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Should contributions to climate change be criminalised?

PhD in Politics

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In addition, Chapter 4 draws heavily on arguments I present in published work forthcoming: Adam R. Pearce, "Evaluating Wrongness Constraints on Criminalisation," *Criminal Law and Philosophy*, n.d., https://doi.org/10.1007/s11572-020-09550-9. §4.1–§4.3 (inclusive), and some of Chapter 3, §3.3, herein are reproduced. The substance of the arguments is unchanged from the original but: some material has been omitted, there are some minor grammatical edits and alterations to cross-references, and I have occasionally elaborated on points underdeveloped in the original.

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ABSTRACT

The climate is warming rapidly and the emissions-ceiling for ‘dangerous’ climate change approaches fast. The spectre of dreadful impacts to lives and ecosystems is materialising. Greenhouse gas sources must be made artificially scarce by state regulation and enforcement. Can criminalisation, the state’s strictest regulation, be justified for contributions to climate change?

This thesis takes its lead from advocates of criminalising some contributions to climate change. It argues that existing discussion fails to address or satisfy conditions of morally permissible criminalisation set out in the normative criminalisation literature. But we won’t know whether we should criminalise contributions to climate change unless and until we’ve satisfied defensible theories of when criminalisation is morally justified. So, this thesis tackles normative questions head on. It contributes to the climate justice literature by considering criminal justice as a source of climate change mitigation. I test the strength of the moral case for criminalising contributions to climate change and offer systematically substantiated policy advice for climate justice theorists and activists alike.

The thesis first identifies some candidate criminal offences, disambiguating what counts as a ‘contribution’ to climate change in the process. Then it evaluates two constraints on morally permissible criminalisation prevalent in the normative criminalisation literature: a harm constraint and a wrongness constraint. It rejects a harm constraint but adopts a wrongness constraint: the view that conduct criminalised must be morally wrong. It then demonstrates that criminalisation of contributions to climate change satisfies the wrongness constraint under certain conditions. But just because contributions to climate change can be criminalised doesn’t mean they should. The thesis finally investigates whether criminalisation would be proportionate to a) would-be offenders and b) society generally. It concludes that some, but not all, candidate offences would be proportionate in each respect.

DECLARATION

I confirm that this is my own work and the use of all material from other sources has been properly and fully acknowledged.

Adam R. Pearce

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Introduction

Few seriously raise the idea of criminalising contributions to climate change. This may be a mistake, for two reasons. First, rapid exhaustion of the carbon budget leaves us with few remaining emissions in the short term and at least net-zero—if not net-negative—emissions in the long-term to avoid passing temperature targets. Remaining within the budget therefore requires tight control of emission-sources through strict regulation. Second, criminalisation is a standard state response to significant harm and the impacts of climate change are projected to be significantly harmful.

In this introductory chapter I will first outline these two reasons in further detail. Then I will discuss literatures raising the criminlisation of contributions to climate change to date and reveal their collective shortcoming: a lack of systematic normative analysis. I go on to note some assumptions and scope clarifications of the thesis to follow and end with a roadmap of chapters to come.

§1.1 Putting criminalisation on the agenda

Here are the reasons raised above in more detail. First, there is little room to manoeuvre in the remaining carbon budget. States are legally committed to global warming temperature targets. At the time of writing, there are 189 parties to the 2015 Paris Agreement, accounting for the vast majority of the world's states along with approximately 80% of global emissions.[1] The agreement commits to: "Holding the

[1] Parties are legally bound by the particular provisions of the Agreement. A further seven states are signatories to the Agreement: legally bound by the spirit, but not the particular provisions, of the Agreement. The US is the only party to the UNFCCC not a signatory to the Agreement, having formally withdrawn. See: "Status of Treaties | Paris Agreement," United Nations Treaty Collection, accessed December 14, 2020, https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-7-d&chapter=27&clang=_en; On the percentage of global emissions accounted for, the supplementary documentation to the Paris Agreement has the US contribution to total emissions at 17.89%. The seven signatories (Eritrea, Iran, Iraq, Libya, South Sudan, Turkey, and Yemen) together account for under 3%.

increase in global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change".[2] Those targets have (estimated) corresponding greenhouse gas (GHG) emissions concentrations and the difference between the estimated concentration at the target and our emissions to date is our remaining 'carbon budget.'[3]

Presently, emission reduction pledges outstrip the remaining estimated carbon budget for 1.5 and 2 degrees of warming.[4] The Paris Agreement includes a 'ratchetting' measure where national reductions are legally required to become more ambitious over time, but we are dealing with a large gap which incremental ratchetting is unlikely to bridge. This is because the Paris Agreement states that "[e]ach Party's successive nationally determined contribution [NDC] will represent a progression beyond the Party's then current nationally determined contribution and reflect its highest possible ambition",[5] but full implementation of all unconditional and conditional pledges to date is consistent with 3 degrees of warming by 2100.[6] If this passes for 'highest possible ambition', then it is

See: UNFCCC, "Report of the Conference of the Parties on Its Twenty-First Session, Held in Paris from 30 November to 11 December 2015. Part One: Proceedings," 2016, 30–34, https://unfccc.int/sites/default/files/resource/docs/2015/cop21/eng/10.pdf.

[2] UNFCCC, "Paris Agreement" (Bonn, 2015), Article 2, 1 (a), http://unfccc.int/files/essential_background/convention/application/pdf/english_paris_agreement.pdf.

[3] Richard J. Millar et al., "Emission Budgets and Pathways Consistent with Limiting Warming to 1.5 °C," *Nature Geoscience* 10, no. 10 (2017): 741–47, https://doi.org/10.1038/ngeo3031.

[4] See: IPCC, *Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change,* ed. V. Masson-Delmotte et al., 2018, sec. §2.3.2.2. Not even the most ambitious states make sufficient pledges, see: Kevin Anderson, John F. Broderick, and Isak Stoddard, "A Factor of Two: How the Mitigation Plans of 'Climate Progressive' Nations Fall Far Short of Paris-Compliant Pathways," *Climate Policy*, n.d., https://doi.org/10.1080/14693062.2020.1728209. For discussion of compliant national pledges see: Christian Holz, Sivan Kartha, and Tom Athanasiou, "Fairly Sharing 1.5: National Fair Shares of a 1.5 °c-Compliant Global Mitigation Effort," *International Environmental Agreements: Politics, Law and Economics* 18, no. 1 (August 19, 2018): 117–34, https://doi.org/10.1007/s10784-017-9371-z.

[5] UNFCCC, "Paris Agreement," Art. 4, para. 3.

[6] UNEP, "The Emissions Gap Report 2018," 2018, 21, https://www.unenvironment.org/resources/emissions-gap-report-2018.

hard to believe that ratcheting according to this standard will produce the radical action required.

Mitigating climate change demands the transformation of existing economies. This is because known economically viable fossil fuel reserves,[7] if exhausted, would result in emission concentrations roughly triple the carbon budget for 2 degrees of warming.[8] Furthermore, non-fossil-fuel emissions will need to be constrained by policy as their physical and economic limits exceed a limit in compliance with a 2 degree budget: intensive livestock agriculture, for example, is already a serious contributor to warming but has room for growth within its physical and economic limits.[9] Since it is unlikely that these industries and others will voluntarily reduce their output to the extent consistent with the temperature targets in the Paris Agreement and because planned government interventions measured in NDCs are insufficient to address their goals, there is reason to consider stricter means of intervention. Of course, it would be unwise to suppose that serious problems always call for punitive solutions, but it would be similarly ill-advised to rule out recourse to criminalisation *tout court*.

Second, in addition to pressures of necessity, an appeal to consistency puts criminalisation on the agenda. Paradigmatic crimes—murder, assault, theft—are wrongful harms. Climate change could produce similarly serious harms due to more frequent and more dangerous extreme weather events; rising sea-levels; spread of

[7] This is the most conservative figure since it excludes known reserves which are at present prohibitively expensive, as well as excluding unknown reserves.
[8] Malte Meinshausen et al., "Greenhouse-Gas Emission Targets for Limiting Global Warming to 2 °C," *Nature* 458, no. 7242 (April 30, 2009): 1158–62, https://doi.org/10.1038/nature08017; IPCC, *Climate Change 2013 The Physical Science Basis*, ed. Thomas F. Stocker et al. (Cambridge: Cambridge University Press, 2013); Michael Jakob and Jérôme Hilaire, "Unburnable Fossil-Fuel Reserves," *Nature* 517, no. 7533 (January 8, 2015): 150–51, https://doi.org/10.1038/517150a.
[9] For a discussion of present impact and growth projections see: UN Food and Agriculture Organization, "Tackling Climate Change Through Livestock" (Rome, 2013), http://www.fao.org/3/i3437e/i3437e.pdf.

tropical diseases; vast displacement of people; food insecurity; economic costs and more. And the source of these harms—our collective emissions—are, speaking very generally, avoidable. Since they are avoidable, choosing to produce these harms rather than take alternative action may well be morally wrong. The *prima facie* similarity of contributions to climate change and paradigmatic crimes is cause to consider criminalisation more seriously.

Group II of the Intergovernmental Panel on Climate Change (IPCC) assess the impacts of observed and projected climate change and the prospects for adaptation. Their contribution to the Fifth Assessment Report spans multiple categories of impact (to ecosystems, to non-human species, to human health and livelihoods); tracking impacts globally and regionally; as well as spanning multiple sectors of human activity (health, shelter, food security, etc.).[10] The headline findings for *global* risks to *human* well-being from the Summary for Policymakers should suffice to demonstrate my point here but note that this will understate total impacts. One way it might lead to understatement is the fact that the 'Summary for Policymakers' chapters in IPCC reports are political documents: the way they characterise the findings of their underlying reports is politically negotiated, and therefore open to the influence of agents who wish to de-emphasise impacts (for whatever reason). Another way is that IPCC reports tend to "err on the side of less drama" when presenting impacts due to the common professional aversion of scientists to false-positives.[11] And IPCC findings are based on climate models which do not wholly account for the possibility of impacts resulting from passing tipping points

[10] IPCC, *Climate Change 2014 Impacts, Adaptation, and Vulnerability Part A: Global and Sectoral Aspects*, ed. Christopher B. Field et al. (Cambridge: Cambridge University Press, 2014); IPCC, *Climate Change 2014 Impacts, Adaptation, and Vulnerability Part B: Regional Aspects*, ed. Christopher B. Field et al. (Cambridge: Cambridge University Press, 2014).
[11] Keynyn Brysse et al., "Climate Change Prediction: Erring on the Side of Least Drama?," *Global Environmental Change* 23, no. 1 (2013): 327–37, https://doi.org/10.1016/j.gloenvcha.2012.10.008.

triggering rapid, perhaps runaway, warming. For example, one study has found that social cost of carbon analyses (a heuristic translating warming impacts into a monetary figure) based on IPCC models were eight-times lower than estimates from models adjusting for tipping points.[12] Meanwhile understatement is assured by a focus on global impacts and human impacts only. Regional impacts should not be forgotten since vulnerabilities are not uniformly distributed and, like others, I believe non-human impacts are of moral importance.[13]

Working Group II observe from existing data that ecosystems and human systems are exposed and vulnerable to climate-related extremes;[14] and that "changes in climate have caused impacts on natural and human systems on all continents and across the oceans."[15] In other words, impacts are already *live* and *pervasive*. Moreover, the climatic change producing these impacts is not 'natural': for the period 1951 to 2010 there is "observed warming of approximately 0.6°C", and the temperature range attributable to natural processes is "*likely* to be between -0.1°C and 0.1°C".[16] Anthropogenic warming is therefore likely to be between 83 to 100 per cent of total observed warming.[17]

[12] Yongyang Cai, Timothy M. Lenton, and Thomas S. Lontzek, "Risk of Multiple Interacting Tipping Points Should Encourage Rapid CO2 Emission Reduction," *Nature Climate Change* 6, no. 5 (2016): 520–25, https://doi.org/10.1038/NCLIMATE2964.

[13] For discussion of what mitigative and adaptive duties we may incur in light of impacts to non-human animals see, for example: Angie Pepper, "Adapting to Climate Change: What We Owe to Other Animals," *Journal of Applied Philosophy* 36, no. 4 (August 1, 2019): 592–607, https://doi.org/10.1111/japp.12337, and: Elizabeth Cripps, *Climate Change and the Moral Agent* (New York, NY: Oxford University Press, 2013), chap. 4.

[14] IPCC, "Summary For Policymakers (AR5 WG2)," in *Climate Change 2014 Impacts, Adaptation, and Vulnerability Part A: Global and Sectoral Aspects*, ed. Christopher B. Field et al. (Cambridge: Cambridge University Press, 2014), 6.

[15] Ibid., 4.

[16] IPCC, "Technical Summary (AR5 WG1)," in *Climate Change 2013 The Physical Science Basis*, ed. Thomas F Stocker et al. (Cambridge: Cambridge University Press, 2013), 66.

[17] If the upper estimate for natural processes is correct, this would account for 0.1 of the 0.6 total. Anthropogenic contribution would then be $\frac{5}{6}$ or 83.34%. If the lower estimate is correct, then anthropogenic forcing would be *more than necessary* for observed warming at 116.67% of the total. If this were true, then it might be important should natural forcing change, but for simplicity I state the maximum responsibility as 100% above.

Present impacts to human health and livelihoods are negative but not overwhelmingly so: negative impacts on food crops outnumber positive impacts;[18] and "the worldwide burden of human ill-health from climate change is relatively small compared with the effects of other stressors".[19] Far more daunting are the risked impacts of continued warming; the Summary for Policymakers lists the 'key risks' as follows:

i) "Risk of death, injury, ill-health, or disrupted livelihoods in low-lying coastal zones and small island developing states and other small islands, due to storm surges, coastal flooding, and sea level rise.

ii) "Risk of severe ill-health and disrupted livelihoods for large urban populations due to inland flooding in some regions.

iii) "Systemic risks due to extreme weather events leading to breakdown of infrastructure networks and critical services such as electricity, water supply, and health and emergency services.

iv) "Risk of mortality and morbidity during periods of extreme heat, particularly for vulnerable urban populations and those working outdoors in urban or rural areas.

v) "Risk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes, particularly for poorer populations in urban and rural settings.

vi) "Risk of loss of rural livelihoods and income due to insufficient access to drinking and irrigation water and reduced agricultural productivity, particularly for farmers and pastoralists with minimal capital in semi-arid regions.

[18] IPCC, "Summary For Policymakers (AR5 WG2)," 4.
[19] Ibid., 6.

vii) "Risk of loss of marine and coastal ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for coastal livelihoods, especially for fishing communities in the tropics and the Arctic.

viii) "Risk of loss of terrestrial and inland water ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for livelihoods."[20]

In short, further anthropogenic climate change risks multiple means of mortality, morbidity, and negative impacts to human well-being. And these are only the *key* risks. Three important additional risks to livelihoods are: projected increases in the displacement of people; the loss of 'territorial integrity' for coastal states, small island developing states especially; and amplification of the drivers of violent conflict.[21] The projected impacts are not, however, set in stone: "increased magnitudes of warming increase the likelihood of severe, pervasive, and irreversible impacts" but risks can be "reduced by limiting the rate and magnitude of climate change."[22] So, global warming is transparently dangerous, but may be rendered less dangerous if limited.

These projected impacts make a robust case that we should do something, but it is not yet clear that the something should take the form of criminalisation. It is not clear because often crimes are also moral wrongs (see Chapter 3, §3.3), not merely harms, and the case so far establishes only that climate change is harmful. For instance, committing a battery requires more than causing a victim harm; accidents may harm just as significantly, but accidents are not criminal (in general) because they are not morally wrong (in general). Batteries are (1) culpably caused (i.e. the defendant exhibited some responsible state of mind (*mens rea*) such as intention or recklessness) and (2) harm the

[20] Ibid., 13. More granular detail in: IPCC, "Technical Summary (AR5 WG2)," in *Climate Change 2014 Impacts, Adaptation, and Vulnerability Part A: Global and Sectoral Aspects*, ed. Christopher B Field et al. (Cambridge: Cambridge University Press, 2014), fig. TS.3.
[21] IPCC, "Summary For Policymakers (AR5 WG2)," 20.
[22] Ibid., 14.

victim in a morally impermissible way by, for example, violating the victim's right to personal sovereignty. To put criminalisation on the agenda, the following question needs an affirmative answer: do contributors to climate change act wrongly? That question is more complex than it might first appear and a comprehensive answer must contend with several complexities (see Chapter 5, §5.1) but a simplified argument, to a *prima facie* conclusion, will be enough to put criminalisation on the agenda.

Generally speaking, contributions to climate change violate a moral duty not to cause (or risk causing) unjustified harm to others. According to this duty, there is a presumption against harming (or risking harm to) others *unless* you can provide good moral reason(s). What can be said in defence of this duty? For one thing, most of us find the duty plausible. As children we are often told to consider the effect of our actions on others and contrast that with how we would feel if we were the recipient. Our parents and guardians tell us that it is a fundamental moral demand (the golden rule) not to affect others in a way we would reject for ourselves. Since we would object to others harming us without good justification, the golden rule gives us reason to endorse a duty to avoid unjustified harms to others. Another reason in practice is that our personal projects stand to be thwarted by the threat of harm imposed by others. So even if we are not altruistically motivated, there is reason to make attempts to accept the duty to reduce the threat of harm;[23] and perhaps further reason to submit to an authority capable of protecting us.[24] Finally, more or less all canonical moral theories require good reasons for imposing harms on others.

[23] E.g. David Gauthier, *Morals by Agreement* (New York, NY: Oxford University Press, 1986).
[24] Hobbes argues that fear in anarchy makes it rational to irrevocably and (almost) completely submit ourselves to a powerful sovereign capable of enforcing protections: Thomas Hobbes, *Leviathan*, ed. J. C. A. Gaskin (Oxford: World's Classics [1651], 1996); Hobbes' view is the extreme position, of course. Others in the social contract tradition hold that we have more qualified reasons to obey an authority, for instance: John Locke, *Two Treatises of Government*, ed. Peter Laslett (Cambridge: Cambridge University Press [1689], 1988).

So ubiquitous is the prohibition on harming others without justification that it is sometimes taken to be an assumed starting point for practical ethics.[25]

Of course, moral theories disagree about what qualifies as justification. I'll adopt the following justification and some largely uncontroversial stipulations. Harming is justified when the cost(s) of avoiding harm could be too great for the would-be harmer or others to bear relative to the harm to the would-be victim. Cases of justified self-defence, for instance, are cases where the would-be harmer is justified in imposing harm because they would be seriously harmed themselves otherwise. But the cost(s) to the would-be harmer need not be harm and the cost(s) need not be borne by the would-be harmer to justify imposing harm. Some degree of harm might be justified to protect the legitimate property rights of third parties, for instance. Moreover, someone harmed justifiably need not be morally culpable. For example, I may consume scarce resources necessary for my basic survival even when this diminishes the availability of resources for innocent others. Importantly, however, only *necessary* harms are justifiable. For instance, given a choice between two equally effective defensive actions (e.g. paralysing an attacker or disarming them) the duty to refrain from unjustified harm requires selecting the less harmful option; even if either option would be individually justified on self-defensive grounds were an alternative unavailable.[26] The reader might find more justifications convincing besides (consent, for instance, seems to justify some harms) but these are wrinkles we can avoid here (future victims of climate harms cannot consent to their imposition and present victims are unlikely to consent absent coercive circumstances).

[25] Cripps, *Climate Change and the Moral Agent*, 10–12.
[26] In a contribution to a forthcoming edited volume, Jeff McMahan summarises several justifications for harm. It spells out exemptions to the presumption against harm in much greater detail than is required above. See: Jeff McMahan, "Necessity and Proportionality in Morality and Law," in *Necessity and Proportionality in International Peace and Security Law*, ed. Claus Kreß and Robert Lawless (New York, NY: Oxford University Press, n.d.).

So, can contributors to climate change make use of the justification to harm explained above? Often no, generally speaking. Collectively, wealthy polluters are often engaged in 'luxury' emissions of trivial importance when weighed against the seriously damaging consequences of climate harms.[27] In other words, it would not be too costly for them to avoid harming. Consider a typical trip to the supermarket in a wealthy nation. Many shopping trips will be made by car when other means (walking, cycling, public transport) are equally suitable. Moreover, many shopping trips—including those which may reasonably require a car—will be made in less fuel-efficient cars than strictly necessary given readily available alternatives.[28] Together, many people make these sorts of contributions without plausible appeal to the unsuitability of alternatives, and together these contributions cause harm. Moreover, as a society we continue to contribute to climate change when the long-term cost to us is greater than the cost of mitigating climate change (see Chapter 7, §7.4). As a society, then, we continue to do harm when this is not only avoidable without incurring significant burdens, but when continuing to harm is contrary to our interest! At the macro level, then, it is clear we unjustifiably harm by contributing to climate change. This alone is enough to motivate serious consideration of criminalising contributions to climate change—it puts criminalisation on the agenda.

The devil, however, is in the detail. A successful case for criminalising contributions to climate change should be more systematic in two respects. First, the case for criminalisation ought to be based on the best available theories of morally permissible criminalisation raised by normative criminalisation theorists. The preceding case relies

[27] Henry Shue, "Subsistence Emissions and Luxury Emissions," *Law & Policy* 15, no. 1 (1993): 39–59.
[28] This claim doesn't rely on the financial and practical accessibility of electric cars which is, at present, patchy. Plenty of people drive SUVs when hatchbacks will do.

upon a *prima facie* resemblance between established crimes and contributions to climate change, but their resemblance and the dissimilarity in treatment shows only that there might be an inconsistency here. It does not independently show that contributions to climate change should be criminalised because we have not engaged with the conditions that normative criminalisation theorists have offered as accounts of when conduct ought to be criminalised. Normative theories of criminalisation ought to be brought to bear on the prospect of criminalising contributions to climate change before we can make confident claims. This is not to say that existing normative theories of criminalisation are correct—perhaps these theories are flawed in whole or in part—but we cannot make an informed decision without considering them first.

The second way in which a case for criminalising contributions to climate change needs to be more systematic is that it should take account of more than just the macro-level assessment of contributions. At the granular level of particular contributions from particular agents complicating questions arise. What is the relationship of individual putative offenders to climate harms? Do they make a difference? Does it matter whether they make a difference? And how do we separate the many avoidable contributions from those people do not choose to make or cannot make without undertaking undue burdens? It is the task of the thesis which follows to discover whether the brief moral case sufficient to put criminalisation on the agenda may be supplemented with a systematic normative case justifying particular criminal offences in light of these complicating questions.

§1.2 How criminalisation has, and hasn't, been discussed to date

Having set out the reasons sufficient to motivate considering criminalisation I now turn to the limited existing discussion. First, I highlight the *lack* of discussion in existing climate justice literatures. Then I move on to assess what has been said in print. One strand of academic discussion (green criminology) and popular work (comment articles and popular non-fiction) raise the prospect of criminalising contributions to climate change. These are welcome contributions and they establish a direction of travel. Nevertheless, I find these contributions wanting. I argue that the existing discussion needs to be rendered more specific and brought into dialogue with normative academic literatures to yield a justifiable case for criminalisation. Existing discussions suffer from the same limitations as the brief moral case outlined in §1.1, above: they do not consider the various complicating questions raised by considering particular criminal offences and they are not in dialogue with established literatures providing conditions of morally permissible criminalisation. Ultimately, the central contribution of this thesis is to provide for climate justice scholars and green criminologists a systematic normative analysis of several candidate criminal offences using the tools of normative criminalisation theorists. In addition, it will furnish the growing climate justice movement with valuable input for the formation of their public demands with guidance on the permissibility of several candidate criminal offences.[29]

§1.2.1 Climate justice

Claims of criminality are almost entirely absent from the climate justice/ethics literature. Explicit considerations of criminalising contributions to climate change are absent from seminal works like Steve Gardiner's *A Perfect Moral Storm,* Dale Jamieson's *Reason in*

[29] The direct action group Extinction Rebellion support Mission Lifeforce's call to implement ecocide law: "Extinction Rebellion's Facebook Page," December 22, 2018, https://www.facebook.com/ExtinctionRebellion/posts/316262648989850; "Ecocide Law — Mission Lifeforce," accessed March 13, 2019, https://www.missionlifeforce.org/ecocide-law; Polly Higgins, "Why We Need a Law on Ecocide," *The Guardian*, January 5, 2011.

a Dark Time, and Henry Shue's *Climate Justice.*[30] Criminal justice is not countenanced as one of Simon Caney's 'two kinds' of climate justice, and nor is criminalisation countenanced as a measure for enforcing 'just emissions'.[31] The silence is punctured by Elizabeth Cripps and Catriona McKinnon. Cripps defends coercive enforcement of duties to prevent collective harm, but 'enforcement' is left underspecified and the defence is *prima facie*; meanwhile McKinnon argues for making exacerbating the risk of human extinction an international crime, with climate change the principal example.[32] But if I am right that there is a presumptive case to examine criminalisation of contributions simpliciter, then more work is warranted than discussion of the permissibility of enforcement considered abstractly and an analysis of one class of crime.

§1.2.2 Green criminology

The climate justice literature is a natural place to look for discussion of criminalisation in response to contributions to climate change, but it is wanting. By contrast, sub-disciplines of criminology, critical and green, have paid extensive academic attention to the prospect of criminalising environmental damage since the 1990s.

From the outset, some green criminologists have taken an expansive view of what ought to qualify as a crime: "From an environmental justice perspective a green crime is an act

[30] It is not mentioned as a substantive idea in the text, nor do the words "crime" or "criminalisation" appear in the indexes of any of the following: Stephen M. Gardiner, *A Perfect Moral Storm The Ethical Tragedy of Climate Change* (New York, NY: Oxford University Press, 2011); Dale Jamieson, *Reason in a Dark Time* (New York, NY: Oxford University Press, 2014); Henry Shue, *Climate Justice: Vulnerability and Protection* (New York, NY: Oxford University Press, 2014).
[31] Simon Caney, "Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens," *The Journal of Political Philosophy* 22, no. 2 (2014): 125–49, https://doi.org/10.1111/jopp.12030; Simon Caney, "Just Emissions," *Philosophy & Public Affairs* 40, no. 4 (2012): 255–300, https://doi.org/10.1111/papa.12005.
[32] Elizabeth Cripps, "Climate Change, Collective Harm and Legitimate Coercion," *Critical Review of International Social and Political Philosophy* 14, no. 2 (2011): 171–93, https://doi.org/10.1080/13698230.2011.529707; Catriona McKinnon, "Endangering Humanity: An International Crime?," *Canadian Journal of Philosophy* 47, no. 2–3 (2017): 395–415, https://doi.org/10.1080/00455091.2017.1280381.

that (1) may or may not violate existing rules and environmental regulations; (2) has identifiable environmental damage outcomes; and (3) originated in human action."[33] Clause (1) from the quote above is crucial. Green criminologists with this perspective are implicitly critical of the scope of the criminal law as they believe the word 'crime' ought not to be reserved for existing crimes. Contrast this with the recently formed Centre for Climate Crime Analysis which, in order to prosecute emitters in the present system, limits the notion of climate crime to emissions related to violation of existing law.[34] But it is one thing to be critical of the failure of the established criminal law to label various environmentally damaging behaviours crime; it is another, subtly different thing to believe that the scope of the criminal law ought to be expanded in this respect. It is possible to believe that the label crime carries an appropriately condemnatory tone in public discourse, and so the label ought to be used informally to describe environmental damage, but also shy away from the practical implications of criminalisation. Green criminological critique does, however, make claims about criminalisation. "Tackling potential climate-related crimes has implications for law reform, policy development within criminal justice agencies, and contemporary environmental management practices."[35] This view merits consideration.

Within the discipline objections soon arose that the suggested expansion was too imprecise. This is a fault since those who adopt the view that the criminal law ought to be expanded fail to detail prohibited actions and are consequently too broad, facilitating

[33] Michael J. Lynch and Paul B. Stretsky, "The Meaning of Green: Contrasting Criminological Perspectives," *Theoretical Criminology* 7, no. 2 (2003): 227, https://doi.org/10.1177/1362480603007002414.
[34] Centre for Climate Crime Analysis, "Climate Crimes," accessed November 16, 2018, http://www.climatecrimeanalysis.org/crimes.html#. Both positions, the expansive use and the reserved use of the term "crime" are alive in green criminological debates. See: Carole Gibbs et al., "Introducing Conservation Criminology: Towards Interdisciplinary Scholarship on Environmental Crimes and Risks," *British Journal of Criminology* 50, no. 1 (2010): 125, https://doi.org/10.1093/bjc/azp045.
[35] Rob White, *Climate Change Criminology* (Bristol: Bristol University Press, 2018), 10.

problems of overcriminalisation.[36] Rob White's definition of criminality is conspicuously guilty of this scope problem: "Climate Change Criminology views criminality in terms of criminal and/or harmful behaviour that contributes to the problem of global warming and that prevents adequate responses to climate related consequences."[37] Wide scope is, however, a deliberate feature and not a bug:

> "In several important respects Climate Change Criminology parallels work which focuses on 'social harm'… social harms are ubiquitous precisely because they stem from and are ingrained in the structures of contemporary societies. Much of the same can be said about global warming… [And] social harms are generally not caused by intentional acts as such, but result from the omission to act or societal indifference to suffering and exploitation…"[38]

White considers 'ecocide' to be the substantive component of climate change criminality.

