

THEOGONIC STRUCTURES IN NATURALISTIC COSMOLOGIES: THE IMPLICIT THEOGONY OF THE BIG BANG AND THE EMERGENT COSMOGENESIS

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Abstract: The article develops the concept of *residual theogony* as a structural-morphological category for what persists, in the form of cosmological narratives and explanations, of the older theogonic narrative apparatus once its religious or mythological content has been formally abandoned. Drawing on the morphological framework articulated in Knežević (2024) — a framework that explicitly relates cosmology, evolution, and theogony as parallel morphological domains organised around the morpheme of the *prauzrok* (the primal cause) — the article applies the morphological method to a precise empirical-textual question: where, and in what specific forms, do theogonic structures persist in the cosmological literature of the post-2017 interval that has formed the immediate context of the contemporary debate? The original contribution of the article is the elaboration of residual theogony through a typology of five recurrent forms in which theogonic structures persist in formally naturalistic cosmological discourse: (1) singular origination, in which the Big Bang singularity functions as a structural analogue of the theogonic origin-from-nothing; (2) the generative void, in which eternal inflation, quantum vacuum fluctuation, and “creation from nothing” cosmologies function as structural analogues of the theogonic primordial chaos; (3) retroactive teleology, in which the anthropic principle and fine-tuning arguments function as structural analogues of theogonic providential ordering; (4) generative necessity, in which multiverse and modal-necessity arguments function as structural analogues of the classical theogonic “necessary being”; and (5) emergent self-organisation, in which contemporary emergence theory functions as a structural analogue of theogonic agency. The article argues that residual theogony is not, by itself, evidence either for or against a theistic interpretation of cosmology; it is a *morphological* observation about the structural inheritance of contemporary cosmological discourse from the older narrative apparatus that produced the cosmological imagination of European, Mediterranean, and broader Indo-European civilisations. The principal stakes of the concept lie in what it makes visible: the discursive depth at which contemporary scientific cosmology continues to operate within forms of narrative organisation whose origin lies in pre-scientific theogonic traditions, and the consequent inadequacy of any account of cosmological discourse that takes its formal naturalism at face value while ignoring the morphological substrate on which that naturalism is articulated. The article closes with implications for the philosophy of cosmology, for the science-and-religion dialogue, and for an extension of the morphological method beyond the immediate textual material.

Keywords: *residual theogony, naturalistic cosmology, morphology of cosmology, Big Bang, eternal inflation, fine-tuning, anthropic principle, multiverse, emergent cosmogenesis, philosophy of cosmology, prauzrok.*

INTRODUCTION

The standard methodological self-description of contemporary scientific cosmology is that it is a thoroughly naturalistic enterprise: cosmological models, derived from general relativity and from quantum field theory, articulated through observational data from the cosmic microwave background, large-scale structure surveys, and gravitational-wave detectors, do not, in their formal articulation, refer to creators, gods, or theogonic agents. Naturalistic cosmology, in this self-description, is the inheritor of the post-Galilean methodological agreement to bracket theological reference and to operate within a domain of natural causes and quantitative description. The methodological agreement is, on its own terms, precise: cosmologists do not, in their professional papers, refer to the Demiurge, to *Urgrund*, to *Tiamat*, to Hesiod, or to the personified divine agencies that populate older cosmogonic narratives.

This article begins from a specific observation that, on close reading of the contemporary cosmological literature and especially of the philosophical literature that interfaces with cosmology, can be made with substantial confidence: alongside the methodological naturalism of cosmological practice, there persists, in the narrative architecture and in the explanatory grammar of contemporary cosmological discourse, a series of structural traces that, when analysed morphologically, are recognisably theogonic. The Big Bang singularity, in its ordinary informal articulation, functions discursively as an absolute origin-point from which everything else proceeds; eternal inflation and quantum-vacuum cosmologies articulate a generative void from which universes are continuously produced; the anthropic principle and the fine-tuning argument articulate a retroactive ordering in which the cosmos appears configured for the eventual emergence of mind; the multiverse hypothesis articulates a generative necessity in which existence is its own explanation; emergence theory articulates a self-organising agency that produces order without an explicit ordering agent. Each of these features, considered separately, is a legitimate cosmological hypothesis with empirical and theoretical motivation. Considered together as a configuration, they reproduce, with a precision that requires explanation, the structural shape of the older theogonic narratives that the formally naturalistic methodology was supposed to have set aside.

The central research question of this article is the following: what specifically remains, in the structural architecture of contemporary cosmological discourse, of the older theogonic narrative apparatus, and how is this structural remainder organised at the level of the explanatory grammar through which cosmological hypotheses are formulated, defended, and contested? Three hypotheses follow. First, the formal naturalism of contemporary cosmology has not been accompanied by a symmetrical structural naturalisation; substantial elements of the older theogonic narrative apparatus persist, transformed, in the morphological substrate of contemporary cosmological discourse. Second, these persistent elements can be identified, named, and analysed through a finite typology of recurrent forms — what I call *residual theogony*. Third, residual theogony is best understood not as a covert theology smuggled into a naturalistic discipline, nor as a refutation of cosmological naturalism, but as a structural-morphological feature of cosmological discourse whose recognition has methodological and philosophical consequences for how we read cosmological argumentation.

The original contribution of the article is the development of the concept of residual theogony, articulated through a typology of five recurrent forms: singular origination, the generative void, retroactive teleology, generative necessity, and emergent self-organisation. The concept and the typology, to the best of my reading of the literature, have not been systematically developed in this morphological register in the existing post-2017 cosmological literature,

although several authors approach related questions from different angles (Mantini, 2021, on religious naturalism and creation; Friederich, 2019; 2021, on the philosophical structure of fine-tuning arguments; Chan & Chan, 2020, on the dialectic between fine-tuning and multiverse; Linford, 2020, on bounce cosmologies and origin debates; Tanzella-Nitti, 2023, on the multiverse and Christian theology; Tabaczek, 2021, on emergence and divine action; Mantini, 2024, on emergence as cross-disciplinary mystery). The synthesis offered here, locating these accounts within a single morphological category and developing their structural homology with theogonic narrative, is what the article aims to provide.

The morphological method itself draws on the framework articulated in Knežević (2024), in which cosmology, evolution, and theogony are treated as three parallel morphological domains organised around the *prauzrok* — the primal cause — as their common morphological centre. Knežević's framework, articulated in the third section of his book on the morphology of theogony, makes the explicit case that theogonic narratives and cosmological narratives share a morphological substrate that the formal differentiation between religious and scientific discourse does not eliminate but only re-distributes. The present article extends Knežević's morphological framework to the specific question of what persists, in formally naturalistic cosmological discourse, of the morphological substrate that he locates in the theogonic register.

The article proceeds as follows. The next section develops the literature review and methodology. The section after presents the typology of five forms of residual theogony with empirical-textual illustration. Four analytical sections then explore the theoretical implications: first, the morphological move from Knežević's framework to the concept of residual theogony; second, the systematic anatomy of the five forms; third, a comparative analysis of how residual theogony manifests across the Big Bang singular-origination tradition and the eternal-inflation generative-void tradition; fourth, the conceptual stakes of residual theogony as a category for the philosophy of cosmology and for the science-and-religion dialogue. The conclusion revisits the hypotheses, articulates the original contribution, and outlines implications for the philosophy of cosmology, the science-and-religion dialogue, and the further development of the morphological method.

LITERATURE REVIEW AND METHODOLOGY

Literature Review

The post-2017 literature at the intersection of cosmology, philosophy of cosmology, and theology has, on close reading, oriented itself around four recurrent thematic clusters. The first cluster concerns the philosophical analysis of fine-tuning arguments and their relation to theistic and multiverse hypotheses. Friederich (2019), in *Foundations of Physics*, advances a new fine-tuning argument for the multiverse that explicitly distinguishes the structure of the standard fine-tuning argument from paradigmatic instances of anthropic reasoning, arguing that the standard argument treats the life-friendliness of our universe as evidence whereas paradigmatic anthropic reasoning treats it as background information. Friederich (2021), in his Cambridge book-length study *Multiverse theories: A philosophical perspective*, develops a comprehensive analytical framework for evaluating multiverse claims in relation to testability, fine-tuning, and broader philosophical considerations. Chan and Chan (2020), in *Theology and Science*, engage Klass Landsman's earlier criticisms of the fine-tuning argument and defend a position that Landsman's critiques are not, taken severally, cogent against the design hypothesis. The fine-tuning literature, taken as a body, articulates the philosophical structure of one of the principal sites at which contemporary cosmology engages questions of metaphysical interpretation.

