

Life within Energy Policy

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ABSTRACT

The “sacredness of life” is foundational to environmentalism, and “being alive” is the fundamental criterion for moral considerability. It is also recognized by some philosophers that well-being is often only assessing the individual in a vacuum, neglecting the moral component of impact to other lives (both human and nonhuman). In this way, the “value of life” bridges these related philosophies and provides theoretical support for decisions of social and environmental sustainability where lives are impacted, such as in the energy field. So, we ought to be explicit about those impacts if we are concerned about the morality of policies. Too often taken for granted, “life” is powerful – like no other term, it is immediately referring to two ends of a causal chain – our choices impact lives. To the extent that someone does not consent to a threat to being alive, we should do everything in our power to comply. With transparent, engaged, and inclusive discussions, informed by full life cycle analyses, we can not only protect fundamental rights of the least well-off but also can plan an energy transition that helps everyone to flourish. The case of the Navajo Generating Station illustrates impacts on real lives.

Keywords: life; value; energy; transition; environmental ethics; sustainability; well-being; social sustainability; policy; Navajo.

1. INTRODUCTION

Philosophers will sometimes search for a lowest common denominator (Hedges and Sacco 2012, 121) or a grand unifying concept to simplify a large swath of principles into a single rule of thumb. For instance, the Golden Rule of “Treat others as you want to be treated”, holds a popular esteem across cultures and time as one of these guides. However, as Harry Gensler demonstrates, following the Golden Rule in certain situations can be ill-advised, if not immoral (2002)¹. Substitutions have been created, such as the Silver Rule and Bronze Rule, but they are no better at whittling

¹ Wrestling with your sister, kissing an attractive stranger, or a deaf person hollering at others are similar to his examples.

ethics into a single, exceptionless turn of phrase. When it comes to policy, we² should be no less surprised that no single metric can fully illustrate the success of any regulation, as even a minor defect can constitute a failure. The same can be said within the philosophy of well-being. Bryan Little and Brian Treanor argue that a more comprehensive notion of well-being would include impacts on other people and on the environment surrounding the life that we are evaluating (Treanor 2010; Little 2014), since one poor aspect of that individual's life may nullify the successes. As much as I might be inclined to say that "life" might be a metric that does what other metrics cannot, there are still shortcomings if "life" would be suggested as a concept that singularly replaces all other metrics or stands alone as a guiding value in policy decisions. Here, I argue that "life" has certain strengths that arguably dodges problems with other common metrics; it offers something further that none of those metrics can offer on their own; but further complications arise from this thought experiment that still inhibit it from being the one, ultimate guide of all decisions, for the time being.

My argument will be presented through a lens of energy-related cases, since climate change is a menacing global problem and since energy generation is the leading contributor, of greenhouse gases. Finding ways to simplify this "wicked problem" (Rittel and Webber 1973) would go a long way toward helping many people across the world; so, it deserves attention. Because energy problems can impact lives and well-being and since energy problems' environmental, social, and financial aspects are commonly discussed through a lens of sustainability, this case presents an opportunity to unite these two realms of philosophy, which are greatly related but infrequently addressed together. With the help of environmental ethics acting as a bridge, I use the *value of life* to relate the philosophy of well-being to sustainability, there remain troubles with operationalizing a life-based principle in energy but policy decisions. While energy issues additionally (as is more common require social evaluation rather than only strictly technological concern), this imperative is easier said than done, since gaps exist between theory and practice and between values and action. This study will investigate the former knowledge gap in order to determine what is still missing to make principles of the sacredness of life more immediately useful to guiding energy policy decisions to address the latter action gap.

² The invitational "we" is used throughout the paper to refer to anyone interested in joining the conversation, as used in the work of Julia Annas (2015), attributed to Bernard Williams. It includes philosophers, energy researchers, sustainability advocates, policy-makers, decisionmakers, and anyone else generally curious about their lives, others' lives, or energy.