> "[E]cocide describes an attempt to criminalise human activities that destroy and diminish the wellbeing and health of ecosystems and the species within these, including humans… From an eco-justice perspective, ecocide involves transgressions that violate the principles and central constituent elements of environmental justice, ecological justice and species justice."[39]

White's description of what qualifies as ecocide is vague: it is unclear what constitutes 'destruction' of the wellbeing or health of ecosystems and unclear how we would measure wellbeing or health. It is also likely to include next to all conduct as mere diminishment qualifies, with no threshold of sufficient severity. Moreover, if ecocide is

[36] Mark Halsey, "Against 'Green' Criminology," *British Journal of Criminology* 44, no. 6 (2004): 839 & 843, https://doi.org/10.1093/bjc/azh068.
[37] White, *Climate Change Criminology*, 11.
[38] Ibid., 17.
[39] Ibid., 22.

equated to transgressing the norms of various forms of justice the law does not offer any guidance as these notions of justice are contested—and some views will be so expansive that, again, any and all conduct qualifies as ecocide. White's view is consistent in that it identifies the ubiquity of environmentally damaging conduct and prescribes a correspondingly vague and ubiquitous account of ecocide—but is it sensible? It is not a simple step from recognition of widespread injustice to condemnation of widespread *criminal* injustice. What I mean here is that we may have reason to regulate a great deal of our everyday conduct to reduce environmental damage, but is the criminal law, often reserved for serious infractions, always appropriate? If White means for the expanded conception of crime to have practical implications, then these normative questions take centre stage.

In response to the problems with applying the vague standard of ecocide, there have been attempts to specify the content of climate change crime in the green criminology literature. White details the need to shift from an analysis of 'systems' to 'perpetrators'.[40] This, I take it, means that we ought to focus on the agents who contribute to climate change, and design offences which target those agents with precise legal duties to stop contributing. Meanwhile Gibbs et al. suggest adopting recent advances in decision and risk analysis to blend public perceptions of risk with technical risk assessments to identify relevant climate offences salient to all stakeholders.[41] Consequently, the prospects for addressing vagueness look reasonably promising and I build on these thoughts in Chapter 2 where I adopt a three-part strategy to identify candidate offences.

[40] White, *Climate Change Criminology*, 112.
[41] Gibbs et al., "Introducing Conservation Criminology: Towards Interdisciplinary Scholarship on Environmental Crimes and Risks."

Even assuming vagueness can be addressed, and candidate offences can be identified, however, the more fundamental problem with green criminology is the dependence upon underlying normative commitments which are never made explicit. The following quote notes underlying normative commitments as the source of disagreement about what green crimes are, but does not recognise the potential for evaluation of these commitments:

> "Overall, environmental practices are described as criminal/harmful based on how scholars prioritize the values and interests of relevant stakeholders (e.g. publics, corporations, 'nature'). Each definition reflects a particular philosophical stance on the appropriate relationship between human beings and nature (i.e. human-centred, nature-centred, balanced), the causes of green crime and the appropriate intervention to address them."[42]

This is telling since we should at least attempt to assess the relative merits of underlying 'philosophical stances' rather than simply acknowledge them. There is serious practical disagreement between these positions. They imply completely different criminal codes. Although the seriousness of crime as a label is understood in green criminology, it is not clear that the implication of the label is taken as seriously even though we have reason to believe their views are intended to have practical implications. An obvious question is unanswered: 'should we treat climate crime like other crimes?' It is one thing to think that serious contributors to climate change are morally reprehensible as many criminals are reprehensible, but it is another to suggest we should criminalise them both. Because criminology—as a branch of sociology—tends to have an empirical focus,[43] more needs to be said by explicitly normative enquiry in conjunction.

[42] Ibid., 125.
[43] For instance this statement from the British Sociological Association which omits normative questions from the "task" of the sociologist: 'the task for sociologists... is to capture [the relations and institutions of human society] in a more systematic way and provide substantive explanations which... are

§1.2.3 Comment articles and popular non-fiction

More needs to be said explicitly on the permissibility of criminalising contributions to climate change, but we can't look to the climate justice literature for that guidance. In their absence, it is worth considering the direction of travel in popular literatures and engaging critically with their proposals. But, my focused analytical critical engagement with them is not meant to take cheap shots. I am well aware that the criteria for good comment pieces are very different from the criteria for a good academic paper and the skillsets of professionals in each field will vary correspondingly. I take it that one criterion for a good comment article is to stimulate discussion, and so in this regard I hope the criticism which follows is in one sense complimentary. In addressing these contributions as serious ideas and noting argumentative gaps I mean to reveal a deficiency in the general case for criminalising contributions to climate change—not deficiencies which these contributions are well-placed to address, nor necessarily should have addressed.

Lawrence Torcello argues that the "culpable ignorance and transparent corruption" of political leaders failing to address climate change and exacerbating its effects is a crime against humanity since "they place us all at risk on a scale that previous crimes against humanity never have."[44] Jeffrey Sachs, in a similar vein, claims "President Donald Trump, Florida Gov. Rick Scott, Florida Sen. Marco Rubio, and others who oppose action to address human-induced climate change should be held accountable for climate crimes against humanity."[45] Both authors point to a dereliction of a moral duty by elected officials

understandable in terms of everyday life.' "What Is Sociology?," British Sociological Association, accessed January 14, 2019, https://www.britsoc.co.uk/what-is-sociology/origins-of-sociology/.

[44] Lawrence Torcello, "Yes, I Am a Climate Alarmist. Global Warming Is a Crime against Humanity," *The Guardian*, April 29, 2017.

[45] Jeffrey Sachs, "Trump's Failure to Fight Climate Change Is a Crime against Humanity," *CNN Online*, October 18, 2018.

to prevent grave harm and explicitly relate this to an international criminal standard by noting the similar gravity of outcome of climate change with established international crimes.

Drawing this parallel is a crucial first step for establishing their case—I use similar reasoning in §1.1, above to motivate discussing criminalisation—but it is one step of many. We can reveal some of the further reasoning required to establish their case by situating their claims in existing international criminal law. No existing international crime is fitting for contributions to climate change, and so there is no simple foundation for criminalising contributions to climate change. As such, a case needs to be made for establishing this is a new crime—a case that runs into unanswered normative questions. Notwithstanding the multiple sources of international criminal law,[46] the only relevant act type in the Rome Statute,[47] is the following: "Other inhumane acts of a similar character [to other international crimes listed within] intentionally causing great suffering, or serious injury to body or to mental or physical health."[48] In fact this is no act type at all. Any use of this proscription is doubly onerous for the prosecution. Not only must they prove guilt, but they must also press a normative case that the conduct in question is similarly inhumane to other international crimes. Is such a case convincing?

[46] In addition to sources of international law in treaties (most notably the Rome Statute) and customary international law, there are a number of judicial mechanisms for yielding "general principles" of law which "fill gaps" in international law: Ilias Bantekas, "Reflections on Some Sources and Methods of International Criminal and Humanitarian Law," *International Criminal Law Review* 6 (2006): 121–36; Neha Jain, "Judicial Lawmaking and General Principles of Law in International Criminal Law," *Harvard International Law Journal* 57, no. 1 (2016): 111–50.

[47] The centrally relevant treaty source of international criminal law.

[48] UN General Assembly, "Rome Statute of the International Criminal Court (Last Amended 2010)" (1998), Art. 7(1), (k). I take it that Genocide, War Crimes, and Crimes of Aggression are inapplicable categories, while alternative variants of Crimes Against Humanity (murder; extermination; enslavement; deportation; imprisonment; torture; sexual violence; persecution; forced disappearance; and apartheid) are also irrelevant. That is with the possible exception of deportation, if construed to include migration caused by climate change.

For the most part, Torcello and Sachs beg this important question. Torcello and Sachs merely point to similarities of outcome. Recall that Torcello argues that climate change places humanity at risk to an unprecedented degree. Although pretty doubtful,[49] let's assume this is true. Even then further normative questions need to be answered before we classify climate change as similar in character to international crimes. For is it the sheer scale of risk/harm that makes something an international crime? Even though the scale of the risk imposed can be so grave as to be unconscionable it is not clear that the appropriateness of criminalisation responds simply to the severity of actions. Plausibly, the especially deficient moral character exhibited by genocidal leaders is different in kind, not simply degree, to those who expose others to risk.

Suppose a doctor knowingly and intentionally exposes their patients to a high risk of death (e.g. sudden heart failure) by incorrectly prescribing medication resulting in an expected 100 deaths. Then compare this with a person who orders the genocide of a small indigenous community of 100 people. Intuitions may differ but I submit that I find the genocidal case morally worse; and if I am right then comparative badness cannot be a function simply of total deaths. While there is plausible doubt about whether international crimes track severity of outcome, we should expect a more thoroughgoing analysis of when an act warrants the especially condemnatory designation of an international crime.

Although echoing the call for international criminal law, a recent popular non-fiction book by Peter Carter and Elizabeth Woodworth mostly recommends a series of domestic

[49] Mutually assured destruction by nuclear weapons seems to me at least as risky, if not more.

prohibitions.[50] First, they advocate for strengthening (likely via statute) the public trust doctrine which holds governments liable for the negligent deterioration of public goods.[51] Their proposal would entail increasing its scope to encompass atmospheric greenhouse gas concentrations and increasing enforcement (for more detail on this suggestion, see Chapter 2). Second, they recommend criminalising media organisations which disseminate false climate information.[52] Third, they advocate criminalising financial investments in fossil-fuel products.[53] Unfortunately, specific details of the crimes they are adjudicating are offered very little space. This makes a detailed normative analysis next to impossible; all that is offered as a normative case are brief appeals to the gravity of climate change and the *prima facie* wrongfulness of failing to address it. They do not ground their claims in any existing theory of criminalisation. Note, though, that Carter and Woodworth's work is an admirable empirical project to show that present actors—politicians, governments, media organisations, financial organisations—would be found guilty of these newly minted crimes. The bulk of their analysis is this empirical investigation. But this means a moral defence of their proposals cannot be excavated from their work.

Finally, Brian Merchant also makes a case for domestic criminalisation. Merchant thinks certain public officials are guilty of criminal negligence for their denial of climate science and pursuit of reckless city planning projects; and corporate climate denial should be considered criminal negligence.[54] I find this to be the most thorough and plausible case offered in the popular literature to my knowledge. It is specific about likely defendants,

[50] Peter D. Carter and Elizabeth Woodworth, *Unprecedented Crime: Climate Science Denial and Game Changers for Survival* (Atlanta, GA: Clarity Press, 2018).
[51] Ibid., chap. 3.
[52] Ibid., chap. 4.
[53] Ibid., chap. 5.
[54] Brian Merchant, "Climate Change Denial Should Be a Crime," *The Outline*, September 1, 2017.

leans on existing law to suggest plausible legislative details, and the parallel reasoning with existing conduct which meets these criminal standards is strong. Instead, I am unconvinced that Merchant's arguments go far enough. If denial of the science and negligent town planning should be criminal given the gravity of the effects of climate change, why not contributions generally? Presumably where ancillary actions are criminal, the directly damaging behaviour also ought to be. Suppose we criminalise money laundering, but not the theft which must have preceded it; this, I suggest, would be an unusual criminal code given that whatever is wrong with money laundering, if anything, it is derivative of the theft.[55] If I am right about this, then the case for criminalisation is far broader in scope—as some green criminologists have made clear.

To test that case, we need more normative analysis because demonstrating some parallels with existing law says nothing about whether either law *ought* to be in place. What is needed is a connection to a theory of justified criminalisation. The interventions of comment article and popular non-fiction authors serve the same function as §1.1 above, only they make the case to a considerably wider audience. These interventions are helpful, but they are not normatively compelling.

§1.2.4 The blind spot: systematic normative analysis

Unlike the brief reasoning sufficient to place criminalisation on the agenda, the argument required to substantiate whether contributions to climate change should be criminalised is painstaking and detailed. As should be clear by now, however, a systematic normative

[55] Husak argues that whenever we criminalise conduct on the basis that it creates a given risk, it must also be true that directly causing the harm risked is also criminal (and this is partially why drug prohibitions are unjustified). Douglas Husak, *Overcriminalization* (New York, NY: Oxford University Press, 2008), 165–66. I suggest a similar reasoning applies to derivative crimes. Though note that Husak is sceptical generally about criminalising derivative conduct.

analysis is missing. In order to determine whether we ought to criminalise contributions to climate change it is necessary to tackle normative questions head on. As subsequent chapters will reveal, normative theories of criminalisation require candidate criminal offences to meet certain standards if they are to be permissibly criminalised. We need to interpret, critique, and apply plausible standards to test the case for criminalising contributions to climate change. Before then, we need to know with some precision, exactly which offences are under consideration.

The thesis which follows assumes the mantle of tackling normative questions head on. The thesis contributes to the climate justice literature by considering criminal justice as a source of climate change mitigation. It does this having taken its lead from green criminologists and popular writers raising the possibility of criminalising contributions to climate change, and by adopting the analytical tools of established normative criminalisation literatures. By bringing these literatures together, I test the strength of the moral case for criminalising contributions to climate change and offer systematically substantiated policy advice for climate justice theorists and activists alike.

§1.3 Can we trust theories from the Anthropocene?

My contention that we should bring existing literatures on criminalising contributions to climate change into discussion with the normative criminalisation literature presumes that existing normative theories of criminalisation are respectable barometers of the strength of the moral case for criminalisation. But we have good reason to be sceptical of the suitability of existing theories of criminalisation as a token of general theoretical ineptitude according to a prominent strand of the climate justice literature. This scepticism raises doubts about the value of the thesis' proposed contribution. If we

cannot trust theories from the Anthropocene (the present era typified by human power to alter our macro environment), as some climate justice theorists believe, then how could the normative criminalisation literature inform climate justice theorists and practitioners by 'testing' the case for criminalisation, whatever the conclusion? By way of an analogy, now that we have good reason to doubt the four humours theory of physiology, we have no reason to pay attention to its implications for cancer treatment. To see whether theories from the Anthropocene should be subject to similar irrelevancy, let me outline two sources of scepticism from the climate justice literature.

Stephen Gardiner's *A Perfect Moral Storm* outlines an extended metaphor to understand the problem of climate change and why inadequate or partial solutions are so prevalent.[56] The perfect moral storm—like a boat caught in the unprecedented 'perfect storm' at the confluence of three meteorological storms—is the unprecedented confluence of three abstract problems present in the practical problem of climate change. These are that 1) the problem is global, unlike spatially compact moral problems like how to solve homelessness in a city or state; 2) the problem is intergenerational, unlike temporally compact moral problems like how to tackle present-day poverty; and 3) the problem transcends present theoretical grasp, unlike problems understood by established disciplines like how building safety is understood by structural engineers.

The third storm is most relevant to my discussion here. But first it is worth noting that Gardiner argues further that the perfect storm is worse than the sum of its parts, since

[56] Gardiner, *A Perfect Moral Storm The Ethical Tragedy of Climate Change*; see also the somewhat similar notion of a "super wicked problem": Kelly Levin et al., "Overcoming the Tragedy of Super Wicked Problems: Constraining Our Future Selves to Ameliorate Global Climate Change," *Policy Sciences* 45, no. 2 (2012): 123–52, https://doi.org/10.1007/s11077-012-9151-0.

the confluence encourages solutions which buy plausibility with a solution to one (or two) problem(s) while evading the other(s).[57] These inadequate solutions are then afforded a 'morally corrupt' defence—by those who do not wish to acknowledge moral failings—with a multitude of poor arguments that combine to be superficially convincing.[58] It is with this warning of corruption as a backdrop that Gardiner's critical doubt of existing theoretical tools becomes more convincing—since we may be convinced by theories we presently endorse which offer only partial solutions to the perfect moral storm.

Let's focus on Gardiner's third storm—theoretical ineptitude. "In essence," Gardiner writes,

> "the problem is that traditional approaches seem largely 'inept,' in the nonpejorative sense of being 'unsuited' for, poorly 'adapted' to, 'inappropriate' for, or lacking the necessary skills and basic competence to complete the task."[59]

In the context of the failure of institutions to tackle the problem we might think political philosophies which supposedly underpin them inept for this reason—but theories are not so inextricably linked to institutions. Instead, Gardiner writes that political philosophies—and I grant, for the sake of argument, theories of criminalisation too since they are theories of the use of the state's most coercive domestic tool—can be inept in several ways, including: opacity (failure to pronounce explicitly on a central issue); obliviousness (total silence on a central issue); complacency (malleable, but requires a prompt to consider a central issue); and evasiveness (so malleable that they no longer offer *critical* justification of practice).[60] Since existing theories might exhibit these drawbacks—and

[57] Gardiner, A Perfect Moral Storm The Ethical Tragedy of Climate Change, 127–28, 200 & 372.
[58] Ibid., chap. 9.
[59] Ibid., 214.
[60] Ibid., 230-234.

we might be fooled into endorsing them by morally corrupt reasoning—this gives us some reason to doubt the credibility of theories of criminalisation.

Gardiner's doubt of the competence of existing theories is accompanied by Dale Jamieson's sharper pessimism regarding existing theories in *Reason in a Dark Time*.

> "Just as the problems of climate change overwhelm our cognitive and affective systems, as well as our ability to do reliable economic calculations, so they also swamp the machinery of morality, at least as it currently manifests in our moral consciousness."[61]

The machinery of morality is swamped, according to Jamieson, because of multiple features of climate change, including: the magnifying effects of technology on environmental impacts (to others, to sentient creatures, and the eco-system itself); the global reach of environmental impacts; the structurally embedded causes of environmental damage; the nature of collective action problems; and the intergenerational impacts of environmental damage, among others.[62]

Although canonical reformist works in ethics have functioned to show surprising conclusions have been missed or obscured despite following from well-established premises (our 'cognitive and affective systems')—for example, Peter Singer's work on extending moral obligations to the global poor and non-human animals by appeal to consistency—Jamieson argues this tactic is insufficient to address climate change:

[61] Jamieson, *Reason in a Dark Time*, 114.
[62] Ibid., 161-166.

'modest extensions' of scope do not 'do the trick'.[63] Instead the kind of moral philosophy which rises to the challenge presented by climate change is revolutionary.

> "Climate ethicists who seek to moralize behavior that may in some way contribute to climate change are revolutionaries whether they see themselves in that way or not. Rather than viewing this work as consisting in failed attempts to report and innervate our common moral conceptions, we should see it instead as critiquing commonsense morality and recommending revisions."[64]

Jamieson's remarks might then make us reluctant to conclude we can simply apply existing theories of criminalisation to proposals to criminalise contributions to climate change. Effective justifications of criminalising contributions might be revolutionary, not 'modest extensions.'

With full acknowledgement of the possible limitations of existing theories of criminalisation I press ahead to try to yield a limited set of desired outcomes from within (potentially) flawed existing normative theories of criminalisation. This produces progress in one of two mutually exclusive ways depending on whether the outcome is desirable. On the one hand, should the project actually yield a set of desired outcomes despite potential flaws (let's suppose that criminalisation of at least some offences is the desirable outcome), then it is all the more damning that we presently do not criminalise these behaviours. In this regard the analogy I drew earlier to the irrelevance of the four humours theory of physiology to contemporary cancer treatment is not appropriate. This is because the criticism of contemporary normative theories is not that they are wholly incorrect, it is that they are systematically biased in favour of present-day, local/national,

[63] Jamieson, *Reason in a Dark Time*, 169–71. For Singer's work see: Peter Singer, "Famine, Affluence, and Morality," *Philosophy & Public Affairs* 1, no. 3 (1972): 229–43; and: Peter Singer, *Animal Liberation*, 2nd ed. (London: Pimlico [1975], 1995).
[64] Jamieson, *Reason in a Dark Time*, 170.

human interests rather than intergenerational, global, environmental interests. Incorrect theories are of no interest, but it is of interest if a systematically biased theory yields results despite its biases. If we fail to satisfy the unsatisfactory duties we've set for ourselves, then we demonstrate a shocking lack of moral ambition. This, I think, would be a starker finding than concluding, on the basis of revolutionary theories, that we have revolutionary duties.

On the other hand, should the project fail to yield desirable outcomes, and we are still convinced that the desirable outcomes are desirable despite their conflict with established normative theories of criminalisation, then the thesis will have achieved progress of a negative kind. That's to say, a blind alley will have been signposted. In turn, the case for building new theories is stronger than before because it relieves new theories of the motivational burden to develop them. No longer would it matter that there are various drawbacks to designing them—e.g. that they could take too long to develop before they are needed, or that there will be likely barriers to popular adoption—because we will have no other choice. In other words, we would be left with no option other than to pursue revolutionary theories.

As a result, the thesis should not be expected to be irrelevant even if Gardiner and Jamieson's arguments give us reason to adopt a deep scepticism of current normative theories of criminalisation because we can expect informative results whatever the conclusion. Lastly, assessing the case for criminalising contributions to climate change can be considered a test case for Gardiner and Jamieson's scepticism. Whether we can or can't yield a desirable outcome should tell us something about whether their scepticism is warranted or, at least, the degree to which it is warranted.

§1.4 Assumptions and scope

I need now to move to some matters of housekeeping. Since I aim to uncover and investigate the implicit normative questions raised but unanswered in other work, I want to be helpfully transparent about what I knowingly leave undiscussed and unanswered here. This includes some basic assumptions to get arguments off the ground and some scope-limiting stipulations. I have tried to list these in some sort of coherent order, but there are various interconnections between them so that this is not entirely possible. For what it's worth, the reader may find it preferable to skip ahead to §1.5 (below) and refer back to each of these assumptions/stipulations as they are raised in the course of the thesis (cross-references will be provided) rather than read them in one tangential block.

§1.4.1 The scientific consensus

I assume that the underlying physical science of climate change projections and subsequent projected impacts are correct, accounting for confidence and probability allowances.[65] The case for criminalisation in the thesis which follows is ultimately dependent on the projected negative impacts of climate change and human responsibility for them. If untrue, justification of criminalisation would fail. This is no inconsequential assumption, since failed justification implies criminalisation would wrong the convicted. But (and it is a very important 'but') there is no reason to question our epistemic trust of IPCC reports. This is just a frank portrayal of the conditions of my argument. I am not sympathetic to climate scepticism.

[65] The IPCC has a rigid way of detailing both how confident it is in its claims—i.e. how sound their evidence is—and the probability of given predictions (like future global average temperature) and impacts (like damage to ecosystems and human well-being). These should always moderate how IPCC findings should be used. Michael D. Mastrandrea et al., "Guidance Note for Lead Authors of the IPCC Fifth Assessment Report on Consistent Treatment of Uncertainties," 2010.

§1.4.2 Criminalisation is one, of many, mitigation policies

The scope of the discussion is criminal laws, but there are many ways to address climate change in practice and this thesis is not intended to necessarily displace any of them. Infrastructure spending, regulatory and civil penalties, incentives, nudging; etc. likely all have their place. Although I am wielding the hammer of the criminal law, contributions to climate change are not always nails. I side-line alternative mitigation policies simply to form another focus, not to diminish their importance.

§1.4.3 A criminal justice system something like ours

Throughout the thesis I will assume a criminal justice system something like our own (an Anglo-American system): including its legislative, investigative, prosecutorial, judicial, and sanctioning norms and practices. This does not mean I'm discussing criminalisation in the context of all the deficiencies our criminal justice system exhibits—sometimes I will refer to reforms which make criminalisation more palatable, especially in Chapter 7—but I do assume the basic institutions and functions of which we have some common understanding.

Taking something like the system we have for granted means assuming at least two morally substantive claims. First, I assume that it is legitimate, on at least some grounds, for the state to criminalise some conduct. As one among many state coercive apparatuses, normative criminalisation theorists have recently paid close attention to political theory as many believe criminalisation is subject to a political justification just

like other state coercive measures are believed to require.[66] This requires some positive account of the legitimate grounds and scope of state coercion. If a thoroughgoing anarchism is true, then the argument which follows in the thesis is not conclusive. Moreover, the particular account of state legitimacy one endorses will shape the scope of the criminal law the state may legitimately make. A Hobbesian state, imbued with more or less total power to direct the lives of its citizens, will have no principled limits on its power to criminalise.[67] Whereas a Rawlsian state guided by political liberalism, for instance, might require that criminal laws are legitimate only when justified by reasons that all reasonable citizens can accept.[68] In which case, the criminal law would be illegitimate were it to enforce certain doctrines that other citizens with different world views may reasonably reject.[69] Claims about the permissibility of particular criminal offences will therefore find root in, and may be controversial among, theories of political legitimacy like these and many more besides. I will discuss any such controversies as they arise: see in particular Chapter 3, §3.1 & §3.3 and Chapter 6, §6.2.

The second morally substantive claim I'm assuming is that at least some legal punishment can be justified. Punishment is part of the system I am taking for granted as

[66] For an overview, and partial defence, of this trend in recent work see: R. A. Duff et al., "Introduction," in *Criminalization: The Political Morality of the Criminal Law*, ed. R. A. Duff et al. (New York, NY: Oxford University Press, 2014), 1–53, https://doi.org/10.1093/acprof:oso/9780198726357.003.0001, esp. 17-26.
[67] Hobbes, *Leviathan*.
[68] "Might" as it is not clear that Rawls intends for the strictures of political liberalism to apply to the criminal law: John Rawls, *Political Liberalism*, Expand. ed (New York, NY: Columbia University Press, 2005). For some discussion of a criminal law guided by political liberalism see: Victor Tadros, *Wrongs and Crimes* (New York, NY: Oxford University Press, 2016), chap. 8, and: Matt Matravers, "Political Neutrality and Punishment," *Criminal Law and Philosophy* 7, no. 2 (2013): 217–30, https://doi.org/10.1007/s11572-012-9180-y.
[69] There is a significant literature on the various state practices which would appear to conflict with political liberalism. I'll point to one practice discussed in particular because the conflict is between political liberalism and an existing criminal law--the prohibition of adult consensual incest. See: Johan Tralau, "Incest and Liberal Neutrality," *The Journal of Political Philosophy* 21, no. 1 (2013): 87–105, https://doi.org/10.1111/j.1467-9760.2011.00413.x, and: Vera Bergelson, "Vice Is Nice But Incest Is Best: The Problem of a Moral Taboo," *Criminal Law and Philosophy* 7, no. 1 (2013): 43–59, https://doi.org/10.1007/s11572-012-9158-9.

criminalisation (often) comes bound-up with punishment.[70] Because punishment involves deliberately imposing hard treatment on convicted criminals, I think this assumption requires a little justification.[71] It requires a little more justification because the imposition of hard treatment is generally wrong, so why would legal punishment be different? To give something of a brief justification, I want to survey some canonical defences of legal punishment. Traditionally, punishment has been justified by either a counter-balancing consequentialist concern to deter future crime or the retributivist view that wrongdoers deserve punishment. But because pure consequentialist justifications of punishment fail to preclude punishing the innocent and the central desert claim of retributivism is controversial, views which attempt to combine the plausibility of both (punish the guilty to deter others, but only the guilty) are commonplace.[72]

Criticism of line-walking views persists, for instance Jeffrie Murphy argues that even partially consequentialist views treat individuals as mere means and fail to respect their moral standing.[73] But among the many responses, Matt Matravers argues punishment is justified by a contractarian understanding of justice which individuals accept as the community furthering their good and so also commit to the enforcement of moral norms.[74] Forfeiture theorists argue that offenders are not treated merely as means, but

[70] I am just following the often assumed position here that the two issues are bound-up, and the prospects for legitimate criminalisation turn on the prospects for legitimate punishment. For a dissenting view see: James Edwards, "Criminalization without Punishment," *Legal Theory* 23, no. 2 (2017): 69–95, https://doi.org/10.1017/S1352325217000210.
[71] A commonly accepted working-definition of punishment is Feinberg's understanding of punishment as imposing hard treatment and expressing censure: Joel Feinberg, "The Expressive Function of Punishment," *The Monist* 49, no. 3 (1965): 397–423, https://doi.org/10.2307/27901603.
[72] Stemming from the classic: H. L. A. Hart, "Prolegomenon to the Principles of Punishment," in *Punishment and Responsibility* (Oxford: Oxford University Press, 1968), 1–27, https://doi.org/10.1093/acprof:oso/9780199534777.003.0001; Tomlin helpfully terms all views of this kind, "constrained instrumentalist" theories since they disagree that punishing the guilty is good because deserved, and instead justify punishment for its optimific effects, but constrain this practice to guilty persons only (in ordinary circumstances): Patrick Tomlin, "Innocence Lost: A Problem for Punishment as Duty," *Law and Philosophy*, 2017, https://doi.org/10.1007/s10982-017-9288-2.
[73] Jeffrie G. Murphy, "Marxism and Retribution," *Philosophy & Public Affairs* 2, no. 3 (1973): 217–43.
[74] Matt Matravers, *Justice and Punishment* (New York, NY: Oxford University Press, 2000), chaps. 8–9.

are treated as moral agents whose protections against coercion are forfeited by their offense.[75] And Victor Tadros argues that it is permissible to punish offenders because they have an enforceable moral duty to undergo legal punishment to deter future crime.[76] Though the prominent theories cited are distinct and potentially incompatible, taken together these responses are cause for optimism in a theoretical justification of punishment and prepare the ground to move to questions of criminalisation. But, like the limits a political theory of legitimacy might place on the scope of the criminal law, different theories of punishment can alter the contours of justified criminalisation too. Since I have not defended one particular view, I will address suspicion when it might arise that my arguments are not ecumenical between competing justifications of punishment. Those are largely the same points at which there is a difference of opinion among political theories of legitimacy: Chapter 3, §3.3 and Chapter 6, §6.2.

Finally, a little more can be said to assuage concerns about taking some punishment for granted by noting that punishment needn't amount to *harsh* treatment. Paradigmatic punishment in the Anglosphere is incarceration. But it is important to keep in mind that punishment comes in many forms. The punishment bound-up with criminalisation need not be as harsh as incarceration; an appropriate punishment for some offenses may simply be the bare hard treatment inherent in public blame. Or blame plus some financial penalty. Or blame plus some non-custodial sentence like community service. I do not mean to imply that we should lock up emitters, but nor do I rule it out since especially serious cases may warrant it.