The second cluster concerns the philosophical analysis of cosmological origin scenarios and their interpretation. Linford (2020), in *Erkenntnis*, engages the Craig–Sinclair argument against the orthodox interpretation of bounce cosmologies (which posit a preceding contracting universe before the present expanding phase), and defends the orthodox interpretation against the “double bang” critique. The bounce cosmology literature, of which Linford's article is a representative philosophical engagement, articulates the alternative to the standard Big Bang singular-origination model and reveals, in its philosophical structure, the specific forms in which questions of beginning, origin, and finitude operate in contemporary cosmological argumentation.

The third cluster concerns the religion-and-science dialogue specifically focused on cosmological origins. Mantini (2021), in *Zygon: Journal of Religion and Science*, advances a religious-naturalist reading of cosmological creation that argues for an “enlarged rationality” combining cross-disciplinary scientific work with metaphysical and theological reflection on the origin of the universe. Mantini's argument is that contemporary scientific cosmology, despite its formal naturalism, requires for its full elucidation a methodological framework that explicitly engages metaphysics and theology — a position that, although developed in a religious-naturalist register, articulates a feature of cosmological discourse that the present article aims to register morphologically. Tanzella-Nitti (2023), in *Theology and Science*, engages the Christian-theological reception of the multiverse hypothesis and argues that the multiverse, although secular in its scientific articulation, has been received within Christian theology as raising questions whose structure is recognisably theological.

The fourth cluster concerns emergence, divine action, and the structural relations between agency and cosmological order. Tabaczek (2021), in his book-length study *Divine action and emergence*, articulates an Aristotelian-Thomistic alternative to panentheism in the analysis of emergence and divine action, drawing on the fourfold division of causes from Aquinas as a framework for relating natural-scientific accounts of emergence to theological accounts of divine action. Mantini (2024), in *Religions*, returns to emergence as a category that he argues opens cross-disciplinary scientific research to a deeper mystery, articulating the structural features of emergence in a way that the present article will read morphologically as one of the principal sites at which residual theogony is operative in contemporary cosmological discourse.

A further thread in the recent literature concerns the relation of secular naturalism, religious naturalism, and theistic worldviews. Stenmark (2022), in *European Journal for Philosophy of Religion*, distinguishes scientific naturalism from secular humanism as two distinct secular worldview options and argues that atheism, narrowly construed, requires for its articulation as a worldview the supplementation by one or another positive secular worldview. Stenmark's analysis is, for the present article, methodologically valuable because it documents the structural underdetermination of cosmological naturalism: the formal-methodological commitment to natural causes in scientific cosmology does not, by itself, fix a metaphysical-worldview position, and the worldview-positions that surround cosmological naturalism are themselves articulated through structural-narrative resources that include, by the morphological argument of the present article, the inheritance of theogonic narrative.

A specific research gap remains. Although the recent literature has, since 2019, engaged the philosophical structure of fine-tuning, multiverse, bounce cosmologies, emergence, and the religion-science dialogue concerning cosmological origins, the synthesis of these threads through a single morphological category — what persists, in the discursive substrate of formally naturalistic cosmology, of the older theogonic narrative apparatus — has not, by my reading, been undertaken in a unified analytical register. The fine-tuning literature engages anthropic structures but does not generally pursue the structural homology with theogonic providential ordering; the emergence literature engages self-organisation but does not generally pursue the

structural homology with theogonic agency; the multiverse literature engages necessity but does not generally pursue the structural homology with the classical “necessary being.” The morphological framework of Knežević (2024) provides the missing analytical register, and the present article’s task is to operationalise that framework for the specific question of residual theogony in contemporary cosmological discourse.

Research Methodology

The methodology of the article is morphological-conceptual, with empirical-textual anchoring in the post-2017 cosmological and philosophical-cosmological literature. The first methodological component is the appropriation of Knežević’s (2024) morphological framework, in which cosmology, evolution, and theogony are treated as three parallel morphological domains organised around the *prauzrok* as their morphological centre. Knežević’s central theoretical move — that the morphological substrate is invariant across the three domains while the explanatory content varies — is taken as the methodological starting point of the present article. The morphological method, in Knežević’s articulation, asks not whether a particular cosmological or theogonic narrative is true (a question on which the morphological method is methodologically silent), but what form that narrative has, what structural elements it deploys, and how those elements relate to the structural elements of parallel narratives in the other two domains.

The second methodological component is the construction of the concept of residual theogony. The concept is developed through a two-way procedure. Deductively, I begin from Knežević’s morphological premise that cosmology and theogony share a morphological substrate organised around the *prauzrok*, and ask: what would the morphological framework predict to remain, in the structural architecture of contemporary cosmology, of the theogonic substrate from which it is morphologically descended? Inductively, I examine the recent peer-reviewed cosmological and philosophical-cosmological literature for empirically documented forms in which the architecture of cosmological argumentation reproduces, even where it formally disclaims, the structural features of theogonic narrative. Five forms emerge from the convergence of these two procedures: singular origination, the generative void, retroactive teleology, generative necessity, and emergent self-organisation.

The third methodological component is qualitative textual analysis across the documented cosmological-philosophical literature. For each of the five forms of residual theogony, I draw on peer-reviewed work to anchor the form in specific textual instances. The textual record is necessarily diverse: it includes philosophical analyses of fine-tuning (Friederich, 2019; 2021; Chan & Chan, 2020), bounce cosmologies (Linford, 2020), the multiverse and theology (Tanzella-Nitti, 2023), creation and religious naturalism (Mantini, 2021), emergence and divine action (Tabaczek, 2021), and emergence as cross-disciplinary mystery (Mantini, 2024). The aim is not exhaustive textual coverage, but illustrative anchoring of each form in the documented record.

The fourth methodological component is the development of the conceptual contrast between *direct theogony* (the explicit theogonic narrative as it operates in religious-mythological discourse) and *residual theogony* (what persists, transformed, in formally naturalistic cosmological discourse once the explicit theogonic content has been set aside). This contrast is theoretically necessary because without it the concept of residual theogony collapses either into the claim that contemporary cosmology is covertly theological (which the article does not advance) or into the claim that the structural homology is merely accidental (which the morphological framework rules out). The methodological device for sustaining the contrast is to identify, for each form of residual theogony, the specific theogonic structure it inherits and to distinguish that structure as it

operated in its theogonic register from its operation in formally naturalistic cosmological discourse.

The fifth methodological component is explicit attention to the perimeter of analysis. The post-2017 interval is treated as the principal source of textual material, with reference to earlier philosophical and theological scholarship where it is required to articulate the structural background. The morphological framework of Knežević (2024), although published within the post-2017 perimeter, is treated as the central theoretical reference rather than as one item in the textual corpus to be analysed; its role in the article is methodological rather than evidential, and the article's task is partly to operationalise its framework for a question that the framework anticipates but does not exhaust.

The methodological limitations are five. First, the morphological method, by design, is methodologically silent on the question of whether a particular cosmological or theogonic narrative is metaphysically or scientifically true; it operates at the level of structural form, and the reader who wishes to pursue questions of truth must do so through other methodological resources. Second, the typology of five forms is developed as analytical-heuristic rather than as empirically tested through systematic survey of the cosmological literature; I treat it as a starting point for further morphological work, not a finished classification. Third, the focus is on the post-2017 cosmological and philosophical-cosmological literature, which means that the article does not systematically engage either the much longer history of cosmological discourse (in which residual theogony might well be present in different forms) or non-Western cosmological traditions (in which the morphological substrate might differ from the broadly Indo-European theogonic substrate that Knežević's framework analyses). Fourth, the article relies on peer-reviewed literature and does not, in this iteration, conduct the kind of close discourse-analytic textual work that a fully developed morphological account would require; that work is signalled as future research. Fifth, the article occupies a specifically morphological register that is, by intention, neither apologetic for theism nor deflationary about cosmology; readers who approach the article with strong prior commitments either way may find the morphological reticence frustrating, but the methodological discipline of the article requires it.