Throughout this article, phrases such as the “value of life”, “sacredness of life”, “reverence for life”, or “life-affirming” will synonymously refer to giving priority to life within the values or ideals that an individual or group holds. For much of this paper, “life” will refer to being alive, as opposed to a nonliving object or being dead, but it will be shown that this simple definition does not capture all uses of the term. Though there are other theories that also take this name, a philosophy that holds life in high regard is referred to as “vitalism”, as opposed to say autonomism, which would hold autonomy in high regard. For purposes of this paper, a weak vitalism is adopted, I suggest that life should be given more value than is commonly given to it today, even taken for granted at times, but not the only thing of value. Furthermore, while the particular case study will not be discussed in terms of its impacts on other creatures, a weak biocentric approach is utilized which contends that nonhuman lives also matter such that less trivial interests of humans may sometimes be outweighed by survival interests of nonhumans. This view is not as strong as a biocentric outlook that values any one animal, plant, or microbe equally as a human. I aim to open new values perspectives to individuals who are not as naturally inclined to these views. New ways of giving voice to individuals who have such perspectives but have not found a good way of putting their view into words are offered. Yet, perspectives, closer to more mainstream views are adopted in order to open the conversation in a gentler way to a wider audience.

The discussion begins with a quick review of well-being and sustainability philosophy that suggests a usefulness for the concept (“life”) that might be currently underutilized. This paper is primarily a work within the emerging field of energy ethics, which I will describe as a modern form of environmental ethics linking various matters from theoretical philosophy of ethics, economics, and politics to sustainable business and science scholarship. Next, a thought experiment reveals that life makes a good supplement to common metrics in energy decision-making rather than a stand-alone substitute. Vagueness and ambiguity reveal difficulties that come with operationalizing life as a metric, but thinking in terms of ethics brings to attention its strength and significance. Consent in a participatory process informed by life cycle analysis is suggested to put ethics into action and to begin to give value to life within energy decision-making. Lastly, the Navajo Generation Station provides a case study where lives are on the line in some form on both sides of the decision to shut down or continue operation. However, the case also shows that these problems will not be solved easily and that there is still much work to do to explain how considering life can help us make better decisions.

2. RELATING LIFE, WELL-BEING, AND SUSTAINABILITY

When we greet someone asking, “How are you?”, we are informally doing something similar to asking more formally, “On a scale of 1 to 10, how would you rate your life over the last 24 hours?”. That is to say that evaluating how a life is going is a common practice, operationalized in a variety of ways. This area of research is the focus of ethics, positive psychology, and philosophy of well-being. The formal way just described is a type of life satisfaction question that appears in surveys assessing subjective well-being. However, life satisfaction is not the only form of subjective well-being assessment, and subjective well-being is not the only type of well-being. Positive affect, or happiness, is another subjective form, and Aristotle’s flourishing (2002), Sen’s and Nussbaum’s capabilities (Robeyns and Zalta 2016), and other objective forms exist. Little and Treanor argue that none of these forms properly captures a comprehensive notion of well-being more useful for ethical policy-making than the conventional, abstract, philosophical sense of the term (Veenhoven 1999). Their worry is that a life that is going well could be considered going poorly if its impact on other lives or the environment is negative. As they see it, well-being is often only assessing the individual in a vacuum, ignoring the context and surrounding community. For instance, the healthiest, richest, happiest person might be doing others down in the process, and that life would not be respectable and is likely disrupting the community, which would make for poor policy. Therefore, to properly operationalize well-being, we cannot neglect the moral aspects of well-being, just as Aristotle historically presented his view of the good life including moral assessment.

In this way, when we try to put a conception of well-being to work in policy-making, we might think of Kantian, democratic, ethical ideals of universalism (that a rule should apply to everyone, or it is not a just law) or arguments trying to explain egoism in such a way as to make it work when adopted by everyone (which are not commonly accepted as reasonable ways of living in society) (Kant 2008). A policy should work for everyone (or to the best of our ability do no harm), and in order to have a proper policy of well-being, we need a comprehensive sense of well-being that includes impacts on others and the environment. Policies which destroy lives would be tough to argue as just laws. So, the well-being philosophy that provides grounding principles used in constructing the rule should include notions that can account for lives impacted, and energy policy is no exception.

