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OPTIMALISM AND THE RATIONALITY OF THE REAL: ON THE PROSPECTS OF AXIOLOGICAL EXPLANATION

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T

Is the Real Rational? Can we ever manage to explain the nature of reality—the make-up of the universe as a whole? Is there not an insuperable obstacle here—an infeasibility that was discerned already by Immanuel Kant who argued roughly as follows:

The demand for a rationale that accounts for reality-as-a-whole is a totalitarian demand. As such it is illegitimate. All explanations require inputs. Explanation always proceeds by explaining one thing in terms of something else. There thus is no way to explain Reality, to give an account of everything-as-a-whole. For this sort of thing would evade neither a vitiating regress nor a vicious circle.

So goes Kant's reasoning, and there is much to be said for it. After all, in the realm of factual explanation we always have recourse to factual premises to substantiate our factual conclusions. Thus, an allencompassing explanation of the facts is clearly impossible.

Or so it seems, but here appearances are deceiving. In the present, genuinely extraordinary case of totalitarian explanation, another very different option stands before us. For here we can—and in the final analysis must—shift the framework of explanation from the descriptive/factual to the normative/axiological order of explanation. What would such an explanation look like?

II

The Turn to Axiology. From its earliest days, metaphysics has been understood also to include "axiology," the evaluative and normative assessment of the things that exist. Here lies the doorway to

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another mode of explanation—an explanation of facts in terms of values and of reality in terms of optimality.

Accustomed as we are to explanations in the mode of efficient causality, this idea of an axiological explanation of existence on the basis of an evaluative optimalism has a decidedly strange and unfamiliar air about it. Let us consider more closely how it is supposed to work.

The approach rests on adopting what might be called an *axiogenetic optimality principle* to the effect that value represents a decisive advantage in regard to realization, since in the virtual competition for existence among alternatives, the comparatively best is bound to prevail.¹ Accordingly, whenever there is a plurality of alternative possibilities competing for realization in point of truth or of existence, the (or an) optimal possibility wins out. (An alternative is *optimal* when no better one exists, although it can have equals.) The result is that things exist, and exist as they do, because this is for the (metaphysically) best.

No doubt it will be a complicated matter to appraise from a metaphysical/ontological standpoint that condition X is better (inherently more meritorious) than condition Y. Optimalism maintains, however, that once this evaluative hurdle is overcome, the question "Why should it be that X rather than Y exists?" is automatically settled by this very fact via the ramifications of optimality. In sum, a law of optimality prevails; value (of a suitable—and still unspecified—sort) enjoys an existential bearing, so that the nature of things is that (one of) the best of available alternatives is realized.²

¹The prime spokesman for this line of thought within the Western philosophical tradition was G. W. Leibniz. A present-day exponent is John Leslie, for whom see especially his *Value and Existence* (Totowa: N.J.: Rowman & Littlefield, 1979). See also the present author's *The Riddle of Existence* (Lanham, Md.: University Press of America, 1984).

²To make this work out, the value of a disjunction-alternative has to be fixed at the value of its optimal member, lest the disjunctive "bundling" of a good alternative with inferior rivals so operates as to eliminate it from competition.

Ш

Abandoning Causality. Optimalism is certainly a teleological theory: it holds that reality's modus operandi manifests a tropism toward a certain end or telos, namely optimization. Such an axiology represents a doctrine of final causes in Aristotle's sense, but it is emphatically not a causal theory in the current standard sense of efficient causation. It does not—and does not need to—regard value as a somehow efficient cause, a productive agency.

On the contrary, value is not productive at all but merely eliminative in functioning so as to block the way to the availability of inferior productions. It does not drive causal processes but only canalizes or delimits them by ruling certain theoretical (or logical) possibilities out of the realm of real possibility. Consider an analogy: the English language allows double letters in its words, but not triple letters. But that doesn't mean that the double l of "follow" causes that ll-successive letter to be something different from l. The principle explains without causality; it merely imposes a structural constraint of possibility. The lawful principle at issue explains the factual situation without any invocation of causality, seeing that an explanation via inherent constraints on possibility is not a causal explanation at all.

