

Restoration, Obligation, and the Baseline Problem

Alex Lee, Adam Pérou Hermans, and Benjamin Hale*

Should we restore degraded nature, and if so, why? Environmental theorists often approach the problem of restoration from perspectives couched in much broader debates, particularly regarding the intrinsic value and moral status of natural entities. Unfortunately, such approaches are susceptible to concerns such as the baseline problem, which is both a philosophical and technical issue related to identifying an appropriate restoration baseline. Insofar as restoration ostensibly aims to return an ecosystem to a particular baseline state, and depends upon clearly identifying this baseline for success, the very project of restoration appears impossible to get off the ground. Recasting environmental restoration in terms of obligations, instead of status, value, or worth, can avoid this and other classic challenges. If obligations to restore nature follow from intersubjectively validated reasons to justify our actions, we can salvage restoration from the threat of the baseline problem.

I. INTRODUCTION

The golden grizzly bear (*Ursus arctos californicus*) adorns the state flag of California. With its distinctive hump and golden sheen, it is the mascot of many University of California schools, including UCLA, UC Berkeley, and UC Riverside. For centuries, golden grizzly bears thrived in the mountains and forests of the Sierra, digging up wild berries, roots, and nuts, and munching on small prey such as ground squirrels. Large and voracious omnivores, the golden grizzlies shaped the California ecosystem. Despite its critical role in the ecological community and widespread veneration from enthusiastic Californians, the last known golden grizzly bear was shot to death by a rancher in Fresno County in 1922. As a consequence, several ambitious ecologists have in recent years called for restoration of the grizzly across much of its historic range.¹

Recognizing the ecological value of these bears and other large predators, but also the ostensible arbitrariness of choosing to restore only back to a pre-Gold Rush

* Lee and Hermans, Environmental Studies Program, University of Colorado at Boulder, UCB 397, Boulder, CO 80309-0397; Hale, Department of Philosophy and Environmental Studies Program, University of Colorado at Boulder, 1333 Grandview Ave, Boulder, CO 80309-0488; email: bhale@colorado.edu. Lee and Hermans' research is focused on using applied ethics and ethical theory to better understand conservation. Hale's primary research interests concern environmental and applied ethics. The authors are all currently members of the Committee on Environmental thought (ComET) at the University of Colorado, Boulder. Together the authors thank Allen Thompson, Andrew Light, Eugene Hargrove, Ken Shockley, Emma Marris, Don Maier, Phil Cafaro, Ron Sandler, two blind referees, Adam Briggie and Eric Katz, attendees at the 2012 ISEE conference in Allenspark, Colorado, and attendees at the 2012 SUNY Buffalo conference on adaptation, all of whom provided invaluable feedback on these ideas.

¹ Michael Soulé and Reed Noss, "Rewilding and Biodiversity: Complementary Goals for Continental Conservation," *Wild Earth* 8 (1998): 18–28.

state, some have suggested a considerably more controversial approach to restoration.² They point out that the human-environmental conflict, which has resulted in widespread species population shifting, habitat degradation, and trophic alteration throughout North America, stems back at least to the Pleistocene epoch, some 12,000 years ago, when large mega-fauna, from mastodons to North American cheetahs, roamed the continent. They argue not just that we ought to restore wolves, bears, and cougars, but that we ought to restore our American ecosystem to the very root of the ecological conflict, reintroducing surrogate African elephants and cheetahs across the American wilderness. Critics ask: why the Pleistocene and not the Paleocene or the Eocene? The very problem that the re-wilding effort was invoked to avoid—the arbitrariness of the baseline—is re-introduced by justification for re-wilding that proposes that we must repair past damages.

Approached technically, ecological restoration appears to require that the environment be returned as near as possible to its original, untrammelled state. The common ecological view on restoration reflects this quite explicitly, defining restoration as “strictly speaking . . . an attempt to return a system to some historic state.”³ Unfortunately, such a project is not as straightforward as it may at first appear, and there is a fair bit of disagreement within the conservation biology community about what true restoration really entails.

Call this the “baseline problem.” Practically speaking, the baseline problem raises concerns about how to set the most reasonable and responsible baseline for restoration. Indeed, returning the golden grizzly bear to California may be necessary to fully restore the Californian ecosystems to their twentieth-century state, though reintroducing enormous predators to America’s most populated state may not be such a wise idea. Unfortunately there is a much deeper conceptual stumbling block for the restoration community: if there can be no clearly identifiable and non-arbitrary restoration baseline, then the very project of restoration may not cohere.⁴ Our concern in this paper is primarily ethical and conceptual, though of course there are several dimensions to the baseline problem. There are practical questions: how to identify a baseline; how to nudge the current environment back toward that baseline; and how to stabilize the restored ecosystem at this baseline. There

² Tim Caro, “The Pleistocene Re-Wilding Gambit,” *Trends in Ecology and Evolution* 22 (2007): 281–83; Josh Donlan, “Re-Wilding North America” *Nature* 436, no. 7053 (2005): 913–14. Dustin Rubenstein, Daniel Rubenstein, Paul Sherman, and Thomas Gavin, “Pleistocene Park: Does Re-Wilding North America Represent Sound Conservation for the Twentieth Century?” *Biological Conservation* 132 (2006): 232–38; Soule and Noss, “Rewilding and Biodiversity.”