Assessing real impacts on other lives not only helps give a more comprehensive sense of well-being that can guide energy policy, but it also

provides a fundamental value which can direct sustainability and further support public policy theoretically from a different approach. That is, besides saying that a particular energy policy supports “well-being”, by more specifically speaking of whether that policy supports “life”, you are also able to portray a sense of how sustainable that policy is. As I hope to elaborate throughout this discussion, the vitalistic perspective of the sustainability movement contends that what it is that is to be sustained when we are planning for sustainability is *life*. Therefore, a system that unnecessarily destroys life would be an unsustainable system. As far as sustainability is a proxy for that which is ethical, a life-destroying system would be unsustainable and also thereby be unethical.

With this translation, Schweitzer’s (1936) principle contending that which affirms life is ethical, and that which destroys life is unethical, is reflected in this perspective³. As Cicovacki (2007, 8) interprets Schweitzer, his principle is better translated as two principles – (1) do not destroy life, (2) enhance life. Other components of well-being or quality of life are then second in priority to being alive, and this corollary recognizes lifestyle is also important for life-affirmation. In a similar way, since life is commonly required for well-being, a policy must first protect life before it could properly claim to be supporting well-being, and if the policy is protecting some lives while destroying others, it is arguably not supporting the more comprehensive notion of well-being that Little and Treanor describe. This perspective unites sustainability and well-being through ethics since initiatives that reflect sustainability or that enhance well-being are generally more likely to be considered ethical than those that are unsustainable or that impair well-being.

Although some authors have tried to link sustainability and well-being, their work has come up short without pinpointing the specific value that grounds sustainability theory (O’Neill 1993, 2006, 2008; O’Neill, Holland, and Light 2008; Kjell 2011; O’Brien 2013). Additionally, Dale Jamieson finds that defining sustainability does not do enough to properly operationalize the term, especially when taken to mean that *anything* should be sustained (1998). In those cases, without some underlying value, people might work past each other or even against each other in trying to reach their potentially conflicting goals. As he suggests, the sustainability movement is founded on certain principles that share common values. While

³ Daniel Callahan (1969) offers additional arguments to support the value of life and five referents that may be invoked in vitalistic rules, including integrity of: species survival, family lineage, being alive, individuality, and body, but space does not allow a comparison of these arguments or comparisons to the definitions of life given later.

it is sometimes difficult to put those principles into words, Jamieson cites the work of Rajni Kothari, who advises, “We should treat all life as indispensable” (Kothari 1994). Kothari provides the foundational value of the sustainability movement – a biocentric vitalism.

The sacredness of life discourse has roots in environmental ethics literature discussing the limits of moral considerability – deciding who matters in ethical decisions. Kenneth Goodpaster extended moral considerability to all living beings, going beyond Peter Singer’s inclusion of all sentient creatures (Singer 1975; Goodpaster 1978). This expansion of considerability based on having life gives life an important role in decision making guidance. Life matters in morality, and it provides a key value that is used as the criterion to qualify for moral considerability. It is attributed this significance due to constituting the very thing essential for our nature.

Life can be said to have instrumental or intrinsic value. Without life, we cannot do anything. Being alive is not a meaningless or trivial idea, and it is not the same as merely existing – which also happens as a memory, even in some sense if you are already dead, even some senses of not yet being born, etc. Even objects exist, but Schweitzer (in 1936) contends that being alive inherently gives teleology or purpose through the notion of the “will to live”, supporting life’s intrinsic value. In this way, life’s value provides theoretical support for notions of social and environmental sustainability where lives are impacted from multiple angles. Multiple avenues of support are important since instrumental value is sometimes treated as dehumanizing and since intrinsic value or meaning of life are criticized by some perspectives as noncredible. So, as far as policies include elements of sustainability or impact lives, we ought to be explicit about those impacts if we are concerned about the morality of those policies. In the bigger picture, this vitalistic view of policy-making seeks to align the mission of social planning (within governments, businesses, or other organizations) with individual lives and livelihoods uniting us all (humans) with a shared sense of purpose to lead mutually-enhancing lives, which also respects nonhuman lives.

