual guilds their name may suggest but stratified and exclusionary formations in which some speakers are heard and others are structurally inaudible, so that what presents itself as shared standards of plausibility encodes an antecedent distribution of standing; fragmentation-talk, as Koskenniemi and Leino observe, is in this sense less a technical anxiety than a hegemonic struggle over which institutional vocabulary will govern [33]. None of this dissolves the account into power, however: semantic authority in Venzke's sense is not seized but accumulated, and it is accumulated only through recognisably legal labour, through the patient production of readings that the field will accept as competent [72]. Power here operates through legal form rather than instead of it, which is why the order it produces is neither autonomous of the social nor reducible to it.

Questions of recognition reinforce the point about where meaning is made. International law has repeatedly expanded by altering who or what can appear as a legal subject, what kinds of harm become legally cognisable, and which forms of experience are translated into actionable categories. The histories of self-determination, decolonisation, indigenous rights, gender-based harms, and environmental injury all show that the boundaries of legal visibility are not fixed once and for all.[4] This does not mean legal identity is infinitely malleable; it means the social life of norms includes processes of recognition and re-description through which the field reconstitutes its own scope, processes that no inventory of valid sources, however complete, would reveal.

The symbolic dimension of this process is clearest in advisory practice. *Namibia*, *Wall*, and *Chagos* altered no one's legal position through coercion; their significance lay in classifying conduct, redistributing legitimacy, and intensifying the justificatory

[4] [44, pp. 219–230] documents the translation processes through which such recognition travels between international and local registers.

burden borne by states and institutions [36; 37; 38]. Authority here flows not from a power to compel but from the system's capacity to render some positions publicly defensible and others untenable, symbolic legitimacy operating as a form of efficacy. A judgment ignored by counsel, scholars, and institutions will not shape the field as one that becomes a recurrent reference point; legal authority is not exhausted at the moment of pronouncement but sustained or weakened through what later interpreters do with it. These sites, however, never act in a vacuum: their authority depends on reception. The life of legal meaning includes afterlives, citation, paraphrase, selective uptake, hostile distinction, institutional reuse, and one virtue of a social and semiotic approach is that it keeps those afterlives in view. Disagreement, on this view, is not evidence that legality has failed to stabilise meaning; it is often evidence of how legality operates in a plural order. The persistence of dissent, doctrinal controversy, and regime-specific variation shows an order that maintains legality without guaranteeing semantic unanimity, that survives, in part, through disciplined disagreement.

This is also where the Ricoeurian vocabulary of the special issue earns a place in the argument. Law mediates between conflict and judgment by transforming raw disagreement into non-violent contest structured by argument, procedure, and institutional role [35; 55, pp. 127–144]. That mediating function is particularly important in a field where the aspiration to settlement chronically exceeds the certainty of enforcement: the juridical does not eliminate conflict, it gives conflict a form in which reasons and categories matter. Rhetorical analysis reaches a compatible conclusion from the opposite direction, argumentation in practice aims to prevail, not only to persuade, which is exactly why the community-borne constraints on what can plausibly be said in law's name are constitutive of the field rather than decorative [2].

The implications for the autopoietic thesis are direct. If international law is sustained by uptake, symbolic legitimacy, semantic authority, and interpretive communities, then its autonomy cannot be captured by closure alone. Its distinctiveness is real, but its reproduction is socially and semiotically mediated. Norms persist because they are cited, taught, ritualised, defended, and reapplied. Once this is seen, the temporal question becomes unavoidable: norms do not merely circulate socially, they endure historically, and their endurance is the subject of Sect. 4.

5 Time, Semantic Change, and the Reapplication of International Legal Concepts

Legal meaning is not fixed once and for all at the moment of formulation, nor recreated from nothing when a new dispute arises; it is continuously reproduced through temporally situated acts of interpretation. The importance of time is easily underestimated because lawyers often write as though the question were simply what a treaty 'means', as if meaning could be extracted from text outside historical setting. But general language changes, institutional assumptions change, and the practical stakes of disputes change while the text stands still. The interpreter must therefore decide, usually tacitly, whether a term is to be understood in relation to the time of drafting, the time of conduct, the time of adjudication, or some mediated combination of the three [5]. Even the apparently neutral appeal to ordinary meaning is temporally medi-

ated: dictionaries capture language at particular moments, and their evidentiary value depends on temporal fit, a point international law, with its multilingual and long-lived instruments, is especially exposed to [5; 73, arts 31–32].