[75] Alan H. Goldman, "Toward a New Theory of Punishment," *Law and Philosophy* 1, no. 1 (1982): 57–76, https://doi.org/10.1007/BF00143146; Christopher Heath Wellman, "The Rights Forfeiture Theory of Punishment," *Ethics* 122, no. 2 (2012): 371–93, https://doi.org/10.1086/663791.
[76] Victor Tadros, *The Ends of Harm* (New York, NY: Oxford University Press, 2011), chaps. 12–13.

§1.4.4 Civil service administration

I also assume that a reasonably competent civil service makes criminalisation possible. This is, in fact, two distinct assumptions. First, I assume the civil service is capable of tracking compliance with regulations irrespective of criminalisation. For example, criminalisation of tax evasion piggybacks on the administration of tax agencies collecting information on income, capital gains, etc., corroborating information, and investigating cases of non-compliance. Without the competent administration of the tax agency, criminalisation of tax evasion would be pointless. Regarding candidate offences I discuss later in the thesis, this means that I am assuming the civil service could monitor compliance with underlying regulations. Specifically, when I discuss the prospect of criminalising a breach of a personal or corporate carbon ration, I am assuming there is a system in place to track and monitor compliance with a carbon rationing scheme in the first place.

Second, I assume that civil service administration of the underlying regulation is itself justified. This is to say that there are good reasons for administering the regulation and that administration does not come at too great a cost to the public in several respects, such as: financial costs, costs to personal interests (e.g. privacy), and so on. Again, linking this to a specific candidate policy, I assume that civil service administration of a carbon rationing system would be justified public policy. I make this assumption since the conditions for morally permissible public policy might be quite different from the conditions for morally permissible criminalisation.

On the one hand the conditions of morally permissible criminalisation may be more stringent than those for regulation: in Chapter 3, §3.3 I will argue that conduct may be criminalised only when that conduct is morally wrong, whereas we commonly regulate morally permissible conduct. On the other hand, conditions for morally permissible regulation may be more stringent than those for criminalisation. One available view might require that regulations are significantly net beneficial whereas the social significance of criminalisation may mean that the good achieved by criminalisation need only be proportionate to its costs (see Chapter 6 and Chapter 7). Consider, for example, a regulation which required home bakers to make a public declaration that they have read and understood food safety standards in order to gift (not sell) food to family and friends. There is some sensible rationale here and a declaration (online, to a local council perhaps) is not especially onerous, but the regulation would not be significantly net beneficial: marginal gains in trust are small among people who already trust one another, gift-givers do not have financial incentives to skimp on safety, and so on.

Because the conditions of permissible regulation and criminalisation may diverge and a theory of morally permissible public policy would lead me astray, I assume the underlying administration of regulations necessary to make the candidate criminal offences I consider possible are themselves justified. Let me lastly address the possibility that the conditions of morally permissible criminalisation cannot be met when the conditions for justified public policy are satisfied. For example, there may be sufficient reason to regulate the provision of a specialist public good (such as healthcare or hazardous waste management) but insufficient reason to criminalise breach of the regulation as criminal liability will deter those few potential providers from offering the service. Although these cases may well exist, the conditions for permissible public policy and permissible

criminalisation are not *systematically* mutually exclusive. Consequently, this assumption does not nix the permissibility of criminalisation.

§1.4.5 Domestic criminal law, not international criminal law

In what follows I discuss only the prospects of new *domestic* criminal offences. Most of the time I have the UK in mind, and the criminal law of England and Wales specifically. I will not always be able to call upon empirical research on the law of England and Wales, however, and at times I will call upon research on similar laws/phenomena elsewhere, particularly the US. I recognise that jurisdictions are not always directly comparable, but when relevant I will raise my reasoning for generalising from research in other jurisdictions. Relatedly, I draw from Anglo-American normative criminalisation theorists.

Principally I focus on domestic criminal law because an international criminal regime strong enough to hold emitters to account is practically farfetched (even more farfetched than the domestic political will to criminalise contributions to climate change). Domestic jurisdictions look to be the only administrative bodies capable of rigorous enforcement in any presently likely world, the limited success of holding to account those convicted of war crimes and crimes against humanity at The Hague notwithstanding.[77]

A focus on domestic criminal law also avoids complications arising from the view that international law should be discussed as an analytically separate realm with idiosyncratic norms, as implied, for instance, by the claim that the purported right to sovereignty

[77] I do not mean to suggest international criminal law is important only insofar as it can enforce standards. There is also a condemnatory function of international criminal law: Tim Meijers and Marlies Glasius, "Trials as Messages of Justice: What Should Be Expected of International Criminal Courts?," *Ethics & International Affairs* 30, no. 4 (2016): 429–47, https://doi.org/10.1017/S089267941600040X.

prevents international law from gaining (non-consensual) jurisdiction over anything but serious, systematic violations of human rights.[78] Of course, climate change might well amount to a serious systematic violation of human rights, but that is not a question I discuss. I limit my claims about criminalisation to agents whose jurisdiction is not constrained by respect for sovereign autonomy—states.

§1.4.6 An international mitigation agreement

The consequences of a national mitigation policy in large part depend upon the mitigation policies of other states.[79] Robust mitigation policies in one state may bear no fruit if emitting industries are free to move to other states with more relaxed, or no mitigation policies of their own. In the worst-case scenario regulation, criminal or otherwise, will come at great cost to residents of the mitigating state and achieve no net reduction in global greenhouse gas emissions. Of course, no industry is quite so mobile as the worst-case scenario assumes. Industries will make some credible threats to move but sometimes they will be posturing. The threats of the wealthy to move their fortunes elsewhere if taxed more are at times idle, for instance, as the wealthy know full well they respond to non-financial incentives, e.g. national culture, too. Consequently, mitigation policy *per se* should not be held hostage by industry mobility in the absence of an international mitigation agreement. But the prospect of international competition in the absence of an international mitigation agreement (and, by extension, the will to come to an agreement) does make it difficult to assess the effects of particular policies.

[78] Andrew Altman and Christopher Heath Wellman, "A Defense of International Criminal Law," *Ethics* 115, no. 1 (2004): 35–67, https://doi.org/10.1086/422895; David Luban, "A Theory of Crimes against Humanity," *Yale Journal of International Law* 29 (2004): 86–168; Larry May, *Crimes Against Humanity: A Normative Account* (New York, NY: Cambridge University Press, 2005).

[79] National policies are not, however, individually inert. See: Shaikh M.S.U. Eskander and Sam Fankhauser, "Reduction in Greenhouse Gas Emissions from National Climate Legislation," *Nature Climate Change* 10, no. 8 (2020): 750–56, https://doi.org/10.1038/s41558-020-0831-z.

For this reason, I will assume that there is some form of international mitigation agreement and a basic level of compliance with the agreement. I want to test the case for criminalisation of contributions to climate change and this requires holding some moving parts fixed. I accept that in the absence of a global mitigation agreement, criminalisation in some cases could achieve little to no good and thereby scupper an otherwise promising case for criminalisation. But it is worth knowing whether contributions to climate change could be justifiably criminalised in principle, so that we have a set of justifications to evaluate if we need to relax the assumption of a global mitigation agreement and work out what follows.

§1.4.7 The non-identity problem

Briefly, the non-identity problem is that future people who come to exist as a consequence of an action which is bad for them have not been harmed because the alternative is that they would have never existed.[80] This makes it hard to establish what is wrong with such action. For example, pervasive public policies today will impact the mobility, social and spatial, of contemporaries and future people such that after sufficient time most members of future generations will owe their existence to the policy decisions of past generations: this effect spreads "like ripples in a pool".[81] Climate change policy is one real-world case: the pervasive impact of mitigation policy compared with business-as-usual will ensure a different set of people exist in the future if we pursue mitigation than would otherwise exist if we keep emitting.[82] Given this, continuing to emit is no worse

[80] The problem is best examined in: Derek Parfit, *Reasons and Persons* (Oxford: Clarendon, 1984), chap. 16; Parfit and others were explicating the problem concurrently in the 1970s: Derek Parfit, "On Doing the Best for Our Children," in *Ethics and Population*, ed. Michael D. Bayles (Cambridge, MA: Schenkman, 1976), 100–115; Thomas Schwartz, "Obligations to Posterity," in *Obligations to Future Generations* (Philadelphia, PA: Temple University Press, 1978), 3–13; Robert Merrihew Adams, "Existence, Self-Interest, and the Problem of Evil," *Noûs* 13, no. 1 (1979): 53–65, https://doi.org/10.2307/2214795.
[81] Parfit, *Reasons and Persons*, 361.
[82] Edward A. Page, *Climate Change, Justice and Future Generations* (Cheltenham: Edward Elgar Publishing, 2006), 132–34.

for the people in the future it will affect since they would otherwise not exist. On the face of it, our moral reason to mitigate is washed away.

This simple observation, given its highly alarming conclusions, has been afforded a lot of attention. One thing to say in response is that climate change is no longer a problem solely for future people, since there is considerable observed warming with related impacts; there is even a literature on the attribution of present weather events to climate change.[83] And plenty of today's children will experience climate impacts projected for the year 2100 (other things being equal). So, with the present focus, we can safely side-step the problem.

But lack of a theoretical solution leaves intergenerational justice under threat. Suppose we bury radioactive waste with poor protective lining. We know it will hold out for 200 years but there is significant exposure risk in the further future. Suppose further that this poor lining is cheap, and permanently safe lining would raise the price of electricity considerably decreasing physical and social mobility compared with using the cheap lining. Here we have a non-identity case with all harms deferred to the future. With cases like this in mind there is significant reason to seek a theoretical solution and not simply rely on side-stepping.

Fortunately, we can lean on one or more of the following attempts at substantive theoretical resolution. Derek Parfit argues that we should not assess the morality of these

[83] On observed impacts see: IPCC, *Climate Change 2014 Synthesis Report*, ed. Rajendra K. Pachauri and Leo Meyer (Geneva: IPCC, 2014), 6–8 & 16; for an overview of event attribution see: Friederike E. L. Otto et al., "The Attribution Question," *Nature Climate Change* 6, no. 9 (2016): 813–16, https://doi.org/10.1038/nclimate3089.

outcomes from the perspective of principles that rely on whether a particular person is better- or worse-off, and we should instead endorse some impersonal view about overall goodness/badness.[84] Many, though, have attempted retain something like a 'person-affecting principle': a principle which would explain why non-identity cases are bad *because they affect agents*, not an impersonal sum of value. Some appeal to rights against some detrimental actions which are violated even when those actions do not make the recipient worse-off than they otherwise would have been.[85] Others make a distinction between *de dicto* and *de re* principles, and argue that only *de re* principles are vulnerable to the non-identity problem, while *de dicto* principles are not.[86] *De re* ('about the thing') principles apply to the particular person under consideration: e.g. all else being equal, it is wrong to make a person worse-off than they otherwise would have been. The non-identity problem does implicate principles of this type. However, *de dicto* ('about what is said') principles refer not to particular people but instead to more general moral categories: e.g. all else being equal, it is wrong to make future people worse-off than they otherwise would have been. The non-identity problem does not generally implicate principles of this sort because the existence of future people as a group is not contingent on the variable identities of its members. When we are understood to have obligations to 'future people' as a general moral category it is wrong for us to act unsustainably since this is worse from the standpoint of future people, even though it is not worse for any particular future person. This might seem a little estranged from moral

[84] Parfit, *Reasons and Persons*, chaps. 17–19.
[85] James Woodward, "The Non-Identity Problem," *Ethics* 96, no. 4 (1986): 804–31, https://doi.org/10.1086/292801; Simon Caney, "Cosmopolitan Justice, Rights and Global Climate Change," *Canadian Journal of Law and Jurisprudence* 19, no. 2 (2006): 267–68.
[86] Caspar Hare, "Voices from Another World: Must We Respect the Interests of People Who Do Not, and Will Never, Exist?," *Ethics* 117, no. 3 (2007): 498–523, https://doi.org/10.1086/512172; J. David Velleman, "Persons in Prospect Part III Love and Nonexistence," *Philosophy & Public Affairs* 36, no. 3 (2008): 266–88, https://doi.org/10.1111/j.1088-4963.2008.00139_3.x.

thinking, but this type of distinction has been deployed in protecting some influential moral theories from non-identity implications.[87]

Lastly, while the attempts listed so far can be said to accept the non-identity problem argument but seek to *evade* it, some theorists directly challenge the non-identity problem and offer a *solution*. These accounts challenge the notion of harm implicit in the non-identity problem as a comparison of different states of welfare/well-being/etc. Instead they argue that harm should be understood in a non-comparative way: some acts are harmful in themselves, just because of their status as a special kind of act or just for the type of outcome that they cause.[88] According to these views a person can be harmed by an action which makes them no worse off. Because of these responses, and the intuitive applicability of the term harm in non-identity cases, I will continue to call negatively impacting the well-being of future persons 'harm'.[89]

I rely on one or more of these responses going-through in order for my subsequent claims to be theoretically complete. But I recognise we may not want to prioritise finding a completely satisfactory response to the non-identity problem. The non-identity problem suffers (perhaps similarly to philosophical discussions of free will) from powerful lay

[87] For an application to Scanlonian Contractualism see: Rahul Kumar, "Who Can Be Wronged?," *Philosophy & Public Affairs* 31, no. 2 (2003): 99–118, https://doi.org/10.1111/j.1088-4963.2003.00099.x; for an application to John Rawls' theory of justice see: Jeffrey H. Reiman, "Being Fair to Future People: The Non-Identity Problem in the Original Position," *Philosophy & Public Affairs* 35, no. 1 (2007): 69–92, https://doi.org/10.1111/j.1088-4963.2007.00099.x.

[88] For the view that harm is a special kind of act see: Matthew Hanser, "The Metaphysics of Harm," *Philosophy and Phenomenological Research* 77, no. 2 (2008): 421–50, https://doi.org/10.1111/j.1933-1592.2008.00197.x; for a few specific examples of the view that certain types of outcome make an act harmful see: Lukas H. Meyer, "Past and Future: The Case for a Threshold Notion of Harm," in *Rights, Culture and the Law*, ed. Lukas H. Meyer, Stanley L. Paulson, and Thomas W. Pogge (New York, NY: Oxford University Press, 2003), 143–60, https://doi.org/10.1093/acprof:oso/9780199248254.003.0009; Guy Kahane and Julian Savulescu, "The Concept of Harm and the Significance of Normality," *Journal of Applied Philosophy* 29, no. 4 (2012): 318–32, https://doi.org/10.1111/j.1468-5930.2012.00574.x.

[89] This is not to say I am convinced by this solution; there is just no need to arbitrate the dispute in the thesis given the variety of views with similar implications.

scepticism. Many people think it obvious that we wrong particular future people because we harm them (as most people think it obvious that we possess libertarian free will). For many this demonstrates that thinking too hard about something leads you astray from common sense. I do not share this scepticism, but it is not wrongheaded. We shouldn't be paralysed by the problem, and so I am not.

§1.5 Chapter roadmap

The last thing I want to do here before setting off is to fix expectations and give a very brief outline for how the thesis proceeds and the arguments that will be made along the way. In Chapter 2 I begin by selecting a list candidate criminal offences to which I will refer throughout the remainder of the thesis. This both fixes attention to render the prospect of criminalising contributions to climate change less nebulous and provides the set of specific offences I will test. I then begin assessment of normative theories of criminalisation in Chapter 3. I introduce two constraints on criminalisation defended by normative criminalisation theorists. I reject the view that conduct must be harmful to be permissibly criminalised, and I adopt the view that conduct must be morally wrong to be permissibly criminalised (the 'wrongness constraint'), responding to some objections as appropriate. I then disambiguate the wrongness constraint into three variants and adopt and defend the weak wrongness constraint in Chapter 4. From there I have the first test of morally permissible criminalisation according to which I can test the list of candidate offences. In Chapter 5 I argue that all candidate criminal offences satisfy the weak wrongness constraint.

Just because criminalisation of contributions to climate change satisfies the wrongness constraint does not mean that it should be criminalised however—just because you can,

doesn't mean you should. So the thesis continues, in Chapter 6 and Chapter 7, by assessing whether the case for criminalisation is at least as strong as the case against criminalisation. There I find that the case for criminalising many, but not all, candidate criminal offences is proportionate—that is to say, the case for is at least as strong as the case against. As a result, many, but not all candidate offences from the longlist may be permissibly criminalised. Those offences which may be permissibly criminalised are shortlisted at the end of Chapter 7. Chapter 8 then concludes by summarising the findings of the thesis and reflecting on the difference between whether a candidate criminal offence *may* be criminalised, and whether it *should*, arguing that normative theorising can only give us partial positive guidance. Consequently, whether the candidate criminal offences which may be criminalised should be criminalised, is a matter for democratic bodies.

Selecting candidate offences

Before I can entertain normative theories of criminalisation, I need to detail more precisely what is the prospective target of criminalisation. Contributions to climate change are endemic in society and I have already detailed why it would be inappropriate to criminalise in a broad brush fashion (see, Chapter 1 §1.2.2). The task of this chapter is to come to some concrete candidate offences to fix attention on what exactly is being considered throughout the thesis. In order to get to those candidate offences, I discuss *why* some conduct might be liable, *who* might be liable, and for *what*.

The 'how' is predetermined, we are discussing holding agents criminally liable rather than, say, civilly liable. There is probably not a bright line to draw between criminal and civil liability, but a rough distinction will work. Criminal liability invokes criminal procedures (such as the criminal standard of proof beyond a reasonable doubt) and punishment (at least to the degree that condemnation is itself punishment).[1] Civil liability, on the other hand, is coercive but does not invoke criminal procedures or punishment understood as including condemnation. Civil sanctions may be imposed on satisfaction of a less strenuous standard of proof and should not come with various condemnatory features of punishment such as a marring criminal record.

I proceed first by outlining what I take a contribution to climate change to be and so why agents would be liable. In short, I adopt a very loose interpretation of 'contribution' as it pertains to the question of whether we should criminalise contributions. But that does

[1] Glanville Williams' widely discussed and criticised definition of criminal law defines criminal law as implicating criminal procedure: Glanville Williams, "The Definition of Crime," *Current Legal Problems* 8, no. 1 (1955): 107–30, https://doi.org/10.1093/clp/8.1.107. Its circularity makes it an unhelpful definition but it does help distinguish criminal from non-criminal law for my purposes.

not mean that I cannot be more precise about what categories or classes of conduct I include under the umbrella of a 'contribution.' In §2.1 I explain that contribution as an umbrella term encompasses four different grounds of liability for producing climate change: direct contributions to climate change via emissions; indirect contributions to climate change such as facilitation of emissions; the legitimation of contributions by action or speech; and the omissions of presiding agents responsible for oversight of the environment. Then §2.2 details who—individuals, corporations, the state—candidate offences may target and precedents for holding those types of agent criminally liable before §2.3 outlines what different sources of emissions by economic sector could be regulated. I combine these discussions to outline a complete list of candidate criminal offences, which are differentiated according to the liability on which they are based, which agents they target, and what economic sectors they affect. The complete list is presented in the conclusion to this chapter.

§2.1 Why might some conduct be liable? What's a 'contribution'?

Not all conduct with some connection to climate change which we might want to regulate is a *contribution*, strictly speaking. In order to better understand why some conduct might be targeted by criminal offences I will outline four different reasons for which an agent might be held liable for climate change. For the time being I set aside whether it is also morally wrong to act in these ways. At least conceptually, legal liability is separable from moral responsibility as, for example, a civil court might rule that I am liable to compensate a victim of an accident I cause blamelessly. As I will discuss in Chapter 3, I think wrongness is a necessary condition of morally permissible criminal liability and so it will become important to connect these forms of liability to a plausible account of moral responsibility later (the task of Chapter 5). For the time being, the aim is only to identify

some candidate offences. All that suffices to find a ground for liability in what follows is whether the conduct has some kind of causal connection to climate change.

What amounts to a cause in law is fraught with complications. Speaking very generally, Anglo-American law requires that an action or omission be a necessary antecedent condition in order to be a cause—e.g. but for the stabbing, a murder would not have occurred. Call this the 'counterfactual test.' Moreover, criminal liability is constrained to proximate counterfactual causes only, with the intention of excluding 'remote' or coincidental counterfactual causes. Speaking more accurately, however, the law often departs from these strictures. Sometimes the counterfactual test has implausible implications for liability, implications to which case law does not acquiesce. For example concurrent shooters are both legally liable for murder even though application of the counterfactual test finds that neither defendant's conduct was a necessary condition of the victim's death because it is true for each defendant that the actions of the other defendant alone were sufficient to kill.[2] Another type of conduct which fails the counterfactual test but nevertheless carries criminal liability is encouraging a person already resolved to offend.[3] So, rather than restrict myself to a test for causation the law does not restrict itself to, the grounds for liability I consider will not always satisfy the counterfactual test.

Although I won't adhere strictly to the counterfactual test, the conduct I consider for criminal liability will, at a minimum, have some causal potential in relation to climate

[2] For this and many other departures from the "cause-in-fact" test in the law see Michael Moore's entry on causation in the law in the Stanford Encyclopedia of Philosophy: Michael S. Moore, "Causation in the Law," Stanford Encyclopedia of Philosophy, 2019, sec. 5.1.2, https://plato.stanford.edu/entries/causation-law/.

[3] A. P. Simester et al., *Simester and Sullivan's Criminal Law: Theory and Doctrine*, 6th ed. (Oxford: Hart, 2016), 264.

harms: be that satisfying the counterfactual test; conduct neither necessary nor sufficient but contributing to a set of events together satisfying the counterfactual test; or raising the likelihood of resultant climate harms. The way I use 'cause' is therefore permissive in the sense that it accepts causes as identified by counterfactual, contributory, and probabilistic accounts of causation in metaphysics. These theories may be construed as rivals, so if one or another is right and the others wrong then it may be incorrect, strictly speaking, to refer to conduct as a cause which passes any one of these theories but not others. The potential impropriety of the term 'cause' is immaterial to the permissibility of criminalisation, however, so there is no need to get hung up on it. What matters for the permissibility of criminalisation is wrongness, as I will argue in Chapter 3, §3.3. Criminal convictions are said to require proof of causation, but that requires only that the defendant caused the proscribed *actus reus* which may itself have little to no relation to an attendant harm. Moreover, we have seen how legal tests for causation are not hard and fast requirements as exceptions are admitted in cases where the counterfactual test has implausible implications for legal liability. All I want to do here is draw a meaningful relationship between the type of conduct raised—contributions, facilitation, legitimation, and oversight—and climate harms as there ought to be some relationship to climate harms, however minimal, since those are what motivate us to consider criminalisation.

§2.1.1 Direct contribution

The first type of conduct I will consider for criminal liability is direct contribution. Direct contributions themselves raise the atmospheric concentration of greenhouse gas via emissions or depleting carbon sinks like forests. Direct contributions may not satisfy the counterfactual test as some theorists maintain that single, ordinary contributions are neither necessary conditions—because other people would contribute instead, or because the contribution has no marginal effect—nor sufficient conditions for climate

harms because a single ordinary contribution has at best imperceptible effects (for the contrary view see Chapter 5, §5.2). Nevertheless, contributions obviously have a contributory relationship to climate harms. Contributions to climate change may each become part of a set of events together sufficient to cause climate harms in the counterfactual sense. We may raise doubts about the blameworthiness of contributions given that they are neither necessary nor sufficient conditions of climate harms, and so challenge criminal liability for them (an argument I discuss in Chapter 5, §5.1) but it is clear that contributions have a (quasi-)causal relationship to climate change because contributions are not immaterial.

§2.1.2 Facilitation

Another form of conduct I consider holding liable is facilitation of climate change. These are acts which make direct contributions possible, such as exploration for, and extraction of, fossil fuels. Facilitation meets the counterfactual test and so there is a strong ground to consider liability for facilitation: *but for* fossil fuel exploration and extraction, direct contributions would not occur. Since direct contributions cause (counterfactually) in combination with other like acts and facilitation makes direct contributions possible, facilitation is part of a causal chain capable of resulting in climate change. Moreover, since many facilitative acts are so grand in scale—e.g. viable drilling and refining prospects must overcome considerable initial overheads and so must be expected to produce vast amounts of fossil fuels for market—individual acts of facilitation may have perceptible effects in themselves, unlike single, ordinary direct contributions.

§2.1.3 Legitimation

The third ground for liability under consideration is legitimation. By legitimation I mean interventions in public discourse which are conducive to further emissions. For instance,

outright denial of the scientific consensus on anthropogenic climate change legitimises emissions by denying their harmful effects, thereby encouraging others to continue with their activities as if harmless. Similarly, misinformation (spreading factually inaccurate information) and disinformation (knowingly propagating factually inaccurate information) muddy the water and leave agents with poorer resources to discriminate between competing claims about the harmfulness of emissions, giving cover to agents to emit business as usual and cover to politicians unwilling to regulate emissions.

Legitimising contributions to climate change have a far more subtle causal relationship to climate change than direct contributions and facilitation. I suggest we can identify legitimation with satisfaction of two individually necessary and collectively sufficient conditions. First, the casual potential of legitimation is that it raises the likelihood of climate change via contributions, facilitation, and oversight omissions. Of course, we cannot be sure that every instance of legitimation has an individual probabilistic effect because multiple important variables might be absent such as the charisma of the speaker, the size of their audience, receptivity of their audience, etc. but, in general, legitimation helps construct a narrative which makes climate change more likely.[4] This condition requires that legitimation is not typically immaterial to climate harms—there should be some probabilistic effect.[5] Second, what separates legitimation from other actions which have merely incidental probabilistic effects is the requirement that

[4] This is the central argument of Oreskes and Conway's famous book: Naomi Oreskes and Erik M. Conway, *Merchants of Doubt* (New York, NY: Bloomsbury Press, 2010). This causal chain is not disputed in academic surveys of climate misinformation: Riley E. Dunlap and Aaron M. McCright, "Organized Climate Change Denial," in *The Oxford Handbook of Climate Change and Society*, ed. John S. Dryzek, Richard B. Norgaard, and David Schlosberg (New York, NY: Oxford University Press, 2011), 144–60, https://doi.org/10.1093/OXFORDHB/9780199566600.003.0010. For closer examination of the causal mechanism of climate denial and misinformation see: Aaron M. McCright and Riley E. Dunlap, "Defeating Kyoto: The Conservative Movement's Impact on U.S. Climate Change Policy," *Social Problems* 50, no. 3 (August 1, 2003): 348–73, https://doi.org/10.1525/sp.2003.50.3.348.

[5] Exactly what kind of effect I'll leave unspecified. For a recent discussion of the rival positions and a defence of one account see: Luke Elson, "Probabilistic Promotion and Ability," *Ergo* 6, no. 34 (2019): 967–98, https://doi.org/10.3998/ergo.12405314.0006.034.

legitimation track interventions in public discourse—words and deeds—contrary to mitigation norms. For instance, climate denial and mis-/disinformation target and undermine mitigation norms by undermining the underlying scientific basis of mitigation pathways.

With legitimation outlined, let me now note two points. First, legitimation might strike the reader as an overbroad, potentially very illiberal ground for criminal liability. But recall that for the time being I am only identifying potential grounds for liability; I have not claimed criminal liability for legitimation is morally justified. In Chapter 5, §5.5 I argue that legitimation, under certain conditions, satisfies the wrongness constraint on morally permissible criminalisation I adopt in Chapter 3 and refine in Chapter 4. However, I discuss a liberal permission to legitimate climate change in the form of a prospective right to do wrong in Chapter 7, §7.1. Second, there may well be hybrid cases of legitimation and some other grounds for liability. These cases are worth noting, but I set aside any wrinkles they may reveal. For instance, building an iconic coal station is surely facilitative but its iconic status is also an intervention in public discourse legitimating other contributions. Moreover, we might consider prominent exploration projects, or prominent infrastructure projects—e.g. pipelines—legitimation as well as facilitation. My classifications later (see §2.4, below, Table 2.1), where contestable, classify the conduct irrespective of special cases.

§2.1.4 Oversight

Finally, I include liability for omissions by presiding agents. Ordinary people are not able to 'rescue' the climate like an ordinary person might be situated to save someone drowning in a pond (although, again, see Chapter 5, §5.2), but sufficiently powerful

government officials are nearer to the position of rescuer when it comes to climate harms. Governments oversee private and commercial contributions, facilitation, and legitimation. Those which lawfully continue only continue lawfully because of executive and legislative omission. Holding those with oversight liable for their omissions is therefore an especially efficient means of combating climate change economy-wide.

The causal relationship of omissions is often clear as they can satisfy the counterfactual test. To give a simplified example: but for government omission to expand and improve the public transport network, total emissions from personal vehicles would not have been as high. And discrete omissions like these accumulate with many other discrete omissions to make sense of the claim that government inaction *causes* climate change. Moreover, government inaction can be a probabilistic cause. Individuals might prefer to collectively reduce their emissions, but in the face of government inaction individuals can have no assurances that their sacrifices won't be undermined by a lack of sacrifice elsewhere, making personal sacrifices less likely.

As a matter of criminal law, liability for omissions is more limited than liability for actions even when an omission is a counterfactual cause.[6] An agent who intentionally allows another to die when it is within their power to assist is not generally guilty of any criminal offence in England and Wales whereas intentional killing amounts to murder. But criminal liability for omissions is not unusual. Of particular importance is the fact that omissions by an agent subject to a legal obligation to act are liable.[7] For example, parents/guardians

[6] For an outline of the law and a normative defence of differential liability see: A. P. Simester, "Why Omissions Are Special," *Legal Theory* 1, no. 3 (1995): 311–35, https://doi.org/10.1017/S135232520000029X.
[7] For this and further exceptions to the general lack of criminal liability for omissions see: Simester et al., *Simester and Sullivan's Criminal Law: Theory and Doctrine*, 75–80.

who do not feed their children are rightfully charged with neglect as they bear special statutory responsibility to adequately care for their children. Analogously, government ministers might be legally obliged to oversee the implementation of national emissions reduction targets (for example) and be held liable for failing to direct their departments in a manner consistent with the target. Of course, as stated that particular obligation is objectionably vague, but for now all that I mean to make clear is the precedent for holding omissions criminally liable and its principled applicability to government ministers. I discuss a particular obligation, a duty to maintain the public trust, and its implications in §2.2.3, below and Chapter 7, §7.5.