It would be deeply mistaken to see value as somehow an actively productive agency. Values play an explanatory role, but not in the causal mode. Causality is, after all, not our only explanatory resource. For example, when natural laws obtain, there is, no doubt, a reason for their obtaining (an axiological reason, as we ourselves see it). This reason can presumably be provided by an explanatory principle that need not carry us into the order of efficient causality.

Optimalism readily concedes that value does not engender existence in the mode of efficient causations, and that it would indeed be rather mysterious if values were asked to do so. This is to be seen as irrelevant. The fact is that the complaint, "How can values possibly operate causally?!", simply confuses axiological explanation with productively efficient explanation.

Only with the explanations of why physical objects and events exist need we involve causes and effects. Yet laws of nature themselves do not "exist" as constituents of the physical realm—they just obtain. They don't have causes—and don't need them. It would be inappropriate to ask for their explanation in the order of efficient causation.

Thus, the fact that axiology does not provide such an explanation is not an occasion for appropriate complaint. It does not stop value-explanations from qualifying as explanations; they present perfectly good answers to "Why is something-or-other so?" type questions. But in relation to laws, values play only an explanatory role though possibility-elimination and not a causally productive role though actual creation. This is no defect, because a productive process is simply not called for. And so, to inquire into how values operate causally in law-realization is simply to adopt an inappropriate model for the processes involved. Value-explanation is simply not causal: values do not function in the order of efficient causality at all.

IV

Why Optimalism? Why should optimalism obtain? Why should what is for the best be actual? What sort of plausible argument can be given on this position's behalf? The law of optimality to the effect that "whatever possibility is for the best is *ipso facto* the possibility that is actualized" is certainly not a logico-conceptually necessary truth. From the angle of theoretical logic it has to be seen as a contingent fact—albeit not about nature as such, but rather about the manifold of real possibility that underlies it. Insofar as necessary at all, it obtains as a matter of ontological rather than logico-conceptual necessity, while the realm of possibility as a whole is presumably constituted by considerations of logico-metaphysical necessity alone.³

To be sure, optimalism itself presumably has an explanation, seeing that one can and should maintain the Leibnizian principle of sufficient reason to the effect that for every contingent fact there is a reason why it is so rather than otherwise. With the law of optimality this explanation resides in itself—in its own nature. For it is, in the final analysis, for the best that the law of optimality should obtain. After all, there is no decisive reason why that explanation has to be "deeper

³The operative perspective envisions a threefold order of necessity/possibility: the logico-conceptual, the ontological or proto-physical, and the physical. It accordingly resists today's positivistic tendency to dismiss or ignore that second, intermediate order of considerations. This is only to be expected since people nowadays tend to see this intermediate realm as predicated in value-considerations, a theme that is anothema to present-day scientism.

and different"—that is, no decisive reason why the prospect of self-explanation has to be excluded at this fundamental level.⁴ After all, we cannot go on putting the explanatory elephant on the back of the tortoise, on the back of the alligator, *ad infinitum*: as Aristotle already saw, the explanatory regress has to stop somewhere at the final theory—one that is literally self-explanatory. What better candidate could there be than the law of optimality itself, with the result that the division between real and merely theoretical possibilities is the way it is (that is, value-based) because that itself is for the best?⁵

Optimalism has many theoretical advantages. Here is just one of them: it is conceivable, one might contend, that the existence of the world—that is to say, of a world—is a necessary fact while nevertheless its nature (that is, of which world) is contingent. This would mean that separate and potentially different answers would have to be provided for the questions, "Why is there anything at all?", and, "Why is the character of existence as it is—why is it that this particular world exists?" However, an axiogenetic approach enjoys the advantage of rational economy in that it proceeds uniformly here. It provides a single uniform rationale for both answers—namely, that "this is for the best." It accordingly also enjoys the significant merit of providing for the rational economy of explanatory principles.

In the end, we must expect that any ultimate principle must explain itself and cannot, in the very nature of things, admit of an external explanation in terms of something altogether different. The impetus to realization inherent in authentic value lies in the very nature of value itself. A rational person would not favor the inferior alternative; and a rational reality cannot do so either.

