Unifying Kinds without Hylemorphism

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David Oderberg has recently extended classical Aristotelian-Thomistic hylemorphism beyond traditional substance ontology to analyse linguistic, ethical and political kinds. Whilst this project identifies important structural features of these domains, I argue that his hylemorphic apparatus is unnecessary. Drawing on the 'Unification Principle' (UP) account of natural kinds, I demonstrate that Oderberg's insights can be captured more parsimoniously and with greater empirical constraint. I further argue that the mind-independence criterion for natural kinds applies to the unification principles themselves rather than to the kinds directly, allowing this framework to accommodate social and linguistic entities. The UP approach thus handles Oderberg's case studies effectively whilst avoiding the metaphysical commitments and structural problems associated with hylemorphism.

I

Introduction. The revival of Aristotelian-Thomistic metaphysics in analytic philosophy has recently generated new defences of hylemorphism, the doctrine that substances are compounds of matter and form (Oderberg 2007; Koslicki 2008, 2018; Marmodoro 2013; see Simpson 2023 for an overview). David Oderberg's most recent work extends this framework beyond traditional substance ontology to analyse diverse phenomena including linguistic expressions, human actions, and political entities.

Oderberg's project raises fundamental questions about the scope and necessity of hylemorphic analysis. When he argues that a political community has organizational structure as its form and population plus material resources as its matter, or that a linguistic expression has grammatical structure as form and phonological units as matter, he does identify structural features that call for an

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explanation. The question is whether hylemorphism provides the best explanation, or whether these phenomena are better understood through alternative frameworks.

In this paper, I argue that Oderberg's insights can be captured more parsimoniously using the natural kinds framework I have developed elsewhere (Tahko 2022; Bellazzi and Tahko 2025). On my view, what makes a kind natural or genuine is not whether its instances exhibit matter-form composition, but whether they are unified by an objective, mind-independent unification principle (UP). This approach shares Oderberg's overall goal of identifying objective structure in nature whilst avoiding both the metaphysical baggage of classical hylemorphism and certain structural problems that have been identified with the framework (Lowe 2015).

After briefly reviewing Oderberg's hylemorphic programme (§II), I outline my alternative UP framework and explain how the mind-independence criterion applies to unification principles rather than directly to kinds (§III). I then show how this framework handles Oderberg's linguistic, ethical and political examples more elegantly than hylemorphism (§IV), before considering some objections (§V), and concluding (§VI).

II

Oderberg's Hylemorphic Programme. Oderberg extends classical Aristotelian-Thomistic hylemorphism beyond material substances to what he calls 'non-substantial entities' such as linguistic expressions, intentional actions, and political communities. His extension rests on an analogy: just as material substances are compounds of prime matter and substantial form, these other entities exhibit an analogous matter-form structure. While these entities may not neatly fall into traditional natural kinds, they may be regarded as members of linguistic, human/social, or artefactual kinds.

2.1 *The Core Hylemorphic Framework.* In classical hylemorphism, prime matter is 'undifferentiated substrate' that is actualized by substantial form, which serves as an 'organizing principle' and specifier of a kind. The form determines what the substance is, its essence and identity, whilst matter serves as the principle of individuation. Form and matter are incomplete constituents that complete

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each other in the substance they jointly constitute: 'form is the *actualizer* and matter is the *potentiality* for actualization' (Oderberg 2026, p. 191).

Oderberg is careful to distinguish form from structure. Whilst structural hylemorphists might identify form with relational or organizational structure (see especially Koslicki 2008, 2018), Oderberg insists that classical form is '*qualitative*, never merely quantitative'. Form involves 'how matter is qualitatively specified by those relations and quantities, among other characteristics such as place, time, action, passion, sensory features, and so on' (Oderberg 2026, p. 206). This robust metaphysical conception makes form more than just structure or organization.

2.2 *Extension to Non-Substantial Entities.* Oderberg applies this framework analogically to three domains:

> *Linguistic kinds*. A linguistic expression has phonological or graphemic units as matter and grammatical structure as form. The form qualitatively specifies how these units are organized to express particular meanings. Oderberg argues that this explains why the same sequence of sounds can constitute different expressions depending on grammatical organization, and why grammatical form remains constant across different material realizations.

> *Ethical kinds*. A morally evaluable action has bodily movements as matter and organizational features (beliefs, desires, intentions, motives) as form. The form determines whether the action belongs to a particular ethical kind—whether it is, for instance, a lie, a theft, or an act of charity. Oderberg suggests this framework enables a privative account of moral deficiency parallel to his general theory of privation. On this view, morally deficient actions exhibit a lack or absence of what is due to ethically correct action: the form of a reckless or negligent act, for instance, involves a privative character, that is, lacking the care or attention that a normatively correct form would exhibit, rather than the presence of some positive defect.

> *Political kinds*. A polis has population and material resources (land, natural resources) as matter and organizational/constitutional structure as form. According to Oderberg, this form has more to it than just the relevant political organization, as it can involve various institutions, bodies, groups and individuals, collectively making up

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> the organizational principle of the polis. The form functions as actualizer, specifier of kind, and determiner of identity over time, explaining what makes one political community distinct from another and how it persists through changes in population and resources.