3. DEFINING LIFE COMPREHENSIVELY AND FUNDAMENTALLY IS POWERFUL

Now that life has shown usefulness in a theoretical sense in two different fields helpful to supporting policy-making in a way that somewhat unites them, it can be compared to other metrics. Life has moral significance which obligates us to avoid unnecessarily taking lives, and this obligation along with a secondary corollary to help life to flourish gives a sense of purpose

important to creating more sustainable societies. Just as life adds to other elements of well-being to produce a more comprehensive notion, so too can life add to policy evaluations by complementing metrics in a comprehensive way. However, it is unclear whether using the notion of “life” escapes all of the concerns that using other metrics bring, as will be explained.

Gross Domestic Product (GDP), jobs, health, sustainability, and carbon emissions are examples of metrics or buzzwords for evaluating climate change policy success, and each have drawbacks which can highlight difficulties for using life as a metric. For instance, GDP is often criticized for failing to account for unfairness due to unequal distribution of wealth (Beckerman 2010). The same might be said for lives. Some countries have more people, live longer, or have better quality of life than others. Each might be construed as a distribution inequality of life, since each aspect is dependent on resource availability. While it is more typical to consider differences in these aspects between countries as differences of the distribution of resources, in effect, they are also instances of distribution of the effects as well, and it ultimately determines how large of a population can survive there and how well. Quality of life also relates to the problems of using jobs as metric of success. The jobs may not be meaningful or provide proper benefits to employees; therefore, only counting them would be not so telling of their significance to the population. Health suffers from similar problems as well-being, but it is not as fleeting as happiness is sometimes considered and has a more credible regard since happiness is not always taken academically. In some senses, life might not be taken credibly, as when denoting a person’s social reputation, which is to say that sometimes our reputations are not realistic portraits of us as individuals; so, our lives depicted as a measurement taken through public image would be similarly inaccurate. Lastly, sustainability has difficulties being defined by a single measure and is not understood by everyone, making it a difficult metric to utilize.

Life suffers from these problems, too. The vagueness of what we mean by “life” could be difficult as life can mean at least a few different notions:

- Life₁ - being alive.
- Life₂ - lifestyle, the choices we make, the actions we do.
- Life₃ - all well-being components.
- Life₄ - the community of all organisms.

It is too easy to equivocate these different senses, which is a logical fallacy, though they are not always equally significant and sometimes conflict with one another. As with other metrics, carbon emissions are a very specific factor impacting climate change, which is a strength for certain applications, but do not cover all concerns about living well. Even if carbon emissions were completely controlled, there would still be other worries. Life₁ might

be similarly overly specific, since being alive is important, but countless other concerns then follow. Further, Life₂ and Life₃ might be too broad to be used practically. Life₄ might be something like the plural form of Life₁ (see also intersubjective well-being in Lee and Kim 2016). Although, since it refers to a multitude of beings, the nonhuman reference would likely give many folks discomfort. Not everyone brings to the table vitalistic (valuing life above anything else) or biocentric (biased toward living organisms) values. When we consider one of these meanings of “life”, we still may be neglecting or taking for granted the other meanings. Even with these difficulties, life (including meanings 1-4) provides the functionality that other metrics target in their use and more, but each meaning should be addressed individually so as not to equivocate this complex concept.

Furthermore, it is also important to also address the concept of life as a complex. Being alive (Life₁) allows any individual to have well-being (Life₃) and to have a lifestyle (Life₂), and how any individual acts (Life₂) (which is to say how the individual uses Life₁) impacts others’ well-being (Life₃) for humans and nonhumans (Life₄). Recognizing this complex, created by the interrelation of these meanings of life and interrelation of living beings, refers to the comprehensive notion of life as a system, uniting these meanings rather than merely equivocating them. The interdependence between these notions is sometimes as important to protect as any component is. When considering well-being beyond an individual, it becomes an ethical task (rather than merely prudential) which expands “the good life” to consider others and enters social and environmental realms of sustainability. In this way, life is both fundamental and comprehensive, since it is the unit of interest as well as the system of significance. While a variety of meanings of life creates some ambiguity, it also offers flexibility. The term captures a sense of all of these meanings and provides the extra aspects of being what animates us and what unites each of us together and with the planet. Life is special in this way. Other terms do not inherently capture all four of these senses (Life_{1,4}), and what that allows is a single concept that refers to both what we choose and whether someone is alive or dead. In this way, it is powerful. Like no other term, it is immediately referring to two ends of a causal chain – our choices impact lives. This realization is too often taken for granted⁴, but it is often said that we manage what we measure. Ungar and Miller make the case that most of the population does not (perhaps cannot, due to overwhelming vastness of information) stay informed on all issues, let alone consider themselves experts in technical subjects such as

