# Instrumental Value in Nature as a Basis for the Intrinsic Value of Nature as a Whole

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Some environmental ethicists believe that nature as whole has intrinsic value. One reason they do is because they are struck by the extent to which nature and natural processes give rise to so much that has intrinsic value. The underlying thought is that the value-producing work that nature performs, its instrumentality, imbues nature with a value that is more than merely instrumental. This inference, from instrumental value to a noninstrumental value (such as intrinsic value or systemic value), has been criticized. After all, it seems to rely on the bizarre idea that a thing's instrumental value could be a basis for it's intrinsic value. This idea, however, is not as easy to dismiss as many might think. Review of the obvious arguments that might be deployed to defeat it shows that they have to be rejected, suggesting that a thing's instrumental value could be, and arguably is, a basis for it's intrinsic value. Defending this apparently bizarre idea provides a way of justifying the claim that nature as a whole has intrinsic value.

### INTRODUCTION

There is a style of argument for holism in environmental ethics that proceeds via the claim that nature as a whole has intrinsic value, or at least more than merely instrumental value, because nature gives rise to individual organisms that have intrinsic value. Perhaps the best known use of this style of argument is in the work of Holmes Rolston, III, where it is exemplified in his notion of projective nature, which has a special, noninstrumental value—systemic value, akin to intrinsic value.¹ The idea is that nature has systemic value, which is more than merely instrumental value, in virtue of the fact that (projective) nature gives rise to organisms that have intrinsic value. The idea is particularly interesting because it provides one basis for the view that nature as a whole is suffused with value that is more than merely instrumental. Such value, associated with nature as a whole, adds to the value associated with the multitude of individual entities of intrinsic value that it contains, thereby strengthening value-based arguments for the preservation and protection of nature.

This style of holism in environmental ethics raises some tricky issues to do

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<sup>&</sup>lt;sup>1</sup> See, for example, Holmes Rolston, III, *Environmental Ethics: Duties to and Values in the Natural World* (Philadelphia: Temple University Press, 1988), pp. 197–98.

with the logic of value claims. It is by no means obvious that the argument can be sustained, particularly when its underlying principle is stated in its starkest form, namely, that a thing can have intrinsic value merely in virtue of having instrumental value. While it is typically allowed that a thing can have both intrinsic and instrumental value, some have argued that the very concept of intrinsic value excludes the possibility that instrumental value could be a basis for intrinsic value. This view seems to be the basis for some critical comments that Gary Varner has made about Rolston's notion of systemic value:

Rolston's argument appears to be that ecosystems have more than instrumental value because their products have more than instrumental value. But surely this is fallacious. Suppose that an otherwise devastating hurricane happens to clear up the waters of a lagoon so that it is very beautiful or that air pollution happens to create more beautiful sunsets. Just because the lagoon or the sunsets have more than purely instrumental value, it does not follow that the hurricane and the pollution also have more than merely instrumental value. . . . it is fallacious to argue that, because X came from Y and X has intrinsic value, Y must also have intrinsic value or even a value more like intrinsic value than purely instrumental value. X

Varner says that Rolston "commits a species of the genetic fallacy." His skepticism reflects, however, a mistaken view that is common in the field of value theory.

Rolston's inference is valid and it does provide a basis for the striking view that nature as a whole is suffused with intrinsic value. Here it is argued that all things that have instrumental value could have intrinsic value partly or indeed solely in virtue of their instrumental value. <sup>5</sup> This is a formal claim. It is a claim

<sup>&</sup>lt;sup>2</sup> For example, G. E. Moore, "The Conception of Intrinsic Value," in his *Philosophical Studies* (London: Routledge and Kegan Paul, 1922), p. 260, says that "To say that a kind of value is 'intrinsic' means merely that the question whether a thing possesses it . . . depends solely on the intrinsic nature of the thing in question." The point is reinforced in Moore's subsequent discussion of the modal properties of intrinsic value. See Moore, "The Conception of Intrinsic Value," pp. 267–70. Moore also says, ". . . saying a thing is intrinsically good . . . means it would be a good thing that the thing in question should exist, even if it existed quite alone, without any further accompaniments or effects whatever." See G. E. Moore, *Ethics*, 2d ed. (Oxford: Oxford University Press, 1966), p. 32. See also Roderick Chisholm, "Intrinsic Value," in Alvin I. Goldman and Jaegwon Kim, eds., *Values and Morals* Dordrecht, Reidel, 1974), pp. 121–30, for a similar claim

<sup>&</sup>lt;sup>3</sup> Gary E. Varner, *In Nature's Interests? Interests, Animal Rights and Environmental Ethics* (Oxford: Oxford University Press, 1998), p. 23. Note that the last sentence in this quote corrects a typographical error in the actual text, which reads: "... it is fallacious to argue that, because X came from Y and Y has intrinsic value, Y must also have intrinsic value..."