§2.2 Who might be liable?

I now turn to the question of *who* could be held liable after providing some clarity on *why* they might be liable. Here I distinguish three types of possible offender and raise (where appropriate) some existing literatures on holding each type of agent criminally liable.

§2.2.1 Individuals

I take it that individuals are the paradigmatic criminal agent and so long as we are not abolitionists (see Chapter 1, §1.4.3), we will think holding some individuals criminally liable to be defensible. The dominant debate between theories of criminal responsibility assumes as much, questioning what it is about individuals that we hold liable rather than whether we should. According to one view we ought to hold individuals criminally liable for their agency manifested exclusively in particular *acts* and according to the main competing view we ought to hold individuals criminally liable for their *character*.[8] Neither

[8] For an example of the former "act" view see: R. A. Duff, "Choice, Character, and Criminal Liability," *Law and Philosophy* 12, no. 4 (1993): 345–83, https://doi.org/10.2307/3504954; and for an example of the latter "character" view see: Victor Tadros, *Criminal Responsibility* (New York, NY: Oxford University Press, 2005).

view denies the point I am proceeding with: that individuals are legitimate targets of criminal liability.

§2.2.2 Corporations

Another type of agent which I consider targeting is the corporation. One hundred companies produced the fossil-fuels resulting in more than 70 per cent of greenhouse gas emissions since 1988.[9] What is principally important about this statistic for my purposes is that it demonstrates that a significant majority of emissions pass through companies. Even accepting that these companies serve downstream demand from individuals, smaller companies, and states, the preceding statistic directs attention to possible corporate criminal responsibility as part of a package of measures to mitigate climate change. Targeting corporations is an especially effective means to nip excess contributions in the bud by regulating supply. The fact that only 100 companies produced such a large share just goes to show that we might be able to target very efficiently. Moreover, a focus on systemic sources of emissions is increasingly pivotal to climate justice movements concerned that focus on structural change is displaced by isolated magnification of individual lifestyle choices.[10] To be clear, by corporations I do not mean large companies only. I use corporation in its more formal sense of an organised collective: inclusive of large companies, smaller for-profit businesses, non-profit business and member organisations. But given their power and scope, large for-profit companies are the most efficient targets of criminal liability.

[9] Excluding some land use emissions. See: Paul Griffin, "CDP Carbon Majors Report," 2017, 8.
[10] For example, climate scientist Michael Mann is particularly vocal on this matter. E.g.: Robin McKie, "Climate Change Deniers' New Battle Front Attacked," *The Guardian*, November 4, 2019.

The most vexing question for proposals to hold corporations criminally liable is how exactly a corporation can bear resulting sanctions. Sanctions may be borne by the corporation itself or borne by executives personally but neither approach is without difficulties. For sanctions borne by executives, the problem is primarily one of ensuring the executive is themselves sufficiently morally responsible. As a matter of law, executives are strictly criminally liable without proof of personal *mens rea* in some cases. This is true of the 'responsible corporate officer doctrine' in US case law,[11] and UK health and safety regulations among others.[12] Holding executives liable without demonstrating *mens rea* raises moral objections as the executive held liable might not themselves have acted morally wrongly and if one endorses the view that criminal liability must track wrongdoing (as I do in Chapter 3) then these practices are at least suspect. Of course, we might plausibly claim that corporate executives voluntarily adopt their positions and its attendant liabilities and are handsomely paid in part because they are liable, thereby justifying their liability; but in order to avoid this problem, let me stipulate that executives are only to be held criminally liable by the candidate offences I list when individual *mens rea* can be proven. This is part of a general argumentative strategy to be as concessive as possible and see what follows; relying on a claim about executive liability would introduce an unnecessary point of departure at this stage. Relevant proof of *mens rea* for corporate executives can rely on existing doctrines of connivance (agreement to

[11] For an argument for the injustice of this doctrine see: Samuel W. Buell, "The Responsibility Gap in Corporate Crime," *Criminal Law and Philosophy* 12, no. 3 (2018): 471–91, https://doi.org/10.1007/s11572-017-9434-9; for arguments in favour see: Todd S. Aagaard, "A Fresh Look at the Responsible Relation Doctrine," *The Journal of Criminal Law and Criminology* 96, no. 4 (2006): 1245–91, https://doi.org/10.2307/40042809; Kimberly Kessler Ferzan, "Probing the Depths of the Responsible Corporate Officer's Duty," *Criminal Law and Philosophy* 12, no. 3 (2018): 455–69, https://doi.org/10.1007/s11572-017-9429-6.

[12] For instance, health and safety law: UK Health and Safety Executive, "Proceedings against Director, Manager, Secretary or Other Similar Officer - Investigation - Enforcement Guide (England & Wales)," accessed August 24, 2018, http://www.hse.gov.uk/enforce/enforcementguide/investigation/identifying-directors.htm.

corporate action with knowledge of criminality) or consent (agreement to corporate action without knowledge of criminality).[13]

As for sanctions borne by the corporation itself, strict liability is arguably less contentious as some reasons for assurance against criminalisation without wrongdoing could be less pressing when the criminalised agent is not a natural person—it might, for instance, be less worrying to inappropriately condemn a fictitious legal agent than a natural person (reasons for adopting a wrongness constraint are considered in Chapter 3, §3.3). Some authors who believe holding corporate bodies strictly criminally liable to be less problematic consider corporate criminal liability as a reasonable risk counterbalancing the benefits of enterprise, for instance.[14] But once again I can set this sticking point aside: I'll stipulate that corporate *mens rea* must be demonstrated to prove guilt of the candidate offences I list. There are well-established methods of proving corporate *mens rea* by determining the 'directing mind' of the organisation.[15]

Compared with determining *mens rea*, designing meaningful sanctions borne by the corporation itself is a trickier matter. Partly because corporations cannot be imprisoned, guilty corporations are typically fined. The problem with a fine, however, is that it may be considered just another cost of business on a balance sheet. If the criminal conduct is profitable even accounting for fines, then we can expect economically self-interested

[13] Ibid.
[14] Douglas Brodie, "Enterprise Liability: Justifying Vicarious Liability," *Oxford Journal of Legal Studies* 27, no. 3 (2007): 493–508, https://doi.org/10.1093/ojls/gqm011; but see, for instance, the debate in US law as to the propriety of the respondeat superior doctrine, e.g.: Ralph C. Ferrara and Diane Sanger, "Derivative Liability in Securites Law: Controlling Person Liability, Respondeat Superior, and Aiding and Abetting," *Washington and Lee Law Review* 40 (1983): 1007–35; William J. Fitzpatrick and Ronald T. Carman, "Respondeat Superior and the Federal Securities Laws: A Round Peg in a Square Hole," *Hofstra Law Review* 12 (1983): 1–38.
[15] UK Crown Prosecution Service, "Corporate Prosecutions - Legal Guidance," accessed August 24, 2018, https://www.cps.gov.uk/legal-guidance/corporate-prosecutions.

corporations to pursue profits despite criminal liability. As a result, some innovation in sentencing is required.[16] Some *prima facie* non-financial sanctions include community service and adverse publicity—where adverse publicity is the public advertisement of corporate guilt to the public.[17] But some non-financial costs will be monetised to some extent—community service is just additional labour cost, and adverse publicity reduces turnover—so more innovative financial sanctions should be considered. At the less severe end, sanctions could include punitive taxation or profit seizure and at the more severe end: mandatory splitting-up, non-profit status imposition, nationalisation, or even dissolution.[18]

Sanctioning corporations in innovative ways raises objections as shareholders bear cost in lost earnings or lost capital. This is supposedly objectionable because shareholders delegate operational responsibility to company directors. However, multiple responses to this objection are available. First, shareholders bear the cost of ordinary punitive fines to some degree: if the fine is big enough then dividends and stock may decrease in value. Presumably no one thinks this means corporations must be excused from fines as well. Complete shareholder immunisation implausibly requires almost total corporate impunity and so a reasonable balance must be struck somewhere. Further responses suggest this balance should be struck with a large degree of shareholder risk.

[16] Several proposals have been floated by Richard Gruner many of which I list above. See: Richard S. Gruner, "Beyond Fines: Innovative Corporate Sentences under Federal Sentencing Guidelines," *Washington University Law Quarterly* 71 (1993).
[17] For more on adverse publicity see: Andrea A. Curcio, "Painful Publicity - An Alternative Punitive Damage Sanction," *DePaul Law Review* 45 (1995).
[18] On the most severe sanction, dissolving a corporation, see a recent defence of the "corporate death penalty": Mary Kreiner Ramirez and Steven A. Ramirez, *The Case for the Corporate Death Penalty: Restoring Law and Order on Wall Street* (New York, NY: New York University Press, 2017). See also Markoff, who disputes the objection that onerous corporate sanctions (short of deliberate dissolution) would be ruinous: Gabriel Markoff, "Arthur Andersen and the Myth of the Corporate Death Penalty: Corporate Criminal Convictions in the Twenty-First Century," *University of Pennsylvania Journal of Business Law* 15, no. 3 (2013): 797–842. Both discussions focus on the US, but I expect there are several parallels which may be drawn.

Second, stockholding is often an optional risk and investments are prospects not guarantees.[19] Since stock is vulnerable to market fluctuations for which shareholders are not at fault, it is unclear why shareholders should be protected from other losses on the grounds that they are faultless. It is not as if stocks are the sole means for capital investment either: index funds (i.e. pooled stocks) and government bonds are available to those seeking more assured returns.

Third, to the extent that shareholders are genuinely faultless and have suffered losses as a result of the culpable choices of executives, shareholders may claim for damages in civil court. In addition, the dispersion of hardship to faultless individuals by criminal sanctions is commonplace—consider impacts to the dependents of those imprisoned as a particularly stark case. Collateral damage such as this should give us pause, and requires us to consider whether the good achieved by criminalisation is worth these sorts of costs (I address questions like this in Chapter 7), but do not undermine criminalisation *tout court*.[20] Where the barriers to civil remedy are too high, it may be that a state which criminalises must provide a minimum standard of living—robust unemployment provisions, child support, and so on—to counteract the undesirable effects of criminalisation, but this makes criminalisation conditional, not unjustifiable.

[19] Whether stock holding through a pension scheme is an option is contestable. Certainly, there is no wholesale state insurance/guarantor for all pension funds. But divestment campaigns demonstrate there is some optionality about where pension funds invest.
[20] I disagree, therefore, with Thompson who, on consideration of the dispersion of punishment shifts focus to holding executives criminally liable. See: Dennis F. Thompson, “Criminal Responsibility in Government,” *Nomos* 27 (1985): 214, https://doi.org/10.2307/24219389.

Dispersing blame is another matter, but it is not clear that blame is dispersed in the same way as sanctions. Corporate bodies can be blameworthy but several members and associates simultaneously blameless. I am not necessarily to blame for my state's wrongdoing, for example, and not thereby blamed by association by international condemnation even if I am on the hook to contribute, via taxes, to state compensation.[21] Meanwhile the blamelessness of third parties is clearer still. Consequently, the inevitable dispersion of corporate sanctions does not present an insurmountable challenge to holding corporations criminally liable.

To bring this section together, corporations are a natural target of criminal liability. There are established means for determining corporate and corporate executive *mens rea*, and I reject strict corporate liability in order to set objections to strict liability aside. Moreover, there are established and prospective means to sanction corporations which may not disperse sanctions on to blameless parties to an objectionable degree. Consequently, corporations may be held liable for their contributions to climate change feasibly and reasonably.

§2.2.3 The state

I will also consider holding the state, ultimately another especially powerful corporate body, criminally liable for its role in the production of climate harms. While statutory law currently permits state oversight of dangerous climate change, the Public Trust Doctrine—an old Anglo-American legal precedent—originally held government responsible for adequately maintaining public goods such as waterways. The Public Trust could be resurrected to hold ministers criminally accountable for climate change

[21] See this distinction at use in: Anna Stilz, "Collective Responsibility and the State," *Journal of Political Philosophy* 19, no. 2 (June 1, 2011): 194–95, https://doi.org/10.1111/j.1467-9760.2010.00360.x.

(and or environmental damage in general) by interpreting the makeup of the atmosphere (and or the environment more broadly) as a public good and criminalising mismanagement.[22] It could be implemented by means of lawsuit with the aim of re-establishing and strengthening the Public Trust in case law, or, more likely, a model for new statutory criminal legislation to hold ministers accountable for unchecked warming on their watch.[23] Such a law would be especially useful at convincing ministers not to stray from emission-reduction schemes in the face of popular, or industry, pressure.

Since I'm discussing domestic law only (see, Chapter 1, §1.4.5) the situation under discussion is the state prosecuting itself. As this appears paradoxical, to be clear I am discussing one component of the state prosecuting another: "criminal responsibility of government simply means that one part of the government pronounces judgment and imposes sanctions on another part (agencies as well as officials)."[24] Robustly compartmentalised liberal states have mechanisms to prosecute themselves, to the extent that they have constitutionally separated branches of government. But despite a separation of powers, it remains implausible for the state itself, the corporate body, to become defendant since it is the state (in criminal cases) which prosecutes. If it were to be found guilty the state would then also find itself in further contradictory positions: punisher and punished, possessing a right to pardon and applying for pardon. Limiting myself to domestic law, then, I limit myself to considering holding state *representative* agents liable. Some examples include: government ministers responsible for the

[22] Gerald Torres, "Joe Sax and the Public Trust," *Environmental Law* 45, no. 2 (2015): 379–98; Mary Christina Wood, *Nature's Trust: Environmental Law for a New Ecological Age* (Cambridge: Cambridge University Press, 2012), https://doi.org/10.1017/CBO9781139013819.
[23] The low likelihood of success of a lawsuit leads some to object to legal action because they do not want further precedent exempting the state from responsibility. That might well be true, but the case for statutory legislation is not curtailed by this observation. Moreover, in the UK, unlike US Supreme Court decisions on constitutionality, statute can overrule legal precedent and media coverage of the lawsuit might grow a movement. Contrast this with the much greater difficulty of amending the US constitution.
[24] Thompson, "Criminal Responsibility in Government," 217.

environment; ministers for justice or attorneys general responsible for ensuring compliance with legally binding international climate agreements; and (in parliamentary systems at least) Prime Ministers whose responsibilities overlap with their subordinates and include responsibility for martialling their legislative majority to combat serious threats (if not responsibility for furthering justice, social, distributive, etc., more broadly).

Criminal laws affecting government ministers in their role as ministers—not merely their criminal liability as citizens—are rare, but not unheard of. In England and Wales, the offence at common law of misconduct in public office applies only to public office holders and the statutory crime of receiving a bribe can only be committed by office holders (public and private)—both inclusive of government ministers.[25] Still, there is to my knowledge no offence which holds only government ministers criminally liable rather than public office holders more broadly.[26] Creating a statutory duty for which government ministers only are criminally liable would therefore be unique. However, a proposed crime is not objectionable merely because it is unique. Moreover, the inexactness of misconduct in public office means that implementing a statutory duty to protect the public trust is arguably no great departure from the present theoretical reality. Construed broadly, 'neglecting a duty leading to a risk of serious harm'—one interpretation of the *actus reus* for misconduct in public office—could include ministerial neglect of some existing legal duties, such as for instance, obstructing implementation of 2008 Climate Change Act five-year reduction plans, which threatens serious climate harms. As it stands, the offence of misconduct in public office fails to precisely define how a duty

[25] On misconduct in public office see: The Law Commission, "Misconduct in Public Office Issues Paper 1: The Current Law," 2016, chap. 2, https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2016/01/misconduct_in_public_office_issues-1.pdf. On bribery see Bribery Act, 2010, c.23, s.2-3.

[26] Although see the special constitutional duties binding government ministers exclusively, breach of which may amount to a criminal offence. On this possibility see: European Commission for Democracy Through Law (Venice Commission), "Report on the Relationship Between Political and Criminal Ministerial Responsibility," 2013, para. 54.

must be breached or which types of harm are sufficient for committing an offence.[27] Although misconduct in public office requires recklessness—with regard to both the existence of a legal duty and the risk of resultant serious harm—a new statutory offence of 'spoiling the atmospheric public trust' satisfied by mere negligence (a weaker class of culpability) would not be a great departure from the present theoretical liability to a charge of misconduct in public office.[28] Therefore, I deem it reasonable to consider criminal liability for government ministers.

§2.3 What might be liable?

Let me now turn to 'what' might be liable, rather than who might be liable and why. As each of us knows, almost everything we do has associated emissions. It is simply not plausible, let alone desirable, for absolutely all our activities to be criminally liable. We need to pinpoint some types of conduct for special attention. That is the task of this section. I discuss several economic sectors categorised by IPCC reports in order to identify what conduct could be productively targeted. With the who, what, and why questions answered I will then provide a complete list of candidate offences under consideration in §2.4.

But first, a further clarification. In addition to selecting some types of conduct, some division of responsibility is required to separate unavoidable systemic features of our economy, with which individuals must interact, from the discretionary contributions of agents. At the very least it is ineffective to hold agents liable for contributions they cannot

[27] The Law Commission, "Reforming Misconduct in Public Office: Consultation Paper Summary," 2016, 6, https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2016/09/cp229_misconduct_in_public_office_summary.pdf.
[28] On the existing mens rea requirement see: The Law Commission, "Misconduct in Public Office Issues Paper 1: The Current Law," 40–42.

control (plus, it seems to violate the 'wrongness constraint' I will defend in Chapter 3, §3.3). In large part I can easily amend my personal vehicle travel by switching to walking and cycling short distances, for example, but I cannot easily reduce the embedded carbon in my (plant-based) food. The former is within my power to change—subject to some minimal conditions such as being able-bodied, mildly fit, etc.—whereas the latter involves complex multi-layered systems which combine to produce a standard supply of goods at the supermarket. I can make some limited forays into local food networks,[29] but supermarkets in large part displace more localised supply chains. So, although almost all contributions can be ascribed to an end-user, end-users are not always ideal sites of liability; liability is best ascribed to an agent with decision-making power in the system. Consequently, I am not discussing holding individuals criminally liable for contributions *per se*, as individuals are criminally liable for assaults *per se.* I consider criminal liability for only some contributions—those best addressed by individual liability. Nor am I discussing holding corporations criminally liable for contributions *per se*, but liability for some types of contribution.

In what follows the aim is to pinpoint some especially productive proposals to set the focus for the thesis to come. I do not claim, therefore, to uncover and design ideal criminal legislation. My aim is to test the normative case for criminalisation of contributions to climate change in general, and for that only a sketch of relevant prohibitions is necessary. I discuss particular matters on drafting legislation as appropriate in later chapters, especially Chapter 6 and Chapter 7, rather than spend time and energy drafting extensive candidate offences at the outset.

[29] In any case this might be self-defeating as local food networks may be more carbon intensive (there may be door-to-door deliveries and greenhousing produce in less-hospitable climates may be more energy intensive than transport from hospitable climates) and might not be best, morally speaking, if demand is withdrawn from developing country producers.

§2.3.1 Energy

Figure 2.1 (below) details the global greenhouse gas (GHG) emissions of all economic sectors in a pie chart:

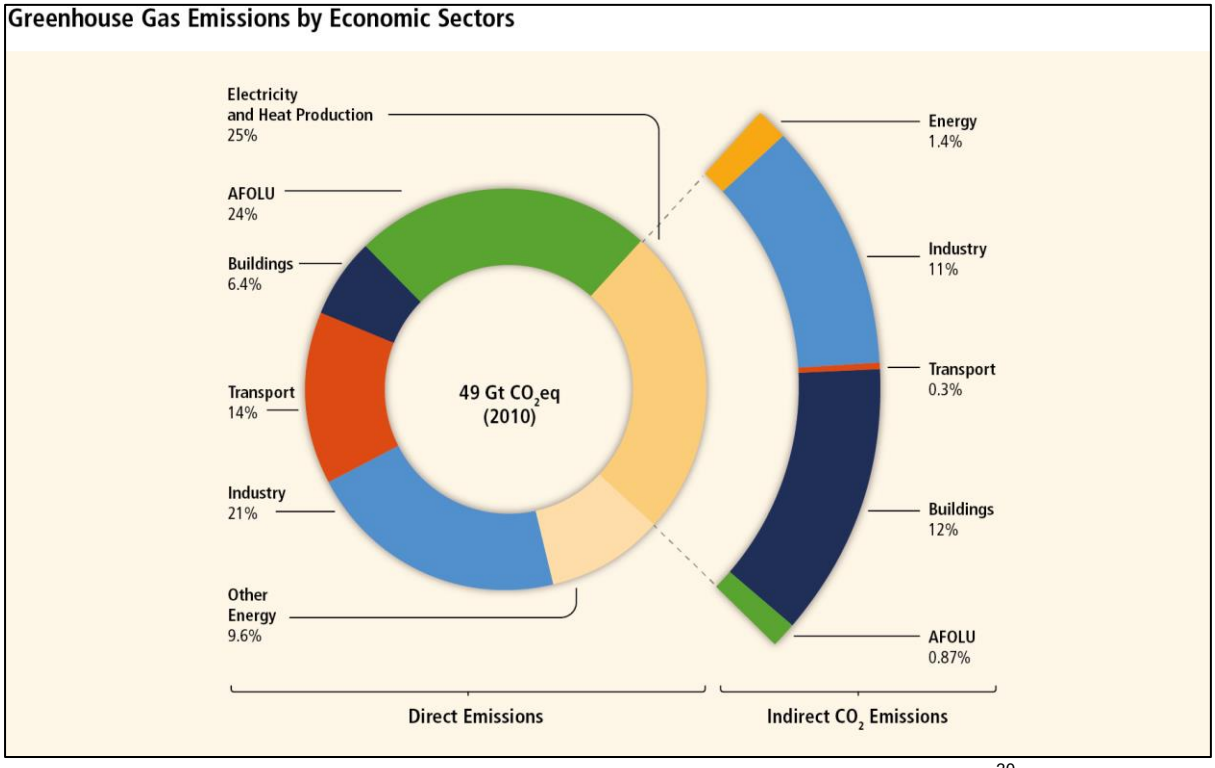

Figure 2.1: "Total anthropogenic GHG emissions (GtCO2eq/yr) by economic sectors…"[30]

The pie chart details each economic sector's percentage contribution to total global GHG emissions in the year 2010. Although relatively dated now, this is the data presented in the most recent IPCC Assessment Report available at the time of writing and I prefer provenance to currency. Although the shares may have changed somewhat, my arguments do not rely on precise percentages. The total, 49 gigatonnes, is measured in

[30] Original legend continued: "...Inner circle shows direct GHG emission shares (in % of total anthropogenic GHG emissions) of five economic sectors in 2010. Pull-out shows how indirect CO2 emission shares (in % of total anthropogenic GHG emissions) from electricity and heat production are attributed to sectors of final energy use. 'Other Energy' refers to all GHG emission sources in the energy sector as defined in Annex II other than electricity and heat production [A.II.9.1]. The emissions data from Agriculture, Forestry and Other Land Use (AFOLU) includes land-based CO2 emissions from forest fires, peat fires and peat decay that approximate to net CO2flux from the Forestry and Other Land Use (FOLU) sub-sector as described in Chapter 11 of this report. Emissions are converted into CO2-equivalents based on GWP1006 from the IPCC Second Assessment Report. Sector definitions are provided in Annex II.9. [Figure 1.3a, Figure TS.3 upper panel]". IPCC, "Summary for Policymakers (AR5 WG3)," in *Climate Change 2014 Mitigation of Climate Change*, ed. Ottmar Edenhofer et al. (Cambridge: Cambridge University Press, 2014), fig. SPM.2.

CO_2 equivalent, a way of combining the varied effects of multiple different greenhouses gases into one metric for comparability. One gigatonne is equivalent to one billion metric tonnes.

The IPCC attributes 35% of total emissions from 2010 to the energy sector.[31] 35% is the sum of 'other energy' and all 'indirect' emissions from Figure 2.1 above. On its face, 35% makes the energy sector the largest contributor to climate change and suggests mitigation of the energy sector's contribution should be the centrepiece of mitigation efforts. But this figure is arguably deceiving, since 25 percentage points of 'indirect emissions' may be attributed to end-use sectors. This is energy which the energy industry provides in order to meet the demand of other sectors. 'Other energy', which makes up the bulk of the remainder of emissions attributed to the energy sector by the IPCC is a consequence of energy "extraction, conversion, storage, transmission, and distribution."[32] Finally, 1.4% of 'indirect emissions' are re-attributable to the energy sector as end-use demand for their own product. If we ought to attribute the end-use energy of other sectors to those other sectors, then the more accurate figure attributable to the energy industry is approximately 11% of total anthropogenic GHG emissions: the sum of 'other energy' and re-attributable 'indirect emissions'.[33] Reduction to 11% remains a considerable sum and, even if no longer the centrepiece of mitigation strategies, the energy sector is a crucial component of mitigation strategies nevertheless.

[31] IPCC, *Climate Change 2014 Mitigation of Climate Change*, ed. Ottmar Edenhofer et al. (Cambridge: Cambridge University Press, 2014), 518.
[32] IPCC, 518, insightful illustration of the processes in fig. 7.1.
[33] But note that the energy sector is growing and this could have increased its proportion by the time of writing: Ibid., 518.

Ultimately, many of the mitigation options for the energy sector itself will be driven by technological advancements in efficiencies and decarbonising the production and supply chain.[34] However, IPCC authors note behavioural barriers to adoption of the required technologies:

> Though only a fraction of the available private-sector capital stock would be needed to cover the costs of low-GHG energy supply even in aggressive GHG-reduction scenarios, private capital will not be mobilized automatically for such purposes. For this reason, various measures—such as climate investment funds, carbon pricing, feed-in tariffs, RE [renewable energy] quotas and RE-tendering/bidding schemes, carbon offset markets, removal of fossil fuel subsidies and private/public initiatives aimed at lowering barriers for investors—are currently being implemented, and still more measures may be needed to achieve low-GHG stabilization scenarios.[35]

One more measure for shifting capital to low- and zero-carbon energy technologies not countenanced in the quote above is compulsory displacement of fossil-fuel energy investment by criminalising large portions of investment channels. As the market stands, capital would not be 'mobilized automatically' for renewable energy, but capital is unlikely to leave the renewable energy sector underfinanced when investment in traditional fuels is made unavailable to it by threat of criminal liability. In fact, investors can expect broadly equivalent returns from non-fossil fuel investments.[36]

Two further means for shifting production to renewables are banning fossil-fuel exploration and extraction.[37] Because "less than half the proven economically

[34] Ibid., 527-541.
[35] Ibid., 552.
[36] Auke Plantinga and Bert Scholtens, "The Financial Impact of Fossil Fuel Divestment," *Climate Policy*, n.d., https://doi.org/10.1080/14693062.2020.1806020.
[37] Fergus Green and Richard Denniss, "Cutting with Both Arms of the Scissors: The Economic and Political Case for Restrictive Supply-Side Climate Policies," *Climatic Change* 150, no. 1–2 (2018): 73–87, https://doi.org/10.1007/s10584-018-2162-x.

recoverable oil, gas and coal reserves can still be emitted up to 2050 to remain below 2°C of warming," further exploration is completely unnecessary and makes excess emissions possible into the much further future.[38] Furthermore, a strict cap on extraction must be entertained because over-extraction facilitates emissions in two ways: one is making the product available to purchase, another is that adding to market supply, in turn lowering prices, makes fossil-fuels a more economically attractive proposal.[39]

Considering the impact of the energy industry therefore reveals the prospect of: (1) criminalising fossil fuel investments which facilitate continued contributions; (2) banning fossil fuel exploration on the grounds of its facilitative effect; and (3) banning fossil fuel extraction without a permit on the grounds of its facilitative effect.

§2.3.2 Industry

As shown in Figure 2.1 (above), total direct and indirect contributions from the industrial sector comprise roughly 32% of all anthropogenic GHG emissions. Although there is no magic bullet for mitigating this sector's contribution, multiple strategies are available:

> An absolute reduction in emissions from the industry sector will require deployment of a broad set of mitigation options that go beyond energy efficiency measures. In the context of continued overall growth in industrial demand, substantial reductions from the sector will require parallel efforts to increase emissions efficiency (e.g., through fuel and feedstock switching or CCS); material use efficiency (e. g., less

[38] Meinshausen et al., "Greenhouse-Gas Emission Targets for Limiting Global Warming to 2 °C."
[39] For a (sub-) national case study of the expected effects of prohibiting fossil fuel extraction see: Peter Erickson, Michael Lazarus, and Georgia Piggot, "Limiting Fossil Fuel Production as the next Big Step in Climate Policy," *Nature Climate Change* 8, no. 12 (2018): 1037–43, https://doi.org/10.1038/s41558-018-0337-0. For a relevant discussion of how to design policy on phasing out fossil-fuel extraction in a just way see: Greg Muttitt and Sivan Kartha, "Equity, Climate Justice and Fossil Fuel Extraction: Principles for a Managed Phase Out," *Climate Policy* 20, no. 8 (2020): 1024–42, https://doi.org/10.1080/14693062.2020.1763900.