In each case, Oderberg claims that matter serves as an undifferentiated substrate actualized by form, that form specifies the kind of entity, and that form determines identity and persistence conditions. The analogy with substantial hylemorphism is, he insists, real: an analogy of proportionality rather than mere attribution. In the Scholastic tradition, an analogy of proportionality holds when both primary and secondary analogues genuinely possess the shared features in question, whereas an analogy of attribution holds when the secondary analogue bears an attribute only derivatively, because the primary analogue really bears it (as when we call food 'healthy' because it contributes to bodily health). Oderberg claims that form in non-substantial entities truly functions as an organizing principle and specifier of kind, not merely by courtesy of resemblance to substantial form.

2.3 *The Narrowest Kind.* One distinctive aspect of Oderberg's account concerns what Scholastics call the *infima species*: the narrowest or most specific kind. In biological taxonomy, one might progress from mammal to primate to hominid to human when trying to determine what the narrowest relevant kind is. In action theory, Oderberg suggests a parallel progression: 'a raising of the arm, a wave, a fast wave, a fast persistent wave, a fast persistent frantic wave … by a drowning person calling for help' (Oderberg 2026, p. 200). The more completely we specify the form, Oderberg argues, the more narrowly we identify the kind.

Just as traditional Aristotelian taxonomy uses a binary tree structure (a Porphyrian tree) to narrow down from genus to species to *infima species*, Oderberg's extended hylemorphism allows progressive specification of form to identify increasingly specific kinds of non-substantial entities. This aspect of Oderberg's programme connects with debates about natural kind individuation and the metaphysics of determinates and determinables. It raises questions about whether there is a privileged level of kind, a 'natural' level of taxonomic organization, or whether kinds exist at multiple levels of generality.

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This topic closely parallels my own discussion of natural kinds and the task of identifying unification principles.

III

Unification Principles and Mind-Independence. My alternative framework for understanding natural kinds—and indeed *any* kinds—centres on unification principles rather than matter-form composition. I argue that what makes a kind natural or genuine is not whether its instances have a particular metaphysical structure, but whether they are unified by an objective, mind-independent principle. This approach can accommodate, for instance, psychological kinds as natural or real, even though they depend on minds by definition. Hence, we may find another area of application in cases that Oderberg focuses on, extending the applicability of my framework precisely in the way that Oderberg extends the traditional hylemorphic framework.

A terminological note is warranted before proceeding. In contemporary philosophy, 'natural kind' has become nearly synonymous with 'real' or 'genuine' kind—a kind that carves nature at its joints rather than reflecting arbitrary classificatory choices. This usage can mislead, suggesting that social or psychological kinds are somehow excluded by definition. As I have argued elsewhere (Tahko 2022), what matters for kind realism is not whether a kind belongs to physics, chemistry, biology or social science, but whether it has an objective unification principle. Accordingly, I treat all kinds satisfying the UP criterion as ontologically on a par: a real social kind (if there are any) is just as real as a chemical kind, in so far as both are unified by objective, mind-independent principles. This allows the framework to accommodate Oderberg's diverse examples without prejudging whether they constitute genuine kinds. That question turns on whether objective UPs can be identified, not on whether we call the resulting kinds 'natural'.

3.1 *The Unification Principle Framework*. A unification principle (UP) is whatever explains how properties cluster together in instances of a kind. In the simplest cases, the UP might be a single causal mechanism, as in Boyd's (1991, 1999) homeostatic property cluster account, a nomological regularity, an essential property or structure,

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or some combination thereof. The key point is that the UP answers the 'how' question: how do the properties that characterize instances of this kind come to be co-instantiated?

Hylemorphism offers a competing answer: properties are co-instantiated because form organizes matter into a unified whole of a determinate kind. But this answer differs in character from the UP approach. First, it is primarily constitutive rather than explanatory: form is posited as that which makes a thing the kind of thing it is, rather than as an empirically discoverable factor that explains property clustering. Second, the hylemorphic answer is not itself susceptible to further empirical investigation, as we cannot ask what mechanisms or other features underlie form's organizing activity without either abandoning hylemorphism or translating it into different terms. By contrast, UPs are precisely the sort of thing we can investigate: we can ask what causal, nomological or structural factors explain why certain properties reliably co-occur, and different candidate UPs can be tested against the evidence. The UP framework thus shifts the question from the metaphysical 'why' question, 'Why are properties systematically clustered together in members of natural kinds?' (Tahko 2022, p. 3), to 'How are the clustered properties unified in instances of kinds'—a question better suited to integration with empirical inquiry.

This shift of focus offers significant methodological advantages over hylemorphism. First, it is metaphysically parsimonious. Unlike Oderberg's classical approach, which requires accepting substantial forms, prime matter, and the actuality–potentiality distinction, the UP framework requires only kinds, properties and objective relationships (for example, causal, nomological or structural) that explain clustering.