³ Donald Palmer, Margaret Falk, and Joy Zedler, *Foundations of Restoration Ecology* (London: Island Press, 2007).

⁴ In written comments, Allen Thompson has objected to our view on the grounds that practitioners can easily move forward with restoration projects once a reference point for the project has been identified. We readily admit Thompson’s claim but do not suggest that the baseline problem presents a practical stumbling block. Instead we view the baseline problem as a conceptual challenge for restoration. We claim that the baseline problem calls into question whether restoration projects discharge obligations to repair past wrongs.

are epistemic questions: how can this “original” state be identified when nature is dynamic; how do we avoid arbitrariness? And there are ethical questions: ought we to restore in the first place, and why ought we to restore to a particular state? We can’t address those here. Rather, we deploy the baseline problem to motivate a view about the nature of obligations with regard to nature.

Below we argue that obligations to restore and rectify damages to nature follow from a failure to adequately justify—either by absence, neglect, omission, or malice—actions that caused, or coalesced to cause, damage. This position, we believe, effectively recasts the restoration question so that it no longer depends on the identification of a clear baseline. We argue for this position by demonstrating how the second-personal nature of justification both demands a reason for, and motivates a response to, degradation.

We believe that our position has several advantages over prior strategies for approaching restoration questions. First and foremost, it avoids the baseline problem spelled out above. Second, it is ahistorical with regard to the assignment of responsibility. Third, it addresses a corollary problem related to assisted migration and climate adaptation.⁵ Fourth, it elides, or at least sidelines, overt valuations of nature. Finally, it avoids unresolved moral considerability and moral status questions.⁶ Other theories of environmental restoration offer relational stances as the true motivation for and saving grace of restoration. Whenever we restore, we must raise questions about blame, value, moral status, and so forth, but these are all questions that ought not to stymie the obligation to restore.

To argue for this position, we begin by characterizing the restoration literature. We cover several key positions, seeking to demonstrate how many rely either on the establishment of moral status or environmental value in order to offer a reason for restoration. We note that both moral status and the question of environmental value are problems in their own right. Following this, we introduce several key examples aimed at prime intuitions and escort the reader to the conclusion that the problem of environmental restoration is best understood within an interpersonal justificatory context. The upshot of this argument suggests that an obligation to

⁵ Benjamin Hale, Adam Hermans, and Alexander Lee, “Adaptation, Reparation, and the Baseline Problem,” in Max Boykoff and Susan Moser, eds., *Toward Successful Adaptation: Linking Science and Practice in Managing Climate Change Impacts* (New York: Routledge, 2013), pp. 67–80.

⁶ One referee objects that “we are simply thrown right back into the baseline problem, because those judging our action will want some justification about why we are restoring to this or that particular state of affairs. . . . In short, I read this paper as an attempt to find a procedural work-around for a substantive moral dilemma.” We recognize that some may object that this paper falls short in providing moral guidance. However, the substantive details of a decision about how to proceed in cases like that of the California grizzly bear are not advanced, and often in fact hindered, by an overly stringent fixation on how the world should look. In the absence of a non-arbitrary baseline, an answer to these questions can only be gotten at by working within the context of robust deliberative discourse to determine what conditions would satisfy the reparation of past wrongs. If, for instance, one party wrongs another, there are conceivably many substantive conditions that would repair the wrong, but these substantive conditions can only be ascertained and specified through engagement with the wronged party.

restore can neither be completely discharged by reconstructing a natural system nor by emendations to a person's character. What must also be in place, we reason, is uptake in the form of independent validation from a party of experts, evaluators, and affected parties.

II. BACKGROUND

Restoration efforts range from recovery of lost habitat to ecosystem management practices to deliberate environmental modification to cleanup and remediation. Generally speaking, restoration is a *response* to some prior degradation caused directly or indirectly by human activity. It is an effort to repair damages and right wrongs. Actor *A* causes damage to some environment *E*, and is then morally obligated because of this damage to undo or repair the damage. Under most circumstances, "reparation" is thus presumed to mean "restore *E* to its original undamaged state," and often such restoration specifies a historical aim, seeking to return an ecosystem to a state that it had been in prior to degradation, or to what it would have become if not for some interference. This view of restoration stems from a presumption that a "lost good" may be re-incorporated into an ecosystem.⁷

It is common in the discussion of environmental degradation to focus on these lost goods: aesthetic states, natural values, the apparent functions of entities within a given ecosystem, and so on. The literature is rife with talk of this sort. On these views—what we call the "Harms Views"—it goes without saying that in order to understand environmental wrongdoing, what is needed is a clear sense of what has been lost or what is now missing. From there, it is presumed to follow that parties responsible for environmental degradation have an obligation to restore this lost value.