> scrap, new product design); recycling and re-use of materials and products; product-service efficiency (e. g., more intensive use of products through car sharing, longer life for products); radical product innovations (e. g., alternatives to cement); as well as service demand reductions. Lack of policy and experiences in material and product-service efficiency are major barriers.[40]

Most suggestions in the quoted text from the IPCC, above, are technological changes and efficiencies. Industry standards in statutory regulation are welcome, but it is likely that direct criminal regulation of each technical standard would be highly onerous to administer. However, a robust industry carbon rationing scheme backed by criminal, rather than civil, sanctions could adjust incentives to catalyse technological and efficiency innovation at the micro level. Corporate rations could be modelled on, but importantly different from, the European Union Emissions Trading Scheme (EU ETS).

Like the EU ETS, rations could be tradeable in order to provide economic incentive to companies to implement energy efficiencies by selling their surplus ration, and in order to achieve some of the relative benefits of regulating via economic instruments rather than direct command and control. Generally speaking, economic instruments are advantageous when solutions predictably differ from agent to agent and the regulator lacks contextual information.[41] Also, rations could be calibrated to past data of spent ETS allowances to ensure realistic aggregate limits. But unlike the EU ETS, breaching a corporate rationing policy could be directly criminally liable (in contrast to indirect criminal liability where criminal liability follows only if an agent does not comply with civil sanctions); rations could regulate a greater number of large businesses and not just the

[40] IPCC, "Technical Summary (AR5 WG3)," in *Climate Change 2014 Mitigation of Climate Change*, ed. Ottmar Edenhofer et al. (Cambridge: Cambridge University Press, 2014), 82.
[41] A quick explanation of the relative theoretical benefits of economic regulatory instruments can be found in: Cameron Hepburn, "Regulation by Prices, Quantities, or Both: A Review of Instrument Choice," *Oxford Review of Economic Policy* 22, no. 2 (2006): 228–29, https://doi.org/10.1093/oxrep/grj014.

most energy intensive installations (e.g. factories and power plants); and the rationing system ought to learn from experience with the EU ETS and correct for problems—such as the over-allocation of allowances, amongst others—which have limited incentives to implement energy efficiencies.[42]

Although many technical standards are not best enforced with criminal sanctions, some industrial processes would lend themselves to direct criminal enforcement. "Globally, only about 20% of municipal solid waste (MSW) is recycled and about 14% is treated with energy recovery while the rest is deposited in open dumpsites or landfills. About 47% of wastewater produced in the domestic and manufacturing sectors is still untreated."[43] But, "often there are no clear incentives either for suppliers or consumers to address improvements in material or product-service efficiency, or to reduce product demand."[44] Internalisation of the social cost of waste mismanagement through the threat of criminal sanction would provide exactly the sort of incentive IPCC authors note is lacking.

UK statistics make for considerably better reading than the global average, however. In 2018, 45% of UK waste from households was recycled, and only 11% of landfill waste originated from households whereas 76% of all waste incinerated with energy recovery is from households.[45] Still, that leaves a lot to be desired. Incineration contributes to

[42] For an overview of criticisms of the EU ETS, accompanied by a prescription to improve the scheme rather than scrap it, see: Frédéric Branger, Oskar Lecuyer, and Philippe Quirion, "The European Union Emissions Trading Scheme: Should We Throw the Flagship out with the Bathwater?," *Wiley Interdisciplinary Reviews: Climate Change* 6, no. 1 (2015): 9–16, https://doi.org/10.1002/wcc.326. Branger et al. note the unfair distributional effects of the ETS and suggest complementary policies to stop or remedy these effects. For more on normative conditions for a just emissions trading scheme, which will be similar to the normative conditions for a just corporate carbon rationing scheme, see: Simon Caney, "Markets, Morality and Climate Change: What, If Anything, Is Wrong with Emissions Trading?," *New Political Economy* 15, no. 2 (2010): 197–224, https://doi.org/10.1080/13563460903586202.
[43] IPCC, "Technical Summary (AR5 WG3)," 82.
[44] Ibid., 83.
[45] UK Department for Environment Food and Rural Affairs and Government Statistical Service, "UK Statistics on Waste," March 19, 2020, figs. 3 & 15, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/918270/

climate change without, presently lacking, carbon capture and storage (CCS) technology; biodegradable waste sent to landfill produces methane via anaerobic digestion; and unnecessary production of wasted materials generates emissions in production, transportation, and treatment.

England's waste strategy primarily plans to incentivise reduction of waste at source via economic instruments to make producers pay for the costs of disposal.[46] As mentioned above, the variable solutions from agent to agent, product to product, suggest economic regulation will be often advantageous compared with bans. Nevertheless, contributions embedded in manufactured materials could be accounted in corporate carbon rations backed by criminal sanctions. More directly, present strategy is to support voluntary schemes for manufacturers to eliminate unnecessary single-use plastics and consider bans where appropriate when the ready availability of equally suitable alternatives appears to be all that is necessary to demonstrate a ban would be appropriate.[47] It is hard to believe, moreover, that there are no commercial products (as distinct from consumer products) which could not be productively banned on similar grounds. Finally, incentivisation of resource efficiency might be productively supplemented by criminally enforced legislation stopping short of outright bans, such as a legal duty to justify the use

UK_Statistics_on_Waste_statistical_notice_March_2020_accessible_FINAL_updated_size_12.pdf. Municipal waste and "waste from households" are comparable but not exactly similar. Also, to my knowledge there is no widely available statistic for the percentage of all UK household waste sent to landfill. The 11% quoted above is 11% of all waste sent to landfill is from households, not that 11% of all household waste is sent to landfill; the same is true for the incineration figure.

[46] UK Department for Environment Food and Rural Affairs, "Our Waste, Our Resources: A Strategy for England," 2018, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/765914/resources-waste-strategy-dec-2018.pdf, but also note its planned requirement for separate food waste municipal collections to tackle the problem of biodegradable waste to landfill. For a summary of resource-efficiency strategies see: Catherine Cherry et al., "Public Acceptance of Resource-Efficiency Strategies to Mitigate Climate Change," *Nature Climate Change* 8, no. 11 (2018): 1007–12, https://doi.org/10.1038/s41558-018-0298-3.

[47] UK Department for Environment Food and Rural Affairs, "Our Waste, Our Resources: A Strategy for England," 54; The UK Plastics Pact, "Eliminating Problem Plastics," September 2019, https://wrap.org.uk/sites/default/files/2020-08/WRAP-eliminating-problem-plastics-v2.pdf.

of certain problematic materials (e.g. black plastics typically undetectable in sorting facilities) or certain problematic designs (e.g. duplicate non-recyclable packaging in multipacks, such as multipacks of crisps).[48] At present, by contrast, England's waste strategy mentions criminal law exclusively in the context of enforcing existing criminal offences.

Consideration of the industrial sector therefore gives us two offences to consider: (1) a strengthening of existing corporate carbon permitting scheme so that it is backed by criminal, rather than civil, sanctions on the grounds of reducing direct corporate contributions; and (2) a strengthening of existing waste management regulations to criminalise varying kinds of excess waste production on the grounds that the raw production of replacement materials, their transport, and their end-of-life management directly contribute to climate change.

§2.3.3 Transport

Figure 2.1 (above) details the global GHG contribution of the transport sector at slightly above 14%. Figure 2.2 (below) disaggregates this data by transport type:

[48] UK Department for Environment Food and Rural Affairs, "Our Waste, Our Resources: A Strategy for England," 34–35.

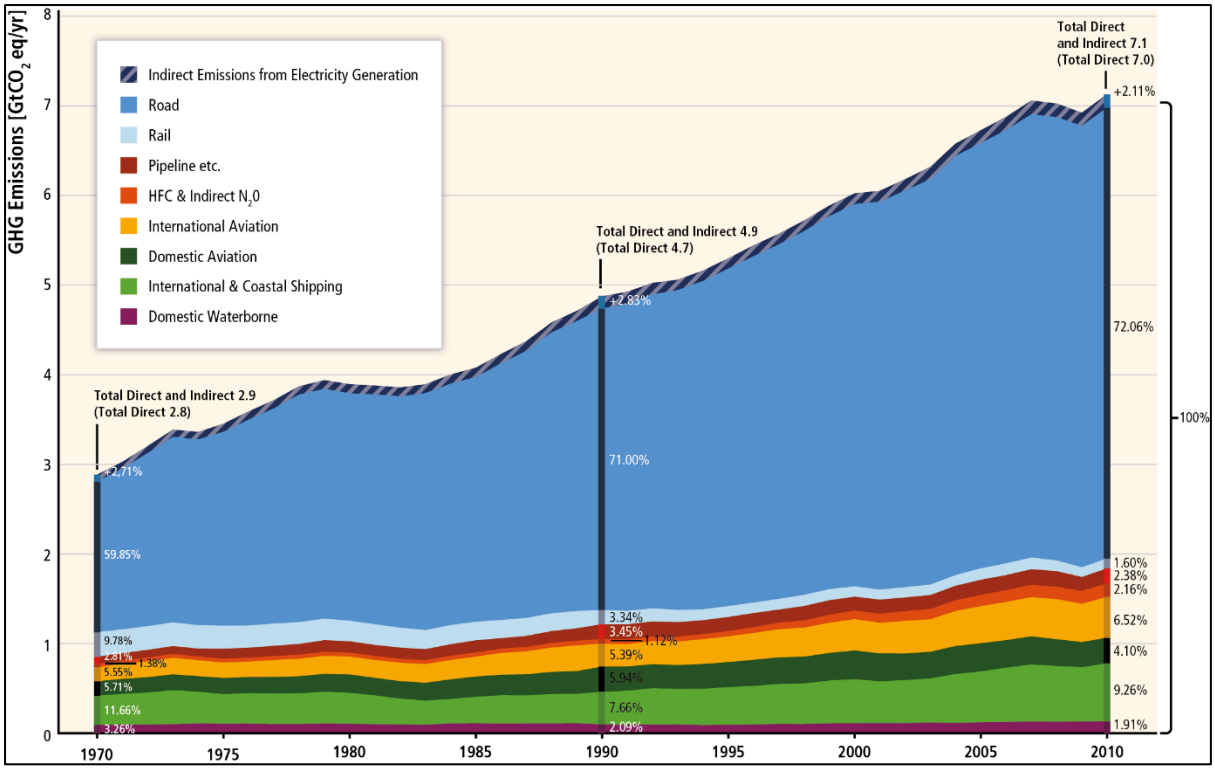

Figure 2.2: "Direct GHG emissions of the transport sector…"[49]

As is clear, road travel accounts for a substantial majority of transport emissions at more than 70%. Total aviation and total shipping are not inconsiderable either at roughly 10% each. Fortunately, significant mitigation is possible in this sector:

> A combination of low-carbon fuels, the uptake of improved vehicle and engine performance technologies, behavioural change leading to avoided journeys and modal shifts, investments in related infrastructure and changes in the built environment, together offer a high mitigation potential.[50]

These solutions would make progress—low-carbon fuels curtail emissions and much personal transport can be reduced by improved national public transport infrastructure. However, low-carbon fuels continue emissions which will need to be offset elsewhere in

[49] Original legend continued: "...(shown here by transport mode) rose 250% from 2.8 Gt CO2eq worldwide in 1970 to 7.0 Gt CO2eqin 2010 (IEA, 2012a; JRC/PBL, 2013; see Annex II.8). Note: Indirect emissions from production of fuels, vehicle manufacturing, infrastructure construction etc. are not included." IPCC, *Clim. Chang. 2014 Mitig. Clim. Chang.*, fig. 8.1.
[50] IPCC, "Technical Summary (AR5 WG3)," 73.

future net-zero and net-negative scenarios; public transport does not prevent discretionary personal vehicle use; and freight emissions are not alleviated by public transport. Again, criminally enforced corporate carbon permitting can play a crucial role in mitigating emissions in this sector in addition to industry-wide technological changes and efficiency savings.

Also, some transport emissions could be included, along with a few other feasibly trackable emission-sources like household heating, in a personal carbon rationing scheme which is backed by criminal sanctions for breaches. This scheme would operate on similar technology to credit/debit cards and an individual's footprint measured against an allowance on a regular, say yearly, basis. This suggestion is a variant of personal carbon trading, on which there is a reasonably developed literature.[51] Perhaps surprisingly, personal carbon allowances are reasonably popular with the public (at least relative to other mitigation policies).[52] Schemes are expected to be costly, but this need not be decisively problematic. The UK government has before declined to proceed with the policy in a pre-feasibility study.[53] That said, its conclusion is heavily dependent on a cost benefit analysis which weighs the (pretty considerable) cost of the scheme against expected benefit of additional greenhouse gas reduction attributable to the scheme and those are not the only relevant evaluands. The study, for example, acknowledges the

[51] Policy details, with several subtly different proposals compared, are best outlined in: Yael Parag and Tina Fawcett, "Personal Carbon Trading: A Review of Research Evidence and Real-World Experience of a Radical Idea," *Energy and Emission Control Technologies* 2 (2014): 23–32, https://doi.org/10.2147/EECT.S56173. See also: Richard Starkey and Kevin Anderson, "Domestic Tradable Quotas: A Policy Instrument for Reducing Greenhouse Gas Emissions from Energy Use Domestic Tradable Quotas: A Policy Instrument for Reducing Greenhouse Gas Emissions from Energy Use," 2005.
[52] Parag and Fawcett, "Personal Carbon Trading: A Review of Research Evidence and Real-World Experience of a Radical Idea," 27–28; Andrew A. Wallace et al., "Public Attitudes to Personal Carbon Allowances: Findings from a Mixed-Method Study," *Climate Policy* 10, no. 4 (2010): 385–409.
[53] UK Department for Environment Food and Rural Affairs, "Synthesis Report on the Findings from Defra's Pre-Feasibility Study into Personal Carbon Trading," April 2008, https://www.teqs.net/Synthesis.pdf.

progressive distributional potential of carbon allowances relative to other policies, but its single-policy cost-benefit evaluation cannot account for this comparative benefit.

The principal difference of the proposal I take forward is that the extent to which allowances are to be tradeable and the consequences for exceeding an allowance are more limited and punitive respectively. The idea here is that trading schemes do not in fact introduce a cap on personal consumption as excess allowances can be purchased and so criminal enforcement is a non-starter save for tackling fraud. I discuss some refinements to this idea in Chapter 7, §7.3 to introduce some flexibility in the absence of allowance trading. This should be enough information to proceed but, to be clear, I'm not proceeding with a ready-made proposal.[54] I'm also proceeding to assess the permissibility of criminalising breaches to a carbon ration, but I have not defended the permissibility of the underlying rationing scheme (see Chapter 1, §1.4.4). Criminal enforceability nevertheless seems like a possibility worth evaluating though. Especially in the context, outlined in Chapter 1, §1.1, of a rapidly diminishing carbon budget and net-zero budgets thereon. Particularly if we are unable to rely on presently hypothetical widespread negative emissions technologies to offset continued consumption.[55]

Consideration of the transport sector therefore gives us more reason to consider a criminally enforced corporate carbon permit scheme as well as reason to consider

[54] Parag and Fawcett's review of personal carbon trading suggests there is no single policy under consideration: Parag and Fawcett, "Personal Carbon Trading: A Review of Research Evidence and Real-World Experience of a Radical Idea". There is ongoing research, e.g.: L. I. Guzman and A. Clapp, "Applying Personal Carbon Trading: A Proposed 'Carbon, Health and Savings System' for British Columbia, Canada," *Climate Policy* 17, no. 5 (2017): 616–33, https://doi.org/10.1080/14693062.2016.1152947.

[55] Wim Carton et al., "Negative Emissions and the Long History of Carbon Removal," *Wiley Interdisciplinary Reviews: Climate Change*, n.d., https://doi.org/10.1002/wcc.671; Sabine Fuss et al., "Betting on Negative Emissions," *Nature Climate Change* 4, no. 10 (2014): 850–53, https://doi.org/10.1038/nclimate2392.

criminally enforced personal carbon permit scheme (henceforth corporate and personal 'carbon rations').

§2.3.4 Buildings

The buildings sector in IPCC reports encompasses the emissions produced in maintaining and using—e.g. heating and electricity—all residential and commercial constructions. Direct and indirect emissions from this sector account for over 18% of total anthropogenic greenhouse gas emissions (Figure 2.1 above). Figure 2.3 (below) is illustrative only, since its metric (petawatt/hour) is importantly different from emissions (though linked) and the source data does not account for all sources of emissions; but it is indicative of relative contributions of residential versus commercial properties and their different emission drivers:

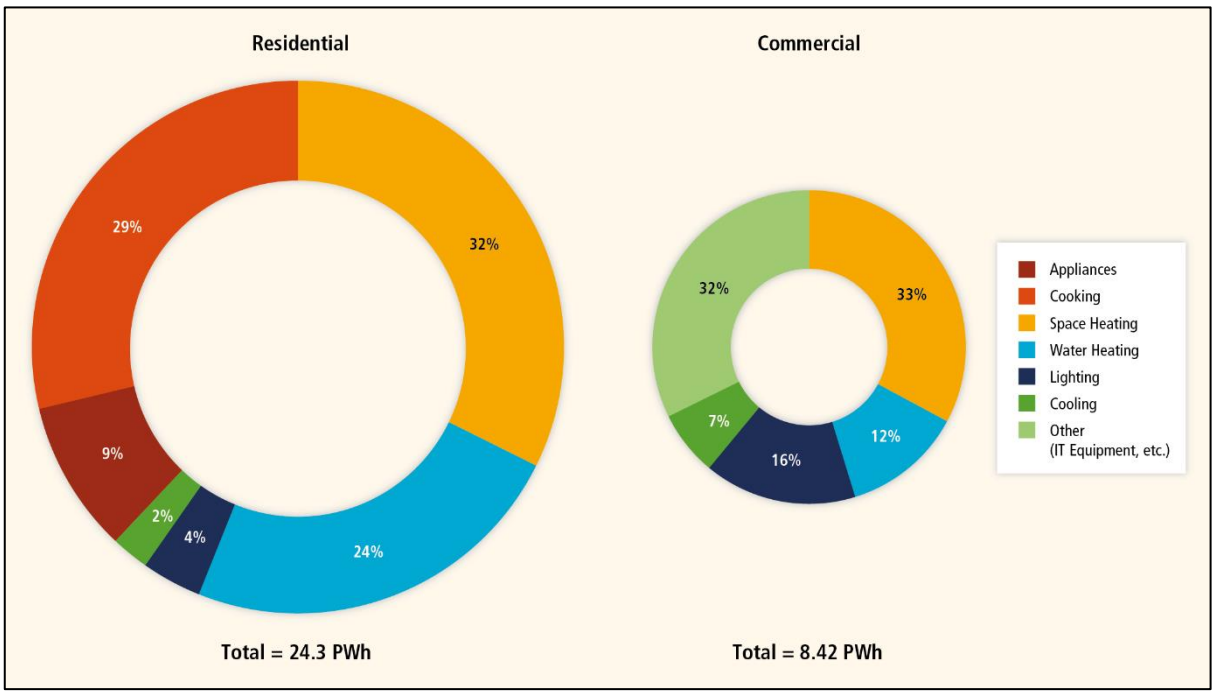

Figure 2.3: "World building final energy consumption by end-use in 2010…"[56]

[56] Original legend continues: "...Source: IEA (2013)". Author-date citation in the original legend refers to the following bibliography entry in the source text: "IEA (2013). IEA Online Data Services. Available at: http://data.iea.org/ieastore/statslisting.asp." IPCC, *Clim. Chang. 2014 Mitig. Clim. Chang.*, fig. 9.4.

The IPCC authors note encouragingly that "mitigation opportunities in this sector are… significant, often very cost-effective, and are in many times associated with significant co-benefits that can exceed the direct benefits by orders of magnitude."[57] Retrofitting (e.g. insulation) is a crucial intervention for existing buildings and programmes yielding 25-30% emission reductions have been shown to be consistently cost-effective.[58] Even more encouraging, low and net-zero energy new builds and retrofits are technologically possible worldwide.[59]

These mitigation strategies will tend to make greater use of government's productive, rather than punitive, potential, including expenditure on widespread retrofitting projects. There is some reason to think that profitable businesses and or private citizens with adequate means should be held responsible for their own retrofitting. This could be indirectly promoted by rolling household and commercial property energy expenditure into personal and corporate carbon rations backed by criminal sanctions for breaches. In addition, a retrofitting strategy could be part of the substantive content of a duty to preserve the public trust (see §2.1.4, above and Table 2.1, below) against which ministers could be held criminally accountable for omissions. Consequently, consideration of this sector does not give us reason to consider an additional candidate criminal offence, but it does give further reason to consider carbon rationing schemes and criminal liability for ministers.

§2.3.5 Diet & land use

[57] Ibid., 677.
[58] IPCC, "Technical Summary (AR5 WG3)," 78.
[59] Ibid.

The final sector I discuss is what the IPCC label the Agriculture, Forestry, and Other Land Use (AFOLU) sector. As is clear from Figure 2.1 (above), the total contribution to anthropogenic greenhouse gas emissions from this sector is just under 25%. Despite covering a wide range of activity, by and large "AFOLU emissions from high-income countries are dominated by agriculture activities while those from low-income countries are dominated by deforestation and degradation."[60]

Already criminal, deforestation is a matter of enforcement and afforestation is a matter of investment. The pressing legislative demand in this sector arises when we take note of the fact that livestock agriculture is responsible for 14.5% of all anthropogenic greenhouse gas emissions—making livestock production alone a larger contributor than the entire transport sector (see Figure 2.1 above) and three-fifths of the AFOLU contribution.[61] The IPCC authors note that '[w]hile demand-side measures are under-researched, changes in diet, reductions of losses in the food supply chain, and other measures have a significant, but uncertain, potential to reduce GHG emissions from food production."[62] They note that behavioural change is a significant barrier making livestock demand reduction potential uncertain. There is little reason to doubt this thought (people are habitually and culturally attached to their diets) but there is reason to doubt considering dietary change only from the perspective of demand.

While there might be powerful moral reason to criminalise meat production entirely (on the basis of animal welfare/rights) I won't consider an outright ban. The political prospects of an outright ban seem especially poor relative to the proposals I do consider.

[60] Ibid., 86.
[61] UN Food and Agriculture Organization, "Tackling Climate Change Through Livestock," 15.
[62] IPCC, "Technical Summary (AR5 WG3)," 87.

A public which accepts limits to their consumption of culturally accustomed goods exists in a closer possible world than a public which accepts a ban. There are historical analogues for limiting meat consumption in pursuit of a collective endeavour during wartime rationing, for example, but no analogue for outright bans to my knowledge. I will consider criminally enforced permitting schemes on production instead. Designing permits for livestock agriculture would require considerable refinement given the varying emission-intensity of different livestock animals and different animal products: whether total animal allowances, total land-use allowances, or total emission allowances would be best is an open question.[63] But, on the face of it, I suggest the significant emissions of the sector warrants discussion of a permitting scheme before all the details are worked out. Existing environmental permit schemes for intensive pig and poultry farming, along with existing criminal penalties for their breach, may be amended to include a condition designed to limit greenhouse gas contribution by limiting production (by some appropriate metric) and extended to additional sources of emissions from animal agriculture not covered by intensive farming permits (e.g. cattle).[64]

Consideration of the land use sector therefore gives reason to consider criminalisation of livestock agriculture without a permit. This is in addition to the pre-existing criminal offence of tree-felling without a permit in England and Wales.[65] On international trade, the EU Timber Regulation requires products entering the single market to be compliant with source country logging laws.

[63] It seems to me that one plausible idea is that we start with a "worst first" approach, and seek to limit production of the most emission-intensive food products first and then move down the list adapting to lessons learned iteratively. See: Helen Harwatt, "Including Animal to Plant Protein Shifts in Climate Change Mitigation Policy: A Proposed Three-Step Strategy," *Climate Policy* 19, no. 5 (2019): 533–41, https://doi.org/10.1080/14693062.2018.1528965.
[64] The Environmental Permitting (England and Wales) Regulations 2010. SI 2010/675.
[65] Forestry Act, 1967, c.10, s.17.

§2.3.6 Non- and multi-sectoral interventions

Lastly, for completeness I want to identify some candidate criminal offences raised by activists, opinion pieces, and popular non-fiction as well as academic climate justice and green criminology literatures (all discussed in Chapter 1, §1.2) which are not straightforwardly related to a particular economic sector. Perhaps unsurprisingly, these are largely conduct which does not directly contribute to or facilitate climate change but has a causal connection to climate change because of a legitimating effect or a failure to perform the duties of oversight.

Firstly, climate change denial and misinformation could be criminalised, as discussed in §2.1.3 (above), on the grounds of liability for legitimation. Second, violating a re-established or statutory public trust doctrine—which I refer to as spoiling the atmospheric public good—was discussed earlier (§2.1.4, above) as a form of liability for those who neglect their duties to oversee a sustainable environment. Lastly, Catriona McKinnon writing in the climate justice literature introduces and advocates for an international criminal offence of postericide (see Chapter 1, §1.2.1);[66] and several green criminologists advocate for a criminal offence of ecocide (see Chapter 1, §1.2.2). I list ecocide and postericide for completeness, but they are not discussed in what follows. As a proposed international criminal offence, postericide is beyond the scope of this thesis (see Chapter 1, §1.4.5). Likewise, much of the growing public awareness of criminalising ecocide is centred on making ecocide an international criminal offence.[67] Meanwhile, I was critical of a domestic offence of 'ecocide' since this was considerably

[66] McKinnon, "Endangering Humanity: An International Crime?"
[67] For a defence and summary of growing attention see: Jojo Mehta and Julia Jackson, "To Stop Climate Disaster, Make Ecocide an International Crime. It's the Only Way," *The Guardian*, February 24, 2021.

underspecified and vague—a problem to which this chapter is in large part an answer by providing more concrete candidate criminal offences.

§2.4 Conclusion

That concludes my survey of specific possible prohibitions which is presented here to fix attention for the remainder of the thesis. To summarise, Table 2.1 (below) lists all candidate criminal offences compiled in the process of determining why some conduct could be liable, who could be liable, and what conduct is liable earlier in the chapter. Also, for ease of reference along the way, Table 2.1 is reproduced in the Appendix.

Candidate offence	Ground for liability	Likely defendant	Suggested actus reus	Suggested mens rea	Amendable existing legal frameworks	Related existing offences
Carbon ration breach	Contribution	Individual; corporate	Result: GHG emission beyond allowance	Intention	Strengthen EU ETS for industry; EU ETS as personal ration prototype	Breaching ammunition/explosive/toxic substance permit
Excess animal farming		Individual; corporate	Result: grazing or housing livestock without permit	Intention		Breaching intensive farming permit; breaching planning enforcement notice; illegal logging
Excess waste production		Corporate	Result: production of material in contravention of a ban; or Omission (legal duty): failure to comply with duty to justify production of regulated substance/design	Intention	Strengthen and reclassify existing waste management regulations	
Fossil-fuel investment	Facilitation	Individual; corporate; state	Conduct: financial investment or other in-kind contribution to fossil-fuel exploration or extraction	Intention		Breaching financial sanctions; money laundering;
Fossil-fuel exploration		Corporate	Conduct: excursion (or planning excursion) of unexplored regions with detection equipment	Intention	Strengthen existing permitting scheme	
Excess fossil-fuel extraction		Corporate	Result: extracting fossil fuels without permit	Intention	Strengthen existing permitting scheme	
Climate change denial	Legitimation	Individual; corporate; state	Result: unambiguous denial of established scientific consensus to large (to be specified) network of individuals	Intention		Holocaust denial (continental Europe)
Climate change misinformation		Corporate; state	Result: unambiguous or ambiguous challenge of established scientific consensus with false information to large (to be specified) network of individuals	Intention		
Spoiling atmospheric public good	Oversight	State	Omission (legal duty): failure to maintain GHG concentrations under statutory limit	Intention; recklessness		Sea/tidal waterways public trust doctrine in case law (predominantly US); misconduct in public office; bribery
Ecocide	Mixed	Corporate; state		Intention; recklessness		
Postericide		Corporate; state	Conduct: create or exacerbate an extinction mechanism	Intention; recklessness		

Table 2.1: Complete list of candidate criminal offences

For each offence I have noted the ground for liability and the likely defendant to tie these candidate offences to the previous discussions of why some conduct could be held liable and who is to be held liable. In addition, I have noted plausible offence descriptions to define the *actus reus* for prosecution as well as the *mens rea* of which proof would be necessary for conviction. Neither the suggested *actus reus* or *mens rea* is to be taken as the final word but they do provide the level of specificity I need to consider the normative case for criminalisation in more detail (particularly as I consider the likely social implications of the offences in Chapter 7). It is for legislatures to draft determinate criminal statutes with the help of experts in drafting legislation.

Finally, I have also noted in Table 2.1 (above) where existing legal frameworks could be adapted into criminal statutes and where related legal frameworks provide a precedent for similar legislation. These relationships have a dual function. First, they help to establish the lineage of similar proposals from which the candidate criminal offence can draw credibility. By linking these offences to similar legal instruments elsewhere I hope to show that their implementation would be less radical than perhaps imagined. Second, somewhat conversely, they help to identify what's new about the candidate criminal offences I consider in comparison to the status quo and so in what way they have additional mitigative potential. Some candidate offences, such as excess waste production, in large part introduce stricter requirements and criminal sanctions in an already regulated sphere of activity. Other candidate offences in some respects build on existing regulation and in other respects are more novel. With respect to carbon rationing, for example, criminalising corporate ration breaches would merely strengthen an existing scheme whereas introducing personal carbon rations would be new. Lastly, the candidate offence of excess animal farming would be almost entirely new. Hopefully noting existing frameworks and relevant precedents where relevant shows that the

offences I consider have a basis in reality; but shows at the same time that they are not so wedded to the status quo that they are stripped of transformative potential.