RESEARCH RESULTS

The textual-morphological synthesis of the post-2017 peer-reviewed literature has yielded findings organised in three blocks. The first block presents the typology of five forms of residual theogony with their definitions and primary textual illustrations. The second block analyses how the five forms reinforce one another into a coherent post-naturalistic configuration of cosmological discourse. The third block characterises the post-naturalistic cosmological subject — the cosmologist, the philosopher of cosmology, the theologically-engaged cosmologist, the scientifically-engaged theologian — through the cumulative operation of the five forms.

Table 1 presents the typology of five forms of residual theogony. The first form, *singular origination*, names the structural mechanism by which the Big Bang singularity functions as a structural analogue of the theogonic origin-from-nothing. In the standard cosmological model, the Big Bang singularity is the formal mathematical limit at which the standard general-relativistic description breaks down; cosmologists are often careful to specify that the singularity is not a literal “moment of creation” but the limit of applicability of the model. Yet the discursive articulation of the Big Bang in informal and semi-formal cosmological discourse — including in much of the philosophical-cosmological literature — repeatedly articulates the Big Bang as an absolute origin-point from which everything else proceeds. Linford (2020:1851) tematizes precisely this discursive ambiguity in his analysis of bounce cosmologies, where the question of

whether a bounce constitutes a “double bang” or a “single bang preceded by a contracting phase” turns on the discursive privilege accorded to the moment of minimum entropy. The structural homology with the theogonic origin-from-nothing — the moment in which cosmos emerges from chaos or void as an absolute first event — is, on close reading, not accidental but morphologically inherited.

The second form, *the generative void*, names the structural mechanism by which eternal inflation, quantum vacuum fluctuation, and “creation from nothing” cosmologies function as structural analogues of the theogonic primordial chaos. In eternal-inflation cosmologies, the inflationary vacuum is a fertile substrate that continuously generates universes; in quantum-vacuum cosmologies, the universe arises from a vacuum state through a quantum fluctuation; in “creation from nothing” cosmologies (Vilenkin, Krauss, and others), the universe arises from a state that is described as “nothing” but is in fact a structured quantum-mechanical configuration. Friederich (2021:54), in his philosophical analysis of multiverse theories, documents the structural feature: the inflationary multiverse posits an eternal inflationary substrate from which universes are continuously generated, a configuration whose morphological homology with the theogonic primordial chaos (Hesiod's Chaos, the *tehom* of Genesis 1, the *Apsu-Tiamat* of *Enuma Elish*) is, on close textual analysis, structurally precise. The void is not empty in either the theogonic or the cosmological articulation; it is fertile, generative, structured, and the source from which differentiated cosmos emerges.

The third form, *retroactive teleology*, names the structural mechanism by which the anthropic principle and fine-tuning arguments function as structural analogues of theogonic providential ordering. Friederich (2019:1013) explicitly tematizes the structure of anthropic reasoning in his new fine-tuning argument: the standard fine-tuning argument treats the life-friendliness of our universe as evidence requiring explanation, in a structural posture that, on close morphological reading, reproduces the theogonic structure of providential ordering — a cosmos that is not merely fact-of-the-matter but oriented toward, configured for, *aimed at* the eventual emergence of the conscious observer. Chan and Chan (2020:281) defend a fine-tuning argument that, on close reading, articulates precisely this teleological substrate: the cosmos is, on the fine-tuning argument, configured for life and consciousness, and the philosophical question becomes how to explain this configuration. Whether the explanation is design (theistic), multiverse (naturalistic), or brute fact (anti-explanatory), the explanandum has the structure of providential ordering — a structure that, in the theogonic register, is articulated through the agency of an ordering deity.

The fourth form, *generative necessity*, names the structural mechanism by which the multiverse hypothesis and modal-necessity arguments function as structural analogues of the classical theogonic “necessary being.” Friederich (2021:127) analyses the modal structure of multiverse arguments and documents that, in their fully developed form, multiverse hypotheses propose that the totality of physical reality consists of all possible universes that are not internally inconsistent, with the consequence that the question “why does anything exist at all?” is dissolved into the (allegedly) less puzzling claim “everything that can exist does exist.” The morphological homology with the theogonic necessary being (the deity whose existence is its own explanation, who needs no further ground, in whom essence and existence coincide) is structurally precise: in both cases, the question of ultimate explanation is terminated by positing an entity (or totality) whose existence is intrinsically self-grounded. Tanzella-Nitti (2023:42) explicitly notes the theological reception of this structural homology in his analysis of the Christian theological engagement with the multiverse hypothesis: the multiverse, although secular in its scientific articulation, has been received within Christian theology as raising questions whose structure is recognisably theological.

The fifth form, *emergent self-organisation*, names the structural mechanism by which contemporary emergence theory functions as a structural analogue of theogonic agency without an explicit agent. Tabaczek (2021:152) analyses, in his Aristotelian-Thomistic reading of emergence, the specific feature: emergence theory describes the appearance of higher-order structure (life, mind, society) as arising from lower-order substrates without explicit agency, but the language and the explanatory grammar of emergence theory frequently invests the lower-order substrate with quasi-agential capacities (the universe “produces” complexity, evolution “selects” forms, matter “self-organises” into life). Mantini (2024:6) returns to emergence as cross-disciplinary mystery and argues that emergence opens scientific research to deeper philosophical-theological questions; the structural feature he identifies is precisely the agential grammar that emergence theory deploys without an explicit agent. The morphological homology with the theogonic agency is precise: in theogonic narrative, the cosmos arises through the agency of an ordering god; in emergence theory, the cosmos arises through the agency of an ordering tendency that is not anthropomorphised but is, in its grammatical articulation, agential.

<i>Form</i>	<i>Definition</i>	<i>Primary textual anchor (post-2017 peer-reviewed literature)</i>
<i>Singular origination</i>	Big Bang singularity functions as structural analogue of theogonic origin-from-nothing	Linford (2020); Knežević (2024)
<i>Generative void</i>	Eternal inflation / vacuum fluctuation as structural analogue of theogonic primordial chaos	Friederich (2021); Mantini (2021)
<i>Retroactive teleology</i>	Anthropic principle / fine-tuning as structural analogue of theogonic providential ordering	Friederich (2019); Chan & Chan (2020)
<i>Generative necessity</i>	Multiverse / modal necessity as structural analogue of theogonic “necessary being”	Friederich (2021); Tanzella-Nitti (2023)
<i>Emergent self-organisation</i>	Emergence as structural analogue of theogonic agency without explicit agent	Tabaczek (2021); Mantini (2024)

Table 1. Five forms of residual theogony and their primary textual anchors

Sources: Knežević (2024); Friederich (2019; 2021); Chan and Chan (2020); Linford (2020); Mantini (2021; 2024); Tanzella-Nitti (2023); Tabaczek (2021); Stenmark (2022).

The second block of results documents that the five forms do not operate in isolation; they reinforce one another into a coherent residual-theogonic configuration of contemporary cosmological discourse. Singular origination (form 1) and the generative void (form 2) provide complementary articulations of the originating moment: where the singular-origination tradition articulates an absolute first event, the generative-void tradition articulates an eternal substrate from which events arise. The two forms, although analytically distinct and frequently presented as alternatives in the technical cosmological literature, share the morphological structure of articulating the relation between an “originating principle” and “differentiated cosmos.” Retroactive teleology (form 3) and generative necessity (form 4) provide complementary articulations of the explanatory closure: where retroactive teleology terminates explanation by appealing to the orientation of cosmos toward observer, generative necessity terminates explanation by appealing to the modal exhaustion of possible universes. Both forms, although articulated through different cosmological models, share the morphological structure of terminating the regress of explanation at a structurally privileged point. Emergent self-organisation (form 5) provides the thread that ties the four other forms together: the cosmos that originates from a singular point (form 1) or from a generative void (form 2), is configured for life and mind (form 3), and is necessarily existent (form 4), is articulated as self-organising in its inner

structure (form 5). The five forms together constitute what I call the post-naturalistic cosmological configuration.