<sup>&</sup>lt;sup>4</sup> Varner, In Nature's Interests, p. 22.

<sup>&</sup>lt;sup>5</sup> Gaus urges a view close to this one. He holds that something may be valued intrinsically, and so have intrinsic value, in virtue of serving some purpose well. An example is a tool that efficiently performs a certain task. The tool may be valued intrinsically even though what it produces is not valued intrinsically. In this case a particular mode of instrumentality, efficiency,

about what the concept of *intrinsic value* formally or conceptually permits. Establishing the truth of the formal claim secures the conceptual space for Rolston's position and it's starker variant. The related substantive claim, that things do in fact have intrinsic value in virtue of having instrumental value, is considered subsequently.<sup>6</sup>

## THE INTRINSIC PROPERTY CONSTRAINT AND THE INTERNAL PROPERTY CONSTRAINT

As a first approximation, we could say that a thing has intrinsic value if it is valuable considered in itself, in virtue of its own properties. Being instrumentally valuable, however, is a relational property. A thing is instrumentally valuable if it leads to, causes, contributes to, partly constitutes, gives rise to, or otherwise assists in bringing about, a state of affairs that is intrinsically valuable; that is, if it is an instrument that assists in bringing into existence something that is intrinsically valuable. The property of being intrinsically valuable is, furthermore, not free-floating; rather, it is a resultant of, supervenes upon, is necessarily connected with, or is otherwise systematically dependent

is the basis of the intrinsic valuing independently of any intrinsic valuing of that which it brings about. On Gaus' account, such values could be the only intrinsic values there are. The claim of this paper is that any mode of instrumentality could be, and plausibly is, a basis for intrinsic value, although not necessarily independently of the intrinsic value of that which it brings about. See Gerald F. Gaus, *Value and Justification: The Foundations of Liberal Theory* (Cambridge: Cambridge University Press, 1990), pp. 126–32.

<sup>6</sup> It should be emphasized that the formal claim and its implications are of interest independently of the correctness of the substantive claim. That the substantive claim could be true, even if it is not in fact true, bears directly on the way in which the distinction between intrinsic and instrumental value should actually be drawn. The distinction is often drawn in environmental ethics. Below, the formal claim is defended in part by appeal to the possibility of something's relational properties being a basis for its intrinsic value. What is appealed to, then, is the possibility of a more general substantive claim, than the one tentatively defended herein, being correct. The success of the argument does not depend on the correctness of this more general substantive claim so much as on our grasping how it could be correct.

<sup>7</sup> The term *thing*, used above, is to be taken quite generally to include, for example, objects, states of affairs, and events. In this usage, I follow Beardsley. See Monroe Beardsley, "Intrinsic Value," *Philosophy and Phenomenological Research* 26 (1965): 1. It may also include properties. While the properties that a thing possesses are the grounds of its intrinsic value, and so might not themselves be thought of as having intrinsic value, there is a sense in which they have instrumental value, and so might after all be thought possibly to have intrinsic value if the formal claim defended in this paper is correct. Or perhaps it would be more accurate to say that is the instantiation of the property that has the instrumental value.

<sup>8</sup> Another way of drawing the contrast is to distinguish between things that are valued as ends and things that are valued as means. But Korsgaard warns against collapsing the intrinsic value/extrinsic value distinction into the value as an end/value as a means distinction. Her point is that the former reflects the distinction between objectivist and subjectivist accounts of value, whereas the latter cuts across that distinction. See Christine Korsgaard, "Two Distinctions in Goodness," *Philosophical Review* 92 (1983): 69–95.

on, other of a thing's properties. These latter properties, in virtue of which a thing has intrinsic value, are value-adding; in other words they add value to the things that exemplify them and so to the universe in general. A substantive, as opposed to a formal, theory of intrinsic value specifies the properties concerned. If, however, only intrinsic properties of things can be value-adding, then instrumental value, since it is apparently not an intrinsic property, could not be a basis for intrinsic value.