Robert Elliot has introduced perhaps the most famous articulation of this view. In his well-known article, "Faking Nature," Elliot criticizes what he calls the "restoration thesis."⁸ According to this thesis, "the destruction of what has value is compensated for by the later creation of something of equal value."⁹ Elliot aims not so much to claim that the restoration thesis is false, but rather that "wild nature has intrinsic value."¹⁰ A concern here is that if restoration allows us to equate natural value with artificial value, then ecological degradation may consequently be justified by later restorative measures. Elliot essentially charges that restoring nature is akin to the faking of an artwork: the end result may appear similar to what was there previously, but some critical original value is no longer in place. The loss

⁷ Donald Scherer, "Between Theory and Practice: Some Thoughts on Motivations Behind Restoration," in William Throop, ed., *Environmental Restoration: Ethics, Theory and Practice* (New York: Humanity Books, 2000), pp. 94–114.

⁸ Robert Elliot, "Faking Nature," *Inquiry* 25 (1982): 81–93.

⁹ *Ibid.*, p.81.

¹⁰ Robert Elliot, *Faking Nature* (London: Routledge Press, 1997).

of intrinsic value on this view suggests that our baseline for restoration is one to which we can never return and that true restoration is thus not possible.

At least three responses to Elliot have aimed at moving the discussion of restoration away from a debate about value in nature. First, Eric Katz famously builds on Elliot's position to argue that restoration is essentially a moral myth.¹¹ Katz suggests that restoration, in addition to being impossible, is yet a further expression of the human domination of nature. Katz's position against the "optimistic view that humanity has the obligation or ability to repair or reconstruct damaged natural systems," is rooted in the presumption that restorations can only ever be artifacts. If restoration is not authentic (or even ontologically possible), then restoration does little more than give license to destroy nature. Both Katz and Elliot claim that any restoration will create an entity entirely different from that which existed in the prior state. In this way, both lean heavily on a related baseline concern to conclude that restoration may need to be thrown out the window.

Second, Andrew Light has attempted to save restoration from such pessimism by taking a more pragmatic stance. Light gives an account of two types of restoration: *malicious restoration*, such as that which concerns Katz and Elliot, and *benevolent restoration*, undertaken in response to accidents and past harm not justified by the clean-up.¹² The way he sees it, "benevolent restorations are valuable because they help us restore our relationship with nature, by restoring what could be termed our culture of nature."¹³ He claims that the ontogenesis of nature need not matter for restoration to be worthwhile, since the relationship and process take precedence. Light advocates that restored nature is not so much like an art forgery, but rather more akin to an art restoration, and that engaging in restoration can be thought of as a form of stewardship. Restoration can help bridge broken human-nature relations by having humans be a part of this relationship. This has value for us as humans, and that value is what Light argues can help people better respect nature. Further, Light accepts that Katz may object on grounds that in such cases we would merely be engaging in a relationship with an environmental artifact, but suggests that due to the resemblance the artifact has with the original natural state, it nonetheless helps build a human connection with nature. On this view, the alleged arbitrariness of the baseline problem would appear to be resolved: identifying a true historic baseline is less important than identifying a restoration point that will most beneficially promote human-nature relationships.

More recently, John Basl has pushed Light's position yet one step further.¹⁴

¹¹ Eric Katz, "The Big Lie: Human Restoration of Nature," *Research in Philosophy and Technology* 12 (1992): 231–41.

¹² Andrew Light, "Restoration and Domination: A Reply to Katz," in William Throop, ed., *Environmental Restoration: Ethics, Theory and Practice* (New York: Humanity Books, 2000), pp. 94–114.

¹³ Andrew Light, "Ecological Restoration and the Culture of Nature: A Pragmatic Perspective," in Paul Gobster and R. Bruce Hull, eds., *Restoring Nature: Perspectives from the Social Sciences and Humanities* (Washington, D.C.: Island Press, 2000), p. 67.

¹⁴ John Basl, "Restitutive Restoration: New Motivations for Ecological Restoration," *Environmental Ethics* 32 (2010): 135–47.

Where Light emphasizes the generation of stronger relationships with the environment through restoration, and thereby views some restorations as benevolent, Basl emphasizes character development as a requirement for restoration of the environment. He distinguishes between a *reparative* requirement and a *remediative* requirement in restoration. The reparative requirement, he suggests, is simply the sort of restoration that repays or repairs the damage done. The remediative requirement seeks to address what Basl believes is the true cause of the damage in the first place: the character of the degrader. With Basl's amendment, character development and reshaping plays a vital role in proper restoration, as it is necessary to fully repair the wrong. Distinguishing his position from past views, Basl suggests that his position is fundamentally restitutive, and argues that it is a new motivation and justification for restoration. His view suggests that the identification of a baseline for reparation is less important than identifying a forward-looking character goal for human agents.

We think that an understanding of our obligations stemming from human impact still has some way to go. Prior discussions on value and virtue fall short of explaining widely held intuitions that, for instance, while building a community (per Light) and adapting one's character (per Basl) may be laudable restoration objectives, they cannot alone discharge an obligation to repair or restore. Such intuitions suggest that restoration necessitates undoing environmental damage, but also that not all environmental damage is of the sort that can or even ought to be repaired by restoration. A comprehensive understanding of restoration includes directly relating our restorative response to our prior wrongdoing.