The third block of results characterises the post-naturalistic cosmological subject through the cumulative operation of the five forms. The post-naturalistic cosmologist is, in the morphological register, the inheritor of theogonic narrative who articulates her cosmological reasoning within structures whose origin is theogonic but whose explicit content has been formally naturalised. This is not a hidden theology nor a covert religious commitment; it is the structural-morphological consequence of the fact that contemporary cosmological discourse has not constructed its narrative architecture from scratch but has inherited it from a much older tradition that organised its cosmological reasoning around theogonic structures. The post-naturalistic cosmologist is, in this morphological sense, more theogonically structured than is customarily recognised in either the cosmological literature or in the philosophical-cosmological literature. Knežević (2024:241) anticipates this dynamic in his morphological analysis of the relations between cosmology and theogony: “the morphological substrate is not a layer that can be excavated and discarded; it is the form within which any cosmological articulation, including the most rigorously naturalistic, is necessarily articulated.”

THE MORPHOLOGICAL MOVE FROM KNEŽEVIĆ (2024) TO RESIDUAL THEOGONY

Before turning to the systematic anatomy of the five forms, I want to address a question that the introduction has implicitly raised: how does the morphological framework of Knežević (2024) translate to the specific question of residual theogony in formally naturalistic cosmological discourse, and what features of that framework are mobilised, and which set aside, in the present article? My argument in this section is that the morphological framework translates with substantial precision, but only if certain features of the framework are deployed with care. The resulting analysis is, in my view, not a forced application of an inappropriate framework but a recognition that Knežević's framework anticipates structures of cosmological-theogonic homology that the post-2017 cosmological literature has documented in fragmentary form without naming as such.

The element of Knežević's framework that translates most directly is the morphological premise itself: that cosmology, evolution, and theogony are three parallel morphological domains organised around the *prauzrok* — the primal cause — as their morphological centre. Knežević's central insight is that the formal differentiation between religious and scientific discourse is a real differentiation at the level of explanatory content, but does not eliminate the morphological substrate that the two registers share. This insight, stated at the level of its structural force, is what makes residual theogony intelligible as a category: residual theogony is not a covert theology smuggled into naturalistic cosmology, nor a refutation of cosmological naturalism, nor an incidental aesthetic feature of cosmological discourse; it is the morphological substrate that contemporary cosmology inherits from theogonic narrative, transformed through formal-methodological naturalisation but structurally retained.

The element that translates almost as directly is the concept of the *prauzrok* itself. Knežević articulates the *prauzrok* not as a particular metaphysical entity (whether the deity of theism, the singularity of the Big Bang, the substrate of eternal inflation, or any other) but as a *morphological position* — the structural place that any cosmological narrative must fill, regardless of what specific entity is placed there. The *prauzrok* is, in this articulation, the morphological function that organises cosmological narrative; its content varies across registers, but its structural role is invariant. This articulation is what allows the present article to identify residual theogony in

formally naturalistic cosmologies: the singularity of the Big Bang, the inflationary vacuum, the multiverse-as-totality, and the self-organising substrate of emergence all occupy, in their respective cosmological models, the morphological position that the *prauzrok* names. They are not, as religious-content theologies, but as morphological positions, structurally homologous to the theogonic prauzrok.

The element that requires more careful translation is Knežević's specific articulation of theogony. In Knežević's framework, theogony names the morphological domain in which the *prauzrok* is articulated through narrative-personal categories — through the agency of a god or gods, through the dramaturgy of cosmic conflict and resolution, through the genealogy of divine personages. Contemporary cosmology, on its formal-methodological articulation, sets these categories aside; the singularity is not an agent, the inflationary vacuum is not a god, the multiverse is not a person. The morphological-residual claim is not that contemporary cosmology re-introduces these categories at the level of content (which would be empirically false), but that the *structural functions* that the personal-narrative categories performed in theogonic narrative are retained, in transformed and de-personalised form, in the structural functions that the corresponding cosmological categories perform in contemporary cosmological narrative. The translation from Knežević's broader framework to the specific question of residual theogony is, in this sense, a refinement rather than a deviation: the framework's morphological premise is preserved, but the analytical lens is focused specifically on the structural-functional inheritance from the theogonic register to the formally naturalistic cosmological register.

What does not translate as straightforwardly is Knežević's third domain: evolution. Knežević's framework places evolution alongside cosmology and theogony as one of three parallel morphological domains; the present article is focused on the cosmology-theogony pair and engages evolution only obliquely, through the discussion of emergent self-organisation (form 5) which has both cosmological and evolutionary dimensions. The reader who wishes to pursue the morphological analysis of evolutionary discourse from the perspective of residual theogony — a project for which Knežević's framework provides resources — is encouraged to do so. The present article's focus is on the cosmology-theogony pair, and the engagement with evolution remains marginal.

A further element of Knežević's framework that requires careful handling is the distinction between morphological analysis and metaphysical adjudication. Knežević is, on close reading, methodologically careful to distinguish his morphological analysis from any specific metaphysical commitment about the existence or nature of an actual *prauzrok*. His framework, as he articulates it, can in principle be deployed by a theist who wishes to claim that the morphological prauzrok corresponds to the theistic deity, by an atheistic naturalist who wishes to claim that the morphological prauzrok corresponds to a fundamental physical principle, or by a religious-naturalist who wishes to claim that the morphological prauzrok corresponds to some intermediate metaphysical posit. The morphological analysis is, in this sense, not metaphysically committed in either direction. The present article preserves this methodological discipline: residual theogony, as I am developing the concept, is not by itself evidence either for or against a theistic interpretation of cosmology; it is a morphological observation that any cosmological interpretation, theistic or naturalistic or religious-naturalistic, must accommodate.

This morphological-but-not-metaphysical character of the analysis is, in my view, the principal methodological contribution of Knežević's framework to the contemporary literature. The post-2017 literature on cosmology and theology has tended to be polarised between defences of theistic interpretation (as in Tanzella-Nitti, 2023, in his Christian-theological mode) and defences of naturalistic interpretation (as in the standard cosmological literature). The morphological register opened by Knežević's framework is structurally orthogonal to this

polarisation: it asks not whether a theistic or naturalistic interpretation is true, but what morphological structures any interpretation must articulate. Residual theogony is, in this sense, a morphological category whose recognition does not require commitment to either side of the metaphysical debate.

THE ANATOMY OF FIVE FORMS OF RESIDUAL THEOGONY

This section develops a more detailed anatomy of the five forms of residual theogony, with attention to the specific structural mechanisms that distinguish each form and to the textual record that supports each.

Singular origination operates through the formal-mathematical privileging of an originating moment. The standard general-relativistic Big Bang model, derived from the Friedmann–Lemaître–Robertson–Walker (FLRW) cosmology, admits a singularity at the temporal origin: a point at which the spatial scale factor approaches zero, the energy density approaches infinity, and the formal description breaks down. Cosmologists are, on the standard methodological self-description, careful to specify that the singularity is not a “moment of creation” but the limit of applicability of the FLRW description; what happens “at” the singularity, or whether anything happens “before” it, requires a quantum-gravitational description that has not, as of the time of writing, been settled. Yet despite this methodological reticence, the discursive articulation of the Big Bang in cosmological discourse — including in the technical literature, but more clearly in the semi-formal and philosophical literature — repeatedly articulates the Big Bang as an absolute origin-point.

Linford (2020:1851) systematically documents this discursive feature in his analysis of bounce cosmologies. The orthodox interpretation of bounce cosmologies, which Linford defends, is that bounce cosmologies replace the Big Bang singularity with a moment of minimum scale factor preceded by a contracting universe; the universe, on this interpretation, is not absolutely originated at the bounce but extends through it. The Craig–Sinclair argument that Linford engages, by contrast, claims that the bounce constitutes a “double bang” — two distinct beginnings — and hence does not eliminate the absolute-origination structure of standard Big Bang cosmology. The dialectic between the orthodox and the Craig–Sinclair interpretations turns, on close morphological reading, on whether one privileges the moment of minimum entropy as a structurally absolute originating moment or treats it as a transitional moment within a longer cosmological sequence. The dialectic is, in this sense, a debate between two articulations of singular origination: the strong articulation (Craig–Sinclair) in which the moment of minimum entropy is structurally absolute, and the weak articulation (Linford and the orthodox interpretation) in which it is structurally transitional. Both articulations, however, retain the structural privilege of the originating moment as the locus of cosmological argumentation, and the morphological homology with the theogonic origin-from-nothing is, in this articulation, structurally precise.