Note, though, that this intrinsic property constraint only restricts the bases for intrinsic value and does not imply that the property of being intrinsically valuable itself must be an intrinsic property. For example, the subjectivist claim, that for a thing to have intrinsic value is for it to be positively regarded when contemplated abstractly or in isolation, is consistent with the view that only intrinsic properties can be value-adding. The intrinsic property constraint requires only that those properties upon which intrinsic value supervenes, that is, the value-adding properties, be intrinsic properties. So, the intrinsic property constraint would not beg the question against metaethics that construe the core moral properties as relational properties.

The intrinsic property constraint needs some refinement. In particular, the crucial distinction upon which it is based is not that between non-relational properties and relational properties but that between properties intrinsic to, or internal to, a thing and properties that are partly external to it. The former category may include some relational properties, whereas the latter category

<sup>&</sup>lt;sup>9</sup> J. L. Mackie, *Ethics: Inventing Right and Wrong* (Harmondsworth and New York: Penguin, 1977), p. 41. Nonnaturalists, too, emphasize the connection. See, for example, Moore, "The Conception of Intrinsic Value," p. 269. For relevant discussion, also see Terence Horgan, "From Supervenience to Superdupervenience: Meeting the Demands of the Material World," *Mind* 102 (1993): 560–61, 564–66.

<sup>&</sup>lt;sup>10</sup> See Elliot, Faking Nature, chap. 1, for a discussion of this and related concepts.

<sup>11</sup> W. D. Ross, *The Right and the Good* (Oxford: Clarendon Press, 1930), p. 75, claims, echoing Moore, *Ethics*, p. 32, that if "by calling a thing intrinsically good we mean that it would be good even if nothing else existed," then the property of being intrinsically valuable could not be a relational property as subjectivisms claim. One response is to dispute the semantic claim. A better response is to grant the semantic claim but to argue that subjectivism allows that the preferences of actual valuers can extend to possible worlds not including those, or indeed any, valuers. So, it would be possible both to insist that something has intrinsic value o0nly if it were to have value if it alone existed and to insist that its having value in that possible world in which it exists alone consists in its being the object of an actual valuer's preferences. See Elliot, *Faking Nature*, chap. 1, for an extended discussion. Of course, the tension between the semantic claim and the view to be defended below, *viz.*, that instrumental value could be a basis for intrinsic value, would remain.

<sup>&</sup>lt;sup>12</sup> Not all who deny that intrinsic value is a relational property agree that it is an intrinsic property. For example, Moore, who denies it is a relational property, says: "... predicates of intrinsic value, although dependent solely on intrinsic properties, are not themselves intrinsic properties." See Moore, "The Conception of Intrinsic Value," pp. 273–74. As Moore also points out, this category of metaethics does not exclusively include subjectivisms. Some naturalist objectivisms, such as the view that a thing's goodness is its fittingness to survive, fall into the category. See Moore, "The Conception of Intrinsic Value," pp. 255–58.

will include only relational properties. 13 Consider, for example, the state of affairs consisting of Jill enjoying some natural scene, which state of affairs exemplifies a relational property. If we say that the whole state of affairs itself has intrinsic value in virtue of exemplifying that relational property, then that relational property is intrinsic to, or internal to, the state of affairs to which intrinsic value is attributed. The grounding of intrinsic value by such intrinsic relational properties is not problematic. The allegedly problematic relational properties would be those external to the thing, here the whole state of affairs of Jill enjoying the natural scene, to which intrinsic value is attributed. The thought is that relational properties are problematic, as bases for intrinsic value, if and only if they entail the existence of something beyond, or external to, the state of affairs possessing intrinsic value. It is useful then to characterize the relevant distinction in terms of internal properties and external properties. So what might stand in the way of the formal claim is the constraint that only a thing's internal properties can be the basis of a thing's intrinsic value. It is apt, then, to rename the intrinsic property constraint the "internal property constraint." Clearly the internal property constraint is inconsistent with the formal claim.14

Does the internal property constraint hold? Consider first a case, not involving instrumental value, that offers *prima facie* support to the view that there are external properties that are value-adding. Imagine an object, *X*, that is beautiful and assume, not unreasonably, that beauty is a value-adding property. So, *X* has intrinsic value in virtue of being beautiful. Imagine also that *X* is the most beautiful object of its multiply instantiated kind, which is to say it has a certain external property. If only internal properties can be value-adding, then a thing's property of being the most beautiful of its kind could not be value-adding. But the claim that *X*'s property of being the most beautiful of its kind is value-adding has some intuitive appeal. Certainly the judgment seems coherent or formally acceptable: we can understand exactly what is being claimed and we can understand it as a coherent, consistent proposition. It is

<sup>&</sup>lt;sup>13</sup> See Beardsley, "Intrinsic Value," p. 2, who uses this terminology in representing Moore's views concerning intrinsic value. The term *external* is not entirely perspicuous since it does not obviously imply that the properties it qualifies are relational properties involving the thing to which the properties in question are said to be external.

