



Constructive engagement is the key to climate action

This year, scientists should resolve to follow the lead of Pope Francis and seek an inclusive approach to climate change, says Daniel Sarewitz.

In 1992, the Catholic Church formally acknowledged that Galileo was right — Earth really does move around the Sun. That step towards reconciling religious dogma with science took around 380 years. What will 2016 bring? Whisper it, but science and the church seem to be walking hand-in-hand on one of the defining issues of the twenty-first century, and in a way that is truly remarkable.

The issue is climate change, and the force behind this new reconciliation is Pope Francis. He termed last month's COP21 global warming conference in Paris a "now or never" opportunity, and greeted the news that the talks had led to an international agreement by exhorting "the whole international community to proceed on the path undertaken in the name of an ever more effective solidarity".

Such sentiments built directly on the Pope's already famous encyclical letter of May 2015: a long and somewhat rambling critique of modernity that, among other things, called for changes of lifestyle, production and consumption to combat climate change.

Leading scientists have welcomed the Pope and the church into the fold of rationality. Johan Rockström, for example, the lead author of a widely cited article in *Nature* on planetary boundaries (J. Rockström *et al.* *Nature* **461**, 472–475; 2009), has noted approvingly: "Pope Francis' encyclical suggests — in line with our analysis — that planetary stewardship must now be the foundation of our values, beliefs and economic systems."

But the church's concern about climate is remarkable not so much in how it lines up with scientists' views, but in how it potentially challenges them. Indeed, the Pope's moral logic makes clear that widespread agreement on the science is much less important than is a political environment that welcomes diverse belief systems.

The effectiveness of the COP21 agreement — heralded as an important breakthrough because all nations have signed up to its aims — will depend on the ability of individual nations to reduce carbon emissions while still advancing the well-being of their citizens. This means that progress on climate will hinge on political decisions about how best to pursue both goals. Effective politics will, in turn, demand constructive engagement among multiple voices to achieve solutions that all can live with. "Solutions," writes the Pope, "will not emerge from just one way of interpreting and transforming reality."

Yet the original sin of climate-change policy in the United States was that from the beginning it ruled out such pluralism, because scientists and environmental activists alike tended to frame action in a way that could only alienate economic and social conservatives. Political rhetoric and policy proposals focused on demands for a global governance regime, government manipulation of markets and regulatory incentives for massive behaviour

change. From the perspective of US conservatives, it would be hard to imagine a more toxic combination of policy ambitions. And because scientists and climate activists claimed that science dictated their policy agenda, conservatives had every reason to be suspicious about the motives of the scientists and the credibility of their science. The legacy of that strategy is evident in the uniform scepticism of the Republican presidential candidates about global warming.

The Pope, however, draws direct connections between action on climate and conservative US touchstones such as 'family values'. He emphasizes the family as "the basic cell of society" and the starting place for action, because that is where "we first learn how to show love and respect for life" as well as "respect for the local ecosystem and care for all creatures". And because, as ecologically minded people often observe, everything is connected to everything else, the Pope reasons that "concern for the protection of nature is also incompatible with the justification of abortion. How can we genuinely teach the importance of concern for other vulnerable beings, however troublesome or inconvenient they may be, if we fail to protect a human embryo?"

These values are likely to make many scientists and climate activists squirm. But, for the optimism stirred by the COP21 agreement to translate into tangible progress, climate politics in the United States will have to offer a serious place in the debate for the fundamental values that lie behind conservatism. As the Pope has shown, such values are perfectly compatible with action on climate. Along the way, they may even help to expose some of the contradictions and incoherence of the mainstream climate-change regime.

For example, climate politics in the United States has often played out as a de facto attack on the cultural iconography of conservative middle America, such as pick-up trucks and muscle cars. Meanwhile, as people concerned about the climate jet off to international conferences and ecotourism sites, they can mitigate their guilt with carbon offsets — a modern sort of indulgence that the Pope terms a "ploy which permits maintaining the excessive consumption of some countries and sectors".

In acknowledging the climate problem, the Pope has also shown that in this new year, conservative voices and belief systems can begin to enter constructively into the climate debate after an absence of two decades. Yet, if science and religion are beginning to walk together, the devil remains in the politics. And this is where, logically enough, science can learn a thing or two from religion. ■

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