This is well-worked doctrinal ground, and the argument here must engage it rather than rediscover it. The law of treaties already contains the temporal problem within its own scheme: subsequent agreement and subsequent practice under Article 31(3) are pathways by which later practice feeds back into interpretation, and the ILC's conclusions on the topic acknowledge that the interpretive weight of practice is a function of its clarity, specificity, and repetition over time [26, concls 9–10; 73, art 31(3)(a)–(b)]. The evolutionary interpretation of treaties, once presented as an exceptional technique requiring special justification, has been persuasively re-described by Bjorge as ordinary interpretation: giving effect to the parties' intention that generic terms apply to conditions the drafters could not foresee.[5] And comparative work confirms that the static/dynamic opposition is less a choice between methods than a spectrum of justificatory styles: Konca's study of over three thousand decisions finds 'static interpretation', understood as fixed meaning, not to be a distinct and equally available method at all, while temporal styles of justification remain the exception rather than the rule [5; 32]. What the doctrinal and comparative literatures leave underdeveloped, and what this section adds, is an account of the *mechanism* by which concepts survive their own semantic change, and of the institutional conditions that govern its pace.

5.1 Concept, Conception, and Disciplined Reapplication

The mechanism is best captured through the distinction between concept and conception [14, pp. 70–72; 17, p. 167; 48; 52, p. 5]. Many disputes in international law are not disagreements over whether a concept exists but over how it should be understood, weighted, and operationalised at a given historical moment. Sovereignty remains sovereignty while its conception migrates: the voluntarist presumption of freedom remembered from *Lotus* was linked by *Corfu Channel* to territorial obligation, repositioned by *Nicaragua* in relation to non-intervention, and further redistributed by *Kosovo*, *Chagos*, and the *South China Sea* award across self-determination, decolonisation, and maritime entitlement [1; 10, p. 22; 38; 45; 62; 63]. The concept persists; the conception shifts. Núñez's multidimensional analysis makes the semiotic point precise: different conceptions of sovereignty are not ontological rivals but epistemological and axiological selections from a shared concept, which is exactly what allows the sign to anchor legal argument while its content is renegotiated [48].

Due diligence exhibits the fullest temporal trajectory in the modern materials, and it is worth setting out as this article's central case study because every stage is documented. The obligation announced in *Corfu Channel*, not knowingly to allow one's territory to be used for acts contrary to the rights of other states, is recognisably the same signifier elaborated in *Pulp Mills* into a procedural and substantive standard of environmental vigilance requiring assessment, notification, and monitoring [9, para 104; 10, p. 22; 51, paras 101, 197–205]. The Seabed Disputes Chamber then made

[5] [6, pp. 56–141]. The European Court's living-instrument doctrine makes explicit what other regimes perform implicitly: Tyrer v United Kingdom [67, para 31].

the temporal structure explicit: due diligence is an obligation of conduct whose content is 'variable', rising with scientific knowledge and the gravity of the risk, so that what diligence requires today is not what it required when the obligation was first articulated [54, paras 110–117]. Precisely because the standard is calibrated to evolving risk rather than to a fixed catalogue of harms, it could be extended in the cyber context to states knowingly permitting their infrastructure to be used for operations with serious adverse consequences [58, rule 6 and commentary], and enlisted by the ITLOS climate opinion, which read anthropogenic greenhouse-gas emissions as marine pollution within Part XII of the Convention and derived a stringent, science-calibrated standard of diligence informed by the Paris Agreement's temperature goal [49, art 2(1)(a); 53, paras 179, 241, 243]. At no point was new law announced; at every point interpretive labour was performed. The doctrinal form persists while its field of application migrates from mines in territorial waters to planetary risk, reapplication that is neither pure discovery nor free invention, but the recursive working-out of a concept whose content is deliberately indexed to time.