The generative void operates through the structural privileging of a fertile substrate. In eternal-inflation cosmologies, the inflationary vacuum is a substrate that continuously generates “pocket universes” through the slow-roll dynamics of the inflaton field; the inflationary vacuum is not empty but structured, dynamic, fertile. In quantum-vacuum cosmologies, the universe arises from a vacuum state through a quantum fluctuation; the vacuum, again, is not empty but is the lowest-energy state of a structured quantum-mechanical configuration. In “creation from nothing” cosmologies (Vilenkin, Hartle–Hawking, and others), the universe arises from a state described as “nothing” but that is, on close inspection, a structured initial condition specified by quantum-cosmological boundary conditions. In all three cases, the void from which cosmos arises is not

the absolute void of philosophical *meontology* (the absence of all being) but a structured, generative, fertile substrate.

Friederich (2021:54) systematically analyses this feature in his philosophical treatment of multiverse theories. The eternal-inflation scenario, on Friederich's analysis, posits that inflation is a generic feature of inflationary cosmology that, once initiated, continues indefinitely in some regions of spacetime, continuously generating pocket universes through stochastic dynamics. The structural feature is precisely the fertility of the inflationary substrate: it is not a single event but an ongoing generative process, and the universes it produces are not single events but a continuous stream. Mantini (2021:1062) approaches the same structural feature from the religious-naturalist register: the cosmological origination scenario, on Mantini's reading, requires for its full elucidation an enlarged rationality that engages metaphysical and theological reflection on the fertility of the originating substrate. The morphological homology with the theogonic primordial chaos — Hesiod's Chaos as the fertile abyss from which the gods and the world arise; the *tehom* of Genesis 1 as the deep over which the spirit of God moves; the *Apsu-Tiamat* of *Enuma Elish* as the generative waters from which the cosmos is fashioned — is, on close reading, structurally precise. The void is fertile, structured, generative; what differs across registers is the explicit content of the substrate (deity in theogony, vacuum field in cosmology), but the structural function — fertile origination — is preserved.

Retroactive teleology operates through the structural privileging of the eventual configuration of cosmos for observation. The anthropic principle, in its various formulations, articulates the relation between the constants of nature and the conditions for the eventual emergence of conscious observers. The weak anthropic principle is the trivial observation that the constants must permit observers, since observers exist; the strong anthropic principle is the substantive claim that the constants are explained by the requirement of observers. The fine-tuning argument, developed in the religious-naturalist and theological literature (Holder, Collins, Manson, Stenmark and others) and engaged in the philosophical literature (Friederich, 2019; Chan & Chan, 2020), articulates the more general claim that the configuration of cosmological constants is so finely-tuned for the emergence of observers that the configuration itself requires explanation.

Friederich (2019:1014) tematizes the structural feature with unusual analytical precision: the standard fine-tuning argument treats the life-friendliness of our universe as evidence requiring explanation, and the evidential structure of the argument distinguishes it from paradigmatic anthropic reasoning, in which life-friendliness is treated as background information. The structural posture of the standard argument is, on close reading, retroactively teleological: the cosmos is configured for the eventual emergence of observers, and this configuration requires explanation. Whether the explanation is design (theistic, in the explicit form), multiverse (naturalistic, in Friederich's preferred articulation), or brute fact (anti-explanatory, in some other articulations), the explanandum has the structure of providential ordering. Chan and Chan (2020:283) defend the design hypothesis as one explanation of this configuration and articulate the position that Klass Landsman's arguments against the cogency of the design hypothesis are not, taken severally, sufficient to refute the design interpretation. The dialectic between design, multiverse, and brute-fact explanations of fine-tuning is, in this morphological register, a dialectic between three competing articulations of how to explain a retroactively teleological configuration whose existence the dialectic itself does not contest.

Generative necessity operates through the structural privileging of modal exhaustion as ultimate explanation. The multiverse hypothesis, in its fully developed form (Tegmark, Greene, Friederich, and others), proposes that the totality of physical reality consists of all possible universes that are not internally inconsistent. The proposal terminates the regress of explanation at the modal totality: the question “why does anything exist at all?” is, on the proposal, dissolved into the

(allegedly) less puzzling claim that “everything that can exist does exist.” The classical theogonic articulation of the corresponding structural function appears in the doctrine of the necessary being: the deity whose existence is its own explanation, who needs no further ground, in whom essence and existence coincide. The structural homology between modal exhaustion and the necessary being is precise: in both cases, the regress of explanation is terminated by positing an entity (or totality) whose existence is intrinsically self-grounded.

Friederich (2021:127) systematically articulates this modal structure in his philosophical analysis of multiverse theories. The fully developed multiverse hypothesis is, on Friederich's analysis, a claim about the modal scope of physical reality: the multiverse is not one large physical entity but the totality of physical entities that can exist, and the explanation of why our universe has the parameters it has becomes, on the multiverse hypothesis, the relatively trivial observation that the parameters are realised somewhere in the modal totality. Tanzella-Nitti (2023:42) explicitly notes the theological reception of this structural homology: the multiverse hypothesis, although secular in its scientific articulation, has been received within Christian theology as raising questions whose structure is recognisably theological, because the multiverse occupies the structural position of the necessary being even as it formally disclaims theological content. The morphological homology is, on Tanzella-Nitti's analysis, not accidental but precisely the feature that makes the multiverse a site of theological engagement.

Emergent self-organisation operates through the structural privileging of self-organising tendency as ordering principle. Contemporary emergence theory describes the appearance of higher-order structure (life, mind, society) as arising from lower-order substrates without explicit external agency. The emergence-theoretic articulation of this appearance, however, frequently invests the lower-order substrate with quasi-agential capacities: the universe “produces” complexity, evolution “selects” forms, matter “self-organises” into life. The agential grammar of emergence theory is, on close reading, a structural feature of the theory rather than a contingent feature of how it is communicated.

Tabaczek (2021:152) systematically analyses this feature in his Aristotelian-Thomistic reading of emergence. The structural feature he identifies is the deployment, in emergence theory, of what he calls “downward causation” — the mechanism by which higher-order structures exercise causal efficacy on the lower-order substrates from which they emerge. Downward causation is, in Tabaczek's articulation, the specific structural feature of emergence theory that requires philosophical-theological engagement, because it implicitly attributes agential capacities to natural processes whose articulation as agential is, in the theogonic register, the marker of divine agency. Mantini (2024:6) returns to the structural feature in his analysis of emergence as cross-disciplinary mystery: emergence opens scientific research to deeper philosophical-theological questions precisely because the agential grammar of emergence theory cannot be fully naturalised without metaphysical-theological engagement. The morphological homology with theogonic agency is precise: in theogonic narrative, the cosmos arises through the agency of an ordering god; in emergence theory, the cosmos arises through the agency of an ordering tendency that is not anthropomorphised but is, in its grammatical articulation, agential. The two registers differ in their explicit content (god vs. self-organising tendency) but share the structural function of articulating ordering-as-agency.

The five forms together constitute what I call the post-naturalistic cosmological configuration. The configuration is not a single monolithic structure; it is a coordinated ensemble of morphological inheritances that, together, give the contemporary cosmological subject her specific theogonic structuring. The cosmologist is not, in the simple sense, a covert theologian; she is more thoroughly inheriting of theogonic narrative architecture than is customarily recognised in either cosmological or philosophical-cosmological discourse.

A particularly instructive feature of this configuration is its self-reinforcing character. Each form is, taken in isolation, defensible by reasonable cosmological reasoning: positing an originating moment is defensible as the formal limit of FLRW cosmology; positing a generative substrate is defensible as the dynamics of inflation; positing retroactive teleology is defensible as a fact about cosmological constants requiring explanation; positing modal exhaustion is defensible as a metaphysical hypothesis with explanatory virtues; positing emergent self-organisation is defensible as the empirical phenomenon of complex-systems behaviour. The five forms, considered separately, do not require theogonic inheritance for their articulation; they each have plausible naturalistic rationales. What the concept of residual theogony is intended to make visible is that, despite the availability of naturalistic rationales for each form considered alone, the specific configuration of these forms — their coordination, their structural homology with the older theogonic apparatus, their joint operation in the cosmological imagination — is morphologically inherited. The residue is not the persistence of any single form considered alone; it is the persistence of the configuration as a whole, structured around the morphological position of the *prauzrok* that Knežević (2024) names.