Second, the UP framework is flexible: one can be a nominalist, a realist about universals, essentialist, or a trope theorist and still employ this framework, suitably qualified.

Third, the UP framework avoids the 'combination' problem identified by Lowe (2015). Hylemorphism struggles to explain how 'incomplete' constituents (matter and form) combine to form a unified substance without invoking circularity or further metaphysical mysteries. The UP framework avoids this entirely; we need not ask how properties 'combine' with UPs, but simply how the UP explains the property clustering. If matter and form are not parts of the

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substance in the ordinary sense, what does it mean for them to 'combine'? Form and matter are intended as complementary: matter serves as undifferentiated substrate while form functions as actualizer. However, this seems to only kick the ball down the road, as we've simply replaced one mystery (composition) with another (completion).

The UP framework avoids these puzzles. We needn't ask how properties 'combine' with UPs or how UPs 'complete' property clusters. The UP simply explains why certain properties reliably co-occur. This is a straightforward explanatory relationship that doesn't require a special metaphysical account of composition or constituency.

Lowe's preferred alternative is the four-category ontology of individual substances, substantial kinds, attributes, and modes. Lowe focuses on substances and their properties rather than matter-form compounds. My UP framework is compatible with, and indeed partially inspired by, Lowe's approach: substantial kinds can be understood as having objective UPs that explain why their instances share characteristic properties. This provides a realist account of kinds without the problematic metaphysics of hylemorphic composition. Admittedly, this reintroduces the 'why' question, where the focus shifts to metaphysics rather than the more empirically tractable aspects of kinds. In this regard, the contest will be judged on different merits.

Let us now consider a few examples. Start with biological species. On many accounts, members of a species share certain properties, that is, morphological, behavioural or genetic, that are not accidentally conjoined but reliably co-occur across instances. The UP intends to explain this clustering. It might be a shared evolutionary history, a common genetic architecture, developmental constraints, or (perhaps more likely) some combination of these factors working together. The UP need not necessarily be perfectly simple or unitary, but it does need to capture all relevant cases of clustering in a unified manner; what matters is that it objectively grounds the property clustering we observe. Where an objective UP cannot be found, we have reason to doubt that the kind in question is genuine. There may still be something that looks like a UP and explains any clustering, but it could be an *arbitrary* rather than objective UP.

The UP framework directs us to empirical investigation: what, if anything, unifies instances of putative species? Genetic

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similarity? Reproductive compatibility? Shared evolutionary history? Morphological clustering? Different answers suggest different UPs, and empirical investigation can assess which (if any) provide objective unification. In fact, my own view is that there may be *no* objective UP for biological species, and that the only genuine biological kind is that of 'organism'. I will not defend this view in any detail here, but the empirical grounds for this scepticism are well-documented: biologists have proposed over twenty species concepts—including biological (reproductive isolation), morphological, phylogenetic and ecological variants. These species concepts track genuinely different empirical features and frequently yield incompatible classifications. Ring species (populations that interbreed with adjacent populations but not distant ones), widespread hybridization and horizontal gene transfer further complicate any attempt to identify unified species boundaries.

Crucially, however, these diverse concepts converge when it comes to evolution: all presuppose a shared evolutionary origin for terrestrial life and the tree-like structure that descent with modification produces. This suggests that while 'organism', understood as a product of evolution exhibiting metabolic processes, genetic information transmission and the capacity for natural selection, may have a robust, mind-independent UP grounded in evolutionary biology, the further divisions into species may lack any single objective principle. The choice between species concepts appears to depend on which empirical features we find salient for particular explanatory purposes, rendering species boundaries arbitrary in the sense that matters for kind realism (cf. Dupré 1993; Ereshefsky 2001).

Hylemorphism, by contrast, seems to presuppose an answer to the species question. If species are natural kinds, they must have substantial forms that actualize biological matter. But this doesn't illuminate the actual mechanisms of speciation, reproduction or evolutionary change. It doesn't help us to decide whether ring species constitute single species or multiple. It doesn't clarify whether asexual organisms, which lack reproductive isolation mechanisms, form species at all.

Much more briefly, consider chemical and physical kinds. The UP for chemical kinds is typically at least partially structural: members of a kind share a molecular structure (or range of structures) that causally determines their dispositional profiles. For electrons,

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the UP might involve the laws governing particles with a particular charge-to-mass ratio.

This framework also handles artefacts more systematically than hylemorphism. Oderberg acknowledges that 'when it comes to artefacts we need to tread carefully as they have a rather peculiar ontology' (Oderberg 2026, p. 206). The UP framework handles this by asking if an objective principle unifies the instances. For kinds like 'screwdriver', the UP might involve both the intended function and the causal capacities that enable that function. This may or may not be sufficient for considering 'screwdriver' as a genuine kind (the answer may also depend on one's broader theory of artefacts), but it is certainly possible to categorize items based on such functional properties and causal capacities. However, for arbitrary categories like 'things on my desk', there is clearly no objective UP. This provides a principled path to distinguish genuine from nominal artefact kinds without debating whether they possess 'genuine' substantial forms.