Two refinements make the mechanism more precise. The first distinguishes temporal change in *extension* from temporal change in *intension*. A concept may keep roughly the same core meaning while expanding to cover new objects, technologies, or relations, 'use of force' asked to address cyber operations, 'environmental harm' extended to cumulative atmospheric effects. Alternatively, the evaluative content of the concept may itself change, as when 'humanity' takes on richer normative content as legal consciousness develops. International law exhibits both forms, and distinguishing them allows a more precise account of when innovation remains faithful to inherited form and when it approaches rupture. The register-like concepts are the clearest cases of intensional change: 'humanity', invoked in the law of armed conflict as a limiting register, allowed the Court in *Nuclear Weapons* to affirm that humanitarian principles constrain even the gravest exercises of force, while conceding that it could not conclude definitively whether the threat or use of nuclear weapons would be unlawful in an extreme circumstance of self-defence, an indeterminacy best read as the concept's normative pull outrunning its capacity to close the question [39, paras 78–79, 97, 105(2)(E)]. 'Environment' and 'vulnerability' have followed comparable paths from marginal to organising vocabulary, reworking inherited categories so that new problem-fields become legally intelligible rather than importing wholly new ones.

The second refinement concerns the epistemic background of legal judgment. Temporal adaptation affects not only word meaning but burdens of proof and evidentiary reasoning: what counts as adequate knowledge, reasonable prevention, or foreseeable harm shifts as scientific understanding and institutional expectations evolve. A due diligence obligation applied to mines in the *Corfu Channel* setting does not operate against the same epistemic background as one applied to industrial pollution, cyber intrusion, or climate-risk governance. The standard remains legal; the factual matrix through which it is interpreted becomes more demanding. Temporal sensitivity therefore concerns the changing factual assumptions embedded in legal judgment as much as the changing semantics of legal language.

What disciplines such reapplication, and prevents it from collapsing into presentism, is the justificatory apparatus that surrounds it. Temporal adaptation is con-

strained where reliance interests and legality principles are acute, the prohibition of retroactive criminal law is the clearest case [32; 56, art 22], and licensed where the parties employed generic terms in instruments of indefinite duration. The choice is never between interpretation in time and interpretation outside it, but between more and less reflective ways of organising time within legal reasoning. A temporally reflective method also has a historiographical payoff: it discourages projecting present understandings backward onto earlier texts, and equally discourages projecting earlier conceptions unchanged into contemporary disputes.

5.2 Institutional Tempo and Asynchronous Stabilisation

The second addition concerns pace. Different bodies revisit legal questions at different speeds: the ICJ encounters a concept intermittently across decades; treaty bodies elaborate through repeated reporting cycles; arbitral tribunals generate rapid clusters of decisions around standard-form treaty language. The velocity of repetition affects the rate at which meanings stabilise or fragment, some concepts thicken through slow canonical accumulation, others through dense bursts of practice, and the investment-law dispersion documented in Sect. 2 is partly a tempo effect: hundreds of *paroles* generated faster than any community-borne redundancy could discipline them. Because authority is distributed, legal development is asynchronous; some regimes are conservative, others experimental; some generate highly visible focal points, others exert influence diffusely. A theory of graduated closure accommodates this asynchrony better than either rigid systemic closure or political reduction: it predicts that semantic stabilisation will correlate with the concentration and repetition-rate of interpretive sites, not with the formal bindingness of their outputs. Canonicality itself is often methodological rather than substantive, *North Sea Continental Shelf* endures as a way of thinking about custom, *Corfu Channel* as a way of formulating vigilance, because what later actors need from the past is reusable legal moves, not frozen propositions. This is how doctrinal memory and semantic change coexist: the field conserves its forms at the very moment it revises their content.