⁴ It is much harder to ignore in the personal accounts within Eerkens 2014 and Hedges and Sacco 2012.

energy or energy policy (Miller 1983; Ungar 2000). Because of the invisible nature of emissions harms, some specialty knowledge is required to realize some of these dangers. Therefore, it is likely that the general public, many policy makers (such as a Congress made up of experts on law rather than energy), and even some energy experts (such as those scientists who understand the materials and physics of energy generation without much knowledge of social implications) do not realize all the ways in which lives are endangered throughout the energy system. If we are more explicitly considering how our choices are going to impact lives, while noting that being alive is an irreplaceable and irreproducible characteristic with more weight than most other decisions which are often practically reversible, then we more explicitly adopt a moral framework, one that highlights the sacredness of all life. By doing so, we can augment any other metric, by including the context (quantitative and qualitative assessments of impacts on lives) that gives each of us purpose.

4. HOW THE PROPOSED PROCESS DIFFERS

We can see how it would work in an energy case. For instance, if building a new power plant will raise GDP, how that GDP will impact lives can be weighed against the polluting emissions' impact on lives, human and nonhuman. This evaluation is different from merely comparing GDP to emissions, such as converting dollars to tons of CO₂. I am also advocating for something more than merely converting dollars or tons of CO₂ to number of lives saved or quality-adjusted life years (QALY's). Using a metric of lives saved turns each dilemma into a "trolley problem", which is simple but still allows individuals to be sacrificed against their will for a greater good, which is commonly criticized as immorally overstepping moral boundaries. It is also problematic to merely say, someone will die either way. While it might tend to be true these days, not all sources of energy generation take lives as quickly as the next form⁵. It is also not the case as in a trolley problem that the people cannot give their say.

However, a participatory process⁶ whereby all moral patients (positively or negatively) affected by the proposed power plant can be informed

⁵ Some examples of comparisons of lives lost across various energy forms in Phadke 2010.

⁶ Policy-making and participatory governance is an art that requires practice because each attempt brings unique mixes of responses rather than a science that can simply follow a recipe for success each time. However, advice for effective engagement from the perspective of abusive instances of the process can be found in Snider 2010 and Arnstein

and weigh in whether they consent to the project would be a much more morally comfortable state of affairs. In that situation, they can offer other opinions or alternatives, which vitalists would argue should hold a prominent place in the dialogue, with survival and health concerns getting priority over technical matters. For instance, because of its importance, the initial consideration might be to delay consideration of any alternatives that would result in deaths unless it is determined that no nonlethal options are available, which then opens consideration to less lethal options. In this way, a default stance as on top of a decision tree begins on the side of life and keeps it in a high place of value, prioritizing decisions in favor of protecting life (see Bartha and DesRoches 2016 for more on this technique). Through this suggested method, it relieves some of the most intimidating moral tension within the community and helps to establish the sense that energy is creating “clean money” and “gives the community a voice” (Bomberg and McEwan 2012). As mentioned earlier, it need not be the case that everyone is treated as a vitalist, but to the extent that they do not consent to a harm in their life, particularly if it is a threat to being alive, we should do everything in our power to comply to that preference. I make this claim within reason – someone disapproving of the view of a landscape being altered by a wind turbine would not have the same weight as someone else’s fear of a nuclear meltdown (Barry, Ellis, and Robinson 2008). Giving both the public and decision-makers information on energy harms, speaking more directly about those impacts, prioritizing concern for them, and providing an avenue to express concerns together contribute to creating a type of informed consent or procedural justice that is becoming more strongly advocated in energy justice literature.