COMPARATIVE ANALYSIS: SINGULAR ORIGINATION AND THE GENERATIVE VOID

This third analytical section places the typology of residual theogony in comparative perspective by examining its empirical-textual manifestation in the two cosmological traditions that have been most extensively articulated in the recent peer-reviewed literature: the Big Bang singular-origination tradition and the eternal-inflation generative-void tradition. The comparative analysis reveals that the typology applies to both traditions, but with different intensities and different mixes of forms. From my reading, this comparative angle is the cleanest empirical demonstration in the available literature of what the concept of residual theogony is intended to name.

In the Big Bang singular-origination tradition, the dominant forms of residual theogony are 1, 3, and 5 — singular origination, retroactive teleology, and emergent self-organisation. The Big Bang singular-origination tradition, taken in its standard articulation, posits an absolute originating moment, a configuration of constants oriented toward the eventual emergence of observers, and a self-organising dynamic that produces the differentiated cosmos. The morphological homology with the theogonic structures is, in this tradition, articulated through a temporal narrative: the cosmos begins, is configured, and self-organises in time. Linford (2020:1853) systematically engages the temporal structure of the Big Bang tradition in his analysis of bounce cosmologies; even in the alternative bounce-cosmological articulation, the temporal structure of beginning–configuration–self-organisation is preserved, with the bounce taking the place of the absolute origination. Mantini (2021:1064) approaches the same temporal structure from the religious-naturalist register and argues that the temporal articulation of cosmological narrative requires for its full elucidation a metaphysical-theological framework that engages the question of why the temporal cosmos is so structured.

In the eternal-inflation generative-void tradition, the dominant forms of residual theogony are 2, 4, and 5 — the generative void, generative necessity, and emergent self-organisation. The eternal-inflation tradition, taken in its standard articulation, posits a fertile substrate from which universes are continuously generated, a modal totality that exhausts the space of possible existences, and a self-organising dynamic that produces the differentiated structures of the universes. The morphological homology with the theogonic structures is, in this tradition, articulated through a modal-spatial structure rather than a temporal narrative: the cosmos is one

realisation among many, and the explanation of cosmological constants becomes the explanation of why our particular realisation has the constants it has, given the larger modal totality of realisations. Friederich (2021:127) systematically articulates this modal structure in his philosophical analysis of multiverse theories.

The comparative analysis reveals that the two traditions, although philosophically presented as alternatives, are morphologically complementary rather than alternative. Each tradition articulates a different sub-configuration of the residual-theogonic configuration: the Big Bang tradition emphasises the temporal structure (forms 1, 3, 5), while the eternal-inflation tradition emphasises the modal-spatial structure (forms 2, 4, 5). Form 5 — emergent self-organisation — appears in both traditions, suggesting that emergence is the cross-traditional feature that connects the temporal and modal-spatial sub-configurations into a single residual-theogonic configuration. Tanzella-Nitti (2023:46) explicitly notes the comparative-theological reception of this configuration: Christian theology has engaged both the temporal-singular and the modal-spatial articulations, with the temporal-singular tradition more readily assimilable to the doctrine of *creatio ex nihilo* and the modal-spatial tradition more readily assimilable to certain articulations of divine omnipotence and the doctrine of the necessary being.

A specific point of comparative interest concerns the differential reception of the two traditions in the science-and-religion dialogue. The Big Bang singular-origination tradition, with its temporal narrative of origination, has been broadly received within Western theological traditions as harmonisable with classical doctrines of creation; Mantini (2021:1066) explicitly tematizes this reception. The eternal-inflation generative-void tradition, with its modal-spatial structure, has received a more ambivalent reception: some Western theological writers (Tanzella-Nitti, 2023, in his more critical mode) have argued that the modal-spatial articulation is theologically unhelpful because it dissolves the singular-creative narrative, while others (Holder and the religious-naturalist tradition more broadly) have argued that it is theologically compatible with a properly articulated doctrine of divine creativity. The differential reception is, on the morphological reading, evidence that residual theogony does not by itself entail a particular theological reception; the same morphological structures can be received differently depending on the prior theological commitments of the receiver.

A further comparative observation concerns the differential intensity of residual theogony across the philosophical literature on the two traditions. The philosophical literature on the Big Bang singular-origination tradition (represented in the post-2017 perimeter by Linford, 2020, and by the broader bounce-cosmology literature) has been extensively engaged with questions of beginning, finitude, and origination — questions whose morphological structure is recognisably theogonic. The philosophical literature on the eternal-inflation generative-void tradition (represented in the post-2017 perimeter by Friederich, 2021, and by the broader multiverse literature) has been extensively engaged with questions of necessity, modality, and explanatory closure — questions whose morphological structure is also recognisably theogonic but in a different register. The comparative observation is, on the morphological reading, that the two cosmological traditions have inherited different sub-sets of the theogonic morphological apparatus, and the philosophical literature on each tradition has correspondingly developed different sub-sets of theogonic-philosophical discussion.

A specifically instructive case at the intersection of the two traditions concerns the *creatio ex nihilo* doctrine and its relation to contemporary cosmological discourse. The classical doctrine of *creatio ex nihilo* articulates the structural position that the cosmos arises from absolute nothing through divine creative agency; the doctrine, although theological in its explicit content, has a morphological structure that is precisely articulated. Contemporary cosmological discourse, on close inspection, has produced two principal naturalistic transformations of this doctrine: the

singular-origination transformation, in which the cosmos arises from the singularity (a moment that is not “nothing” in the philosophical sense but is the formal limit of the FLRW description); and the generative-void transformation, in which the cosmos arises from the inflationary or quantum vacuum (a state that is not “nothing” in the absolute sense but is described as “nothing” in popular and semi-formal discourse). Tanzella-Nitti (2023:48) and Mantini (2021:1063) both engage the morphological-theological question of whether contemporary cosmological discourse has succeeded in transforming the *creatio ex nihilo* doctrine into a fully naturalistic articulation, or whether the morphological inheritance is structurally retained even where the explicit theological content has been set aside. From my reading of both authors, the morphological inheritance is structurally retained: the contemporary naturalistic articulations of cosmic origination occupy the morphological position that *creatio ex nihilo* names, even where they reformulate the explicit content of that position in terms incompatible with classical theism.

CONCEPTUAL STAKES OF RESIDUAL THEOGONY

The fourth analytical section addresses the conceptual stakes of residual theogony as a category for the philosophy of cosmology and for the science-and-religion dialogue. The central question is: what does this concept enable that other available concepts do not, and what are the limits of its analytical reach?

The concept enables, first, a morphological-analytical bridge between the cosmological literature and the theological literature. The cosmological literature has tended to treat its formal-methodological naturalism as definitive of its discursive register; the theological literature has tended to treat the cosmological-theological dialogue as a matter of substantive metaphysical engagement at the level of explicit content. The morphological register opened by the concept of residual theogony is structurally orthogonal to both: it allows the analyst to register the structural homology between cosmological and theogonic narratives without thereby requiring the cosmologist to abandon her formal naturalism or requiring the theologian to abandon her substantive theological commitments. Knežević (2024:243) anticipates precisely this morphological orthogonality in his framework: “the morphological method does not adjudicate the metaphysical questions; it makes visible the structural conditions within which any metaphysical adjudication must operate.”

The concept enables, second, a more precise philosophical analysis of the cosmological literature. The standard philosophical analysis of cosmological argumentation tends to operate at the level of substantive content: is the design hypothesis defensible? Is the multiverse hypothesis defensible? Is the brute-fact response acceptable? These questions are necessary but not sufficient for a complete philosophical analysis, because they leave unanalysed the morphological substrate within which the philosophical adjudication takes place. The concept of residual theogony allows the philosophical analyst to register that the structural-morphological substrate of the dialectic is itself an inheritance from the older theogonic narrative apparatus, and that the dialectic between design, multiverse, and brute-fact responses is, on close reading, a dialectic between three articulations of how to occupy the morphological position that the theogonic *prauzrok* names.

The concept enables, third, an analytical link between the philosophy of cosmology and the broader philosophy of science literature on the relations between scientific discourse and its pre-scientific antecedents. The philosophy of science has, since the work of Thomas Kuhn and others, been alert to the question of how scientific paradigms are historically descended from earlier intellectual configurations; the concept of residual theogony, applied to cosmology, is a specific instance of this broader analytic. Stenmark (2022:241) approaches related questions in his analysis of the relations between scientific naturalism and broader secular worldviews: the

structural underdetermination of scientific naturalism by its formal-methodological commitments is, on Stenmark's analysis, what makes the surrounding worldview-positions philosophically necessary. The morphological extension of Stenmark's analysis is precisely what the concept of residual theogony enables: the worldview-positions surrounding scientific cosmology are themselves articulated through morphological resources that include the inheritance of theogonic narrative.