To be sure, the law of optimality presupposes a manifold of suitable value parameters, invoking certain physically relevant features

⁴ After all, there is no reason of logico-theoretical principle why propositions cannot be self-certifying. Nothing vicious need be involved in self-substantiation. Think of, "Some statements are true," or, "This statement makes a particular rather than universal claim."

 $^{^5}$ Optimalism is closely related to optimism. The optimist holds that "whatever exists is for the best"; the optimalist maintains the converse, that "whatever is for the best exists." However, when we are dealing with exclusive and exhaustive alternatives the two theses come to the same thing. If one of the alternatives $A, A_1, \ldots A_n$ must be the case, then if what is realized is for the best it follows automatically that the best is realized (and conversely).

(symmetry, economy, regularity, or the like) as merit-manifesting factors. It should be acknowledged that the optimization at issue is, and should be, geared to a scientifically reputable theory of some suitable kind, coordinate with a complex of physically relevant factors of a suitable kind. After all, many a possible world will maximize a "value" of some sort (confusion and nastiness included). For present purposes, value will have to be construed in its positive sense—of being valuable by way of worthiness of positive appraisal.

The manifold of logical possibility is subject to various reduc-Conformity with the laws of nature induces a reduction to physical possibility. Conformity with the principles of metaphysics induces a reduction to metaphysical possibility, and conformity to considerations of value induces a reduction to axiological possibility—which is perhaps the most stringent of these. Along these lines for example as Leibniz sees it—the value of a system is determined by an optimal balance of procedural order (uniformity, symmetry) and phenomenal variety (richness, plenitude)—both reflected in such cognitive features as intelligibility and interest. It is its (presumed) gearing to a positive value which, like economy or elegance, is plausibly identifiable as physically relevant—contingently identifiable as such, subject to scientific inquiry—that establishes optimalism as a reasonable proposition and ultimately prevents the thesis "optimalism obtains because that's for the best" from declining into vacuity. This of course means that optimalism is not so much a practice as a program.

V

Is Optimalism Theocentric? Yet what if one is skeptical about theism? Would one then not have to reject optimalism? Here the optimalist replies, "Not at all. Optimalism does not require theism—it need not call upon God to institute optimalism. The doctrine is perfectly self-supportive: it obtains on its own basis, not necessarily because God willed it so, but just simply because that's for the best."

The fact of the matter is that optimalism does not require a creator to provide for the productive efficacy of value. The insistence

⁶ Indeed, an over-enthusiastic optimalist could take the line that theism hinges on optimalism rather than the reverse because "God's own existence issues from optimalism: he exists because that's for the best."

upon the need for a productive agency is based on the mistaken idea of requiring an explanation in the mode of efficient causality as nowadays understood. This is problematic since, as indicated above, an operative principle can require conformity without any sort of productive action.

A word of caution is needed at this point. One of the prime motives for taking an axiological explanation seriously is that it enables us to avoid the temptations and difficulties of theological explanation. The rationale for this is not an *odium theologicum*—an aversion to theological considerations as such. It is rather the idea of the medieval dictum *non in philosophia recurrere est ad Deum*—that we should not ask God to pull our philosophical chestnuts out of the fire. Synoptic questions like "Why is there anything at all?" are philosophical questions, and they ought ideally to be answered by philosophical means.

On the other hand, it must be stressed that axiological explanation is altogether congenial to theism, although it does not require it. After all, it is only to be expected that if the world is created by a God of the sort that the tradition encourages us to accept, then the world that such a God creates should be one in which values play a role. Thus it would seem that theism requires axiological explanation even more axiological explanation requires theism.⁷

All the same, the present axiological approach thus differs decisively from that of Leibniz. He proposed to answer the question, "Why is it that the value-optimizing world should be the one that actually exists?", with reference to the will of a God who chooses to adopt value-optimization as a creative principle. Thus, Leibniz was committed to an idea that it is necessary to account for the obtaining of a principle in terms of the operation of an existing entity (specifically the agency of an intelligent being—namely God). Instead, an axiological approach sees the explanatory bearing of a principle of value as direct, final, and fundamental, without mediation through the agency of a

⁷ Would such argumentation *subordinate* God to a principle of optimality? Not at all! The theistic optimalist can take the following stance in the interests of orthodoxy. In the order of beings (or entities or substances) God has absolute primancy. In the order of principles (of factual propositions or truths) the principle of optimality is paramount. And neither order is subordinate to the other; rather, they are coordinated via God's knowledge of the truth.

substantial being, however extraordinary.⁸ On grounds of explanatory economy, at least, purpose is thus something that we would be well advised to forego if we can actually manage to do so. Let us have a closer look at this issue of purposes.