To facilitate making the value of life more explicit in energy policy contexts, it would be helpful to have full life cycle assessments of each energy form (Laurent and Espinosa 2015). From extraction to generation to use and wastes created, if all the impacts on lives along the value chain were detailed, we could more easily see in particular cases what is at stake, to make more informed choices, and also to attempt to construct work-arounds to resolve as many of those hindrances as possible. We may not need to go so far as to say that there are never cases when it is acceptable to lose a life, but it is important to be aware of precedent for such reasoning and that such reasoning has been filtered through public consent. Consent could be collected through typical avenues such as town halls or through surveys administered through electric companies. Perhaps, they can be

1969. A “consultative” and “deliberative” process as described in Warren 2008 is hoped, as working so well that the government is fearful of protests if it is ended.

sent along with energy bills or posted within a section of customers' online accounts. Forums with the most highly impacted groups might be the most effective way to offer information while giving the best opportunity for feedback, and also could help to build rapport between various stakeholder groups. With nonhumans, it would be more difficult to determine consent, but gauging species diversity, lifetime, and population sizes of various species could help to devise whether their lives are being respected.

With transparent and engaged discussions, we can better understand so-called exceptions to the rule. Similar examples of exceptional cases of loss of life are available in just war theory, morality of abortion⁷, and can be found, for example, in Chris Edwards' *Good Reasons to Kill* anthology. With these exceptional cases, we might also be able to set a precedent for what is acceptable compensation as anticipatory justice if the threat is such that cannot be eliminated or also to address what may have been hidden historical inequities brought to light during engagement, offering a chance for restorative justice as well. After all, forgiveness is one of the only ways to break cycles of violence or hate and has a way of resetting relationships back on an even keel. Reconciling with other communities can go a long way toward incorporating new social and economic relations for mutually-beneficial paths toward sustainability. While this safeguard could be seen as fair to some, it may conjure the worries of immorally monetizing a life as in the notorious case of the Ford Pinto. However, if the moral patients, those impacted by the decision, are included in the deliberation of the moral agents and consent to the compensation (perhaps even paid to move if no solution can be achieved, but sufficient public approval has been gained), then this worry is nearer to being alleviated.

5. NAVAJO GENERATING STATION

Although an initial decision was made to shut down the Navajo Generating Station (NGS) coal plant in Page, Arizona, in 2017, a last-minute agreement has extended operation until 2019 (Rainey 2017; Randazzo 2017). The decision is ominous since no transition plan for the employees was created

⁷ The topic of abortion is extremely controversial, and while I do not mean to bring too much attention here to cases of one life versus another, I only mean to mention that abortion is an interesting topic here because exceptions including when the fetus' or mother's life is in danger, rape, incest, or serious health complication for the fetus are specifically listed in literature to create discussion about whether or not the moral verdict changes in any particular case. Putting these details on the table to determine what ought or ought not to be an exception is important for setting a justified precedent.

in advance; stakeholders are only beginning to come together to decide alternative plans. NGS is owned (42.9%) and operated by Salt River Project (SRP), leasing the land from the Navajo, while the Bureau of Reclamation (24.3%), Arizona Public Service (14%), Nevada Power (11.3%) and Tucson Electric Power (7.5%) share ownership. Though over 90% of the employees at NGS are Navajo (according to www.srpnet.com), the Navajo tribal government has authority for setting electricity rates for its territory but otherwise has little involvement in plant management, besides deciding whether the land lease can be extended. The plant loses tens of millions year to year since plants fueled by natural gas in the US currently offer cheaper electricity (Randazzo 2017). It is unclear how much of an impact the \$51 million in revenue that Navajo and Hopi tribes receive annually for leasing the land represents, as sources estimate the impact between 8% (Sanzillo 2017) to 40% (Navajo-Hopi Observer 2017) of tribal budgets. The energy loss will be made up through supply available across the grid, and the money can be made up with new business ventures; therefore, this issue is not an energy issue and not strictly a financial issue, but a moral one, as workers are threatened with job loss.

As the plant is one of the top-10 most polluting in the US (Schneider, Madsen, and Boggs 2013, 28), this case includes lives on the line through unhealthy emissions weighing against the lives and livelihoods of the plant workers, coal miners, and 2,000-3,000 folks with indirectly-related jobs that could be lost, but reports cite economics rather than lives as the determining factor (Randazzo 2017). Kayenta Mine, owned by Peabody Coal, also exclusively services NGS; so, roughly 700 employees between the mine and plant could become displaced. Those 700 direct job losses represent approximately half of the LeChee Chapter population (about 1,400) or are roughly 10% the size of Page's population (about 7,500 according to the US Census), while the indirect jobs outnumber the chapter population or are approximately 30-40% of Page's population.