Again, discovering UPs is typically an empirical matter. We cannot determine a priori whether a given putative kind has an objective UP; this requires investigation into the causal, nomological or structural features that might ground property clustering. However, mathematical kinds may constitute an exception: if there are genuine mathematical kinds (prime numbers, groups, topological spaces), their UPs would plausibly be knowable a priori through mathematical reasoning rather than empirical investigation. Interestingly, Oderberg himself acknowledges mathematical objects as a special case where form might be 'exhausted by' structure, where form and structure coincide, in contrast to concrete kinds where form is 'qualitative, never merely quantitative' (Oderberg 2026, p. 206). This concession actually supports restricting the present comparison to concrete kinds, which is where Oderberg's hylemorphic programme claims its distinctive explanatory advantages. For such kinds, the empirical constraint on UP discovery is a significant advantage over fully aprioristic metaphysical frameworks, respecting my commitment to 'moderately naturalistic metaphysics' (Morganti and Tahko 2017).

The UP framework is rich enough to do the work that Oderberg assigns for form. Importantly, it goes beyond mere 'structure'. This is key, since Oderberg argues that 'Structure is, quite simply, too etiolated a concept to be equated with the metaphysical technicolour

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provided by form' (Oderberg 2026, p. 206). For instance, UPs can involve nomological necessities or causal powers, which structure does not provide. In that regard, I agree with Oderberg's criticism of purely structure-based proposals.

3.2 *Mind-Independence of Unification Principles.* The mind-independence criterion for natural kinds has been central to realist accounts, but has faced challenges—for example, from work on social and mental kinds (Magnus 2012; Khalidi 2015, 2016). If natural kinds must be mind-independent, this seems to exclude good candidates for genuinely real kinds, like money, marriage or mental states, that depend constitutively on minds.

My solution is to apply the mind-independence criterion to unification principles rather than to kinds directly (Tahko 2022, pp. 9–13). A kind is natural or genuine when the UP that unifies its instances is objective, that is, when the UP does not depend on arbitrary human choice, interests or conventions. This allows for kinds whose instances are mind-dependent (like intentional states) or socially constructed (like certain political entities) to count as real, provided their UP is objective.

Consider money. Individual pieces of currency depend on social practices and conventions. But if there is an objective UP—perhaps involving game-theoretic equilibria, evolutionarily stable strategies, or cross-culturally invariant features of human exchange behaviour—then money might count as a natural kind despite the mind-dependence of its instances. The question is empirical: is there such an objective UP, or is the clustering of money properties merely conventional?

This framework preserves the core intuition behind mind-independence: real kinds should not be based on arbitrary choice. But it locates arbitrariness at the right level, namely, in the unification principle rather than in the instances themselves. A kind can be human-constructed without being arbitrary if its construction tracks objective features of natural and social reality.

3.3 *The Narrowest Kind Revisited.* My framework also has resources for addressing the narrowest kind question that Oderberg raises. Rather than invoking increasingly complete specifications of substantial form, we can ask: at what level of generality does

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property clustering either start or cease to be grounded by a unified, objective principle?

Take Oderberg's action example: a raising of the arm might be unified by certain motor control principles; a wave might be unified by social conventions about greeting; a frantic wave by a drowning person might be unified by panic response mechanisms plus social signalling conventions. But there may be no unified principle explaining why frantic waves by drowning persons calling for help cluster together as a kind; this level of specificity for this type of action may simply be too fine-grained for any objective UP to operate.

The narrowest kind, on my view, is the most specific level at which instances are unified by a single objective principle (or, potentially, a tightly integrated cluster of principles). This is an empirical question that cannot be settled by metaphysical analysis alone. We must investigate whether there are objective mechanisms, regularities or structures that explain property co-instantiation at increasingly specific levels of description.

Correspondingly, as we move toward more general kinds, we may discover that at some point there is a conflation of several unification principles—that is, several kinds—and we lack sufficient specificity to track the identity conditions of the putative combined kind. For example, consider a mental state such as 'sadness'. Even if there were some important neurophysiological commonalities between different cases of sadness, it is not unreasonable to assume that 'sadness' may encompass too great a variety of different states, perhaps based on its root causes, for a single UP to be found.

This approach has an important advantage over Oderberg's: it doesn't require commitment to the existence of kinds at arbitrarily many levels of specificity. Whilst Oderberg's analogical extension of substantial form can seemingly generate increasingly specific forms ad infinitum, my approach ties kindhood to the actual existence of unifying principles. If there is no objective UP at a given level of specificity, there is no kind at that level.

This is not to deny that we can classify or describe entities at levels lacking objective UPs—of course we can. But such classifications reflect our epistemic interests rather than mind-independent structure: they pick out arbitrary groupings that do not exhibit the robust, reliable property-clustering characteristic of genuine kinds. The hylemorphist might respond that form/matter analysis applies to any

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individual regardless of whether its 'form' corresponds to a natural kind. But this concedes the central point: hylemorphic vocabulary becomes merely descriptive rather than explanatory, and the real work of distinguishing genuine kinds from arbitrary groupings falls to something like the UP framework anyway. The question is not whether we can impose form/matter descriptions on any entity we please, but whether doing so illuminates the difference between natural and conventional classifications, and here the UP framework has the advantage of making that distinction explicit.