VI

Is Optimalism Purposive? In taking the axiological route, one is not saving that the realization of value is reality's purpose. We need not personify nature to account for its features. To say that nature embodies value is a very far cry from saying that the realization of value is one of its purposes. That reality operates in a certain manner—that its modus operandi follows certain laws or principles—is in general an entirely impersonal thesis. The values involved in axiological explanation need not be somebody's values. No element of personification, no reference to anyone's aims of purposes, need be involved in axiological explanation. Purpose, on the other hand, necessarily requires a purposer—it must be somebody's purpose. In this regard, value stands with order rather than with purpose. Orderseeking in nature does not presuppose an orderer, nor value-seeking a valuer. The maintenance or enhancement of a value can be a matter of the blind operation of impersonal, optimific forces.

Let us return to the idea of purposiveness and consider the objection, "It is only by constituting the motives of agents that wishes can obtain explanatory efficacy. Only by serving as some deliberate agent's motivational repertoire can a value come into effective operation." Such a view of value-explanation is nothing new; it has existed in embryo since Plato's day, thanks to his conception of demiurge. The guiding idea has generally been that the only way in which values

⁸ Our metaphysical invocation of a principle of value is akin to A. C. Ewing's theological application of similar ideas in his interesting article "Two 'Proofs' of God's Existence," *Religious Studies* 1 (1961): 29–45. Ewing there propounds the argument that God's existence is to be accounted for axiologically: that he exists "because it was supremely good that God should exist" (35). This approach has the substantial merit of avoiding Leibniz's tactic of grounding the efficacy of value in a preexisting deity by contemplating the prospect that value is so fundamental that the deity itself can be accounted for in its terms.

can be brought to bear in the explanation of phenomena is through the mediation of a creative agent.

Accordingly, thinkers from classical antiquity onward have defended (or attacked) the principle that explaining the presence of order in nature—the fact that the world is a cosmos—requires postulating a creative intelligence as its cause. That nature manifests and exemplifies such cognitive values as order, harmony, and uniformity was thus explained by regarding these as marks of purpose. On this basis, the mainstream of Western thought regarding axiological explanation has taken the line that there is a supernatural agent (God, demiurge, cosmic spirit) and that values obtain their explanatory bearing by influencing the state of mind which governs his creative endeavors.

This essentially purposive approach characterizes the traditional argument from design, which explains the creation with reference to a creator (as its *ratio essendi*) and infers the existence of this creator from the orderly structure of created nature (as his *ratio cognoscendi*). The sequential explanatory slide from design to value to purpose to intelligence was historically seen as inexorable. And so the idea of a recourse to an explanatory principle that is geared to values without any such mediation represents a radical departure. The guiding conception of the present deliberations—that value is the natural place to sever this chain—reflects a break with a longstanding tradition.

The justification of this break with the tradition of design-explanation lies in observing the important distinction between values and purposes. Granted, a purpose must be *somebody's* purpose; it must have some intelligent agent as its owner-operator. It lies in the very nature of the concept that purposes cannot exist in splendid isolation; they must, in the final analysis, belong to some agent or other. For purposes as such, to be is to be adopted. Purposive explanations operate in terms of why conscious agents do things, and not in terms of why impersonal conditions obtain.

⁹ For a useful collection of relevant texts see Donald R. Burrill, *The Cosmological Arguments: A Spectrum of Opinion* (Garden City, N.Y.: Anchor Books, 1967). Two interesting recent accounts of the issues and their historical ramifications are: William L. Rowe, *The Cosmological Argument* (Princeton: Princeton University Press, 1975); and William L. Craig, *The Cosmological Argument From Plato to Leibniz* (London: Macmillan, 1980).