Constraints on morally permissible criminalisation

With attention fixed on what criminal offences are under consideration, now I turn to normative theories of criminalisation. In this chapter I will introduce two principled constraints on criminalisation: the harm principle and the wrongness constraint. Principled constraints tell us what we cannot criminalise, morally speaking, and why. I start here as the case for criminalisation of a candidate offence cannot get off the ground if it violates a justified constraint on permissible criminalisation. It won't matter what good normative reasons we have in favour of the candidate criminal offence if we are sure that the conduct it proscribes must not be criminalised. If we find no appropriate constraints on criminalisation, then we can move straight on to consider the reasons for and against the candidate criminal offences. If we find that one or more constraints on criminalisation are appropriate, we need to test whether the candidate criminal offences satisfy them.

The harm principle and the wrongness constraint both merit serious attention as several authors have adopted them in one form or another. In what follows I reject the harm principle as a constraint on criminalisation, but I adopt the wrongness constraint. In §3.1 I introduce some conceptual preliminaries which guide the discussion thereafter. The harm principle as a constraint on criminalisation is considered and rejected in §3.2. I argue that whichever of several interpretations of the harm principle we might choose, they all fall afoul of the same decisive objection. Contrastingly, I consider and adopt the wrongness constraint in §3.3. I adopt the wrongness constraint after defending it from objections raised in the normative criminalisation literature.

This chapter thereby introduces a hurdle for criminalisation of contributions to climate change to clear: it must be demonstrated that the conduct that would be criminalised by the candidate criminal offences is morally wrong.

§3.1 Positive and negative theories of criminalisation

Let me first introduce a distinction between positive and negative theories of criminalisation as a helpful conceptual preliminary.[1] A positive theory of criminalisation tells us which reasons count in favour of criminalisation from a moral perspective. Let's call reasons which count in favour of criminalisation from a moral perspective 'justificatory reasons.' Common justificatory reasons for criminalisation of conduct include harmfulness; wrongfulness; and the promotion/maintenance of civil order. Positive theories of criminalisation are useful because not all the reasons we could give for criminalisation will be defensible justificatory reasons; something being annoying might be a reason I can give for criminalisation, but it is not a defensible justificatory reason. A positive theory will also be useful when determining the strength of justificatory reasons. For example, imagine a positive theory that claims harmfulness and wrongfulness are both justificatory reasons for criminalisation, but that harmfulness is a far stronger reason than wrongfulness. A positive theory might not be able to give us strict lexical orderings or numerical weightings but can offer some guidance. We want a positive theory to therefore select and order defensible justificatory reasons in order to guide criminalisation policy. Clearly, different positive theories of criminalisation will have different implications for the content of the criminal law, but even when positive theories agree that 'core' crimes like murder should be criminalised, they may disagree on why because they disagree about which reasons are justificatory. The fact that murder is

[1] On the distinction used above see: R. A. Duff, "Towards a Modest Legal Moralism," *Criminal Law and Philosophy* 8, no. 1 (2014): 217–35, https://doi.org/10.1007/s11572-012-9191-8.

harmful gives us no justificatory reason to criminalise it according to a positive theory which claims only wrongfulness gives justificatory reason to criminalise and vice versa.

By contrast a negative theory tells us what we cannot criminalise from the moral perspective rather than what we may. For example, a negative theory might claim that we must *not* criminalise harmless conduct. So, negative theories of criminalisation introduce *constraints* on morally permissible criminalisation. Negative theories therefore also determine the scope of morally permissible criminalisation but do so by ruling out, rather than justifying, some criminal offences. Positive and negative theories of criminalisation therefore play complementary roles in determining the scope of the criminal law. A sufficiently complete positive theory might, however, overlap with a negative theory of criminalisation. A positive theory which claimed some set of justificatory reasons are exhaustive effectively constrains the criminalisation of conduct which cannot be justified according to the set of exhaustive reasons. To illustrate, a positive theory which claims only wrongdoing justifies criminalisation (all crimes must be moral wrongs) constrains criminalisation of morally permissible (and obligatory) conduct regardless of whether it is harmful, necessary to maintain public order, or whatever else. This raises the question of why I'm beginning my discussion of normative theories of criminalisation with a discussion of constraints. Is it worth outlining independent constraints on criminalisation? If we work hard enough on a positive theory of criminalisation, then we discover any constraints for free.

The reasons I focus on constraints are twofold. First, constraints might rule out criminalisation of conduct for which there are justificatory reasons to criminalise. Suppose the maintenance of civil order is a defensible justificatory reason. If we also

adopt a wrongness constraint—the claim that morally permissible conduct must not be criminalised—then a constraint will (often, but perhaps not always) defeat justificatory reasons for criminalisation when a candidate offence targets morally permissible conduct which tends to undermine civil order (see §3.3.1 below). Negative theories of criminalisation therefore have independent importance in determining the proper scope of criminal law.

Second, constraints are especially important when our positive theory of criminalisation is underspecified. We cannot infer constraints from a positive theory until we have an exhaustive list of justificatory reasons. But we might be confident that some conduct should not be criminalised before we are confident, if we are ever confident, in an exhaustive set of justificatory reasons. Another way to put this is that we can determine false positives (conduct which is criminalised but should not be) independently from false negatives (conduct which should be criminalised but is not). It seems to me more pressing that we eradicate false positives than rectify false negatives, given false positives involve improper state coercion. If it is plausible that we cannot eliminate both at once because of low confidence in our ability to determine an exhaustive set of justificatory reasons (i.e. a complete positive theory) then we should prioritise constraints. And when considering new offences, satisfying any justifiable constraints on criminalisation should be the first test we apply. Hence, I begin with a discussion on constraints proposed by authors in the normative criminalisation literature.

I focus specifically on harm and wrongness constraints as these have wide purchase in normative criminalisation literatures—as I will detail in §3.2 and §3.3 respectively. However, there are some theorists who maintain different constraints. John Braithwaite

and Philip Pettit defend a view which requires that criminalisation policy minimise domination—where domination is a conception of anti-freedom in which agents need not be interfered with to be unfree, the mere potential of arbitrary interference makes an agent unfree.[2] This view therefore constrains criminalisation to only those offences which minimise domination; conversely, offences which introduce more domination from the criminal justice system than they alleviate are unjustified. I do not consider this view in what follows, much less subject the candidate criminal offences under consideration to the test of satisfying it. Nor, for example, do I consider Malcolm Thorburn's view that criminalisation be constrained to those offences which preserve a Kantian, liberal constitutionalist freedom.[3] And, lastly, I do not consider the more exacting wrongness constraint limiting criminalisation to only 'public' wrongs, rather than all moral wrongs.[4]

Principally for reasons of manageability, I set these views aside to focus on the more common positions. I do not claim that these additional views are mistaken or that these theorists would be incorrect to test the candidate criminal offences against their particular constraint (although I suspect, admittedly without argument, that the candidate offences would satisfy them). Consequently, my assessment of the permissibility of the candidate offences should be read with this limitation in mind. At all other appropriate times too, I will alert the reader to any claims I make in the course of my practical aim of assessing the permissibility of the candidate offences under consideration which take a

[2] John Braithwaite and Philip Pettit, *Not Just Deserts* (New York, NY: Oxford University Press, 1992), https://doi.org/10.1093/acprof:oso/9780198240563.001.0001.
[3] Malcolm Thorburn, "Constitutionalism and the Limits of the Criminal Law," in *The Structures of the Criminal Law*, ed. R. A. Duff et al. (New York, NY: Oxford University Press, 2011), 85–105, https://doi.org/10.1093/acprof:oso/9780199644315.003.0005. Another constraint from the literature is Ripstein's alternative to a harm constraint which limits criminalisation to violations of personal sovereignty, see: Arthur Ripstein, "Beyond the Harm Principle," *Philosophy & Public Affairs* 34, no. 3 (2006): 215–45, https://doi.org/10.1111/j.1088-4963.2006.00066.x.
[4] R. A. Duff, *The Realm of Criminal Law* (New York, NY: Oxford University Press, 2018); R. A. Duff and S. E. Marshall, "Public and Private Wrongs," in *Essays in Criminal Law in Honour of Sir Gerald Gordon*, ed. James Chalmers, Fiona Leverick, and Lindsay Farmer (Edinburgh: Edinburgh University Press, 2010), 70–85.

position in ground contested in the normative criminalisation literature (see §3.3, below and Chapter 6, §6.2).

§3.2 The harm principle

The first constraint I consider is an interpretation of Mill's harm principle; in Mill's words: "the only purpose for which power can be rightfully exercised over any member of a civilized community, against his will, is to prevent harm to others."[5] Since Mill, several authors in the criminalisation literature have approved of something like a harm principle—tacitly or explicitly acknowledging the value of keeping criminalisation within principled liberal limits. Although Joel Feinberg does not ultimately accept that only harm may be criminalised, Feinberg's theory of justifiable criminalisation is still built around a harm principle—adding supplementary principles rather than abandoning the centrality of harm altogether.[6] For Feinberg, on the whole, crimes must be wrongful harms, save for some cases of harmless offensive conduct. Also, Simester & von Hirsch maintain harm is a necessary condition of justified criminalisation, thereby constraining crimes to harmful conduct.[7] Meanwhile, John Gardner and Stephen Shute defend a modified harm principle in response to objections that a harm principle constrains the criminal law too much.[8]

The principle I consider here is an interpretation of Mill's principle rather than an effort to remain faithful to Mill's intention. Mill's principle is not reserved only for criminalisation,

[5] John Stuart Mill, *On Liberty and The Subjection of Women*, ed. Alan Ryan (London: Penguin Classics [1859;1869], 2006), 16.
[6] Joel Feinberg, *Harm To Others* (New York, NY: Oxford University Press, 1984); Joel Feinberg, *Offense to Others* (New York, NY: Oxford University Press, 1985).
[7] A. P. Simester and Andrew [Andreas] von_Hirsch, *Crimes, Harms, and Wrongs* (Oxford: Hart, 2011), chap. 3.
[8] John Gardner and Stephen Shute, "The Wrongness of Rape," in *Offences and Defences* (New York, NY, NY: Oxford University Press [2000], 2007), 1–32, https://doi.org/10.1093/acprof:oso/9780199239351.003.0001.

but I discuss a harm principle solely as a normative principle of criminalisation. Also, understood as a principle of criminalisation, Mill's principle is positive—it specifies a single justificatory reason for criminalisation, preventing harm to others—whereas I am focusing on the corresponding constraint on criminalising any harmless conduct. The harm constraints I consider are therefore compatible with multiple positive theories of criminalisation whereas Mill's principle is not. Finally, the harm principle can be understood in multiple subtly different ways. I tease out the saliently different interpretations as I proceed. To begin, I stipulate the following interpretation going forward:[9]

> *Paradigmatic harms constraint*: It is impermissible to criminalise conduct which is not paradigmatically harmful (and does not risk paradigmatic harm)

Let me note a few things to clarify this constraint. First, unlike Mill's harm principle, qualifying harm may be to oneself or others to satisfy the paradigmatic harms constraint. I adopt this stipulation solely to be charitable since some theorists believe that at least some paternalistic criminal interventions are permissible.[10] That isn't to say they're right, but I find reason to reject a harm constraint irrespective of this stipulation so the dispute is immaterial. Second, qualifying harms are paradigmatic harms: those harms like assault, theft, and so on, with easily identifiable victims, which we typically call to mind when we grasp for an intuitive sense of the word harm. This stipulation is objectionably vague, but it is just to get things started. I quite quickly move to consider a more plausible, and less vague principle in what follows.

[9] The indented interpretations in text closely resemble those offered in: Patrick Tomlin, "Retributivists! The Harm Principle Is Not for You!," *Ethics* 124, no. 2 (2014): 272–98, https://doi.org/10.1086/673437.
[10] Feinberg, for example, permits "soft" paternalistic criminal laws. See: Joel Feinberg, *Harm to Self* (New York, NY: Oxford University Press, 1989), https://doi.org/10.1093/0195059239.001.0001.

Finally, I want to briefly motivate a harm constraint. Liberals, committed to a large degree of personal autonomy, have long been interested in a harm principle because limiting crimes to harms appears to provide a simple, principled answer to constraining state coercion (in the present case only criminal justice system coercion) to the minimum necessary to ensure like liberty for all. Different conceptions of the good liberals consider valuable (or at least tolerable) may conflict with majoritarian norms which the majority may wish to criminally enforce and thereby objectionably limit autonomy. For individuals to lead authentically valuable lives *for them* they will need freedom to act in accordance with their own conception of the good. Moreover, respect for personal autonomy requires permission to indulge personal whims, not just value-laden life projects, and these too may conflict with the enforcement of majoritarian norms. Of course, there are limits to toleration. Clearly, respect for personal autonomy ought not to give abusers the freedom to pursue their personal conception of the good (such as it is). Advocates of a harm-based constraint on criminalisation consider harm to mark the important difference between what should be tolerable to the criminal law and what should be intolerable to the criminal law.

Although there's something to be said for it, I'll reject adopting the harm principle as a constraint on criminalisation. I will evaluate a harm-based constraint over the course of two separate objections, altering the precise interpretation of the constraint as appropriate as I go.

§3.2.1 Objection 1: Restriction to harm is underinclusive

The principal complaint about the paradigmatic harms constraint is that it is underinclusive because it fails to justify intuitively plausible criminal offences. A single

act of perjury, for instance, need not result in any harm to any obvious victim—suspect witness testimony may be discounted by jurors who come to a correct verdict anyway. A requirement that crimes be limited to paradigmatic harms therefore rules out criminalisation of perjury since, at the most, perjury has an indirect relationship to harm by, perhaps, undermining confidence in witness credibility which subsequently undermines confidence in outcomes. Perjury is, nevertheless, a commonly accepted criminal offence. Moreover, many other plausible criminal offences are only indirectly harmful, such as tax evasion and hard-drug distribution.

Consequently, to give a harm constraint a fair hearing it is best to shift away from the paradigmatic harms constraint to another interpretation. Consider the following:

> *Harmful conduct constraint*: It is impermissible to criminalise conduct, for whatever reason, unless its effects are harmful (or risk harm), at least indirectly

The harmful conduct constraint avoids the complaint that it implausibly rules out indirect harms. It also permits offences principally justified without recourse to harm, but with some harmful effect. Return to the example of perjury. The harmful conduct constraint permits criminalising perjury even if the justificatory reason for criminalising perjury is that lying under oath is wrong (or whatever). Indirect harm is merely a necessary condition of criminalisation, not the only justificatory reason. To be clear, the paradigmatic harms constraint permits criminalisation for reasons other than harm too—but since paradigmatic harms are very likely to be criminalised principally because they are paradigmatically harmful it is not so important. By allowing indirectly harmful conduct to be criminalised, the harmful conduct constraint permits several plausible criminal offences which are not principally justified by harm reduction—this is to its credit.

Nevertheless, it might be argued that shifting to the harmful conduct constraint still does not account for all plausible criminal *acts*. When referring to offences as broad action-types—perjury, tax evasion, etc.—it is likely that every criminal offence we are keen to justify could be brought to consistency with the harmful conduct constraint because, in general, perjury is indirectly harmful on average, tax evasion is harmful in combination with other acts of tax evasion, and so on. Provided we have some suitably savvy reasoning, we could uncover something we'd call harmful if we asked 'what if everyone did that?' about all intuitively plausible offences. But Gardner and Shute have noted that sometimes paradigmatically harmful conduct is not harmful in 'pure' cases where the victim is ignorant to the act.[11]

Suppose that a burglar enters a house—undetected, and undetectably—to lounge on the sofa for half an hour.[12] Even if this act of burglary causes no harm—Gardner and Shute seem to assume a theory of harm which is responsive only to things about which an agent is conscious, that is, we can't be harmed without our knowledge—we nevertheless have pretty strong reason for criminalisation on the grounds that the undetected burglar interferes with some important claim we have to (something like) unilateral control over an extended personal space. Of course, whether this claim can generate a justificatory reason for criminalisation could be denied on principle, but only at the cost of the losing a little plausibility. Besides, another interpretation of the harm principle is available which accommodates the harmless burglary and, being charitable, I think it best to adopt the interpretation which accommodates the example. It makes no

[11] Gardner and Shute, "The Wrongness of Rape."
[12] This example is identical in all relevant respects to one given in greater detail in: Ripstein, "Beyond the Harm Principle," 218. Strictly speaking this might not amount to burglary in law without intent to commit a crime at the premises but offence classification is irrelevant to the example. For the purpose of the example we could just as well call it trespass and claim that trespasses of this sort, not more benign trespasses on land, ought to be criminal. I've gone for burglary as entering a home seems to me better described as burglary.

difference because the harm principle should be rejected on grounds which do not discriminate between interpretations anyway.

Cases such as the harmless burglary motivate a move away from assessing the effects of conduct itself, and toward assessing the effects of criminalising generally, argue Garner and Shute: "It is no objection under the harm principle that a harmless action was criminalized, nor even that an action with no tendency to cause harm was criminalized. It is enough to meet the demands of the harm principle that, if the action were not criminalized, that would be harmful."[13] According to this view, failure to prohibit special cases of harmless wrongdoing would have harmful societal effects, largely by appearing to license conduct which is, in the vast majority of cases, at least indirectly harmful. This gives us a third and final interpretation of the harm principle as a constraint on criminalisation:

> *Harmful legislative permission constraint*: It is impermissible to criminalise conduct, for whatever reason, unless failure to criminalise the conduct causes (or risks) harm, at least indirectly

For the sake of argument, suppose that failure to criminalise harmless burglary would cause or risk harm. Further supposing we have strong justificatory reasons for criminalisation, the harmful legislative permission constraint allows the criminalisation of burglary in all its guises (such as the undetectable sofa lounger) whereas the harmful conduct constraint disallows criminalisation of burglary in some (rare) circumstances. We might wonder why the unusual cases matter. Isn't it enough that the conduct, on average, is at least indirectly harmful even if some cases cannot be even indirectly

[13] Gardner and Shute, "The Wrongness of Rape," 29.

harmful? To this question I do not have a decisive answer, but it is worth noting a few points.

First, moving to the harmful legislative permission constraint is charitable given that it offers a solution to those who do care about special cases. Second, although the harmful conduct constraint is designed as a principle of criminalisation, it could be appealed to in order to construct a legal defence for those rare cases after the fact. The defendant's claim could run something like this: the harmful conduct constraint is motivated by a conviction to restrict the criminal law's reach and the limit it sets is against criminalising harmless conduct; but its application to *types* of conduct, abstracted from *particular* conduct, permits making harmless conduct criminal contrary to its aims. The force of this objection is not that the principle is mistakenly applied: as a principle of criminalisation it will deal with abstracted conduct. The objection claims that the principle itself is a mistake since it does not live up to the aim of limiting criminalisation to harmful conduct. The benefit of the harmful legislative permission constraint is that it short-circuits this argument, admitting that harmless conduct may be criminalised in some cases and that this is to its credit because it produces a more plausible criminal code. For these reasons I proceed to subject the harmful legislative permission constraint to a further objection, below.

§3.2.2 Objection 2: Harm doesn't constrain the criminal law

Since the harmful legislative permission constraint permits the criminalisation of conduct with only a limited connection to the resultant harm it is resistant to several common counterexamples. But the harmful legislative permission constraint is still open to counterexamples of plausible offences which lie outside its operative definition of harm.

The objection now under consideration is not that these counterexamples are themselves the problem. Instead the present objection is that accommodating repeated counterexamples of this sort is a problem of its own. Bernard Harcourt and others argue that in order to account for intuitively plausible criminal offences the definition of harm—on which a harm-based constraint relies—becomes so textured that it fails to sharply divide criminal from non-criminal conduct.[14] It cannot divide criminal from non-criminal conduct because each and every refinement of the concept of harm introduces a large body of conduct which then qualifies as permissibly criminalised when it ought not be criminalised.

To illustrate the problem, suppose qualifying harm is first restricted to physical, bodily effects only; since many paradigmatic harms are physical, bodily harms this seems like a good starting point. As theft would not qualify as permissibly criminalised on this limited understanding of harm it will not do because at least some theft is plausibly criminalised. In response we allow that financial harms meet the constraint, bringing several implausible financial harms, such as firing an employee, along with it. Then, because the psychological trauma of non-violent domestic abuse is not captured by either physical or financial harm, the operative concept of harm ought to be further extended to include harms to mental health. The upshot of this additional extension, however, is that plenty of psychologically harmful conduct which are implausible crimes now satisfy the constraint. Examples such as these could continue.

[14] Bernard E. Harcourt, "The Collapse of the Harm Principle," *The Journal of Criminal Law and Criminology* 90, no. 1 (1999): 109–94; R. A. Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law* (Oxford: Hart, 2007), 126–35; Tadros, *Wrongs and Crimes*, 96.

The problem so far explained turns on including additional *currencies* of harm, what it is that harms affect: harms to physical health; financial situation; mental health; and so on. But the problem is compounded when we notice that the problem also applies to the *measure* of harm, how it is that harms affect us: by making us worse off than we were before the harm; by making us worse off than we would have been were it not for the harm; by putting us in an intrinsically harming state; and perhaps others.[15] Suppose that we start with a temporal account of the measure of harm—that harms make us worse off than we were before the harm occurred—because many paradigmatic crimes make us worse off than we were before their occurrence. For example, my physical health is in a (temporarily) worse state after having been punched than before.

Then we notice that a temporal understanding of harm excludes cases of denying benefits, such as intercepting (stealing) a gift before it reaches its recipient. Believing that decriminalisation of this form of theft is implausible, we shift to another understanding of harm. We shift to a counterfactual account of harm—according to which harms cause an agent to be worse off than they would have been but for the harming action—ensuring that stealing gifts meets the constraint but bringing with it cases that are not intuitively criminal such as merely failing to benefit someone which makes them worse off than they would have been had you benefitted them.

Then we might flag the non-identity problem (discussed in Chapter 1, §1.4.7) as a problem for the counterfactual account of harm because it does not account for cases where agents are negatively affected by actions which cause them to exist. Certain that

[15] The distinction between the currency and measure of harm is offered by Victor Tadros in: Tadros, *Wrongs and Crimes*, 175–76.

this should qualify for criminalisation (and sure of a harm-based constraint), we adopt a non-comparative measure of harm which admits causing someone to be in some form of 'harmed state' but bring along multiple implausible crimes too. For example, doctors cause patients to be in harmed states frequently, but only in the course of *improving* their medical condition. Surely if anything is a harmed state then limb amputation is. Non-comparative theories must be able to explain why losing a limb in other circumstances would be harmful and the only way available to them, within their theory, is to claim that the lack of a particular limb is harmful. But amputation might be the only medical intervention capable of avoiding more serious implications, e.g. death.

Consequently, a plausible harm-based constraint must, in response to repeated counterexamples, texture and refine its understanding of harm so much that a great deal of conduct implausibly criminalised satisfies the constraint. Two implications follow: (1) a harm-based constraint cannot sort criminal from non-criminal offences, and (2) since it is so radically inclusive it no longer constrains much at all.

There is a successful reply to implication (1), however. It can be argued in response that it is not the job of a constraint on criminalisation to wholly delimit the scope of the permissible criminal law. We will only know the scope of permissible criminalisation with a combination of suitably complete positive and negative theories of criminalisation. The job of a negative theory is simply to cordon off some conduct as unsuitable for criminalisation, it is then for a positive theory to determine whether what's left should be criminalised. So, the complaint that the notion of harm in a plausible harm-based constraint must be so textured that it fails to determine the scope of criminalisation is to complain unreasonably that it doesn't do another theory's job.

Implication (2), however, is a decisive flaw. We can ask of a constraint that it constrain, but it is hard to imagine any conduct that would not satisfy a plausibly textured account of harm; let alone a collection of conduct sufficiently broad to serve as a proxy for an extensive scope of liberal freedoms. In other words, a harm-based constraint is caught in a dilemma and each horn is fatal. Either, (a) the harm constraint adopts only very limited currencies and measures of harm in order to effectively constrain the scope of the criminal law at the expense of disqualifying several plausible criminal offences, or (b) the harm constraint textures its currencies and measures of harm in order to accommodate counter-examples only to constrain nothing and fail to live up to the reason for adopting it in the first place. Harm turns out to be a more slippery concept than advocates of a harm constraint on criminalisation hope; harm is not the handy, non-moralising criterion capable of delimiting the limits of toleration it first appeared to be.[16] On these grounds, I reject a harm-based constraint on criminalisation. The permissibility of criminalising contributions to climate change does not hang on satisfying a harm-based constraint.

§3.3 The wrongness constraint

The harm principle is not the only popular constraint on criminalisation from the normative criminalisation literature. The wrongness constraint is even better established among contemporary theorists. Before assessing the wrongness constraint against some objections, I first want to specify what I mean (for the time being) by the wrongness

[16] See Nils Holtug on the failure of harm as a non-moralising criterion (vs. e.g. wrongness). Holtug argues that refining harm in response to counter-examples leads to a moralised concept of harm not a "prudential" account: Nils Holtug, "The Harm Principle," *Ethical Theory and Moral Practice* 5, no. 4 (2002): 357–89, https://doi.org/10.1023/A:1021328520077. If Holtug is right, and harm both cannot constrain and does not carry the benefits of a non-moralised criterion, we may as well opt for another moralising criteria which may do a better job constraining in any case.

constraint, then I want to outline some of the lineage of the wrongness constraint and outline some reasons for adopting it along the way.

For now, I proceed with the following simple principle:

> *Simple wrongness constraint*: It is impermissible to criminalise conduct which is not morally wrong

To clarify a few things, first, conduct is morally wrong if and only if it is unambiguously morally impermissible. Moral wrongs cannot be either morally obligatory or morally permissible. If there are genuine moral dilemmas, then we might be tempted to say moral wrongs can be morally permissible or obligatory. Let's stipulate for the present purpose that if there are genuine moral dilemmas, then decisions made in genuine dilemmas do not satisfy the wrongness constraint as they are not unambiguously wrong. This might be a complication worth unpacking another time, but I set it aside here.

Second, qualifying wrongs are *pro tanto*. Conduct need not be impermissible all things considered to be criminalised since defences of necessity are available at trial to acquit those who act presumptively wrongly but with sufficient justification—with the likelihood of a successful defence at trial often enough prevent prosecution in the first place.

Third, for the purposes of assessing the wrongness constraint, I do not assume one or other substantive moral theory (deontic, consequentialist, etc.). Where substantive moral theories disagree, it is enough that the conduct criminalised meets at least one defensible theory's criteria for wrongness. I do assume away some forms of act-consequentialism according to which any action which does not produce the best

consequences is therefore wrong, since the constraint in combination with this view is no constraint at all. I take this to be uncontroversial, however, not because such a demanding view must be untrue, but because advocates of a demanding view like this will not be moved by the motivations (offered below) to adopt a wrongness constraint in the first place—for them, whether criminalisation is justified is wholly dependent on its consequences and not side-constraints such as the suitability of condemnation and punishment of particular offenders.

Fourth, the prospect of criminalising contributions to climate change might raise the question about when and how conduct must be wrong for it to satisfy the wrongness constraint. Does the conduct have to be wrong completely independently of law? We assume most killing is wrong irrespective of whether it is murder or manslaughter, for example. Or can the conduct be wrong dependently on details of the law? It may appear that whether it is wrong to drive on a particular side of the road, for example, depends on details of the law (I discuss claims like this in depth in Chapter 4, §4.1). The simple wrongness constraint is deliberately ambiguous regarding the legal conditions under which conduct must be wrong—this is why it is 'simple'. Unpacking this ambiguity raises three wrongness constraint variants with differing implications for criminalising contributions to climate change. The variants and their implications are discussed in Chapter 4. For now, I discuss the wrongness constraint in a simple form and objections consistent across variants.

And finally, the simple wrongness constraint is not ecumenical among rival theories of state legitimacy (see Chapter 1, §1.4.3). The simple wrongness constraint requires that qualifying conduct be wrong, but it does not require that qualifying conduct be wrong in

some sense in which the state has a legitimate interest. Infidelity in a committed exclusive relationship, for example, is widely regarded as morally wrong, but it is plausibly none of the state's business. R. A. Duff's public wrongs constraint and a Rawlsian view which constrained criminalisation to only those wrongs on which there is a consensus among all reasonable citizens would therefore disqualify the criminalisation of infidelity, but the simple wrongness constraint does not.[17] I address concerns that the simple wrongness constraint is for this reason too permissive in Chapter 6. There I return to the fidelity example and argue that although the simple wrongness constraint does not disqualify criminalisation, we have plenty of further reasons to avoid criminalising it. Since, in this thesis, I'm concerned principally with the practical upshot of normative theories of criminalisation—whether they permit the criminalisation of contributions to climate change—I am less concerned with a debate between theorists when the implications for policy do not differ.

With those points out of the way, let's now consider some motivations for adopting a wrongness constraint. One reason is outlined sharply by Duff: "what is distinctive of criminal law is that it purports to define, and provide for the condemnation of, certain kinds of moral wrong; to justify the criminal law's content we must therefore show that what it defines as crimes are indeed wrongs of the appropriate kind."[18] According to Duff condemnation is inappropriate without wrongdoing, and because the criminal law condemns it must only proscribe wrongdoing. What makes the condemnation inappropriate is not important for the argument. Adopting any one of several views gives

[17] Duff, *The Realm of Criminal Law*; Duff and Marshall, "Public and Private Wrongs". Rawls does not specifically address the criminal law, but the concept of public reason determined in an overlapping consensus of reasonable concepts of the good is outlined in: Rawls, *Political Liberalism*.
[18] Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law*, chap. 81. Where Duff takes this understanding about what is distinctive about criminal law to be the widespread orthodox view, and so this argument is general too.

reason to endorse the wrongness constraint. Perhaps condemning morally permissible conduct is a unique kind of wrong, wrong because the condemnation is not apt or fitting. Or perhaps condemning permissible conduct is wrong for similar reasons as general moral prohibitions on lying or deception, or for consequentialist reasons concerning the expected effect on the condemned and or the expected effect on the law as a respectable institution.[19] No matter which view is better, if the criminal law condemns and condemning permissible conduct is wrong, then the criminal law ought to abide by a wrongness constraint.