IV

Alternative Analyses of Oderberg's Examples

4.1 *Linguistic Kinds.* Oderberg argues that linguistic expressions have phonological/graphemic matter and grammatical form. The form 'qualitatively specifies' how phonological units are organized, explaining why the same sounds can constitute different expressions (for instance, 'I scream' versus 'ice cream') and why grammatical structure remains constant across material variations.

The UP framework offers a more empirically tractable analysis. Linguistic expressions are unified by their role in a system of compositional semantics grounded in human cognitive architecture. The relevant UP might involve the computational principles by which syntactic structures are generated (for instance, Merge and Move in generative grammar), compositional semantic principles, and the cognitive mechanisms enabling linguistic competence.

These principles are objective in the relevant sense: they are not matters of arbitrary convention, but reflect deep features of human cognition and the structure of thought. They explain why certain sound–meaning pairings are stable and why linguistic expressions cluster into kinds (such as verb phrases or determiner phrases). Unlike hylemorphism, which posits form as a qualitative organizing principle, the UP framework relies on empirically discoverable facts about syntax and cognition.

This illustrates the empirical constraints of the UP framework. We needn't ask what it means for sounds to be specified by grammar in an abstract sense; we can investigate the actual mechanisms by which syntactic structures constrain and enable semantic interpretation.

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Consider an example of how the same phonological sequence can constitute different expressions. The sentence 'I scream' and the noun phrase 'ice cream' involve near-identical sounds (although there are of course subtle differences, for example, in stress placement). Oderberg's framework would explain this by appeal to grammatical form organizing phonological matter. But this raises questions (which apply quite generally to the hylemorphic approach): what is this 'organization', metaphysically? How does grammatical form actualize phonological matter to produce distinct expressions?

The UP framework provides a precise causal explanation. The difference lies in the syntactic structures generated by the computational system: [NP I][VP scream] versus [NP [N ice][N cream]]. These distinct structures cause the subtle phonetic differences in juncture and aspiration that speakers produce and listeners perceive. The syntactic UP determines the physical realization. We do not need a mysterious form to qualify the matter; we have a computational mechanism that structures the output. The relevant UP may also be considered to do the qualitative work that Oderberg assigns to form, because the UP explains *how* certain grammatical structures come together in specific ways to form understandable sentences.

This analysis aligns with Collins's (2023) argument that externalized language contains no syntactic structure or properties. Collins demonstrates that syntax is not externally realized in linguistic vehicles (speech, script, hand gestures), which are linear, but rather constitutes an internally realized cognitive capacity. The syntactic combinability and selectivity conditions that define words are thus matters of individual psychology rather than properties of external entities. This reinforces the UP framework's advantage: rather than puzzling over how grammatical form 'organizes' phonological matter, we can investigate the cognitive mechanisms that generate syntactic structures and their physical realizations.

The UP framework also handles hard cases better. Consider onomatopoeia, where form and matter seem less clearly separable, or linguistic expressions that span multiple utterances. The UP framework focuses on the unifying principles (compositional semantics, cognitive processing) rather than trying to identify form-matter boundaries in problematic cases. For onomatopoeia like 'buzz' or 'hiss', we can ask: does the sound-meaning relation reflect arbitrary convention, or

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does it track objective features of perceptual-acoustic structure? Cases like this represent instances where sound-meaning relations track objective perceptual-acoustic structure rather than arbitrary convention, which is precisely what the UP framework predicts. Similarly, for expressions spanning multiple utterances, we can investigate the cognitive mechanisms (working memory, syntactic prediction) that enable such constructions without trying to determine where the form resides. For example, consider a case of discourse anaphora: 'A woman entered the courtroom. She was carrying a thick folder. The judge recognized her immediately.' The pronouns 'she' and 'her' are unified with 'a woman' across sentence boundaries through discourse-level anaphora resolution. The unifying principle here operates above the sentence level: it involves cognitive tracking of discourse referents rather than grammatical form within any single expression.

This approach also aligns, in part, with recent work applying homeostatic property cluster (HPC) theory to words (Miller 2021). Miller argues that word-kinds are defined by clusters of properties (orthographic, phonetic, semantic) plus the mechanisms underlying those clusters, both internal (cognitive, mental lexicon) and external (social norms, performance standards). Miller's 'homeostatic mechanisms' function as UPs in the framework developed here: they explain property clustering, are empirically discoverable, and avoid essentialist necessary/sufficient conditions whilst allowing variation across instances. My UP framework can accommodate Miller's approach, although it is also compatible with a more metaphysically committed, essentialist approach.

4.2 *Ethical Kinds.* Oderberg analyses intentional actions by considering bodily movements as matter and organizational features (beliefs, desires, intentions) as form. This framework supposedly enables a privative account of moral deficiency: actions fail to be ethically perfect when their form is defective.