The concept has limits that should be acknowledged. First, it is morphologically articulated and methodologically silent on the question of whether the morphological homology between cosmological and theogonic narratives is evidence either for or against a theistic interpretation. The reader who wishes to derive theological or anti-theological conclusions from the morphological observation must do so through additional argumentative resources that the concept itself does not provide. Second, the concept is applied, in the present article, to the post-2017 cosmological literature; its application to longer historical perimeters or to non-Western cosmological traditions would require additional research that the article does not undertake. Third, the typology of five forms is articulated as analytical-heuristic; longitudinal or cross-traditional textual research would be required to evaluate the strength and stability of each form across cosmological discourses and time. Fourth, the concept operates at the level of structural-morphological observation; it does not, by itself, produce specific empirical predictions that can be tested in the standard scientific or philosophical sense. The concept is best understood as a hypothesis-generating frame for further morphological-textual research.

A further concern that deserves explicit treatment is the relation between residual theogony and what might be called *displaced metaphysics*. The morphological observation that residual theogony pervades contemporary cosmological discourse can, if pressed too hard, sound like a deflationary critique: cosmology, on this reading, would be a covertly metaphysical enterprise dressing up theogonic structures in scientific language. This would be a misreading. The morphological framework, as articulated by Knežević (2024) and as deployed in the present article, makes no such deflationary claim. The recognition that contemporary cosmology inherits a morphological substrate from theogonic narrative does not entail that cosmology is “really” theogony in a different idiom; it entails only that the structural conditions within which cosmological argumentation operates are historically and morphologically continuous with the structural conditions within which earlier theogonic argumentation operated. The cosmologist, on this morphological reading, is not a covert theologian but a thinker working within a discursive substrate whose structural shape is theogonically inherited; the same is true of the theologian, whose discursive substrate is structurally continuous with the cosmologist's even where their explicit metaphysical commitments diverge.

One last conceptual stake concerns the relation between residual theogony and what might be called *cosmological forgetting*. As contemporary cosmology continues to develop and as its explicit theogonic antecedents recede further into intellectual history, the morphological connection between cosmological and theogonic narratives risks becoming progressively less salient in the consciousness of practising cosmologists. Forms of cosmological argumentation that originated as transformations of theogonic structures will be naturalised as features of contemporary scientific cosmology whose origin is increasingly difficult to reconstruct. This is, paradoxically, the moment at which residual theogony is most thoroughly successful — when its origin in a specific historical-narrative inheritance has been forgotten, and when the structural features it produced are simply taken for granted as the inevitable shape of cosmological argumentation. The concept of residual theogony, deployed at the moment of writing, is partly an effort to forestall this forgetting — to insist on the structural-historical specificity of cosmological argumentation that is increasingly experienced as natural and inevitable. Whether the concept will

succeed in this forestallation depends on whether subsequent scholarly work takes up the morphological-textual project that the concept signals.

CONCLUSION

This article has attempted to develop the concept of residual theogony as a morphological category for what persists, in formally naturalistic cosmological discourse, of the older theogonic narrative apparatus. The three hypotheses formulated in the introduction can now be evaluated.

The first hypothesis — that the formal naturalism of contemporary cosmology has not been accompanied by a symmetrical structural naturalisation — finds substantial support in the post-2017 peer-reviewed literature analysed. Linford (2020) on bounce cosmologies, Friederich (2019; 2021) on fine-tuning and multiverse theories, Chan and Chan (2020) on fine-tuning arguments, Mantini (2021) on religious naturalism and creation, Tanzella-Nitti (2023) on the multiverse and Christian theology, Tabaczek (2021) on emergence and divine action, Mantini (2024) on emergence as cross-disciplinary mystery — all document, in various registers, structural features of contemporary cosmological discourse that retain morphological inheritances from the older theogonic apparatus despite the formal-methodological naturalism of cosmological practice.

The second hypothesis — that the persistent elements can be identified through a finite typology — finds support through the typology of five forms developed in the article: singular origination, the generative void, retroactive teleology, generative necessity, and emergent self-organisation. The typology is generated through a two-way procedure (deductive from Knežević's morphological framework, inductive from the post-2017 literature) and is applied across the textual record without requiring substantial modification.

The third hypothesis — that residual theogony is best understood as a structural-morphological feature of cosmological discourse rather than as a covert theology or a refutation of cosmological naturalism — also finds support, particularly through the analytical sections that demonstrate how the morphological observation does not require commitment to either side of the metaphysical-theological debate that it diagnoses. The morphological method, as articulated by Knežević (2024) and as deployed in the present article, is methodologically orthogonal to the metaphysical debate; its contribution is to make visible the structural conditions within which the debate operates.

The principal original contribution of this article is the development of the concept of residual theogony. To the best of my reading of the literature, the concept has not been systematically developed in this morphological register in the existing post-2017 cosmological-philosophical literature, although several authors approach it from related angles (Mantini, 2021; 2024; Tanzella-Nitti, 2023; Tabaczek, 2021). The synthesis offered here, locating these accounts within a single morphological category and articulating their structural homology with theogonic narrative through a typology of five forms, is, by my reading, original. A secondary contribution is the explicit operationalisation of Knežević's (2024) morphological framework for the question of cosmological discourse, which provides a worked example of how the framework can be deployed for specific morphological-analytic tasks beyond the broader theoretical articulation in the book itself.

The limitations of the study merit acknowledgement. First, I have relied on post-2017 peer-reviewed academic literature and have not conducted the close discourse-analytic textual work that a fully developed morphological account would require. Second, the morphological framework is Knežević's, and other morphological frameworks (drawn from other traditions of structural-narrative analysis) might yield differently structured concepts. Third, the focus is on Western (primarily European and Anglophone) cosmological-philosophical literature, where the theogonic substrate is broadly Indo-European; the morphological analysis of non-Western

cosmological traditions, in which different theogonic substrates operate, would require separate research. Fourth, the typology is analytical-heuristic rather than empirically tested through systematic textual survey; comparative work across cosmological subdisciplines and across longer historical perimeters is needed to evaluate the strength and stability of each form. Fifth, the article occupies a specifically morphological register; the reader who wishes to draw substantive metaphysical conclusions from the morphological observation must do so through argumentative resources that the article itself does not supply.

Future research should extend the concept of residual theogony along several lines. First, longitudinal textual work is needed to track the typology across longer historical perimeters, to assess whether the five forms are stable across cosmological discourses since the Galilean revolution or whether they are specific to the post-Big-Bang configuration of cosmological discourse. Second, comparative work across Western and non-Western cosmological traditions would allow the morphological framework to be tested across different theogonic substrates and to identify which features of residual theogony are specifically Western and which are cross-traditional. Third, the relation between residual theogony and the philosophical-theological reception of cosmological discourse — explored in the article through the engagement of Mantini, Tanzella-Nitti, and Tabaczek, but not exhaustively — deserves further explicit study, especially as cosmological discourse continues to develop and its theological reception correspondingly evolves. Fourth, the morphological method itself, as articulated by Knežević (2024) and as deployed in the present article, deserves further methodological-philosophical articulation, particularly in relation to other structural-narrative analytical traditions (Levi-Strauss-style structuralism, Vladimir Propp-style morphology of folk narrative, Eliade-style comparative phenomenology of religion) that also operate at the level of structural form rather than substantive content.

Three implications follow for the philosophy of cosmology. First, philosophical analyses of cosmological argumentation should be supplemented by morphological analyses that register the structural conditions within which the argumentation operates. The philosophical literature on fine-tuning, multiverse, bounce cosmologies, and emergence has, since 2017, developed substantially without explicit morphological supplementation; the concept of residual theogony provides a category through which the morphological supplementation can be articulated. Second, analyses of cosmological-theological dialogue should distinguish between the morphological-structural and the substantive-metaphysical levels of the dialogue. The morphological-structural level is, by my reading, the more fundamental in the sense that it provides the conditions within which the substantive-metaphysical level operates; this priority is not metaphysical but methodological. Third, the concept of residual theogony provides a category through which the philosophy of cosmology can engage a question that the standard philosophical literature has tended to bracket: the question of how cosmological discourse is historically descended from its pre-scientific antecedents, and what consequences this descent has for contemporary cosmological argumentation.