The argument from inappropriate condemnation is closely related, but not identical to the retributivist's claim that punishment, and therefore criminalisation as a necessary step on the way to punishment, is a deserved response to wrongdoing. This is structurally identical to the condemnation argument: a feature of how the criminal law functions is that it is an appropriate response to wrongdoing, and so crimes must be wrongs. This retributive thought motivates many theorists to endorse a wrongness constraint. Michael Moore argues that the function of the criminal law (to the exclusion of others) is to serve retributive justice, and this is triggered by culpable wrongdoing which deserves punishment.[20] *Only* wrongdoing may be proscribed on Moore's view because "no justice in retribution is achieved if what an actor has done (in the actual world or in his head) is not morally wrong."[21] Larry Alexander and Kimberley Kessler Ferzan concur with the necessity of wrongdoing in the following statement of their view: "it is the defendant's decision to violate society's norms regarding the proper concern due to the interests of others that establishes the negative desert that in turn can both justify and limit the

[19] Cornford considers each of these reasons in more detail: "Rethinking the Wrongness Constraint on Criminalisation," *Law and Philosophy* 36, no. 6 (2017): 629–33, https://doi.org/10.1007/s10982-017-9299-z.
[20] Michael S. Moore, *Placing Blame* (New York, NY: Oxford University Press, 1997).
[21] Ibid., 661.

imposition of punishment."[22] This summarises more than just the necessity of wrongdoing critical to their account but the point at present is plain to see. Desert justifies *and limits* the imposition of punishment.[23]

In addition, A. P. Simester and Andreas von Hirsch defend a wrongness constraint they label the 'necessity thesis': "That φing is wrongful is necessary to justify its criminalisation".[24] Simester and von Hirsch justify this thesis with appeal to both the general point about the appropriateness of condemnation, as well as the additional commitment to desert:

> [P]eople have a moral entitlement not to be designated, officially, as miscreants when they do no wrong. Morally speaking, those whose conduct is not reprehensible ought not to be convicted and made punishable. If a person does not deserve such treatment, then she has a right that it not occur; and neither her conviction nor her punishment can be justified by such consequential considerations of deterrence.[25]

The quote from Simester and von Hirsch, above, points to another argument in support of a wrongness constraint which concerns punishment directly. Criminalisation renders those charged liable to punishment, and punishment of non-wrongdoers is presumptively unjust.[26] The view that punishing non-wrongdoers is unjust need have nothing to do with the desert of the punished, or whether punishment is by its nature condemnatory. It might be unjust to punish non-wrongdoers because of some independent non-consequentialist norm or right; or supported by consequentialist

[22] Larry Alexander, Kimberly Kessler Ferzan, and Stephen J. Morse, *Crime and Culpability* (New York, NY: Cambridge University Press, 2009), 6–7.
[23] Ibid., 3-7.
[24] Simester and von_Hirsch, *Crimes, Harms, and Wrongs*, 22.
[25] Ibid., 19.
[26] Again, for more on this claim see: Douglas Husak, "Wrongs, Crimes, and Criminalization," *Criminal Law and Philosophy* 13, no. 3 (2019): 401, https://doi.org/10.1007/s11572-017-9453-6; Cornford, "Rethinking the Wrongness Constraint on Criminalisation," 622–25.

reasoning citing the diminishing effectiveness of a system of punishment which punishes permissible conduct. If punishment for permissible conduct is unjust, then this gives independent reason to defend a wrongness constraint.

Add Joel Feinberg to the authors noted thus far too. Feinberg's famous construal of John Stuart Mill's harm principle speaks to more than just wrongness, but the requirement for wrongness is clear:

> Whatever the correct policy may be for the law of contracts, the harm principle as a guide to the moral limits of the criminal law does not license liability for acts that tend to cause only nonharmful wrongs. It is more obvious still that no plausibly interpreted harm principle could support the prohibitions of actions that cause harms without violating rights, for example setbacks to interest incurred in legitimate competitions, or harms to the risk of which the 'victim' freely consented… [O]nly setbacks of interests that are wrongs, and wrongs that are setbacks to interest, are to count as harms in the appropriate sense.[27]

Feinberg takes Mill's view to be a good starting point for a liberal theory of criminalisation which adequately limits the scope of the criminal law to value liberty.[28] But even then, Feinberg considers its best interpretation to include wrongdoing as a necessary condition: harm alone is insufficient.

Lastly, I want to note a third argument for adopting a wrongness constraint not yet raised. This argument holds that respecting personal autonomy requires limiting the scope of criminalisation to wrongs.[29] This argument might be understood in at least two ways. It

[27] Feinberg, *Harm To Others*, 36.
[28] Ibid., 7-10.
[29] As before, detail in: Husak, "Wrongs, Crimes, and Criminalization," 404; Cornford, "Rethinking the Wrongness Constraint on Criminalisation," 625–29.

could be understood as deriving from an absolute prohibition on infringing valuable autonomy, but criminalisation of wrongs is permissible because freedom to do wrong is not a valuable form of autonomy.[30] Alternatively, the autonomy argument could be understood as a presumption against infringing autonomy which is only overridden by appropriately criminalised wrongs. According to either of these views, then, it is crucial to restrict criminalisation to wrongs in order to adequately value autonomy. So, the survey so far outlines the popularity of a wrongness constraint and reveals several motivating reasons we might have for adopting one. But, of course, some authors do not endorse a wrongness constraint. In the remainder of the chapter I'll outline and respond to two objections below in order to defend adoption of the wrongness constraint.

§3.3.1 Objection 1: Constraints are false at the extremes

Victor Tadros objects that a wrongness constraint will fail in some relevant cases such as the following:

> "*US Threat*: Possession of a certain recreational drug, Happy Pill… is not wrongful, not harmful, and does not interfere with anyone else's sovereignty. A poor country is deciding whether to criminalize possession of this drug. US subsidies, that are necessary for the provision of essential medicines to a very large number of people who will otherwise suffer severely, will not be provided if possession of Happy Pill is not criminalized, or the prohibition is not adequately enforced."[31]

In this example Tadros concludes, plausibly enough, that the poor country should criminalise the drug. At the very least, criminalisation of Happy Pill would be permissible all things considered. But since it is stipulated that possession of the drug is not wrongful,

[30] Those who believe there is no value to freedom to do wrong include: Tadros, *Wrongs and Crimes*; Joseph Raz, *The Morality of Freedom* (Oxford: Clarendon, 1988).
[31] Tadros, *Wrongs and Crimes*, 98; Cornford also argues along similar lines: Cornford, "Rethinking the Wrongness Constraint on Criminalisation," 633.

the wrongness constraint must be false if criminalisation is permissible in this case. This is just one implication of what Tadros claims is the important point, that any constraint on criminalisation must be false.

Here are two replies to the argument from the case of *US Threat*. The first concerns the characterisation of deontic constraints like the wrongness constraint. Any deontic constraint which forbids some conduct in all circumstances is suspect. It will always be possible to stack the deck in favour of breaking the constraint with sufficient stipulated consequences. Even prohibitions on torturing will look implausible when the consequences are suitably dire. It is difficult to believe it is impermissible to torture if the destruction of Earth is on the line, for example.[32] That is an unpleasant thought—such is the moral strength of a prohibition on torture—and it is unlikely real life can approximate the circumstances required for the prohibition on torture to yield; but the example appears to tell us something about deontic constraints generally. If we are inclined to think that even prohibitions on torture yield to some circumstances, then we will be inclined to think that all plausible deontic constraints must be *pro tanto* (or admit of specifiable exceptions).[33] Since arguments like those from *US Threat* concern only all things considered deontic constraints and many believe any constraint (including the wrongness constraint) should be *pro tanto*, those arguments bring down a caricature.

[32] Not all deontologists accept this claim. Some defend unyielding rights (and so corresponding unyielding duties to constrain conduct). See, for example: Alan Gewirth, "Are There Any Absolute Rights?," *The Philosophical Quarterly* 31, no. 122 (1981): 1–16, https://doi.org/10.2307/2218674. I do not claim here that unyielding constraints must be false. I limit myself to the conditional claim that if you think prohibitions on torture should yield to some sufficiently dire circumtances, then you will think all constraints will yield in some circumstances.

[33] I will continue to refer to a constraint which yields to sufficiently strong countervailing circumstances as a *pro tanto* constraint. That is, however, not strictly accurate. There are competing views on how best to understand contraints which yield. For the view that these constraints are pro tanto (i.e. overridden) see: Joel Feinberg, "Voluntary Euthanasia and the Inalienable Right to Life," *Philosophy & Public Affairs* 7, no. 2 (1978): 93–123; for two different understandings of the view that constraints which yield admit of exceptions (i.e. the right/duty is qualified) see: Russ Shafer-Landau, "Specifying Absolute Rights," *Arizona Law Review* 37 (1995): 209–25; and: Christopher Heath Wellman, "On Conflicts between Rights," *Law and Philosophy* 14, no. 3/4 (1995): 271–95, https://doi.org/10.2307/3504887.

Tadros concedes that *US Threat* does not defeat a *pro tanto* wrongness constraint.[34] Nevertheless, a *pro tanto* principle would not tell us anything very interesting since the work is in determining whether the all things considered case is made for criminalisation, Tadros claims.[35] It is true that there is further work in determining the all things considered case, but this should be no surprise. That is always the case in practical ethics. The rules philosophers can agree upon are to a considerable degree indeterminate—it is no surprise the work is in determining hard cases, and here reasonable minds might disagree. It is an unreasonable division of labour to ask of a principle the questions which are to be answered by interpretation, deliberation, and perhaps ultimately democratic procedure. If Tadros is to maintain that a *pro tanto* wrongness constraint tells us nothing interesting, it will need to be the case that the wrongness constraint completely drops out of deliberation in hard cases.

The second reply to Tadros' argument denies that a *pro tanto* wrongness constraint falls out of the picture in hard cases. Even where the circumstances are sufficiently dire that a *pro tanto* wrongness constraint should be violated, this is to be distinguished from merely weighing opposing moral reasons. Unlike when one set of moral reasons outweigh another—for example, deciding between giving to one of two charities—when a *pro tanto* constraint is permissibly violated, a negative remainder persists.[36] The remainder is the fact that the decision is regrettable; not merely non-ideal, as I might think it non-ideal that I am not so wealthy and to avoid choosing between charities, but regrettable in the sense

[34] Tadros, *Wrongs and Crimes*, 100–101.
[35] Ibid., 101.
[36] See Husak discussing this exact case: Husak, "Wrongs, Crimes, and Criminalization," 398. See also Bernard Williams on the more general phenomena of insoluable moral conflicts: Bernard Williams, "Ethical Consistency," in *Problems of the Self* (Cambridge: Cambridge University Press, 1973), 166–86, https://doi.org/10.1017/cbo9780511621253.013.

that if afforded the chance the decision ought to be remedied.[37] This remedy could come in a number of forms such as compensation or apology; but in the present case, that criminalisation is permissible *but also regrettable* provides reason to actively search for alternatives or at least to bring the injustice to an end as soon as possible. By contrast, if criminalisation is a matter of weighing opposing reasons, that criminalisation is permissible is the end of the matter. On the weighing view, it will be prudent to reassess the situation so that criminalisation remains permissible, but there will be no immediacy to correct the present state of affairs and no moral reason (distinct from prudential, e.g. face-saving, reasons) to apologise to and or compensate those imprisoned. A *pro tanto* wrongness constraint does then, contra Tadros, tell us something interesting.

That a *pro tanto* wrongness constraint will nevertheless tell us something interesting distinguishes this defence of the simple wrongness constraint from a similar defence which might be given for a harm constraint. It might be argued that if a *pro tanto* wrongness constraint is not to be expected to settle hard cases then neither should a harm constraint and this might be taken to undermine the argument given in §3.2.2 (above). But notice that the argument above was that a plausibly textured harm constraint tells us *nothing* worth knowing—be it *pro tanto* or all-things-considered. If all conduct we might consider criminalising satisfies a constraint, then that constraint plays no role in practical deliberation whatsoever. A *pro tanto* wrongness constraint does, however, have a role to play in practical deliberation—even when it should be violated all-things-considered.

[37] Speaking of a regrettable personal choice, Williams writes: "I may try, for instance, to 'make it up' to people involved for the claim that was neglected. These states of mind do not depend, it seems to me, on whether I am convinced that in the choice I made I acted for the best; I can be convinced of this, yet have these regrets, ineffectial or possibly effective, for what I did not do." Williams, "Ethical Consistency," 172.

§3.3.2 Objection 2: The wrongness constraint is intolerant of imperfection

A second objection to the wrongness constraint is that it stringently demands perfection, when we know that criminalisation is inevitably imperfect. This objection breaks down into two separate concerns which I will address in turn. First, the wrongness constraint appears to condemn all criminal procedures unless they always avoid convicting innocent people. Its rationale is that permissible conduct should not be condemned or punished, and convicting innocent people condemns and punishes permissible conduct.[38] Procedural errors lead to convictions of the innocent in at least three ways: poor or misleading evidence resulting in incorrect verdicts; correct verdicts according to proof beyond reasonable doubt may still be incorrect as a matter of fact; and criminal procedure may induce the innocent to plead guilty to avoid worse sanctions following a guilty verdict (for any one of the first two reasons). Objectors suggest the wrongness constraint is implicated by error in criminal procedure since error is predicable *ex ante*. Because criminalisation licences liability to state condemnation and punishment, and our procedure for determining liability is imperfect, criminalisation licences predictable errors in application of state condemnation and punishment. Since the wrongness constraint is motivated by avoiding inappropriate condemnation and punishment, it ought—so the objection claims—also object to procedural error.

The misstep in the objection, however, is that there is a difference between making permissible conduct a crime and recognising that some permissible conduct will be mislabelled as a crime by procedural error. As Duff explains:

> [T]he wrongness constraint is violated only if non-wrongful conduct is criminalized; but in mistakenly convicting an actually innocent person the law and the court do not

[38] Cornford, "Rethinking the Wrongness Constraint on Criminalisation"; Edwards, "Criminalization without Punishment," 78–80.

> treat her actually innocent conduct as criminal; rather, they mistakenly ascribe actually wrongful conduct to her.[39]

Criminal legislation controls what it makes a ground for investigation and prosecution, but it does not control how investigatory and prosecutorial powers are used. Investigatory and prosecutorial powers must, if they are to be effective, look beyond the most obvious open-and-shut cases of wrongdoing and investigate related conduct which might *indicate* wrongdoing. But making conduct a *ground* for investigation and prosecution, does not make related conduct (enough to arouse suspicion) also a ground for investigation. Nor does it make all other imaginable conduct, which could combine to arouse circumstantial suspicion, grounds for investigation. To put the point starkly, criminalising conduct does not criminalise all other conduct. As Duff says, mistaken prosecutions ascribe the criminalised *ground* for investigation to the defendant—they do not charge them of the related or circumstantial conduct which led investigators to believe the defendant is guilty of an underlying crime. The wrongness constraint is a principle of criminal legislation, and so it applies to making conduct a ground for criminal investigation and prosecution. The wrongness constraint is satisfied when the grounds for criminal investigations are wrongs; in other words, it is satisfied when all crimes are wrongs. Predictable procedural error is therefore beside the point.

Procedural error is not beside the point if considering principles for the just exercise of state investigatory power since errors are a feature of the investigations and must be recognised as a cost of business. Because effective investigation must look past open-and-shut cases of obvious wrongdoing to uncover the truth in more complex cases, a wrongness constraint would be an implausible principle for the just exercise of state

[39] Duff, *The Realm of Criminal Law*, 63.

investigatory power but the wrongness constraint on criminalisation is not offered for that purpose. The complaint that the wrongness constraint is intolerant to error is, therefore, mistaken.

Let's turn now to the second concern that the wrongness constraint is intolerant of imperfection. Assume that some criminal legislation is most effective—i.e. best prevents/condemns wrongs (on justificatory reasons for criminalisation see Chapter 6, §6.2)—when written to include both the troubling conduct and some closely related morally permissible conduct. For example, a stipulated speed limit includes those who drive unsafely at speed and those who pose little to no additional risk at speed (at least not when close to the limit). Drivers who have undertaken special training (such as emergency response drivers) likely can drive safely above the stipulated speed limit. Call laws which are overinclusive in this way 'stipulative offences'.[40] The objection at hand is that the wrongness constraint implausibly forbids stipulative offences.[41]

Of course, advocates of a wrongness constraint could advocate the repeal of stipulative criminal offences.[42] But this comes at a heavy cost indeed, even if some stipulative offences ought to be repealed on balance. The heavy cost is that relying upon individuals to decide for themselves whether they expect some conduct meets a vague *actus reus*, such as 'driving at an unsafe speed', will predictably result in widespread avoidable error even by those who act in good faith.[43] As a result, providing a stipulation will prevent error from those who act in good faith (as well as compelling those with more base motives to

[40] This concept is outlined in: R. A. Duff, "Crime, Prohibition, and Punishment," *Journal of Applied Philosophy* 19, no. 2 (2002): 102, https://doi.org/10.1111/1468-5930.00207.
[41] Cornford, "Rethinking the Wrongness Constraint on Criminalisation," 634–37; Edwards, "Criminalization without Punishment," 78–80; Husak, *Overcriminalization*, 106–14.
[42] Husak flirts with advocating for the repeal of stipulative actus rei: Husak, *Overcriminalization*, 103–19.
[43] Duff, "Crime, Prohibition, and Punishment," 103.

avoid risks). Moreover, stipulations can prevent humiliating and otherwise damaging trial processes in other cases—such as victim cross-examination to determine sexual maturity if no age of consent is stipulated.[44] These gains are too substantial to forego wholesale.

Another quick reply would be to point out that many of those who commit an offence but who act permissibly have no assurance that they act permissibly—these offenders act just as culpably, merely in favourable circumstances. This reply does some work, but it does not resolve the problem entirely. Some who commit a stipulative offence will have convincing evidence that they act permissibly and criminalisation of these offenders—call them the 'epistemically advantaged'—is presumptively inconsistent with the wrongness constraint. Consider, for example, an off-duty police officer who speeds on the motorway in their own car knowing that they have successfully completed an advanced driving course at work. To show that the criminalisation of epistemically advantaged offenders is consistent with a wrongness constraint another argument is needed.

Here are two complete replies to the problem of stipulative offences. The first argument goes like this: at least sometimes, there's a duty to provide assurance that we act permissibly in addition to the duty to act permissibly, and breaching a duty is wrong, so stipulative offences satisfy the wrongness constraint. In *Answering for Crime*, Duff puts it as follows:

> "we owe it to each other not merely to ensure that we act safely, but to assure each other that we are doing so, in a social world in which we lack the personal knowledge

[44] Admittedly, cross-examinations of this sort could be banned. But banning these cross-examinations would curtail the ability of defendants to defend themselves and may result in *de facto* stipulation—taking us back to the problem we started with.

> of others that could give us that assurance; we provide such assurance in part by publicly following public safety-protecting rules, such as the speed limit."[45]

The idea that it is important not only that we do the right thing, but that it is also important that we provide reasonable assurance that we are doing the right thing is common. It is important in the context of structural inequalities, for instance, for companies to declare their commitment to fair hiring practices, providing data and examples as evidence, in addition to their hiring practices meeting appropriate standards.[46] In addition we do not simply take planners and building contractors at their word; we require them to assure us of their compliance with building standards by submitting their work to public authority safety examinations. These are just a few of several possible examples.

That a practice is common does not necessarily make it well-founded morally, but there are multiple ways we might ground a moral duty to give assurance to others, thereby mandating we obey reasonable stipulative laws. One grounding Duff considers in a passage shortly following the text above is a duty to respect others as 'civic fellows' to whom we owe a duty of solidarity.[47] But we need not owe duties to fellow citizens directly to vindicate a duty to provide assurance of compliance with public rules. Another grounding is that maintaining a 'well-ordered society' by respecting public laws in the pursuit of political stability partly satisfies Rawls' natural duty of justice to foster and maintain just institutions.[48] According to this explanation we are duty bound to provide assurance that we comply with public rules not because we are bound by bonds to our fellow citizens, but because it is a token of fulfilling our pre-political moral duty to create

[45] Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law*, 170.
[46] These are also instrumentally good in the sense that they are steps toward solving the wider problem. But the point concerning assurance is not in tension with those other benefits.
[47] Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law*, 171.
[48] John Rawls, *A Theory of Justice*, Rev. ed. (New York, NY: Oxford University Press, 1999), 397–98.

stable political institutions in our mutual interest. While these are rival explanations, they need not compete. It could be that we have reason to comply with stipulative laws because they wholly satisfy moral duties owed to our fellow citizens and in part satisfy a moral duty to foster and preserve mutually beneficial political institutions. So, to me, focusing on the (various) grounds we might have for providing assurance that we comply with (some) reasonable public rules provides a very plausible explanation of why it is wrong to violate stipulative laws even with epistemic advantage.

Despite offering reason to support a duty of assurance, a second reply to the problem of stipulative offences for the wrongness constraint is found in Duff's later work. There Duff argues that the wrongness constraint should not be understood as a formal principle of criminalisation, rather the wrongness constraint is a substantive principle of criminalisation. The difference is that a formal wrongness constraint would indeed prevent any permissible criminalisation of stipulative offences since it would prevent any statute making permissible conduct criminal *in legislation*; whereas a substantive wrongness constraint allows criminalisation of permissible conduct in legislation, provided the conduct is not liable to criminal procedure *in practice*.[49] Assuming away the appeal to a duty of assurance solution to the problem of stipulative offences for the sake of argument, here is an illustrative example. The offence of speeding fails to satisfy a formal wrongness constraint, since the formal constraint is concerned only with what the law says, but existing traffic laws are consistent with a substantive wrongness constraint provided the police and prosecutors do not pursue cases against the epistemically advantaged.

[49] Duff, *The Realm of Criminal Law*, 67–70.

In other words, the wrongness constraint is not a strict constraint on legislators (though legislators ought nevertheless to keep to a formal wrongness constraint where possible) it is government agents—namely the police and prosecution services—that ought to ensure that offenders have both committed an offence *and conducted themselves wrongly.* Since, this argument goes, it is actual condemnation and actual punishment which matter, the wrongness constraint need only constrain the actual consequences of criminalisation and this is at the discretion of police and prosecutors. Provided this discretion is predictable and known to be reliably accurate the appropriate substantive wrongness constraint is satisfied even when permissible conduct is proscribed in legislation.

The shift from a formal to a substantive principle in order to preserve the plausibility of the wrongness constraint works, but it is both unnecessary and misguided. It is unnecessary as we have already seen duties of assurance do a good job of explaining what is wrong with violating stipulative offences and it is misguided for three reasons.[50] First, a merely substantive wrongness constraint impedes autonomy whereas a formal wrongness constraint does not. Recall from earlier that one reason we have for adopting a wrongness constraint is that it helps constrain the incursion of the criminal law into our autonomy only to the extent that the loss of autonomy is on balance justified. But, unlike punishment, the detrimental effects of criminalisation on autonomy begin well before conviction, and well before the decision to prosecute particular cases too. Fear of prosecution will see many refrain from conduct for which they ought not to be prosecuted according to a substantive wrongness constraint; conduct they would not refrain from if

[50] There are additional problems with this view, unaddressed above, that I want to flag up. For one thing, this proposal implicates the presumption of innocence. See: Victor Tadros, "The Ideal of the Presumption of Innocence," *Criminal Law and Philosophy* 8, no. 2 (2014): 449–67, https://doi.org/10.1007/s11572-013-9253-6. Further, sweeping discretional power will concern those who seek to reduce the risk of arbitrary power relations.

they had the benefit of a formal wrongness constraint which required that criminal legislation be restricted to wrongs.

Second, using discretion as a method of screening out the epistemically advantaged after the fact licences individuals to decide for themselves whether their conduct is wrong *ex ante;* this may lead to widespread overestimation of epistemic advantage and a corresponding risk to public safety. While officials may try to publicise stern tests for epistemic advantage, prosecution guidelines will need to be flexible to account for unanticipated cases of genuine epistemic advantage.

Third, it is unclear how individuals under suspicion could explain themselves in a way which the public could be expected to accept. Cases of genuine epistemic advantage rely on the fact that individuals have privileged access to information, or could call upon extraordinary skills, claims which those with ordinary informational access or ordinary skills cannot assess. The process for granting retrospective licences to break stipulative laws is therefore intrinsically opaque, and that opacity is a detriment to democratic government.

Since the appeal to a substantive, rather than a formal, wrongness constraint is so problematic, we had better abandon it. Appeal to duties of assurance, grounded in a few different possible ways, suffice to defend the wrongness constraint against the challenge of stipulative laws. We can maintain that legislators ought only to criminalise conduct that is wrong and that stipulative laws adhere to this principle because, even when offenders do not commit the wrong at which the stipulative offence is directed, they nevertheless

wrongly fail to assure the public that they are adhering to reasonable public standards of behaviour. Consequently, the second objection to a wrongness constraint fails.

I have therefore found that the simple wrongness constraint is defensible—since there are good responses to objections which have been raised in the normative criminalisation literature—and that we have good reasons to adopt it: to avoid inapt condemnation, unjust punishment, and unreasonable incursions into personal autonomy.

§3.4 Conclusion

This chapter began the search for principles of morally permissible criminalisation. It discussed two constraints from the normative criminalisation literature: the harm principle and the wrongness constraint. This chapter has rejected the harm principle and defended the wrongness constraint. The wrongness constraint therefore becomes the first normative hurdle for the case for criminalising contributions to climate change to clear. In order to clear it, we will need to disambiguate different interpretations of the wrongness constraint and their implications and we will need to know why contributing to climate change is wrong, if at all. Those are the two tasks for the next two chapters respectively.

Which wrongness constraint?

In Chapter 3 I introduced and defended a simple wrongness constraint on criminalisation. But the simple wrongness constraint obscures three subtly different variants of a wrongness constraint one can endorse. In this chapter, I argue that we ought to adopt just one variant—the weak wrongness constraint.[1] According to the weak wrongness constraint, conduct justifiably criminalised must be morally wrong, but the conduct may be morally wrong conditionally on the existence of the criminal law making it an offence. This chapter therefore clarifies the standard against which the candidate criminal offences from Chapter 2 are to be tested. Chapter 5 will then investigate what, if anything, is morally wrong with contributing to climate change and whether this satisfies the weak wrongness constraint.

This chapter proceeds as follows. §4.1 will introduce a crucial conceptual preliminary: the distinction between crimes *mala in se* and crimes *mala prohibita*. §4.2 then outlines three variants of the wrongness constraint: the strong wrongness constraint; the moderate wrongness constraint; and the weak wrongness constraint. Most of the heavy lifting will be done in §4.3, there I will argue that the weak wrongness constraint is preferable to the strong and moderate constraints and that we should adopt it on the balance of reasons in competition with the other views. §4.4 will then outline and reply to an objection peculiar to the weak wrongness constraint before §4.5 concludes.

[1] This chapter relies heavily on arguments I present in published work forthcoming. See: Adam R. Pearce, "Evaluating Wrongness Constraints on Criminalisation," *Criminal Law and Philosophy*, n.d., https://doi.org/10.1007/s11572-020-09550-9. Sections 4.1 to 4.3 (inclusive) herein are reproduced from the original. The substance of the arguments is unchanged from the original but: some material has been omitted, there are some minor grammatical edits and alterations to cross-references, and I have occasionally elaborated on points underdeveloped in the original.

§4.1 *Mala in se* and *mala prohibita*

In order to understand the distinction between three different variants of the wrongness constraint, it is useful to describe the distinction between crimes *malum in se* and crimes *malum prohibitum. Mala in* se offences (offences 'wrong in themselves') proscribe conduct which is wrong independent of the details of the law. For example, killing (without very good justification) is morally wrong independent of whether it is, given the legal situation, the criminal offence of murder.[2] By contrast, *mala prohibita* offences (offences 'wrong because prohibited') supposedly require details of the law to render the underlying conduct wrong. The example of a *malum prohibitum* I will proceed with, like any, is controversial. Views differ on the precise content of moral duties such that, even if we can agree the example is morally wrong, we may disagree about whether it is wrong dependent on, or independent of, law. If my example is unconvincing, swap it for another you find convincing. It is the structure of the example, not the detail, which is important.

My example is as follows: it is unlikely that it is wrong, independent of law, to pay *marginally less* than would be required by a legal minimum wage; but it would be wrong to undercut a legal minimum wage. One reason why undercutting a minimum wage is wrong is that a minimum wage seeks to improve living standards by improving wages at the bottom of the scale and undercutting it frustrates the project of improving living standards both consequentially and symbolically. Absent the minimum wage law, however, it would not be possible to frustrate the project of improving living standards by paying a given wage because either there is no project to raise living standards (as in an extreme laissez-faire economy) or because the means of raising living standards does not depend on conformity to a minimum wage (as could be true of a Universal Basic

[2] To be clear all subsequent references in this chapter to wrongs, wrongdoing, wrongness, etc. refer to moral wrongs, moral wrongdoing, and moral wrongness unless explicitly stated otherwise. I omit the qualifier for ease of expression.