 $<sup>^{14}</sup>$  There is a further definitional problem requiring comment. It might seem that, strictly speaking, external properties are properties exemplified only if more than one thing exists. So, if P is an external property and X exemplifies P, then necessarily some Y distinct from X exists. There are some properties that seem in the relevant sense to be relational but that do not seem to imply the existence of anything other than the thing that exemplifies them; indeed, quite the opposite in some cases. Two examples are: the property of being unique and the property of being the most beautiful of a kind. Clearly it would be possible (and necessary) for something to exemplify these properties if it were the only thing in existence. Anyway, whether instrumental value could be a basis for intrinsic value does not depend on whether this particular problem is resolved.

important to note that to the extent that we agree with the substantive claim we endorse the formal claim. If, however, we reject the substantive claim, our consideration of the example meant to gain our acceptance of it might nevertheless sway us in favor of the formal claim. We might reject the substantive claim but understand quite well that there is conceptual space to make it. This possibility is important because the formal point is interesting independently of this particular substantive claim. Other substantive claims, based similarly on an appeal to an external property, may strike some as more plausible. Two that come to mind are the claims, made by some environmental ethicists, that the property of being rare is value-adding. In and that the property of being naturally evolved is value-adding.

Does the prima facie case stand? Both the formal and substantive judgments would require revision if there were a principled basis for ruling out external properties as value-adding. Now it has been suggested that the external property constraint is the basis for the principled exclusion. The adducing of the examples, such as the one described in the preceding paragraph, casts doubt on the principle, and they do so to the extent that the examples seem plausible cases of an external property being value-adding. So the plausibility of the principle is undermined by the plausibility of the examples. Consequently, one way of protecting the principle is to show that examples that are offered are subject to some general kinds of criticism. Thus, the judgment that being the most beautiful of a kind is, or could be, value-adding, would require revision if X's property of being the most beautiful of its kind can be shown to have been confused with some other property that does meet the internal property constraint, and that is, or could be, value-adding. It is obvious why noticing such a possible confusion would motivate a reconsideration of the substantive claim. It also motivates a reconsideration of the formal claim since a misidentification of possible value-adding properties could make an attribution of intrinsic value seem formally acceptable or coherent when it is not.<sup>17</sup>

### MISIDENTIFYING VALUE-ADDING PROPERTIES

Perhaps there is such a misidentification in the case involving X. The degree to which X has intrinsic value is presumably determined by the degree of its beauty; the more beautiful, the more intrinsically valuable it is. The degree of X's beauty, measured on some aesthetic scale, fixes the degree to which X is

<sup>&</sup>lt;sup>15</sup> See, for example, D. H. Regan, "Duties of Preservation," in Bryan G. Norton, ed., *The Preservation of Species* (Princeton: Princeton University Press, 1986), pp. 195–222.

<sup>&</sup>lt;sup>16</sup> See, for example, Elliot, Faking Nature.

<sup>&</sup>lt;sup>17</sup> Moore's claim, concerning attributions of intrinsic value, that "no relevant evidence can be adduced . . . [and that] we can guard against error only by taking care, that . . . we have before our minds that question only, and not some other" seems correct. See G. E. Moore, *Principia Ethica* (Cambridge: Cambridge University Press, 1959), p. viii.

intrinsically valuable in virtue of being beautiful. Such determinations of beauty produce a fine-grained set of value-adding properties; being beautiful to the *nth* degree, being beautiful to the nth + 1 degree, and so on. Furthermore, if X is the most beautiful thing of its kind, then it is likely, given the range of things concerning which we are inclined to make judgments about beauty, that it is very beautiful. This situation would provide a basis for the judgment that X has a high degree of intrinsic value. The value-adding work would be done by the property of being very beautiful, a property for which the distinct property of being the most beautiful of its kind could be evidence. This objection, to the claim that a thing being the most beautiful of its kind is valueadding, takes the form of suggesting a possible basis of value that was perhaps initially overlooked. The appropriate response is to consider separately the newly suggested property and to ask whether it accounts for all of the value thought to derive from the initially suggested property. Plausibly it does not. A more careful reevaluation of the relevant state of affairs reveals a persisting attribution of value on the basis of the disputed value-adding property. So the method at work here involves taking cognizance of the possible misidentifaction and seriously asking oneself if one has been misled or if indeed one wants to maintain the initial evaluative claim.