Climate change brings the two refinements together and tests the model at its limit. Concepts such as prevention, due diligence, and common concern are increasingly asked to speak to cumulative, long-term, globally distributed injury, although many inherited categories were elaborated for discrete harms, identifiable actors, and bilateral structures of dispute. Whether international law can translate climate-related claims into effective legal form remains contested, but the contest itself confirms the present argument, because it is conducted by debating how far inherited conceptions can be stretched without distortion, not by abandoning the concepts. When the ITLOS opinion read greenhouse-gas emissions into Part XII's concept of pollution, it did not invent a norm so much as reapply a settled one to a problem it was not drafted for; the categories endure precisely because their content is allowed to migrate [53, paras 179, 241, 243]. This also explains why doctrinal argument in the field so often turns on medium-level concepts, proportionality, reasonableness, due diligence, legitimate expectation, attribution, necessity, rather than on grand theory alone: they are neither so abstract as to be empty nor so specific as to eliminate judgment, and

in them one can watch the system doing the work of partial autonomy, preserving inherited vocabulary while contesting its present application.

The better description of international legality that emerges is one of *structured semantic instability*. International legal concepts are unstable because they do not arrive in every dispute with self-identical content; they are structured because not every shift is plausible, not every update is normatively acceptable, and not every reinterpretation fits the inherited grammar. Part of the work of international legal argument is precisely to show which developments count as faithful specification, which as over-extension, and which as rupture. The temporal life of international law is thus not evidence of weakness; it is one of the principal ways legality remains possible in a changing world.

6 Graduated Closure: The Model and Its Indicia

The preceding sections can now be drawn into a single model. International law exhibits closure of three different grades, and most confusion in the debate stems from treating them as one. The model is offered as an analytical framework whose indicia are hypotheses about where and why meaning stabilises: the cases examined in the preceding sections illustrate and motivate it rather than establishing it, and the systematic test of those hypotheses is the empirical agenda specified at the close of this section.

Operational closure concerns what counts as a legal communication at all, and here international law's closure is strong. Its indicia are observable: disputes are returned to recognised sources rather than to unmediated preference; critique and reform take juridical form; resistance to obligation is staged through legal categories (denial of breach, attribution, countermeasures, necessity) rather than through denial of the arena; and novel problem-fields are absorbed by analogical extension of inherited categories rather than by improvisation. By these indicia the autopoietic description is broadly vindicated: the boundary between legal and non-legal argument is policed continuously and effectively, even by the field's opponents.

Semantic closure concerns whether the operative content of legal concepts is settled, and here closure is weak and regime-relative. Its indicia are equally observable, and they vary in ways the model predicts rather than merely records. Semantic stabilisation correlates with the concentration of interpretive authority (one Appellate Body against hundreds of ad hoc tribunals), with the density of community-borne discipline (the redundancy that pleadings, commentary, and citation practice impose on new constructions), and with institutional tempo (slow canonical accumulation against rapid clusters of awards). Where those conditions are met, shared formulae converge, the Vienna rules within WTO adjudication; where they are absent, a common *langue* coexists with dispersed *parole*, fair and equitable treatment across investment tribunals. Formal bindingness is a poor predictor by comparison: the ILC Articles, binding on no one, are semantically far more stable than many treaty terms in force. A theory that cannot register this differential, and a pure theory of coding cannot, misses the actual economy of meaning in the field.

Temporal closure concerns whether concepts remain themselves across historical change, and here international law achieves a closure of a distinctive kind: recognisability without immobility. Its indicia are the practices documented in Sect. 4, the explicit indexing of standards to evolving knowledge and risk, the treaty-law pathways by which subsequent practice feeds back into meaning, the justificatory asymmetry between reliance-sensitive and generic-term contexts, and the methodological rather than substantive canonicality of landmark decisions. The distinction between faithful specification and rupture is not given in advance; it is argued out, case by case, within the field's grammar, and the possibility of so arguing it is itself the achievement.