A value, however, can be altogether impersonal. This means that value-explanation is not necessarily purposive. Being a value does not require that somebody actually value it (any more than being a fact requires that somebody actually realizes it). A person can certainly hold a certain value dear, but if it is indeed a value, then its status as such is no more dependent on its actually being valued than the symmetry of a landscape depends on its actually being discerned. Values admit of being prized, but that does not mean that they actually are, any more than a task's being difficult means that anyone actually attempts it.

To be of value is to deserve to be valued, but that of course need not actually happen: the value of things can be underestimated or overestimated or totally overlooked. Neither the items that have value nor the facts of their being of valued depends on apprehending minds for their reality. This holds in particular for "ontological" values like economy, simplicity, regularity, uniformity, and so forth, that figure in the axiological explanation of laws. In sum, the being of values does not consist in their being valued any more than does the being of most other sorts of things demands their being perceived. We surely do not need to anthropomorphize here, just as a claim to enddirected transactions in the world ("Nature abhors a vacuum") is without any implications about a purposively operating mind. A system can be goal-directed through its inherent natural "programming" (for example, heliotropism or homeostasis) without any admixture of purpose, just as a conservation of energy principle need not be held on the basis of nature's seeking to conserve energy.

Thus, while axiological explanations fail to address a question for which design explanations have an answer—namely, the causal question, "How do values operate productively so as to bring particular laws to actualization?"—this reflects no demerit. For it seems plausible to see this question as simply inappropriate. Values don't operate in the purposively causal order at all. Value-considerations render certain law-possibilities real in somewhat the same way as law-conformity renders certain event-possibilities real. The issue of a specifically purposive efficacy simply does not arise.

VII

Further Difficulties. However, a threatening difficulty seems to arise in the form of a possibility-range that is evaluatively "topless" that is, which does not have some alternatives that are optimal in the sense of not being bettered by any others. 10 In such a range, each alternative is surpassed by vet another that is better. And so, on optimalistic principles it would transpire that there are no real possibilities at all. Within such a range there will be no optimum and thus no possibility of actualization. Here optimalism must take the bull by the horns. Insofar as situations can be imagined which—like that of a topless infinite alternative spectrum—could raise difficulties for the theory, it could and should simply be seen as part and parcel of optimalism to assert that such situations cannot actually arise: that a reality that is benign all the way through is thereby such that it excludes such a problematic situation with respect to what is really possible. As optimalism sees it, the very fact that toplessness conflicts with optimalism excludes it from the range of real possibilities.

What if there is a plurality of perfection-contributory features so interrelated that more of the one demands less of the other? Here everything is bettered in some respect by something else, so that to all appearances it would result that nothing is synoptically and comprehensively all-in best.

However, in such cases one can—and should—resort to a function of combination that allows for the interaction of those different value-parameters. For example, with two operative value-making factors, say cheapness (that is, inverse acquisition cost) and durability in the case of a 100-watt light bulb, one will use the ratio of (cost of purchase) to (hours of usability) as a measure of merit. This prospect possibilizes the reduction of the multifactor case to the situation of a single compound and complex factor, so that optimization is once again possible. That this should obtain is guaranteed by optimalism itself; it is part and parcel of the best possible order of things that optimalism should be operable within it.

¹⁰ Leibniz saw the existence of the actual world as a decisive argument against hopelessness, since existence could not be realized in a realm of topless meritoriousness. Here a benevolent creature would be effectively paralyzed.

Violating Common Sense. To anyone who is minded to object to optimalism as somehow violating common sense, I have only one thing to say: "Where have you been recently and what have you been doing?" One thing you certainly have not been doing is keeping track of the expository literature of contemporary microphysics and cosmology, and one place you have certainly not been is at your television set watching any of the recent science channel programs on string theory. Surely common sense no longer qualifies as a club for any explanatory theorizing on reality's fundamentals. Insofar as common sense is to be used as a yardstick, it is surely not optimalism but contemporary cosmology that falls short.