There is another possible misidentification of the value-adding property. Imagine, first, that there are only two objects of the kind to which X belongs, the other one being Y, and imagine that X is the more beautiful. Next, ask whether X would have been quite as intrinsically valuable if Z, that is even more beautiful than X, had existed instead of Y. A plausible answer is: "Not quite as intrinsically valuable." Moreover, even if we do not accept the substantive claim that the external property is value-adding, we may say that it is formally acceptable or coherent. Now a critic might counter that there are two distinct claims involved: first, that the state of affairs consisting of X and Z, (X+Z), has more intrinsic value than the state of affairs consisting of X and Y, (X+Y); and, second, that X has more intrinsic value in (X+Y) than in (X+Z). The critic might accept the first claim. The critic might, however, go on to argue that all of the difference in intrinsic value between (X+Z) and (X+Y) is made up by the difference in intrinsic value between Z and Y, in which case the second claim is false. The idea is that there has been no fluctuation in the value of X, so casting doubt on the view that the external property is, or could be, valueadding. There is, though, an effective reply. Even where the difference in intrinsic value between (X+Z) and (X+Y) is the same as the difference in intrinsic value between Z and Y, there is an additional value difference distinguishing (X+Z) from (X+Y). X has less value in (X+Z) than in (X+Y) but that value diminution is compensated for in (X+Z) by a value-adding property of Z. In (X+Z), Z, not X, is the most beautiful of its kind, and so, plausibly, a value that, in (X+Y), attached to X there attaches to Z. While the overall value difference between (X+Z) and (X+Y) is equivalent to the value difference

between Z and Y, there can be, and plausibly are, other value differences between them that do not affect the overall value difference; that are canceled out so to speak. Again, a more considered reevaluation of the relevant state of affairs reveals a persisting attribution of value on the basis of the disputed value-adding property.

There is a final, possible misidentification relevant to the claim that a valueadding property of X alone in (X+Y) is a value-adding property of Z alone in (X+Z). Some might object that this claim seems plausible, qua substantive claim, or at least formally acceptable, only because it is confused with the distinct claim that there is a value-adding property possessed by both (X+Y)and (X+Z) but by neither X nor Z nor, indeed, Y. The shared value-adding property is that of being a state of affairs in which one thing is more beautiful than some other. We would have, in effect, an organic unity in which the intrinsic value of a whole is greater than the sum of the intrinsic values of its parts. There is a good reply to this suggestion. First, one might insist that the claims have been distinguished and separately appraised and that the original claim does not collapse into the organic unity claim. So, one might emphasize a difference, concerning the phenomenology of value, between the two claims. If the organic unity claim is correct, then the states of affairs as wholes will be directly perceived as valuable or directly valued as wholes. If the original claim is correct it will make a difference to the value-perception of X in (X+Y) as against X in (X+Z): X will be directly perceived as more valuable in the former than in the latter. If the original claim is false there will be no such difference. The relevant thought experiment plausibly reveals a difference. This difference does not, of course, force a rejection of the organic unity claim as such. There may be many distinguishable value-adding properties contributing to the intrinsic value associated with a state of affairs, considered either as a whole or in terms of its parts. Second, the substantial and formal points can be distinguished. Even if one thought that the property of being the most beautiful of its kind is not in fact value-adding, one might nevertheless accept that it could be. This possibility, too, is something for which the thought-experiment establishes a prima facie case. Even if, having conducted the thought-experiment, we find we do not share the substantive view, we should at least be able to see that it is a coherent view.

## A PRINCIPLED BASIS FOR THE INTERNAL PROPERTY CONSTRAINT?

The arguments alleging misidentifications of value-adding properties in the particular cases do not succeed, and so the logical space for a claim such as Rolston's is kept open. Perhaps, though, there is some principled, general explanation of why only internal properties could be value-adding. Such an explanation is implied in a test for intrinsic value advocated by Moore and

Ross, namely, that a thing has intrinsic value only if it is judged that, considered in isolation, abstractly, by itself, and without regard to its consequences, its existence is better than its nonexistence. This test limits value-adding properties to internal properties. Since the candidate for intrinsic value must have value in isolation, if it has value at all, external properties seem excluded. While the test is indicative of one common way of thinking about intrinsic value, we require some assurance that the test is not question-begging. Perhaps some who favor the test are swayed either by the thought that intrinsic value is itself an internal property of those things that have it, or at least by the thought that it is not an external property.<sup>18</sup>