Drawing on the wider metaethical discourse on obligations, we suggest approaching the restoration problem and related obligations intersubjectively. An intersubjective approach to such obligations is appealing in that it positions restoration within a discussion of accountability. It also avoids the baseline problem.

Not so long ago, in an attempt to reorient the environmental discussion, Onora O'Neill suggested in an important but somewhat overlooked article that obligation-based reasoning may better serve our environmental goals.¹⁵ As she sees it, the environmental community would do well to refocus the discussion from an emphasis on environmental rights and moral standing (rights-based reasoning) to emphasize instead obligations (obligation-based reasoning). O'Neill's position, coupled with other work on the nature of obligations, can go some distance in helping us understand the obligation to restore.

Stephen Darwall, for instance, claims that moral obligations are fundamentally "second-personal" in nature.¹⁶ Darwall claims that a second-personal reason is "one whose validity depends upon presupposed authority and accountability relations between persons and, therefore, on the possibility of the reason being

¹⁵ Onora O'Neill, "Environmental Values, Anthropocentrism and Speciesism," *Environmental Values* 6 (1997): 127–42.

¹⁶ Stephen Darwall, "Moral Obligation and Accountability," in R. Shafer-Landau, ed., *Oxford Studies in Metaethics* (Oxford: Oxford University Press, 2007), vol. 2, p. 129.

addressed person-to-person within these relations.”¹⁷ Darwall’s full theory is not important here. What is important is to see that on this view obligations to restore relate fundamentally to the wrongdoing itself, whatever that wrongdoing may be, but whether we have discharged our obligation will hang on the extent to which our reasons for doing what we do can be ratified by taking up the second-personal standpoint.¹⁸

Similar views appear elsewhere. Christine Korsgaard neatly distinguishes between public reasons and private reasons.¹⁹ On her view, while subjective private reasons may motivate action, only the justificatory reasons that underwrite norms are always already reasons that we share. Jürgen Habermas also holds a related position. He proposes that discursive evaluation is the means to validating principles and upholding responsibilities.²⁰ The determination of when an obligation or responsibility has been fulfilled must be left up to a broad evaluative public, perhaps of the sort modeled by political scientists such as John Dryzek.²¹ One needn’t stop here for guidance. Intersubjective views are also held by some contemporary contractualists, such as T. M. Scanlon, who offers as his reasonableness criterion the proposal that an act is reasonable if no rational agent could reasonably reject the rationale for it.²² The list goes on. Many others further develop this intersubjective view of obligations. All of these views, nuances, and distinctions among them aside, can help add strength to O’Neill’s proposal that environmental ethics become obligation-centered.

III. THE ARGUMENT

A series of thought experiments will tease out the nature of these obligations. Consider first:

Velma’s Flowers: Velma has a daisy garden which Norville one day tramples.

In trampling Velma’s daisies, most would agree that Norville has wronged Velma. Under some, though not all, characterizations of Norville’s behavior, Norville has acted irresponsibly. He has wronged Velma through one of several possible accounts:

¹⁷ Stephen Darwall, “Authority and Second-Personal Reasons for Acting,” in D. Sobel and S. Wall, eds., *Reasons for Action* (Cambridge: Cambridge University Press, 2009), p. 137.

¹⁸ Stephen Darwall, *The Second Person Standpoint: Morality, Respect, and Accountability* (Cambridge: Harvard University Press, 2006).

¹⁹ Christine Korsgaard, *The Sources of Normativity* (Cambridge: Cambridge University Press, 1996). Also see “The Reasons We Can Share: An Attack on the Distinction between Agent-Relative and Agent-Neutral Values,” in Christine Korsgaard, *Creating the Kingdom of Ends* (New York: Cambridge University Press, 1996), pp. 275–310.

²⁰ Jürgen Habermas, *Discourse ethics: Moral Consciousness and Communicative Action* (Cambridge: MIT Press, 1991).

²¹ John Dryzek, “Green Reason: Communicative Ethics for the Biosphere,” *Environmental Ethics* 12 (1990):195–210.

²² T. M. Scanlon, *What We Owe to Each Other* (Cambridge: Harvard University Press, 1999).

by ruining her daisies, by violating her property rights, or by disrespecting her or something of value to her. Given these presumptions, Norville ought to undo the damage he has caused and return Velma's garden to its original state. Everything else being equal, Norville is obligated to rectify this wrong. What it takes to rectify this wrong, however, is rarely easy to determine. In this case, much will hang on the reasons that best describe Norville's act in destroying Velma's daisies.

Perhaps Norville's action was an accident. In assisting Velma with her gardening, suppose he has taken a fall. In such a case, it is not unreasonable to think that Velma would be disappointed with Norville, but accept the degradation as an accident. Nevertheless, Norville may feel some obligation to repair the damage that he has done.