Nonetheless, how can sensible people possibly embrace the conception that the inherently best alternative is thereby automatically the actual (true) one? Does not the world's all-too-evident imperfection stand decisively in the way here?

The matter is not all that simple, however. For the issue is going to pivot on the question of what "inherently best" means. If it means "best" from that angle of your desires, or of my interests, or even of the advantage of homo sapiens in general, then clearly the thesis loses its strong appeal. For the sake of plausibility, that "best" had best be construed as looking to the condition of existence-as-a-whole rather than to that of one particular privileged individual or group. Optimality in this context is clearly not going to be a matter of the affective welfare or standard of living of some particular sector of existence; it is going to have to be a metaphysical good of some synoptic and rather abstract sort that looks to the condition of the whole.

Yet is such a theory of axiological ontogenesis not defeated by the objection? If it really were the case that value explains existence, then why isn't the world altogether perfect?

The answer lies in the inherent complexity of value. An object that is of any value at all is subject to a complex of values. For it is the fundamental fact of axiology that every evaluation-admitting object has a plurality of evaluative features. Take an automobile. Here the relevant parameters of merit clearly include such factors as speed, reliability, repair infrequency, safety, operating economy, aesthetic appearance, and road-handling ability. In actual practice such features are interrelated. It is unavoidable that they trade off against one an-

other: more of A means less of B. It would be ridiculous to have a super-safe car with a maximum speed of two miles per hour. It would be ridiculous to have a car that is inexpensive to operate but spends three-fourths of the time in a repair shop. But perfection—maximum realization of every value dimension all-at-once—is simply unrealizable, and of course it makes no sense to ask for the impossible.

Thus, the objection, "If value is the key to existence, the world would be absolutely perfect," proves to be untenable. All that will follow on axiogenetic principles is that the world will exemplify an optimal balance of the relevant evaluative factors. An optimally realizable best need not be "perfect" in the normal sense of that term which unrealistically demands value-maximality in every relevant respect.

Because some desiderata are in conflict and competition with others, it is an inherently inevitable feature of the nature of things—an inevitable fact of life—that value-realization is always a matter of balance, of trade-offs, of compromise. The reality of it is that value-factors always compete in matters of realization. A concurrent maximum in every dimension is simply unavailable in this or indeed any other conceivably possible world. All that one can ever reasonably ask for is an auspicious combination of values. Here optimalism can take comfort in the view that there indeed is just exactly one overall optimal alternative, precisely because that's for the best.

IX

Wishful Thinking. Is not optimalism merely a version of wishful thinking? Not necessarily. For even as in personal life what is best for us is all too often not at all what we individuals want, so in metaphysics what is abstractly for the best is very unlikely to bear any close relationship to what we would want to have if we humans could have things our way.

What prevents optimalism from being too Pollyanna-ish to be plausible is the deeply pessimistic acknowledgment that even the best of possible arrangements is bound to exhibit very real shortcomings. The optimalist need not simply shut his eyes to the world's all-too-evident parochially considered imperfections. For what the optimalist can and should do is to insist that, owing to of the intricate and inherent interrelationships among value-parameters, imperfections in this

or that respect must be taken in stride because they have to be there for an optimal overall combination of value to be realized. Leibniz took the right approach here: optimalism does not maintain that the world is absolutely perfect but just that it is the best that is possible—that, all considered, it outranks the available alternatives. There is, in fact, a point of view from which optimalism is a position that looks to be not so much optimistic as deeply pessimistic. For it holds that even the best of possible arrangements is bound to exhibit very real imperfections from the angle of narrowly parochial concerns or interests.

 \mathbf{X}

Conclusion. The upshot of these deliberations is that once one is willing to have recourse to axiological explanation there no longer remains any good reason to think that both the existence and nature of the real is something so deeply problematic that it remains inexplicably unintelligible—an issue which, on Kantian or other principles, we really ought not to inquire into. The axiological approach to explanation that optimalism employs is, to be sure, a drastically unusual and extraordinary one. But then of course the question of why reality should be explicable is a highly unusual and extraordinary question, and it is a cardinal principle of cognitive sagacity that if one asks an extraordinary question, then one must expect an extraordinary answer.

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