COMMENTARY:

The Pope's fateful vision of hope for society and the planet

Robert J. Brulle and Robert J. Antonio

The Pope's encyclical challenges incremental approaches that have dominated climate change discourse, and brings a much needed moral vision to the environmental movement. Social scientists are required to join this effort.

powerful, poetic call for collective action and major socio-cultural change, the Pope's climate change encyclical, 'Laudato Si', makes an urgent plea to address the twin problems of environmental degradation and human exploitation (http://go.nature.com/7IbiB5). The encyclical makes a cogent case for a "cultural revolution" (§114) that would lead to "profound changes in lifestyles, models of production and consumption, and the established structures of power which today govern societies" (§5). It does this by tracing such issues to a common driver based on the dominant neoliberal, US-centric regime, encompassing cultural beliefs of possessive individualism, unrestrained markets, technological fixes, unlimited consumer choice, and inviolate property rights. The encyclical substantially expands the nature of climate change discourse from a focus on narrow technical and economic issues into a public, moral, and political conversation regarding the shape and future of human societies, our ultimate purposes, and ethical responsibilities to each other — and to the other creatures with which we share the Earth.

Much of what Pope Francis argues for is not new. For example, his critique of our current social order and sense of urgency about climate change converges with arguments made by more vocal climate scientists^{1,2}. Even the latest IPCC Assessment Report (AR5) notes³ that an "effective response to climate change may require a fundamental restructuring of the global economic and social systems, which in turn would involve overcoming multiple vested interests and the inertia associated with behavioral patterns and crafting new institutions that promote sustainability."

The encyclical is extraordinary because it comes from the leader of the Catholic

Church, unusually popular even among non-Catholics. Although some others have posed similar sweeping critiques, they have not been so well-located and often have been ignored or dismissed. Pope Francis's moral voice is especially important and hopefully will resound among those nations, strata, and political economic elites that bear the greatest responsibility for climate change and have been most shielded from its most harmful impacts. Coming from such a prominent public figure, it makes this message impossible for political elites to ignore.

Post-politics

The Pope criticizes the efforts of climate 'contrarians' to distort, obscure or dismiss scientific findings4. He declares that: "There are too many special interests, and economic interests easily end up trumping the common good and manipulating information so that their own plans will not be affected" (\$54). Rejecting the neoliberal faith in markets, the encyclical notes: "The environment is one of those goods that cannot be adequately safeguarded or promoted by market forces" (\$190). Opposing the science of anthropogenic climate change and fearing regulatory interventions, 'conservatives' have rejected the document and vigorously argued that the Pope should address 'moral issues' (for example, abortion, same sex marriage) and not 'political' ones.

These critics not only reject climate science and ignore the deeply moral dimensions of climate change risk, but their populist antiregulatory views depart from the founding ideas of market-liberalism. Revered by today's neoliberals, even Friedrich Hayek acknowledged that markets alone cannot protect minimal human welfare and that states must secure it when necessary⁴. Because "the smoke and noise of factories" is not confined within the limits of the factory,

he stated' "we must find some substitute for the regulation by the price mechanism"⁵.

Pope Francis contends that dominant technocratic, incrementalist, marketcentred strategies in the form of ecological modernization are designed to work in harmony with its growth imperative and culture of consumption and, ultimately, to sustain the regime of accumulation and the political, economic, and cultural drivers of climate change. By criticizing unbridled faith in technological solutions, cost-benefit calculations, and associated carbon markets and insisting on treating climate change as a moral and political issue deeply rooted in our way of life, he challenges the dominant 'post-political' attitude⁶ — that there is no alternative to continuing our current growthoriented, consumerist market economy.

Some leading climate scientists pose similar criticisms and warn that 'business as usual' may produce a catastrophic 3–4 °C increase in global temperatures this century^{1,7}. The Pope implies that these market-centred strategies, which uphold the current political economic regime, are inadequate to deal with the speed and scale of climate change processes. This inadequacy is especially pronounced for the poorest, most vulnerable peoples who contribute little to climate change yet have already been seriously impacted by it, and lack visibility and voice in neoliberal global governance.