The UP framework suggests a different analysis. Action kinds (lies, thefts, acts of charity) are unified by the psychological states and causal-intentional structures that explain why certain behaviours cluster together. The relevant UP may involve the causal role of propositional attitudes, normative standards that make certain

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intention-behaviour combinations constitute particular action types, and the social structures that partly constitute action kinds.

On this view, what makes an action a lie is not that bodily movements are informed by an intention to deceive, but that the behaviour is unified by a structure that objectively distinguishes lies from honest mistakes, fiction, and other non-lies. Critically, whether ethical kinds are genuine depends on whether these UPs are objective. Oderberg takes it as given that there are real ethical kinds with objective boundaries. But the UP framework makes this ultimately an empirical question. Are the psychological and social structures that unify lying or stealing sufficiently universal to ground an objective UP? The UP framework lets us investigate this question without presupposing an answer.

For some ethical kinds, the answer may be positive. The psychological architecture underlying deception, for instance, may be sufficiently universal and robust to ground an objective UP for lying, and the associated moral failure. For other putative ethical kinds, there may be no such objective principle—the boundaries may be conventional or interest-relative. There are of course theories of normativity which would make ethical kinds empirically intractable; such theories must posit a plausible epistemology of normativity before we can fully assess them. However, the UP framework focuses on taxonomy rather than normativity as such. The hylomorphic framework attempts to do both, but this may be overly ambitious.

Additionally, Oderberg's privative account of moral deficiency faces a challenge: is there a principled distinction between defective tokens of a kind and tokens of different kinds? When an attempted lie fails because the speaker is obviously insincere, is this a defective lie or not a lie at all? The UP framework handles this by examining whether the unifying principles are satisfied: if the requisite psychological-behavioural structure is present (even if ineffective), it is a lie.

4.3 *Political Kinds.* Oderberg argues that a polis has population and material resources as matter and organizational/constitutional structure as form. This analysis supposedly explains political identity, individuation and persistence.

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Here the UP framework faces a significant challenge, but one that it can indeed meet. Social and political kinds are paradigmatically mind-dependent and conventional. Can they have objective UPs? The answer depends on the specific kind. For some political kinds, there may be objective UPs based on game-theoretic equilibria, evolutionarily stable strategies in cooperation, or invariant features of human psychology. If such objective factors explain why certain political-organizational structures are stable and recurring, then those structures correspond to genuine kinds. But this is an empirical question requiring investigation into political science, evolutionary anthropology, and related fields.

Plausibly, many putative political kinds may lack objective UPs. The boundaries between monarchies and oligarchies, or between liberal and social democracies, may be too fuzzy, too dependent on arbitrary classificatory choices, for there to be genuine kinds here. The UP framework predicts this: we should expect genuine political kinds only where there are objective principles unifying political structures, not wherever we find convenient labels.

Recent work on social kinds supports this approach. Karagiannopoulos and Stamatiadis-Bréhier (2024) argue that social kind realism should be understood in terms of 'relative frame manipulability': a social kind is real for a group when the grounding conditions of that kind are difficult or impossible for that group to manipulate. This captures an important aspect of objectivity and robustness, namely resistance to arbitrary change, without requiring universal mind-independence. Their framework complements mine: objective UPs are precisely those that are difficult to manipulate through collective decision or convention-change. Hence, money is indeed a good candidate for a real social kind because 'it involves a large institution with complicated bureaucracies, logistics, and external economic considerations' (Tanzil 2025, p. 5).

This approach has important implications for understanding political ontology. Consider the difference between a nation state like France and an arbitrary grouping like 'countries with a population of more than five million people'. France exhibits the stability markers listed above: coordination equilibria (single currency, unified legal system), entrenched narratives (revolutionary heritage, republican values), economic integration, and path-dependent institutions. These make France resistant to arbitrary redefinition or dissolution, since

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its boundaries and identity reflect objective (though socially constructed) facts about coordination, psychology and economics.

By contrast, 'countries with a population of more than five million people' lacks such objective grounding. The classification is interest-relative and the boundaries arbitrary, since countries can go in and out of the group when their population changes. No objective principles explain property clustering among instances. It's a nominal rather than natural kind.

Oderberg's matter-form analysis faces problems here. What counts as the 'matter' of a polis? He suggests population plus material resources including land, natural resources and infrastructure. But the principle of inclusion remains unclear. Why prioritize these and not language, technology or cultural artefacts? Where exactly do we draw the boundary? And how does one individuate political matter from form? When a polis gains territory through conquest, does this change its matter, its form, or both?

Consider Oderberg's discussion of civil war versus enclaves. He suggests that in civil war, two polities with distinct forms and populations share overlapping non-personal matter (territory, resources), preventing their individuation as distinct political entities. But this seems problematic. During the American Civil War, weren't the Union and Confederacy distinct polities despite sharing (contested) territory? What makes them distinct if not their different organizational structures (forms) operating on partially overlapping populations and resources?