We should note first that both thoughts assume metaethical views that are at least controversial. Subjective naturalists, ideal observer theorists, projectivists and dispositionalists, for example, all seem bound to construe the property of being intrinsically valuable as an external property. But more importantly, the views that intrinsic value is an internal property, or that it is not an external property, are compatible with the view that external properties are value-adding. Accepting the view that external properties can be value-adding does not entail that intrinsic value is an external property. It entails only that things may have intrinsic value in virtue of their external properties. In other words, a thing's intrinsic value, which is not an external property, may supervene on certain of a thing's external properties as much as on certain of its internal properties.

Others who favor the test perhaps think it reflects a core idea in attributions of intrinsic value, namely, that the thing that has intrinsic value is valuable in itself, in virtue of its own properties. They might think that only internal properties can be genuinely a thing's own properties. But a thing's external properties are also genuinely its own: they are instantiated by it, manifested by it, or possessed by it, and attributions of the properties to it are true. What is correct is that the properties generally will be instantiated, etc., only if other things exist. But there seems no principled justification for the claim that the only properties that are truly a thing's own properties are those it would have in isolation from all other things. So, it seems that it is prejudice, not principle that excludes external properties as value-adding.

Another form of argument for the internal property constraint is to assume that the substantive claim, and therefore the formal claim, is correct and then validly to derive absurd implications from this assumption. Again care must be taken to distinguish attacks on the substantive claim from attacks on the formal claim. In the latter case, the allegedly absurd implications would have to be

<sup>&</sup>lt;sup>18</sup> Although Moore, for example, argues both that intrinsic value is not an intrinsic property and not a relational property. Perhaps he does so because he thinks both that intrinsic properties are natural properties and that intrinsic value is not a natural property. See Moore, "The Conception of Intrinsic Value," pp. 272–75.

more than substantively unappealing; they would have to exemplify some formal or conceptual defect. Unless they do we would have an argument merely against the substantive claim but not against the formal claim. So, it might first be noted that the view that being instrumentally valuable is value-adding would imply that intrinsic value is infectious in a certain way. If P gives rise to Q, and if Q has intrinsic value, then P will have intrinsic value, too. If M gave rise to P, then, since P has intrinsic value, M has intrinsic value. And so on. There would be, in effect, a backwards reaching chain of value-infection. Apparently, the more extensive the chain, the more total intrinsic value is increased, suggesting that intrinsic value would be maximized if we sought complex, multi-staged means of bringing about states of affairs with intrinsic value. Acting thus increases the number of things that have instrumental value and so increases intrinsic value. But, it might then be claimed, such action would manifestly not increase intrinsic value, so the assumptions that imply that it does are flawed.

It is doubtful that this argument defeats the formal claim, since what seems ultimately to drive it is the conviction that a particular substantive view is normatively unacceptable. The "absurdity" of that substantive view does not obviously reflect some formal flaw: rather, it derives from a reluctance seriously to entertain a certain normative view. Even as an argument against the substantive claim it is dubious, since there are at least three replies to it. First, choosing complex, multi-staged means of bringing about states of affairs with intrinsic value would involve opportunity costs, involving opportunities to bring about other, perhaps more, intrinsically valuable states of affairs. Second, there will be intrinsic disvalues pertaining to some complex means. For example, inelegance and lack of economy in means are, arguably, intrinsic disvalues that could outweigh the backwards transmitted intrinsic values attaching to the stages in the complex means. Third, the backwards transmissions of value could plausibly be of quanta, perhaps fixed by the magnitude of the intrinsic value in the terminal states of affairs. These quanta might be smeared across all the stages of the means. The effect, therefore, of choosing complicated means is not to increase value but to spread a fixed quantum of value more thinly.<sup>19</sup>

### THE SUBSTANTIVE CLAIM

The discussion above suggests that there is conceptual space for the substantive claim, which is to say that the formal claim is correct. Are there positive arguments for the substantive claim? It is difficult to conceive of an abstract general argument that would establish that instrumental value is always a basis

<sup>&</sup>lt;sup>19</sup> The general problem was raised by Michael Smith and the *quantum* suggestion made by Lloyd Humberstone.

for intrinsic value. An argument could, however, proceed by a consideration of a particular case and reflection on that case can show the appeal of the view that instrumental value is a basis for intrinsic value. Consider, then, the hurricane example that Varner offers to defeat the view that instrumental value could be a basis for intrinsic value. To recapitulate, Varner imagines a hurricane that flushes the pollution out of a lagoon, restoring it, at least temporarily, to a more natural condition. In the aftermath of the hurricane biodiversity in the lagoon increases as individual organisms and systems of organisms reestablish themselves. The lagoon becomes an ecologically richer place and at the same time aesthetic values, deriving from increasing richness, develop. Those sympathetic to environmental values would judge that the intrinsic value has increased, too.