Low-lying island nations and other poor vulnerable nations, with little adaptive capacity, have called for a 1.5 °C rather than 2.0 °C 'consensus' limit to avoid catastrophic impacts, a target now supported by some key climate scientists. But powerful wealthy nations have in the past deemed such a target as impractical. The encyclical might echo in future conversations about this target, which is slated to be discussed at the Paris climate talks in December⁸.

Moral visions

The encyclical urges a much broader, ethically engaged public discourse about climate change impacts and environmental justice, which will require mediation between the scientific and public realms. Pope Francis suggests that science and technocratic political economic management are not sufficient to develop and motivate an alternative democratic vision of an ecologically and socially sustainable society^{9,10}. Consequently, the encyclical frames climate change as a deeply moral issue and says that alternatives must be considered that treat economic growth not as an end in itself, but as a means to a flourishing planet and society¹¹.

The post-political framing, which holds that there are no reasonable alternatives to continuing an unplanned, exponential growth-oriented economy, ignores that addressing climate change involves engagement of fundamentally different visions of the good life and consequently entails political decisions in choosing different trajectories for our collective future. The encyclical shatters this ideological viewpoint and brings the issue of global exploitation of the Earth and our fellow human beings to the forefront of political and cultural concern.

By connecting the issue of climate change to moral and political concerns, Pope Francis has provided inspiration for a long-missing ethical vision for the environmental movement¹². There is abundant sociological research about how the discursive 'framing' is critical to the effectiveness of social movements¹³. The research has shown that this cultural resource can be as or even more critical to the environmental movement's political effectiveness than its monetary support and political alliances.

A fundamental component in building social movements is the creation of a compelling narrative of transformative social change that provides an understanding of our current situation and charts a path forward¹⁴. An effective rhetoric of change criticizes the limitations of the current situation (for example, unaddressed problems and unmet needs) and provokes moral visions, conversations and deliberations about where society needs to go. This immanent critique has the potential to give impetus to social movements and other collective action necessary to effect social change.

What next? In the encyclical, Pope Francis calls for "a conversation which includes everyone" (§14). Following through on this, the Vatican convened a major conference (http://go.nature.com/o9tHk8) immediately following the issuance of the encyclical to



work out practical steps to realize the vision of 'Laudato Si'. This conference tackled questions regarding how to bring about transformations to address climate justice, multinational extractive industries, food security, and a sustainable development agenda. This is a welcome initiative aiming to start the hard work to develop and implement major restructuring of our governance and economic institutions.

Here, the social sciences can contribute important conceptual and methodological resources for the necessary cooperative activities along with the natural and behavioural sciences. Recently, three leading US social science associations have produced major reports on climate change^{15–17}. These represent the emergence of a series of discipline-based intellectual communities that can expand the range of ideas and models considered for action by both the IPCC and governments.

We need to muster all of our intellectual capabilities to address our perilous ecological situation and to realize a wider vision of the aims of climate change research. The Vatican and the IPCC need to reach out and include these intellectual communities in their efforts. Moreover, social scientists need to engage in this effort more fully. The moral task at hand demands it.

Like Martin Luther King's 'I Have a Dream' speech, the Pope's climate change encyclical expresses a passionate vision of our current predicament and aims to inspire groups and institutions to come to terms with the depth of the climate problem and to act collectively and justly. It provides a moral vision of a planet with its ecological integrity restored, and a future

in which all peoples' essential needs are met, and their moral worth is protected and maintained. Regardless of one's faith, this is an inspiring document that compares to the best of the environmental visionaries, such as those developed by Henry Thoreau and Barry Commoner. The encyclical provides a cultural resource that can serve to reinvigorate our collective efforts to create a planet that we want our children, and the other species of the Earth, to inherit.

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