The UP framework handles this more naturally. During civil war, there may be two competing sets of institutions and coordination equilibria operating on overlapping populations and territory. Whether these constitute distinct polities depends on whether they have sufficiently differentiated UPs. If the competing organizational structures are robust enough to generate distinct patterns of coordination and allegiance, we would seem to have two polities; if not, we have a single polis in crisis. Accordingly, political reality is often defined by competing unification principles rather than mutually exclusive bodies of matter. The enclave case (Lesotho, say) is similarly clearer: it is a distinct polis, not because its matter doesn't overlap with South Africa, but because it has a genuinely distinct UP (institutions, identity narratives). The geographical separation is a consequence, not a cause, of these distinct unification principles.

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Furthermore, Oderberg's analogical extension of prime matter to political entities is problematic. Prime matter in classical hylemorphism is 'pure potentiality': it has no properties of its own, but is merely the capacity to receive form. Admittedly, Oderberg specifies that 'the analogy is imperfect since persons already come equipped with their own natures' (Oderberg 2026, p. 202), and goes on to detail that population may be considered prime matter *relative* to the political form. Of course, populations and material resources are hardly formless potentiality. They have causal structures, historical trajectories, and emergent properties independent of any particular political organization. A population has demographic structure, cultural practices, economic relationships; material resources have ecological, geological and technological dimensions. None of this is easily captured by treating them as analogous to prime matter, arguably not even in the relativized form that Oderberg proposes.

The UP framework avoids forcing political phenomena into the matter-form composition. Instead, it asks the straightforward empirical question: what principles unify instances of this putative political kind? Are these principles objective or interest-relative? Are they manipulable by collective choice, or robust and resistant to arbitrary change? These questions don't presuppose any particular metaphysical framework, but connect directly to empirical investigation in political science, history and social theory. The UP does not 'inform' people, but explains their *coordination* into a specific political kind.

V

Objections and Replies. I consider four objections to my arguments.

Objection 1: The UP framework simply renames what Oderberg calls 'form'. The UP plays the same explanatory role: it organizes, unifies, and specifies kind membership. So the debate is merely terminological.

Reply: There are substantive differences. First, Oderberg's form is explicitly qualitative and includes 'place, time, action, passion, sensory features, and so on' (Oderberg 2026, p. 206) in a rich metaphysical sense that goes beyond my relatively austere notion of UP. Second, form in classical hylemorphism stands in specific metaphysical relations (actualizing potency, completing matter, individuating

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when combined with matter) that UPs need not. Third, and most importantly, identifying UPs is an empirical project that doesn't require commitment to a specific metaphysics. One can accept that causal mechanisms or structural features unify kinds without accepting substantial forms, prime matter or the actuality-potentiality framework.

Objection 2: The UP framework is too permissive. If any objective principle suffices for natural-kindhood, we'll proliferate kinds wildly. Hylemorphism's stricter requirements provide needed constraints.

Reply: The UP framework is actually quite restrictive because objective principles are rare. Many putative kinds lack genuine UPs since their apparent unity reflects our interests, conventions or arbitrary classifications rather than objective structure. Consider 'things on my desk', 'white things', or 'objects that weigh 1 kg and are rectangular'. These have no objective UPs explaining why instances cluster together. The empirical constraint, namely, that there must be an actual unifying principle discoverable through investigation, prevents excessive proliferation. Furthermore, Oderberg's framework may be too restrictive in the wrong way. By requiring matter-form structure, it rules out kinds that might have objective UPs but don't fit the hylemorphic mould. Why assume all natural kinds must exhibit analogical matter-form composition? The UP framework leaves this open to investigation.

Objection 3: The UP framework doesn't adequately address social kinds. Social kinds like money or marriage seem both real and thoroughly conventional. How can they have objective UPs?

Reply: This is where recent work on social kind realism becomes relevant. Karagiannopoulos and Stamatiadis-Bréhier (2024) argue that social kinds can be real when their grounding conditions resist manipulation by relevant groups. I suggest incorporating insights from their 'relative frame manipulability' (RFM) approach into the UP framework: a UP is objective relative to a context when it's difficult or impossible for agents in that context to manipulate it. This allows my framework to handle social kinds without rejecting their reality or ignoring their conventional aspects. For 'money', this might mean that whilst we could in principle abandon monetary exchange, the game-theoretic and evolutionary factors supporting it make this extremely difficult, thereby supporting its robustness as a kind. For 'gender' or 'race', the manipulability question becomes politically significant: can these categories be reshaped by collective action, or are they entrenched by factors beyond our control?

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This approach also provides resources for important normative questions: which social kinds should we accept as inevitable (because their UPs are unmanipulable) and which should we work to change (because their apparent objectivity is contingent and reformable)?

Objection 4: Lowe's criticisms of hylemorphism are contentious. Many contemporary hylemorphists have responses to the combination problem and related difficulties. Why privilege Lowe's four-category ontology?

Reply: I don't claim Lowe's criticisms are decisive against all forms of hylemorphism. Structural hylemorphists like Koslicki might avoid some of Lowe's objections (though Oderberg explicitly rejects structural hylemorphism). My point is narrower: classical Aristotelian-Thomistic hylemorphism of the sort Oderberg defends faces structural problems, and these provide additional motivation for exploring alternatives.