In this context, how do we conceive of the value of the hurricane? For one thing we might judge that it has intrinsic value in virtue of the way in which it gives expression to nature's power. Or we might judge it to have intrinsic value in virtue of exemplifying some aesthetic quality such as grandeur. But could we plausibly judge it to have intrinsic value in virtue of the change it has wrought in the lagoon? Certainly we can agree that the lagoon has come to possess intrinsic value that it did not possess immediately prior to the hurricane, leastways not to the same degree. Certainly we can see that the hurricane played a crucial role in producing this state of affairs. That realization surely encourages us to view the hurricane in a positive way, and not just instrumentally. Rather, some of the intrinsic goodness of what it produces rubs off, so to speak, on the hurricane itself. The basis of this value in the hurricane is its causal power in a particular context to produce a certain result.

Some, of course, will be unconvinced but that is not unusual in situations calling for controversial value judgments. Waverers might be helped by a comparison of this case with the case of a hurricane that likewise impacts on a lagoon but plays no similar causal role, nor a role in some more extended cycle of renewal of the lagoon. This hurricane might well have intrinsic value because it gives expression to nature's power or because it exemplifies aesthetic qualities. But there is one thing for which we do not admire it, think positively of it, value it intrinsically, namely, it's causal contribution to the renewal of the lagoon. Our attitude in this case contrasts with our attitude toward the other hurricane. Plausibly the latter has additional intrinsic value and has it in virtue of it's instrumental value in contributing to the renewal of the lagoon. Clearly not all who wavered will be persuaded to embrace this view but hopefully they will not regard it completely unsympathetically.

If we do accept the view offered just now, then we can take it further and see what, in part, motivates the view of Rolston that Varner was concerned to dispute. The hurricane that renews the lagoon does not arise of its own accord. It is a product of complex natural processes that are instrumental in its coming into existence. It is an element in an ongoing, unfolding natural "project." Nor

is it alone responsible for the renewal of the lagoon, although in the particular context it played the triggering, key role. Flushing out the lagoon contributes to setting the preconditions for its renewal. Other natural processes are involved in the reestablishment of biodiversity. The instrumentality that is responsible for the lagoon's renewal spreads beyond the triggering hurricane both in space and time. Thus, the intrinsic value that attaches to that instrumentality likewise spreads through the natural world, giving credence to the view that nature as a whole has value.

Consider the other example that Varner offers against Rolston, namely, the example of the beautiful sunset caused by the presence of high levels of pollution. The assumption that Varner capitalizes on is that the sunset has intrinsic value. In this case, accepting that instrumental value is a basis for intrinsic value leads to the conclusion that the pollution has intrinsic value. The implication is that this conclusion will be difficult to accept for someone attuned to environmental values and will lead them to reject the view that instrumental value is a basis for intrinsic value. There are, however, several ways of rebutting this argument.

The first is to deny that the sunset in question has intrinsic value, even though aesthetic value might be thought to give rise to intrinsic value. While the sunset might appear to have intrinsic value because it does manifest aesthetic qualities, it can be argued that a complete understanding of its causal genesis reveals that it does not, after all, have intrinsic value. The idea here is that it is not merely the appearance or the look of the sunset that determines whether it has intrinsic value but also the causes that bring it about. That it is caused by pollution, a result of despoiling human activity, might be thought to defeat any prima facie attribution of value to the sunset.<sup>20</sup> In other words, the cause of Varner's sunset has a very specific and dramatic impact on the value that would normally derive from its aesthetic properties; it annihilates it. So the reason that in this case the instrument of apparent intrinsic value does not itself have value is that no genuine intrinsic value has been produced.