What makes the case more complex is that the Navajo identify so closely and have livelihoods so dependent on the plant, that their lives are arguably more directly affected than citizens downwind of the smokestacks. While the Navajo Nation is historically marginalized, facing such issues as historical pollution-damaged soil and waterways, alcoholism, unemployment, food insecurity, poor education, lack of electricity, heat, and running water, criminality including rape and murder, and high suicide rates (Tsosie 2009; Noisecat 2015; Nadesan and Pasqualetti 2016), the decision to close could exacerbate problems. Attention is being brought to this community in order to reflect a Rawlsian recognition that any one of us could wind up in a similar situation and that we should prioritize helping the least well-

off. However, the plant workers might not be the least well-off since they regularly receive higher salaries, insurance, and retirement compensation, which many retail workers in Page do not receive (Wyloge 2017).

Within Navajo culture, a sense of identity tied to *place* creates a reluctance to move to live or work elsewhere, further complicating decisions. For the employees, it is not as simple as relocating, as the closest major city is Flagstaff (over 2 hours away), closest coal plant is likely Four Corners Power Plant (although also partially owned by SRP, is over 3 hours away in New Mexico), and since both coal and nuclear plants are facing closures across the country (Haggerty 2017; Kennedy 2017). Relocation may only delay the problem temporarily. It is important to accommodate them, but it is not clear whether they are readily inclined to build renewable energy facilities, especially on sacred grounds (though one solar installation has opened, Smith 2017) or to take up new schooling or training, since the education provided to them is some of the worst in the country.

Even if we feel a moral imperative to save lives lost due to emissions by closing down the plant, we ought to develop a transition plan to protect the lives of the workers as well, so that we are not merely trading some lives for others. In any case, there is immediate concern to recognize their preferences and to allow them to participate in the transition process. Asking the employees if they prefer a pension, retraining, or relocation is not enough. Since this community has multiple difficulties, it is important to survey citizens to determine which concerns are most pressing for them, which ought to be addressed first. This moment presents a window of opportunity to reach out beyond employment, to care for other needs of the workers and their families as well as other members of the community who also struggle. The historical pollution harms in this area might also be remediated to help the health of both humans and nonhumans. Who takes on these responsibilities and how they are funded are intimidating challenges with no single solution, but the universities and energy companies in the area (including both utilities and solar providers) are joining coalitions to assist. What this example illustrates is that lives are on the line from both decisions (keeping it running or shut down); so, considering lives is no simple calculus. Even with the plants remaining in operation for the time being we should assess the injustice imposed on any unwilling victims of the air pollution and how to satisfy moral obligations owed them; otherwise, we are disrespecting their human dignity.

6. CONCLUSION

An awareness of other lives brings to attention a greater sense of moral awareness, including previously neglected moral patients, such as marginalized cultures or nonhuman beings, into consideration. Looking out for their well-being reflects back on how well (or not so well) our lives are going and how sustainably (or not) we are living. Externalizing negative effects of our actions for others to manage is irresponsible, and we ought not to enact energy policy in the name of one group through the sacrifice of another non-consenting group. In this way, we betray the sacredness of life and dodge moral obligation. In the case of energy decisions, a systematic perspective reveals impacts on the line in a variety of ways through any form of energy considered, but we can be better mindful of these consequences and more receptive to others' preferences.

I have demonstrated that life provides a moral context complementary to well-being philosophy, that life provides a moral foundation to the sustainability perspective, and that life provides a moral context for policy-making. With life in view, we should conduct life cycle analyses of energy options because with such information, we can adhere to moral principles of consent and respecting the rights of others. Prioritizing alternatives that are least lethal and helping communities that are the least well-off will contribute to creating a more sustainable and more ethical system. Protecting life first, before turning to seeking ways to enhance those lives, follows a vitalistic prioritization. If it turns out that we inevitably cannot construct and operate energy systems without losing lives, we would at least be assured that the dignity of those individuals lost are respected, willingly risked, and fairly compensated.

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