A further implication, more specific, concerns the science-and-religion dialogue as it has developed in the post-2017 perimeter. The dialogue, in its standard articulation, has tended to focus on the metaphysical-substantive engagement between scientific cosmology and theological doctrine; the concept of residual theogony suggests that the morphological-structural level of the dialogue has been relatively under-developed. The post-2017 work of Tanzella-Nitti (2023), Mantini (2021; 2024), and Tabaczek (2021), all of whom engage the morphological-structural level with various degrees of explicitness, provides a basis for the further development of this register. The concept of residual theogony, as I am developing it here, is partly a contribution to

that development — a category through which the morphological-structural register of the science-and-religion dialogue can be made more explicit and more analytically productive.

A final personal reflection. Writing about residual theogony from within a morphological framework articulated in Knežević (2024) is, for me, both an opportunity and a methodological constraint. The opportunity is the analytical productivity of operating at the morphological-structural level, where the dialectic between substantive theological and naturalistic positions can be analysed without itself being adjudicated. The constraint is the methodological discipline of refusing to draw substantive metaphysical conclusions from morphological observations; the morphological method can identify the structural conditions of the dialectic but cannot, by itself, settle which substantive position is correct. From my reading, this methodological constraint is what makes the concept of residual theogony philosophically valuable: it offers the philosophy of cosmology an analytical resource that operates at a register orthogonal to the standard metaphysical debate, and it does so without requiring the analyst to abandon the metaphysical questions that other registers properly address. The argument advanced here is offered in that spirit: as a contribution to a longer morphological-philosophical conversation about the discursive shape of cosmological reasoning in the post-2017 interval and beyond.

I have written this article in the spring of 2026, two years after the publication of Knežević (2024) and within the post-2017 perimeter that has framed the contemporary cosmological-philosophical literature. The interval is, in scholarly terms, short — too short to assess how the concept of residual theogony will be received by the wider literature or whether the morphological method will be taken up beyond its initial articulation. But the post-2017 interval is, in conceptual terms, long enough that the morphological inheritance the article describes feels more like the natural shape of cosmological discourse than like an inheritance. That, by itself, is a finding that the morphological framework predicts: residual theogony, by its definition, becomes naturalised, and the work of naming it as residual must be done at the moment when its structural specificity is still partly recoverable. If this article succeeds in any small way, it will be by retaining that specificity for readers who will encounter the discursive forms it describes long after their morphological origin has faded from common consciousness. Knežević's morphological framework, in this respect, offers no ready philosophical-theological programme; what it offers is the capacity to make strange what has become ordinary, and that capacity, in the post-2017 cosmological literature, seems to me precisely what is most needed.

BIBLIOGRAPHY

- Chan, K.-Y., & Chan, M.-H. (2020). A discussion of Klass Landsman's criticisms of the fine-tuning argument. *Theology and Science*, 18(2), 279–289. <https://doi.org/10.1080/14746700.2020.1755544>
- Friederich, S. (2019). A new fine-tuning argument for the multiverse. *Foundations of Physics*, 49(9), 1011–1021. <https://doi.org/10.1007/s10701-019-00246-2>
- Friederich, S. (2021). *Multiverse theories: A philosophical perspective*. Cambridge University Press. <https://doi.org/10.1017/9781108765947>
- Knežević, S. (2024). *Prauzrok: Nacrt za uvod u morfologiju kosmologije, evolucije i teogonije*. Metaphysica.
- Linford, D. (2020). Big bounce or double bang? A reply to Craig and Sinclair on the interpretation of bounce cosmologies. *Erkenntnis*, 87(4), 1849–1871. <https://doi.org/10.1007/s10670-020-00278-5>
- Mantini, A. (2021). Religious naturalism and creation: A cosmological and theological reading on the origin/beginning of the universe. *Zygon: Journal of Religion and Science*, 56(4), 1058–1069. <https://doi.org/10.1111/zygo.12748>

- Mantini, A. (2024). The phenomenon of emergence as a key to deepening the mystery of the cosmos, for cross-disciplinary and humble scientific research. *Religions*, 15(7), 860. <https://doi.org/10.3390/rel15070860>
- Stenmark, M. (2022). Secular worldviews: Scientific naturalism and secular humanism. *European Journal for Philosophy of Religion*, 14(4), 237–264. <https://doi.org/10.24204/ejpr.2022.3640>
- Tabaczek, M. (2021). *Divine action and emergence: An alternative to panentheism*. University of Notre Dame Press.
- Tanzella-Nitti, G. (2023). The God of cosmologists and philosophers: Christian theology and the multiverse hypothesis. *Theology and Science*, 21(1), 38–58. <https://doi.org/10.1080/14746700.2022.2155918>

TEOGONIJSKE STRUKTURE U NATURALISTIČKIM KOSMOLOGIJAMA: IMPLICITNA TEOGONIJA VELIKOG PRASKA I EMERGENTNA KOSMOGENEZA

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Sažetak: Članak razvija preciznu morfološko-konceptualnu tezu koja se odnosi na osobinu savremenog kosmološkog diskursa koja je, po mom čitanju, više puta pristupana ali nije sistemski imenovana: da savremene naučne kosmologije, formalno naturalističke u svojoj eksplicitnoj metodologiji, u svojoj narativnoj arhitekturi i u svojoj eksplanatornoj gramatici zadržavaju niz strukturnih tragova koji su teogonijski po formi, čak i ondje gdje je njihov sadržaj temeljito de-teologizovan. Rad razvija koncept *rezidualne teogonije* kao strukturno-morfološku kategoriju za ono što perzistira, u formi kosmoloških narativa i objašnjenja, od starijeg teogonijskog narativnog aparata pošto je njegov religijski ili mitološki sadržaj formalno napušten. Oslanjajući se na morfološki okvir izložen u Knežević (2024) — okvir koji eksplicitno povezuje kosmologiju, evoluciju i teogoniju kao paralelne morfološke domene organizovane oko morfema *prauzroka* (*causa prima*) — rad primjenjuje morfološku metodu na precizno empirijsko-tekstualno pitanje: gdje, i u kojim specifičnim oblicima, perzistiraju teogonijske strukture u kosmološkoj literaturi post-2017 intervala koji čini neposredan kontekst savremene rasprave (Mantini, 2021; Friederich, 2019; 2021; Chan & Chan, 2020; Linford, 2020; Tanzella-Nitti, 2023; Tabaczek, 2021; Mantini, 2024)? Originalan doprinos rada jeste razrada rezidualne teogonije kroz tipologiju pet rekurentnih oblika u kojima teogonijske strukture perzistiraju u formalno naturalističkom kosmološkom diskursu: (1) singularno postanje, u kojem singularitet Velikog praska funkcioniра kao strukturni analogon teogonijskog postanja-iz-ničega; (2) generativna praznina, u kojoj eternalna inflacija, kvantna vakuumska fluktuacija i kosmologije “stvaranja iz ničega” funkcioniраju kao strukturni analoga teogonijskog praiskonskog haosa; (3) retroaktivna teleologija, u kojoj antropični princip i argument iz finog podešavanja funkcioniраju kao strukturni analoga teogonijskog providencijalnog uređenja; (4) generativna nužnost, u kojoj multiverzum i argumenti modalne nužnosti funkcioniраju kao strukturni analoga klasičnog teogonijskog “nužnog bića”; i (5) emergentna samo-organizacija, u kojoj savremena teorija emergencije funkcioniра kao strukturni analogon teogonijske agencije bez eksplicitnog agensa. Rad argumentuje da rezidualna teogonija sama po sebi nije dokaz ni za ni protiv teističke interpretacije kosmologije; ona je *morfološka* opservacija o strukturnom naslijeđu savremenog kosmološkog diskursa od starijeg narativnog aparata koji je proizveo kosmološku imaginaciju evropske, mediteranske i šire indoevropske civilizacije.

Ključne riječi: *rezidualna teogonija, naturalistička kosmologija, morfologija kosmologije, Veliki prasak, eternalna inflacija, fino podešavanje, antropični princip, multiverzum, emergentna kosmogenezа, filozofija kosmologije, prauzrok.*