It may instead be the case that Norville's action was intentional and malicious: perhaps he deliberately and spitefully destroyed Velma's daisies. If so, this would appear to constitute a wrong against Velma—a wrong for which Norville is responsible. His moral obligation to rectify this wrong can be partly discharged by replacing the trampled daisies with new daisies. In such a case, it would not be unreasonable to expect that Norville might refuse to restore Velma's garden; or to presume that even if Norville were to restore Velma's garden, that Velma might never forgive him for his malice. In these cases, something more than simple replacement of the daisies would be needed: perhaps a greater penalty, to offset Norville's ill-wishes toward Velma; or perhaps a simple apology to Velma, i.e., a change of character on Norville's part, to repair the act against Velma's daisies.

It is also conceivable that Norville's actions were merely negligent. Perhaps Velma left on a vacation after securing a commitment from Norville to look after the daisies. Norville, ever the forgetful type, may have absentmindedly permitted the flowers to die. In such a case, it would not be unreasonable to think that Norville would feel terrible about the loss of the daisies, but that Velma might excuse Norville's destruction of her daisies on grounds that it was she who left and he simply didn't know how to care for daisies. She might then share in the responsibility for their destruction, and thus forgive, or at least reduce the significance of, his obligations to replace them.

The point here is not a trivial one. Substantive obligations with regard to nature are themselves established by the interpersonal arrangements that support them. Just as such obligations can be established between two or more parties, so can they be discharged between two or more parties. Depending on the circumstances of Norville's destruction of the flowers, Velma is in a position to forgive, excuse, or admonish Norville on his fulfillment of the obligations. Interpersonal obligations are a plausible way of understanding the call for reparations and remediations (and, as an extension of this, restorations).

Now consider a slight variation on this theme:

Spot: Spot, Norville's enormous Great Dane, digs up Velma's daisies.

In this case, Norville himself cannot clearly be said to have destroyed something of

value to Velma, but as Spot's owner, caregiver, and friend, Norville may nevertheless be morally responsible for negative effects resulting from Spot's bad behavior. A very natural way of understanding this moral obligation is as one under which the pet owner, Norville, has placed himself. Pet owners bear burdens and responsibilities for the actions of their pets because they have assumed an obligation not only to care for the pet, but also to account for negative outcomes resulting from the behaviors of the pet. In this case, it is clear that there is an injured party, Velma, who has been negatively affected by Spot's behavior.

As before, Norville's obligation can be discharged by seeking reconciliation with Velma. Perhaps he will need to replant the garden for Velma. Perhaps he will need to apologize for letting Spot run loose. Perhaps he will need to show further good will and build a fence to contain Spot. The appropriate course of action can be established by querying Velma as to what would make up for the loss of her daisies and the trespass on her property.

Such is even the case if nothing of Velma's is damaged. For instance:

Velma's Yard: Velma is working in her yard when Spot leaps the fence, runs around the grass, doing no damage at all.

Though no damage has been inflicted upon Velma, most would agree that Norville ought to at least apologize to Velma and perhaps take action to prevent such occurrences in the future (e.g., he could build a higher fence). Such ideas are reasonably captured by the notion of trespass. For the most part, trespass remains ensconced in standard conceptions of violation and property rights.²³

Consider how this solution blows up, however, when we introduce a case in which there is no obvious injured party and/or no clearly identifiable subject of damage:

Public Park: Spot escapes the confines of his neighborhood and destroys the daisies in a city park.

In this case, a stipulated "community property right" may establish the injured party as "the city," which thereby serves as a proxy for the taxpaying citizens of the city. As the putative owner of Spot, Norville is, as before, on the hook for reparation. To adequately address such degradation in this case, he must seek reconciliation either with the affected parties themselves or with their proxy, which in this case is the city. Perhaps he will need to offer an apology, or he will need to reimburse the city, or he will need to pay a fine and replace the flowers. All such actions are relatively clear in the context of our modern legal framework, and are circumscribed by property law.

But now consider a more complicated case with factors akin to those that we

²³ Joel Feinberg, *Harmless Wrongdoing* (New York: Oxford University Press, 1990); Peter Railton, "Locke, Stock, and Peril: Natural Property Rights, Pollution, and Risk", in M. Gibson, ed., *To Breathe Freely* (Totowa, N.J.: Rowman and Littlefield, 1985); J. J. Thomson, "Rights and Compensation," *Noûs* 14 (1980): 3–15.

find in ecosystem restoration situations. Even with no clearly assigned property rights, similar such obligations may arise:

Wildflowers: Norville and Spot are hiking in the backcountry. True to his nature, Spot dashes off and digs up a patch of parachute beard tongue, an endangered Colorado wildflower, thereby damaging the flowers such that they cannot regenerate without assistance.

Assume for the sake of argument that this place in the backcountry has no proprietors and no assigned regime of management. For example, it is neither a national park nor an area designated by the Wilderness Act, where clear jurisdictional management is specified by Congress.²⁴ Intuition suggests that Norville still has an obligation to repair such destructive behavior. He ought to undo any wrongdoing, which in this case may involve restoring (or ensuring that others restore) the ecosystem. The focus of such restoration should be the damage where negative effects occur, but only so long as other criteria are met: namely, that Norville's act of degradation is not somehow justified, or that Norville's reparative response is one to which no one could reasonably object.