The asymmetry the objection registers is real, but it is not the asymmetry of a third kind of closure standing alongside the operational and the semantic; it is the asymmetry of a different axis. Operational and semantic closure are synchronic dimensions: each asks, at a given moment, what counts as a legal communication and whether the content of a shared formula is settled. Temporal closure is diachronic: it asks whether a concept preserves its identity as it is carried across time, and it earns the name closure because it performs on the temporal axis precisely the boundary-work that closure performs synchronically, marking the line between faithful specification and rupture rather than between the legal and the non-legal or the settled and the open [28]. It is thus a mode of closure rather than a coordinate third type, and, on the objection's own terms, a mechanism rather than a compartment: the work by which a concept stays recognisable across the very semantic change its synchronic contestation effects. It interacts with the semantic dimension in a determinate way, for a concept's diachronic identity is what allows its synchronic contestation to register as contestation about the same concept, so that dispute over what due diligence now requires remains dispute about due diligence rather than the quiet substitution of one notion for another.

The model explains, in passing, why international law can appear simultaneously conservative and innovative. The field is conservative because it works through inherited categories and repeated forms of justification; it is innovative because those categories are continually made to address new situations and new moral-political demands. What looks like contradiction is the normal condition of graduated closure: continuity depends on conserving enough grammar to remain recognisable, viability on innovating enough to remain applicable. The craft of the field mirrors this structure. To write persuasively in international law is to situate a claim within inherited lines of authority while showing why those lines should now be extended, distinguished, or redescribed, arguing through continuity even when seeking innovation. That double movement is not rhetorical bad faith; it is the ordinary condition of legal argument in a historically layered, institutionally plural order, and a theory that cannot account for it will struggle to explain how the discipline actually works.

The model also states what would count against it. If semantic stabilisation tracked coercive enforcement rather than interpretive concentration; if formally binding instruments were systematically more stable in meaning than infrastructural texts; if temporal adaptation proceeded at the same pace across regimes regardless of institutional tempo, the account defended here would be falsified in favour of either the strong autopoietic description or the reductionist one. The available materials point

the other way, but the point of stating the indicia is to make the disagreement tractable: the question where and how semantic closure is institutionally strengthened, which concepts travel, and which communities perform effective stabilisation is an empirical research agenda, not a matter for theoretical fiat.

7 Conclusion

This article began from a familiar tension: described as a strategic vocabulary of justification, international law's normativity becomes inexplicable; described as a self-sufficient system, its semantic plurality is obscured. Autopoiesis promised to dissolve the tension by showing how law maintains identity through self-reference and operational closure without centralised command, and the promise is partly kept, but only at the operational grade of closure. Engaged at its strongest point, in the concepts of cognitive openness and structural coupling and in its most consistent recent application to international law, the theory still explains responsiveness rather than authority, the persistence of legal argument rather than the stabilisation of legal meaning. That further work is done, where it is done, by socially concentrated practices of interpretation: by semantic authority accumulated in particular sites, by interpretive communities that discipline plausibility, by symbolic legitimacy that redistributes justificatory burdens, and by temporally disciplined reapplication that holds concepts recognisable while their content migrates.

None of this celebrates openness for its own sake. Openness can become indeterminacy; plurality can become fragmentation; symbolic legitimacy can be unevenly distributed or strategically manipulated, and the semantic authority of concentrated interpretive sites is a resource that powerful actors can capture as well as a discipline they must answer. The point is that these risks must be analysed within the legal field, not used to deny the field's existence. International law is most accurately understood when its vulnerabilities and its structuring capacities are seen at once, and the model of graduated closure is designed to hold both in view.

International law, on the resulting description, is a partially autonomous interpretive order exhibiting graduated closure: strong in its operations, weak and uneven in its semantics, distinctive in its management of time. The formulation preserves what is strongest in systems theory while identifying precisely what it cannot do; it accepts the structural character of indeterminacy while refusing to treat patterned stabilisation as illusion; and it gives the interpretive-practice literature the systemic and temporal frame it has lacked. The instability of international legal meaning should not be mistaken for the absence of legality. Disagreement in this field characteristically takes place within law rather than outside it, and what matters is not the elimination of difference but the existence of forms that return difference to law, sources doctrine, interpretive canons, institutional roles, recognised styles of justification. Those forms do not eliminate contestation; they organise it. That organising function is what makes international law more than a rhetorical after-effect of politics and less than a closed autonomous system: a legal order whose continuity lies not in semantic immobility but in the continuity of the forms through which semantic dispute is carried on.

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