I needn't defend Lowe's positive ontology, even though I am sympathetic to some aspects of it. My UP framework is compatible with various background metaphysics. One could combine it with Lowe's view, with structural hylemorphism, or with nominalism. The key claim is just that we can explain what Oderberg's hylemorphic programme explains without requiring commitment to classical hylemorphism's apparatus.

VI

Conclusion. Oderberg's extension of hylemorphism to linguistic, ethical and political phenomena identifies structural features that require explanation. However, his hylemorphic apparatus is ultimately unnecessary. The UP framework I have developed provides a more parsimonious, empirically constrained, and metaphysically ecumenical approach to the same phenomena.

By applying the mind-independence criterion to unification principles rather than kinds directly, we can acknowledge the reality of kinds—including social and mental kinds—without requiring universal mind-independence of instances. By focusing on empirically discoverable principles that explain property clustering, we tie metaphysical investigation more closely to scientific practice. And by avoiding commitment to substantial forms, prime matter, and

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their problematic 'combination', we sidestep structural difficulties facing classical hylemorphism.

None of this shows that hylemorphism is false or explanatorily bankrupt for its traditional domain, namely material substances. My argument is more limited: when extending beyond traditional substance ontology to analyse linguistic, ethical and political kinds, the UP framework provides a better approach. It captures Oderberg's insights whilst avoiding his metaphysical commitments and structural problems. The genuine kinds in nature, language, ethics and politics, if any, are those with objective unification principles, discoverable through careful investigation. Whether they exhibit matter-form structure is a further question, and one we needn't answer to recognize them as genuine kinds.[1]

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References

Bellazzi, Francesca, and Tuomas E. Tahko 2025: 'Unification Principles for Biochemical Kinds'. In Maria J. García-Encinas and Fernando Martínez-Manrique (eds.), *Special Objects: Social, Fictional, Modal, and Non-Existent*, pp. 13–30. Cham: Springer.

Boyd, Richard 1991: 'Realism, Anti-Foundationalism and the Enthusiasm for Natural Kinds'. *Philosophical Studies*, 61(1–2), pp. 127–48.

—— 1999: 'Homeostasis, Species, and Higher Taxa'. In Robert A. Wilson (ed.), *Species: New Interdisciplinary Essays*, pp. 141–85. Cambridge, MA: MIT Press.

Collins, John 2023: 'Internalist Priorities in a Philosophy of Words'. *Synthese*, 201(3), article 110.

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Dupré, John 1993: *The Disorder of Things: Metaphysical Foundations of the Disunity of Science*. Cambridge, MA: Harvard University Press.
Ereshefsky, Marc 2001: *The Poverty of the Linnaean Hierarchy: A Philosophical Study of Biological Taxonomy*. Cambridge: Cambridge University Press.
Karagiannopoulos, Yorgos, and Alexios Stamatiadis-Bréhier 2024: 'Social Kind Realism as Relative Frame Manipulability'. *Philosophical Studies*, 181(6–7), pp. 1655–79.
Khalidi, Muhammad Ali 2015: 'Three Kinds of Social Kinds'. *Philosophy and Phenomenological Research*, 90(1), pp. 96–112.
—— 2016: 'Mind-Dependent Kinds'. *Journal of Social Ontology*, 2(2), pp. 223–46.
Koslicki, Kathrin 2008: *The Structure of Objects*. Oxford: Oxford University Press.
—— 2018: *Form, Matter, Substance*. Oxford: Oxford University Press.
Lowe, E. J. 2015: 'In Defense of Substantial Universals'. In Gabriele Galluzzo and Michael J. Loux (eds.), *The Problem of Universals in Contemporary Philosophy*, pp. 65–84. Cambridge: Cambridge University Press.
Magnus, P. D. 2012: *Scientific Enquiry and Natural Kinds: From Planets to Mallards*. Basingstoke: Palgrave Macmillan.
Marmodoro, Anna 2013: 'Aristotle's Hylomorphism Without Reconditioning'. *Philosophical Inquiry*, 37(1), pp. 5–22.
Miller, J. T. M. 2021: 'Words, Species, and Kinds'. *Metaphysics*, 4(1), pp. 18–31.
Morganti, Matteo, and Tuomas E. Tahko 2017: 'Moderately Naturalistic Metaphysics'. *Synthese*, 194(7), pp. 2557–80.
Oderberg, David S. 2007: *Real Essentialism*. New York and Abingdon: Routledge.
—— 2026: 'Hylemorphism as a Generalized Research Programme'. *Proceedings of the Aristotelian Society Supplementary Volume* 100, pp. 000–000.
Simpson, William M. R. 2023: *Hylomorphism*. Cambridge: Cambridge University Press.
Tahko, Tuomas E. 2022: 'Natural Kinds, Mind-Independence, and Unification Principles'. *Synthese*, 200(2), article 144.
Tanzil, Vincent 2025: 'Realism and Antirealism About Socially Constructed Properties'. *Philosophy Compass*, 20(10), e70060.

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