In such cases, where damage and trespass do not clearly harm or violate a specific party, regenerative assistance may be sufficient. But Norville, by virtue of his jurisdiction over Spot, and Spot's reckless actions, has an obligation to assist in this regeneration. In such cases, if regeneration is no longer possible, Norville may then also have an obligation to address any related degradation. To acknowledge this obligation is only to acknowledge that we are always responsible for our actions. Ultimately in such cases it may be very difficult to gain clarity on what such an obligation requires, but obligations extend regardless of the moral status of the wronged object, or the relationship of that object to other agents.

IV. DISCUSSION

Our claim is that obligations to restore nature are best understood intersubjectively. We mean by this claim only that such obligations do not derive directly from harm caused or damage done, but rather from intersubjectively established commitments to justify one's actions. To see this point, return again to "Velma's Flowers." Upon causing harm or damage to Velma's daisies, many will likely agree that Norville has an obligation to repair such damage, to right his wrong. According to the harms view stipulated above, Norville's wrongdoing consists in the loss of something that is valuable to Velma. By contrast, according to the obligation-centered, intersubjective approach that we are suggesting, Norville's

²⁴ Perhaps such land does not currently exist in modern America, as the BLM or state agencies would have "jurisdiction" over any such "leftover" parcels. However, it is not hard to imagine such land existing in principle.

wrongdoing is established not strictly by the loss to Velma, but by the extent to which his damage-causing actions can or cannot be justified (either to Velma or to reasonable and well-informed outside parties).²⁵ This approach to the problem, we contend, permits us to avoid complications such as the baseline problem.

What's critical here is that we begin by recognizing that there are some circumstances in which Norville's damage to Velma's daisies may well be justified, and therefore not wrong. For instance, suppose that Norville destroys Velma's flowers in order to save her from an assailant. In such a case, it would be hard to fault Norville. He has aided Velma, not wronged her. This somewhat powerful intuition—that in some circumstances, damage to nature can be justified; and, more importantly, that this justification can be gotten at by assessing the reasons that concerned parties bring to the table—motivates the second-personal account. If it is correct, then Norville's wrongdoing consists not strictly in the loss of value, but rather in his failure to offer (or simply to "have") adequate reasons for damaging Velma's flowers.

For our purposes here, it is further critical to see that prescriptions for reparation follow directly from this view. In order to right his wrong, Norville ought not to limit his actions to mere restoration of the damaged flowerbed. He must either provide some argument justifying his actions—an argument that no party could reasonably reject—or take further action to rectify his wrong. As with his initial action, Norville must justify any reparative actions, and he must do so in a way that is satisfactory to all affected parties. In other words, what Norville must do to properly discharge his obligation to repair damage to Velma's daisy garden is to identify, presumably through consultation with Velma, what course of action she would accept as reparation. If doing so is not possible, say because Velma is absent or unavailable, he must seek reparations that are "reasonable," where this is understood as meeting the standards of some as-yet undetermined reasonableness criterion. There can be little question that this is what it will take to fully repair and right the wrong.

Consider how this approach opens up the restoration discourse. In "Public Park," most would agree that Norville is responsible for the destruction of a commons. Any resulting obligation to restore cannot clearly be directed at a specific individual, but rather must apply to the affected community. Norville's assumed commitment to account for Spot's bad behaviors applies not just to individuals, after all, but to the broader moral community as well. In "Wildflowers," when Spot destroys the parachute beard tongue, no particular member of the moral community may be affected at all. Yet many may share the intuition that because Norville is responsible for Spot, and because Spot has caused the damage, Norville is thereby responsible for damages caused by Spot. Both "Public Park" and "Wildflowers" are cases in which there are respectively diffuse or non-existent wronged parties; and yet, we

²⁵ We remain agnostic on the theory of reasonableness or a justifiability criterion.

can see that the intersubjective account, which would otherwise appear to limit moral obligations to moral agents and patients, can handle these cases quite well.

The above examples help illustrate that Norville's obligation to restore nature is rooted in something other than the mere fact that damage has been done, and something other than formal contracts or commitments under which he may have placed himself. His obligation, more generally, is an obligation to the moral community—an obligation that stems from the justifiability of his actions. In "Velma's Flowers," Norville's obligation to repair the wrong is ostensibly to Velma, regarding her flowers. It would be easy to misread this obligation, however, as an obligation requiring restoration of something important to Velma. Perhaps he must restore the value that he has infelicitously taken from her. In "Velma's Yard," Norville's obligation is again ostensibly to Velma, regarding Spot's trespass. Again, it would be easy to misinterpret this case as requiring perhaps consensual uptake from Velma. But as before, this explanation underdetermines the problem, since it does not help with the other cases. In "Public Park," Norville's obligation is ostensibly to the citizens of the city, regarding damage to the park. His obligation to right the wrong would appear to pertain diffusely, to what would restore the community members to their prior state—either via value or via consensual uptake. In "Wildflowers," however, his obligation is to a somewhat nondescript community—what we are calling the "moral community"—regarding the damaged ecosystem. To repair the damage, he must answer to a nondescript community of moral agents; and he must do so by ensuring that his reparative activities meet with their scrutiny. In all of our cases, where intuitions may lead us to believe that the obligation is direct and specific to a wronged party, there are further cases like "Wildflowers" that offer up a more abstract explanation, but that also could be applied to the more specific cases. What we are claiming is that the more limited cases such as "Velma's Flowers" and "Velma's Yard," which have otherwise been explained by way of appeals to lost goods and violations of rights, can also be accounted for by appeal to what the moral community could accept.