A second response is to allow that the sunset does have intrinsic value despite its cause but that the whole state of affairs of the sunset plus its cause has negative value. Further, the negative value of the latter might be thought to overwhelm the positive value of the sunset itself, to the point where its relative intrinsic value is very small. In addition, this negative value has the knock-on effect of overwhelming the intrinsic value possessed by the pollution in virtue of it being the instrument that produces the sunset. Moreover, the pollution either has, or is associated with, a multiplicity of bad consequences. Connotations of such bad consequences plausibly would interfere with the perception of whatever intrinsic value it has in virtue of its instrumental value. Indeed, it

<sup>&</sup>lt;sup>20</sup> For a similar argument, see Elliot, Faking Nature, chap. 3.

might well have, on balance, negative instrumental value, arguably a basis for negative intrinsic value.

The sunset example does not defeat the thesis that instrumental value can be, or is, a basis for intrinsic value. The reaction to the example on which Varner relies can be explained in ways consistent with the thesis. At the same time, the lagoon example can be very plausibly represented in terms that support the thesis. Combined with the more abstract deliberations associated with a consideration of the formal claim and of the issue as to whether there is a principled basis for the internal property constraint, these outcomes support the claim that instrumental value can be and is a basis for intrinsic value and so support the view that nature as a whole has value.

### IMPLICATIONS OF THE FORMAL AND SUBSTANTIVE CLAIMS

Accepting the formal claim has one particularly important implication. It rules out one way of drawing the distinction between intrinsic and instrumental value, as well as undermining the isolation test for intrinsic value to which that way of drawing the distinction gives rise. As noted above, some claim that a thing is intrinsically valuable only if it would have value were nothing else to exist. This claim is implied, moreover, by the perhaps more familiar characterization of a thing's intrinsic value as its value irrespective of its consequences. There is, however, another characterization that permits the formal claim but which also captures what is surely central to the more exclusionary characterizations. According to this other characterization, a thing's intrinsic value is the value that it has for its own sake and distinct from, although not irrespective or independent of, the value of its consequences. <sup>21</sup>

The formal claim says that a thing could have intrinsic value because it is instrumentally valuable. This alleged intrinsic value is quite distinct from, although not independent of, the intrinsic value of the consequences. (Not dissimilarly, a child is distinct from, although not independent of, its parents.) The intrinsic value of the consequences is the ground of, or gives rise to, the intrinsic value of the thing itself, since it is in virtue of the intrinsic value of the consequences that the thing itself has instrumental value. This is where the dependence comes in. However, the thing itself has intrinsic value distinct from the intrinsic value of its consequences, and indeed distinct from any intrinsic value possessed by the more inclusive state of affairs consisting of the thing itself plus its consequences. This fact surely suffices to give content to the claim that the thing has value for its own sake, in virtue of its own, including external, properties, which is to say intrinsically.<sup>22</sup> The formal claim, more-

<sup>&</sup>lt;sup>21</sup> For example, Ross, *The Right and the Good*, p. 74, runs the characterizations together.

<sup>&</sup>lt;sup>22</sup> Beardsley, "Intrinsic Value," p.1, suggests "value for its own sake" as an explication of "intrinsic value," although he does not himself endorse it.

over, opens the door to, although it does not compel, acceptance of the substantive claim.

Accepting the substantive claim, that the property of being instrumentally valuable is value-adding, has two interesting implications. First, no constitutive part of something that has intrinsic value will itself entirely lack value-adding properties, which is to say that it will not have pure intrinsic disvalue or be purely value-neutral. Second, when embedded in a fuller theory of value-adding properties, the view that being instrumentally valuable is value-adding implies not only that the quantity of positive intrinsic value that there is is increased, but that it is spread extensively and deeply through the world. Parts of the world, to which we might not have been inclined to attribute intrinsic value, would have intrinsic value. In this way, Rolston's claim concerning systemic value is vindicated.

<sup>&</sup>lt;sup>23</sup> Something has pure intrinsic disvalue if it possesses no property that improves its value, which tends to compensate for or work against its disvalue. Something is purely value-neutral if it lacks both value-adding and value-subtracting properties. Of course, all things considered, the part in question might have intrinsic disvalue or be value-neutral. Similarly, nothing with intrinsic value will be brought about by things that have pure intrinsic disvalue or are purely value-neutral.

<sup>&</sup>lt;sup>24</sup> Although the world would contain more *loci* of value than we were hitherto inclined to think, it would not, however, immediately follow that it would be all-things-considered better than we might otherwise think. There is, after all, a plausible corollary to the claim that instrumental value is value-adding, namely, that instrumental disvalue is value-subtracting. Moreover, any proportionality claim to the effect that the degree to which being instrumentally valuable is value-adding is proportional to the quantity of intrinsic value to which it gives rise, would arguably be mirrored by a parallel proportionality claim concerning the value-subtracting effect of instrumental disvalue.