There are several other approaches to explain the source of these obligations, of course. It would be simple enough to make the case that "Wildflowers" is in almost all salient respects similar to "Public Park," such that obligations to repair "Wildflowers" stem from diffuse commitments to the general good, but such an argument overlooks our stipulation that the land in "Wildflowers" does not fall under any specific jurisdiction. Moreover, it bends plausibility. If we broaden the cases to include, say, damage or trespass to the planet, and aim to understand such wrongdoing in terms of rights that are held by all citizens of the planet, now and forever into the future, this is a mighty strange way of thinking about our reasons for respecting the Earth.

None of this is to say that we are necessarily obligated to restore nature without regard for the costs or associated impacts that such restoration will engender. It is only to say that our obligations to restore, or more purely, our obligations with regard to nature, are obligations that are best understood as intersubjectively valid or invalid.

Christine Korsgaard offers a distinction that can help make our thinking about such obligations clearer. In *Sources of Normativity*, she is careful to distinguish between direct obligations *to* other agents, and indirect obligations *with regard to* non-agents.²⁶ She suggests that one can have an obligation *with regard to* plants, for instance, while not necessarily having an obligation *to* plants themselves. A theory that insists that we have obligations *to* nature, i.e., direct obligations, will leave Norville little option to avoid and repair destruction of the daisies, even if trampling the flowers is required to save Velma's life. A theory that insists that we have only obligations *with regard to* nature leaves open the possibility that there may be reasons that militate against restoration. Obligations with regard to nature hold lexical priority over other considerations including, for instance, betterment of character stemming from deliberate actions toward nature, ecosystem services, or even the value of nature. These other considerations may be incorporated into our obligations in various circumstances, and they may be worthwhile, but they offer reasons, not necessarily motivations, for our restoration actions and priorities.

Restoration can then be understood as a means of fulfilling obligations *to* the moral community but *with regard to* specific ecological entities. This suggests an important constraint on the aim of restoration projects. The target of restoration ought to be that which was degraded. In "Velma's Flowers," Norville cannot make things right simply by returning an equivalent number of daisies to the world. He cannot discharge his obligation to Velma, say, by planting daisies in Daphne's yard. His obligations are more specific than that. They are obligations to Velma *with regard to* Velma's daisies. As a result, we can understand the material damage caused by degradation to be not a reason to restore, but an essential target for our efforts.

The initial baseline state is thus irrelevant to the determination of whether obligations to restore have been discharged. That we have altered the world from some state *B*, without justification, is the *reason* that we must restore, but it is not the state *back to which* we must restore. What matters instead is what we can justify restoring back to, as viewed from the second-person standpoint. The ontological concerns of Elliot and Katz thus do not take restoration off the table. Even if Norville cannot restore those very same, spatio-temporally, value-identical daisies to Velma's yard, it does not thereby negate or nullify his reparative obligations to the moral community. He has done something that could not be justified, and to rectify this wrongdoing, he must evaluate what would be justified. Restoration may thus involve a range of different practices, goals, and actors, but its objective should always be clear: to repair the wrong. Doing so can help make better sense of the easy rejection of both Light and Basl: that it does not make sense to prioritize character over environmental damage (as per Basl) or to prioritize our relationship with nature over the damage we have done (as per Light). All things considered, building character and community are strong reasons to proceed with restoration

²⁶ Korsgaard, *The Sources of Normativity*, p. 156.

projects, but they must always be accompanied by consideration of whether the wrong of acting unjustifiably has been repaired.

V. OBJECTIONS AND RESPONSES

Some may object that the second-personal position we advance here, by virtue of its insistence that obligations are interpersonally established and validated, therefore limits obligations to humans and other moral agents. But this is not so. The position we advocate relates only to the nature of the obligation, and not to the objects or moral patients associated with that obligation. As “Wildflowers” helps clarify, there need not be harm to a moral subject for actions with regard to nature to be wrong. Korsgaard’s plausible distinction between direct obligations to a subject and indirect obligations with regard to nature can again be helpful here.²⁷ Obligations to restore need not be obligations to the wildflowers *per se*, but only obligations *with regard to* that which was degraded. We may or may not have obligations to any specific individual or collective affected by our impact on the environment, but whatever obligation we have, following human impact, will certainly concern many entities in that environment. No clearly defined subject need exist as a direct target of restoration, because the obligation will necessarily be with regard to a number of prioritizable, relative subjects. Indirect obligations are enough to ensure that the actions one takes with regard to the wild daisies are at least not profligate, unnecessary, or disrespectful of others.

More problematically, a critic may wonder how one could be morally responsible for wrongdoing if one is not also causally responsible for damage; or, following from this, how it could be the case that one would have an obligation to repair a wrong for which one is not causally responsible. Such situations hit on a key question in environmental ethics, and we believe, makes our view more appealing than other non-consequentialist views.

If an actor has damaged or degraded nature in some way, then there are essentially two alternative accounts that will clarify what one’s subsequent obligations are. One can either account for the wrong in an agent-neutral way, suggesting that whether or not one has wronged others, actions that promote value in the world are obligatory; in which case, one needn’t specify causal responsibility to understand the source of the obligation. Or one can account for the wrong in an agent-centered way, suggesting that when one has wronged others, reparative actions are obligatory if one is responsible for having committed the wrong. Call this the “Strict Liability Account.”

Norville may be morally responsible to restore Velma’s daisies even if he himself is not causally responsible for their destruction. In “Spot,” for instance, most would agree that as Spot’s owner, Norville is responsible for Spot’s actions. As we mention above, one plausible account of Norville’s moral responsibility is that in assuming

²⁷ Ibid.

guardianship for Spot, Norville thereby assumes moral responsibility for Spot's actions. Norville places himself under obligation for Spot. Yet such strict liability thinking can be slippery. It does not clearly apply outside of express ownership arrangements. Norville is clearly not morally responsible for damage to Velma's flowers if Fred's dog, Scrappy, and not Spot, is the culprit. The interpersonal agreement between Norville and his neighbors, as a dog owner, is such that his obligations, all else being equal, are well delineated and understood. While the question of strict liability may be well suited to address circumstances such as "Velma's Daisies" and "Spot," in which there are clearly identifiable actors and victims, strict liability is not well suited to address other cases, like "Wildflowers." While the main argument we are advancing is only about the nature of our obligations to restore, and not meant to answer this question, an intersubjective obligations-centered approach to ecological reparation distinguishes the guardianship of the natural world to what can be justified. In cases where liability or responsibility to restore cannot be clearly established, what can be justified will fall on the shoulders of a suitably informed, honest, and earnest protectorate of experts.

Finally, one may object that there is nothing additional or novel here, that reparation is already presumed in the restoration discourse. One might argue as much regarding Basl's solution to the restoration problem, which introduces the notion of moral reparation. Basl's view is important, of course, in that it is sensitive to nonconsequentialist considerations, but it overlooks what we think is really in play. We agree that changing one's character may be a decent thing to do, but wonder how, ultimately, changing one's character can assist in reparation. In many cases of environmental damage, for instance, the perpetrators have died or disappeared. If an actor's character is essential to the restoration of an ecosystem, then many environmental restorations simply can never be completed. It seems strange to suggest that because of this disappearance that therefore restoration is now impossible. Similar complications arise if an actor unknowingly or accidentally does wrong. Environmental damage of this sort cannot clearly be said to be wrong under Basl's view. Without the intersubjective account that we propose, it is hard to address many ordinary intuitions about restoration.

VI. CONCLUSION

Whether the golden grizzly will ever be restored to the hills and forests of California is as yet an open question. Grizzlies require a lot of habitat, and they can be seriously nasty to humans. Alongside the question of whether it is feasible to restore the grizzly, however, there is a much deeper, much more challenging question: whether we ought to restore bears not just to California, but restore nature to its previously untrammelled state. Many species throughout the world have been negatively impacted by poaching, hunting, pollution, habitat encroachment, and other human activities. Only a few of these species present the political and ecological feasibility complications that grizzlies do.

Our thesis provides a framework for understanding obligations stemming from environmental improvements and degradation, not just cases requiring restoration. For every action there is always some environmental cost. The construction of new schools requires rerouting watersheds and altering wetland areas. The cutting of roadways interrupts migration pathways. Even walking across a lawn causes incremental, albeit minimal, degradation to the grass. Most of us feel little need to restore environments that are the consequence of such actions. Certainly some level of environmental degradation is not only permissible, but ought to be countenanced, and perhaps even encouraged.

The obligation-centered approach we offer suggests that our environmental responsibilities are ahistorical and rooted in decisions that we make together about what is and what is not justifiable. Importantly, ours is not a substantive claim about what is required of us, when and where we are obligated, or even how to prioritize obligations. Rather, it is a claim about the source of the obligation: an attempt to set aside an abiding concern of the restoration community by observing that obligations to restore are not subject to the baseline problem. We remain agnostic on the theory of justification and the reasonableness criterion.

In this paper we have argued that obligations to restore environments stem interpersonally from the source of the wrongdoing, which is contingent upon what reasonable, affected parties, upon reflection and consideration, are willing to countenance. Some environmentally degrading actions can easily be identified as justified and justifiable, in which case it is clear that there is little reason to restore the degraded environment back to its original state. Other actions, however, are not as clearly justified or justifiable, in which case they may require more consideration. Our conclusion is that restoration is a tool for repairing wrongs with regard to the natural world, but stemming from that which can be justified. Our position avoids the baseline problem by suggesting that obligations to restore can only rightly be discharged when they too undergo sufficient justificatory scrutiny. That is to say, restoration efforts needn't necessarily aim to return an ecosystem to a discrete previous state, but rather must ensure that when undertaken with the objective of repairing past wrongs, that they meet with the scrutiny of all affected reasonable parties.