Income scheme). Of course, a given token of the offence could be *malum in se*—e.g. significantly less than a reasonable minimum—but the token of offence I'm considering is paying only marginally less than a minimum wage and without a socially established threshold it is unclear why there should be any moral difference between paying wages marginally above and marginally below some fixed point.[3] Nevertheless, the offence category overall is best labelled *malum prohibitum* because all offence tokens are at least *malum prohibitum*. With this clarifying example we can characterise the distinction between *mala in se* and *mala prohibita* as a distinction between wrongs independent of, or dependent on, details of the law.

§4.2 Three wrongness constraints

Now consider the strong wrongness constraint:[4]

> *Strong wrongness constraint*: it is a necessary condition of morally permissible criminalisation that the conduct proscribed is morally wrong independent of law.

The strong wrongness constraint disqualifies any genuine *mala prohibita* conduct from permissible criminalisation because *mala prohibita* offences, by definition, are wrong dependent on details of the law.

[3] You may be tempted to think that most wages are wrong because anything less than an equitable share of profit (and or common ownership of the means of production) amounts to exploitation. That may well be right, but it doesn't explain the apparent difference between paying an exploitative wage and paying an exploitative wage below a recognised minimum. I take it that the latter is worse and that is perfectly consistent with the view that most wages are wrong. Even on this view and in the example above, then, laws appear to have some effect on the moral status of some conduct. At least, therefore, it is possible that laws could make a difference between right and wrong, not just between better or worse, and we return to the suggestion of swapping in a favourable example.

[4] Victor Tadros distinguishes a strong and weak wrongness constraint: Victor Tadros, "Wrongness and Criminalization," in *The Routledge Companion to Philosophy of Law*, ed. Andrei Marmor (New York, NY: Routledge, 2012), chap. 158, https://doi.org/10.4324/9780203124352.ch11. In fact, I think there are three different variants of a wrongness constraint. I recharacterise Tadros' strong constraint as a moderate constraint and add a variant stronger still.

Alternatively, the moderate constraint is as follows:

> *Moderate wrongness constraint*: it is a necessary condition of morally permissible criminalisation that the conduct proscribed is morally wrong independent of criminalisation.

The moderate constraint is more permissive than the strong wrongness constraint about how permissibly criminalisable conduct may be wrong. The moderate wrongness constraint rules out criminalisation when criminalisation itself is a necessary condition of the wrongness of the conduct in question. If regulation is sufficient to make conduct wrong—not the additional threat of criminal proceedings and sanctions—then the moderate wrongness constraint is satisfied. But when criminalisation itself is a necessary condition of the wrongness of conduct, the moderate wrongness constraint holds that criminalisation is impermissible. The moderate wrongness constraint relies upon being able to reasonably clearly distinguish criminal and non-criminal law but the rough distinction I offered in Chapter 2 will suffice. Criminal law implicates criminal procedure (with its special attendant rights, standard of proof, etc) and punishment, whereas regulation does not implicate criminal procedure and punishment.

Since it is likely that all that is required to make contributing to climate change wrong, along with overseeing or legitimising climate change, is non-criminal regulation (see Chapter 5, §5.6), the moderate wrongness constraint suffices to permit the criminalisation of all candidate offences listed in Chapter 2, Table 2.1. But a constraint weaker still can be defended, and this will permit criminalisation of the candidate offences just in case criminalisation itself is necessary to make contributions to climate change wrong. Consider the weak wrongness constraint:

> *Weak wrongness constraint*: it is a necessary condition of morally permissible criminalisation that the conduct proscribed is morally wrong, but criminalisation may be a necessary condition of the wrongness of the conduct.

The weak wrongness constraint is most permissive, of the three constraints, about how permissibly criminalisable conduct may be wrong. On this view wrongness may be conditional on criminalisation itself. What the weak constraint does still rule out, however, is the criminalisation of conduct which would remain permissible after criminalisation. Of course, if there is a content-independent moral duty to obey the law because it is authoritative law, then the weak constraint would constrain nothing.[5] Few contemporaries defend a content-independent duty to obey the law, however, so few are likely to level this complaint.[6] That said, Thomas Christiano and others argue that we have a content-independent duty to obey the law when that law is appropriately democratically produced.[7] This view, though, is not as troubling for the weak wrongness constraint as it might be.

One reason democratic authority is not so troubling is that the democratic procedures required to generate content-independent obligation are very demanding, so it is unlikely a weak wrongness constraint is redundant in practice. Another reason is that we might doubt that the duty to obey democratically authorised law is absolute. Conclusively

[5] Note this is also true of the moderate wrongness constraint. If there is a content-independent duty to obey the law, not just the criminal law but the non-criminal law too, then violating any regulation would be wrong and the moderate wrongness constraint would be satisfied by any law whatsoever. Only the strong wrongness constraint practically constrains criminalisation if we adopt a content-independent duty to obey the law. But, as I go on to explain, this is not an important problem.

[6] For a review of the literature see: William A. Edmundson, "State of the Art: The Duty to Obey the Law," *Legal Theory* 10, no. 4 (2004), https://doi.org/10.1017/S1352325204040236.

[7] Thomas Christiano, "The Authority of Democracy," *Journal of Political Philosophy* 12, no. 3 (2004): 266–90, https://doi.org/10.1111/j.1467-9760.2004.00200.x; Daniel Viehoff, "Democratic Equality and Political Authority," *Philosophy & Public Affairs* 42, no. 4 (2014): 337–75, https://doi.org/10.1111/papa.12036.

establishing that the duty is not absolute would lead me astray, but it will be enough to motivate discussing the weak wrongness constraint by raising doubt. Doubt arises when we ask how democratic authorisation creates a moral duty to obey especially ineffective and morally suspect criminal law. For example, criminalisation of drug *possession* is plainly ineffective,[8] and drug possession is (at least) arguably morally permissible.[9] Even supposing criminalising drug possession is democratically authorised, it is difficult to believe that it is morally wrong to disobey a demonstrably ineffective or sufficiently morally suspect criminal law—although there might still be prudential reasons to obey it. If these doubts are plausible, then a weak wrongness constraint still bites because it disqualifies criminalising drug possession (or equivalently ineffective and morally suspect prohibitions).

[8] There is widespread criticism of drug policy among criminologists. An international report by The Global Commisson on Drug Policy is illustratively damning of existing criminal regulation of drug possession, see: The Global Commission on Drug Policy, "The War on Drugs," 2011, www.globalcommissionondrugs.org/wp-content/uploads/2017/10/GCDP_WaronDrugs_EN.pdf.
[9] A convincing moral case for the legalisation of possession is made in: Douglas Husak, *Legalize This! The Case for Decriminalizing Drugs* (London: Verso, 2002).

§4.3 Why the weak constraint is most defensible

In this section I argue the weak wrongness constraint is most defensible. This turns on a comparative evaluation of the strengths and weaknesses of each view. The reasons we have for endorsing a wrongness constraint are crucially important for that evaluation, since not all variants of the wrongness constraint are consistent with each. It will be helpful to recall the reasons for adopting a wrongness constraint (from Chapter 3, §3.3) again now.

The three reasons are: the prevention of inapt condemnation; the prevention of unjust punishment; and the preservation of autonomy. A wrongness constraint on criminalisation requires that only those who should be condemned, those who have done wrong, are subject to the condemnatory practices of the criminal justice system (although see Chapter 3, §3.3.2 for a discussion of false convictions). Similarly, a wrongness constraint requires that those subject to criminal punishment have acted wrongly, which is often taken to be a necessary condition of justified punishment. And a wrongness constraint provides a bulwark against undue incursion into the autonomy of citizens.

Notably, the weak wrongness constraint preserves each of these reasons to endorse a wrongness constraint—and so they give us no reason to prefer the strong or moderate constraints. Since criminal procedures and conviction follow criminalisation, all condemnation for *mala prohibita* in criminal procedures will still be apt—that is, criminalisation won't inappropriately condemn morally permissible conduct.[10] For the

[10] It may not always be apt to condemn wrongs. More accurately, a wrongness constraint requires that condemnation not be inapt *because morally permissible conduct is condemned*. On occasion, it may be inapt to condemn a wrong done in extenuating circumstances, for which the agent is remorseful, and so on. There are two things to say about these cases. First, our reasons to avoid this sort of inapt

same reason any subsequent punishment for offences which satisfy the weak wrongness constraint will satisfy a necessary condition that only wrongs be punished. Meanwhile autonomy to engage in morally permissible conduct is preserved by the weak wrongness constraint all the same.

Let's now add a fourth and final reason to endorse a wrongness constraint which will be relevant to the comparative evaluation of the three wrongness constraints because this reason is not consistent with all three wrongness constraints. As stressed in Chapter 3, §3.1, the wrongness constraint is a *negative* principle of criminalisation, since it specifies what ought not be criminalised, distinct from a *positive* theory which specifies the reasons which justify criminalisation. The wrongness constraint is consistent with a host of different positive reasons in favour of criminalisation. A wrongness constraint may be required, however, by a positive theory of criminalisation. The fourth reason to endorse a wrongness constraint is that a wrongness constraint is required by an influential positive theory of criminalisation. For 'positive legal moralists', like R. A. Duff,[11] there is justificatory reason to criminalise conduct only when that conduct is (publicly) wrong and so should be appropriately condemned. Rather than continue to refer to positive legal moralism, call reasons to condemn 'expressivist reasons' and call theories which require expressivist reasons to justify criminalisation 'expressivist theories'.[12]

condemnation might not be as strong as they are for condemning permissible conduct. Two, and even if the reasons are just as strong in both sorts of case, our reasons to avoid this type of inapt condemnation may only support a principle of prosecution, such as the 'public interest' principle, rather than a principle of criminalisation.

[11] Duff outlines and defends one brand of positive legal moralism first in: Duff, "Towards a Modest Legal Moralism"; and most recently in: Duff, *The Realm of Criminal Law*.

[12] NB: The term 'expressivist' is usually reserved for theories of punishment. I do not use it in such a restricted way. I use it as 'expressivist reasons' is more economical than 'positive legal moralist reasons'. It also allows for the distinction between expressivist and desert-based versions of positive legal moralism. Note finally that this view is not to be confused with, and need not be related to, metaethical expressivism.

Consider the following statement of expressivism:

> *Expressivism*: The fact that conduct is (publicly) condemnable provides justificatory reason to criminalise it. Moreover, it is a necessary condition of morally permissible criminalisation that there is at least some reason to (publicly) condemn the criminalised conduct, whatever other justificatory reasons there are.

Expressivist theories require a wrongness constraint to be satisfied because the case for criminalising the conduct is otherwise defeated.[13] The case is defeated because when conduct is not wrong, there is no expressivist reason to criminalise that conduct. There might be reasons besides, but these are always insufficient to justify criminalisation in the absence of reason to condemn the relevant conduct. In this respect, expressivism is both a positive and a negative theory of criminalisation. It provides an account of the justificatory reasons for criminalisation (the positive part) but requires reason to condemn in every justifiable case, thereby constraining criminalisation to wrongs (the negative part). Consequently, endorsing an expressivist theory gives conclusive reason to endorse a wrongness constraint. This means that expressivists, or at least anyone who wishes to keep an expressivist theory available, have a fourth reason to maintain a wrongness constraint.

This matters since the weak wrongness constraint is not consistent with expressivism. Nevertheless, I will now argue that the weak constraint is most defensible. Both the strong and moderate constraints are subject to troubling counterexamples unless they

[13] Duff's theory is expressivist as I have used the term as it maintains that criminalisation must be motivated by condemning public wrongs in the appropriate public forum, i.e. the courts. Explicitly: "[w]e have reason to criminalize a type of conduct if, and only if, it constitutes a public wrong." Duff, *The Realm of Criminal Law*, 232; Moore's legal moralism, although grounded in desert rather than condemnation (and is therefore not expressivist, since the conditions for satisfying desert and condemnation could be quite different), would also have a similar indirect reason to endorse a wrongness constraint. This is because Moore's legal moralism holds that the only legitimate reason for criminalisation is to give offenders their just deserts for culpable wrongdoing. So, if a wrongness constraint is not satisfied, there is no reason to criminalise according to Moore: *Placing Blame*, 662.

make implausible factual claims. This is a greater flaw than the weak constraint's inconsistency with expressivism. I begin with criticism of the strong constraint, and then move through to criticism of the moderate constraint, before defending the weak constraint.

§4.3.1 Problems for the strong wrongness constraint

Recall the strong wrongness constraint: '*it is a necessary condition of morally permissible criminalisation that the conduct proscribed is morally wrong independent of law*.' According to the strong wrongness constraint, if *mala prohibita* exist then their criminalisation is impermissible. This is because, by definition, *mala prohibita* conduct is wrong dependent on law. If a defender of the strong wrongness constraint is also to argue that many offences typically understood as *mala prohibita* are permissibly criminalised, then they will seek to deny these offences are *mala prohibita*. Although radical, this position is not immediately and obviously implausible.

It is not immediately implausible because law does not make apparent *mala prohibita* conduct wrong, as a literal understanding of the Latin would indicate. The law is not alchemy. It does not fundamentally change rights to wrongs like turning base metals to gold. Law is individually insufficient to make conduct wrong, even though it can generate duties to act in particular ways, because the law must act in combination with pre-legal moral duties to make conduct wrong. Since there is no plausibly relevant moral duty, the law cannot make 'admiring the view' wrong, for example. Sensible *mala prohibita* offences make plausible connections between previously ambiguous or unrelated acts

and pre-existing moral duties.[14] One route to defending the strong wrongness constraint, then, is to emphasise the connection to pre-existing moral duties.

"It's hard to believe," Susan Dimock writes, "that anyone thinks such conduct is not wrong unless it's criminalized: that placing the safety of other road users in peril, damaging the environment, and making or selling products unfit for consumption would not be wrong unless criminalized."[15] Dimock's sentiment is surely right, broadly speaking. There clearly is something wrong with this sort of behaviour pre-legally, even though it appears to depend on details of the law. For example, damaging the environment is pre-legally wrong. Nevertheless, it is the details which are more complex. Whether disposing of household waste is damaging to the environment is dependent on how and where I dispose of it. Fly-tipping is damaging but disposing of waste in a regulated site with strict provisions for preventing subsequent pollution is not. And fly-tipping just is disposing of waste outside of regulated sites. So, whether disposing of waste is wrong is dependent on details of the law. But that is not to say that criminalisation has made damaging the environment wrong. There was always a pre-legal reason not to damage the environment, it is just that law can generate duties to act in particular ways which are only comprehensible given legislation.[16]

[14] One way of understanding this connection is to invoke Kant's distinction between perfect and imperfect duties. On this picture, the law converts pre-legal imperfect duties without concrete action prescriptions (to aid raising living standards, say) into perfect duties with concrete action prescriptions (to pay a minimum wage). This probably isn't the only way of understanding the phenomenon, but it seems to me like a helpful one. I'd like to thank an anonymous reviewer for *Criminal Law and Philosophy* for this suggestion.
[15] Susan Dimock, "The Malum Prohibitum—Malum in Se Distinction and the Wrongfulness Constraint on Criminalization," *Dialogue* 55, no. 1 (2016): 14, https://doi.org/10.1017/S0012217316000275; see also Tadros, who quickly narrows discussion down to special cases after recognising that many apparent mala prohibita offences can be described as pre-legally wrongful: Tadros, "Wrongness and Criminalization," chaps. 166–167.
[16] This is not a novel point. Joseph Raz outlines this connection because the "service conception of authority" relies on a relationship between pre-legal moral reasons and subsequent moral obligations given law. Joseph Raz, "Authority and Justification," *Philosophy & Public Affairs* 14, no. 1 (1985): 3–29.

Noting the relationship of law to pre-legal reasons is not sufficient to defend the strong wrongness constraint, however. The defender of the strong wrongness constraint—if they are not to disqualify all *mala prohibita*—must make a further claim that *all apparent mala prohibita violate pre-legal duties*. This unusual claim must be made since wrongs permissibly criminalised according to the strong wrongness constraint cannot depend on details of the law. To see why this claim is unusual recall the example of paying below minimum wage. It is plausible we have pre-legal reasons not to undermine attempts to raise living standards, but this does not give us a pre-legal duty to pay a minimum wage because the minimum wage is a legal construct. We have the specific duty in virtue of the specific provision of a minimum wage in law. We have no pre-legal duty to pay a minimum wage because without the law there is no minimum wage and so either no attempt to raise living standards at all or some other attempt to which precise wage rates are irrelevant. It is natural, then, that we say the law is a dependent detail of wrongs *malum prohibitum.*[17] The strong wrongness constraint seems committed to denying this.

The problem with relying on the claim that *mala prohibita* are not what they seem is that we want principles to regulate the world as we find it and come to plausible conclusions. Ultimately it matters much more whether the principle comes to plausible conclusions but ideally principles also come to plausible conclusions in a recognisable way, and so don't appear to distort the relevant facts. Further, I assume that widely recognisable reasoning is especially important for principles, like principles of criminalisation, which regulate state intervention in our lives. If, as is plausible, the state owes us good

[17] In effect, this is just to restate Raz's rejection of the "no-difference thesis." Raz claims that just because authoritative law is grounded in pre-legal reasons, this does not mean that the law itself makes no difference to our reasons for action: ibid., 15–18.

justification for its interventions in our lives, it would be best if they offer justification to us in a widely recognisable way.

Alternatively, a defender of the strong wrongness constraint might be content to disqualify all *mala prohibita*. In which case, the defender of the strong wrongness constraint faces a dilemma. Either they are landed with a suspicious claim that all permissible criminal offences violate pre-legal duties (and deny dependence on the law) or they are required to reject several *prima facie* plausible criminal offences. To be clear, it is not obvious whether Dimock is stuck with the unusual claim that *mala prohibita* violate pre-legal duties or the claim that *mala prohibita* are rightly disqualified. Dimock claims that either laws are read as *mala prohibita*, in which case they are unjust, or laws are read as implicating pre-legal duties, in which case they are just but no longer *mala prohibita*.[18] Dimock therefore picks up on the dilemma I present, but rather than address it Dimock instead concludes that the ordinary conceptual understanding of *malum prohibitum* is mistaken.

A different understanding might be correct, conceptually speaking. Since even the most obvious *mala in se* rely on some legal stipulations—the offence of murder stipulates a maximum span of time between cause and death, for instance—perhaps the distinction is best understood as a difference in degree rather than kind.[19] Some offences are more *mala in se*, others more *mala prohibita*, but every offence has elements of each. But reinterpreting *mala prohibita* in this way just amplifies the problem for the strong

[18] Dimock, "The Malum Prohibitum—Malum in Se Distinction and the Wrongfulness Constraint on Criminalization," 15–17.
[19] This view is attributable to Stuart Green, see: "Why It's a Crime to Tear the Tag off a Mattress: Overcriminalization and the Moral Content of Regulatory Offenses," *Emory Law Journal* 46, no. 4 (1997): 1533–1615. I'd like to thank an anonymous reviewer for *Criminal Law and Philosophy* for prompting me to discuss this view.

constraint. If the difference is a difference in degree, and every offence has a *malum prohibitum* component, then the strong wrongness constraint either disqualifies all criminal offences or makes suspicious claims about all criminal offences. Highlighting that all (reasonable) *mala prohibita* offences also have a *malum in se* component does not rescue the strong constraint either since this renders the strong constraint inconsistent: *mala prohibita* both satisfy and fail it. Consequently, reinterpretation is a dead end for defending the strong constraint.

In summary, finding that the strong constraint cannot avoid implausibly claiming that *mala prohibita* are not what they seem, else implausibly disqualify all *mala prohibita* offences, we might move to firmer ground by endorsing the moderate wrongness constraint instead.

§4.3.2 Problems for the moderate wrongness constraint

Recall that, according to a moderate wrongness constraint, criminalisation is permissible so long as criminal law is not involved in making the conduct wrong. For example, it is permissible to criminalise tax evasion if the mere existence of a legal tax system makes evasion wrong. But it is not permissible to criminalise conduct for which criminalisation is a necessary condition of wrongness. It is plausible occasions of the latter case—conduct wrong only because it is criminalised—which present problems for the moderate constraint (and the strong constraint by extension).

Victor Tadros presents the problem in question by way of the following hypothetical case:

> Possession of a knife in a public place may be wrong. But it may be wrong only if enough other people comply with the prohibition on knife possession. Were many people to carry knives, possession of a knife in a public place would be justified to enhance personal security. The appropriate security threshold may be reached only if knife possession is criminalized. Mere regulation of knife possession, where the regulation is not backed up by a threat of punishment, may be insufficient to render public knife possession wrong. Once enough people comply with the law prohibiting public knife possession, it becomes wrong to possess a knife. The dangers that public knife possession imposes on others, as well as the fear that knife possession may cause harm to citizens would, in that case outweigh any benefits to the person who possesses the knife.[20]

Tadros' example describes a scenario where possession of a knife is wrong only once criminalised. Criminalisation is thus impermissible according to the strong and moderate wrongness constraints. Without an adequate reply to this kind of case, the strong and moderate wrongness constraints would be implausible. Lack of a reply is implausible because I presume that such cases are not fiction and that they implicate important and plausible criminal proscriptions (like weapons possession) and not trivialities.[21]

Duff offers a response to Tadros' case. Duff argues that Tadros' knife example is a *malum in se* dressed up as a *malum prohibitum* given a misleading action description.[22] Insofar as we describe the criminalised act as 'knife possession' generally, it appears that criminalisation affects the permissibility of knife possession as Tadros describes. But this is a disputable action description of the conduct proscribed. A competing claim holds that it is a more granular action description which is criminalised, 'non-self-defensive knife possession', and non-self-defensive knife possession is *malum in se*. It is wrong even if the intention is (mistakenly) self-defensive because possession is not reasonably

[20] Tadros, "Wrongness and Criminalization," 169.
[21] Of course, these assumptions might turn out to be factually wrong, but Tadros' case is certainly a possibility. And even if these cases are fictional, it is still a theoretical problem since these are the sort of problem that we would like a suitably complete theory to answer.
[22] The argument in text follows Duff, *The Realm of Criminal Law*, 60–61.

factually justified on self-defensive grounds.[23] Moreover, the granular action description is more accurate in practice since criminal offences are subject to general defences like self-defence so it is only non-self-defensive possession which is criminalised *de facto*. Duff's reply renders Tadros' case consistent with both the strong and moderate wrongness constraints.

The telling shortcoming of Duff's appeal to granular action descriptions is that it does not work for a case where the offence cannot be re-interpreted as *malum in se*. Here is such a case. It could be wrong to possess a knife even when appropriately justified by self-defence prior to criminalisation, and when possession continues to have self-defensive reasons in its favour after criminalisation, because possession is wrong on balance conditionally on the existence of criminal law. This will be the case, at least temporarily, in Tadros' knife possession example. For simplicity, we imagine the criminal prohibition of knife possession in Tadros' case working instantaneously: once possession is a crime, the rate of possession is reduced sufficiently to render all possession non-self-defensive. But the much more likely outcome is that the rate of possession will trend downwards following criminalisation and only after some time is it true that all cases of possession are not supported by self-defensive reasons. Consequently, for some time after criminalisation possessors have self-defensive reasons for possession. Criminalisation, however, can make a difference to the balance of reasons for possession—and therefore make possession unjustified on balance despite self-defensive reasons—and it does so by introducing a collective action solution from which it would be unfair to defect. In order for the criminal law to have its expected effect—i.e. in order for the rate of possession to be reduced by the threat of criminal sanctions—there will need to be first-movers who

[23] Of course, in this scenario subsequent guilt would depend upon whether intention is a required *mens rea*. But the underlying conduct, the *actus reus*, is wrong according to the granular action description.

set the expected effect in train. Those first-movers will need to overlook or overrule the fact that disarming is not in their immediate defensive interest because it is in the long-term defensive interest of all. Disarming, then, is a collective action problem where the solution is criminal law which threatens sanctions for non-compliance. And non-compliance in the face of legitimate collective action problem solutions is commonly thought to be wrong because free riding violates a principle of fairness.[24]

The example from Tadros, adjusted to account for a lag in securing sufficient compliance, still provides a case where conduct (knife possession) is justified pre-criminally (because self-defence justifies possession in the absence of counterbalancing reasons) but unjustified post-criminally (because, although agents still have self-defensive reasons to possess, they now have weightier reason to avoid free-riding). But now notice how Duff's reply to Tadros does not help answer the adjusted example. Duff's claim was that the conduct criminalised in Tadros' example is not possession *simpliciter*, but instead non-self-defensive knife possession and, because non-self-defensive knife possession is *malum in se*, the example is consistent with the moderate (and strong) wrongness constraint(s). This move cannot be made for the adjusted example, however, because the adjusted example demonstrates one of two possibilities—neither consistent with the moderate constraint.

Either 'non-self-defensive knife possession' is not always *malum in se* because at least one instance of it is wrong only after it is criminalised—i.e. possession, which despite self-defensive reasons in its favour, is not justified by self-defence because self-defence

[24] For a very detailed explanation and defence of this view see: Garrett Cullity, "Moral Free Riding," *Philosophy & Public Affairs* 24, no. 1 (1995): 3–34, https://doi.org/10.1111/j.1088-4963.1995.tb00020.x.

is outweighed by reasons of fairness conditional on the existence of the criminal law. Or, possession is no longer a case of non-self-defensive knife possession (even though possessors still have self-defensive reasons) and better described some other way, such as 'unjustified knife possession', which still admits of at least one *malum prohibitum* case. In short, the wrong cannot be recast as *malum in se*, or wrong dependently on regulation, so it cannot be made consistent with the strong or moderate wrongness constraints.

Let me now respond to some objections to the preceding argument. First, in order for the example to do the work I have attributed to it, it needs to be true that the unfairness of defecting from a collective action solution outweighs the reason agents have to possess a knife to defend themselves. Given the gravity of self-defence and the scope of permissions it provides—sometimes even killing in self-defence—it might seem that the example rests on an implausible balancing of reasons. Put another way: if self-defence is such a strong reason that it can sometimes justify killing, why can't it justify acting unfairly?

Part of the problem with this objection is that it does not adequately reflect the variable strength of self-defensive reasons. While imminent threats to life may justify deadly retaliatory force, the strength of my reason to defend myself diminishes as the severity of the threat decreases and the remoteness of the threat increases. When we consider the threat to the public of widespread knife possession it should be noted that while the severity of the threat is serious—serious injury, perhaps death—the threat is relatively remote, in the sense that there is an appreciable, but low probability that I will be attacked. This suggests that the strength of my reasons to defend myself from widespread knife possession, by myself possessing a knife for security, might not

obviously outweigh my reasons to avoid unfairly defecting from a collective action solution. And so when we also note that I am not being asked to give up my interest in self-defence permanently by complying with the ban on possessing a knife—instead being asked to disarm now with a view to widespread compliance in future and, therefore, widespread defence—it is much less obvious that possessing a knife can be justified by self-defence in defiance of a reliable solution for widespread defence.

Turning now to a second objection, if all that is required to make possession wrong despite self-defensive reasons is a collective action solution, then why can't that collective action solution be provided by non-criminal regulation?[25] Remember that according to the moderate constraint (but not the strong constraint) permissibly criminalised conduct may be wrong dependent on details of *regulation*. Once regulation stipulates a collective action solution, defection from the solution can then be criminalised consistently with the moderate wrongness constraint because defection is wrong.

The reason this objection fails is that it does not appreciate that criminal law is necessary to the success of the collective action solution. Note that Tadros stipulates only the threat of criminal sanctions is enough to predictably reduce the incidence of knife possession to eliminate justifications of self-defence. Criminalisation, then, is the only means to make the collective action solution *effective*. Plausibly, only effective collective action solutions generate obligations to comply out of fairness—at least, only solutions we have reasons to believe will be effective given the available evidence obligate—so mere regulation

[25] I'd like to thank an anonymous reviewer for *Criminal Law and Philosophy* for raising this objection.

banning knife possession cannot make it wrong to possess a knife because non-criminal regulation is not enough to obligate (and make defection wrong).

Only effective collective action solutions obligate because it is implausible that ineffective 'solutions' obligate. Consider the following, obviously ineffective, solution. Imagine the dominant religious community advises that all believers pray for would-be knife possessors to have the strength to disarm and publicly announces that would-be possessors' spirits will be liable to sanctions in the afterlife. Even if we grant that God sometimes answers prayers and that we have spirits liable to consequences in an afterlife, the religious intervention won't solve the problem. It won't solve the problem because no one believes God always intervenes and consequences in the afterlife will often weigh unfavourably (even for believers) against present and tangible threats of bodily harm. I take it to be clear that despite their efforts, we do not treat the religious community and the few disarmers they convince unfairly by choosing not to disarm since they fail to provide the benefit (mutual defence) for which our sacrifices (disarming) are asked. Only when the expected benefit can be (to some minimal extent) secured, are we required to make our personal sacrifices. It is because ineffective collective action solutions cannot obligate that mere regulation cannot obligate amnesty and thereby make knife possession pre-criminally wrong. Consequently, this second objection fails.

A final objection denies that the wrong cannot be recast as *malum in se*, but instead of adjusting to a more granular action description, this objection takes the opposite route and maintains that the offence violates a broad pre-legal duty 'to comply with reasonable effective collective action solutions when they arise.'[26] Notice that this objection reveals

[26] I am also thankful to an anonymous reviewer for *Criminal Law and Philosophy* for raising this objection.

the similarity between the problems posed to the strong and moderate constraints. The problems for both constraints are collective action problems which require legal solutions. The difference is that the problem case for the moderate constraint is considerably more complex than problem cases for the strong constraint since the problem for the moderate constraint needs to exclude the effects of non-criminal regulation. Also, resorting to the claim that there is a pre-legal duty to accept reasonable effective collective action solutions hangs the prospects of the strong and moderate wrongness constraints together because the purported duty is pre-legal, not just pre-criminal, and so rescues both the strong and moderate wrongness constraints if successful. The upshot of their prospects hanging together, however, is that their prospects are similarly problematic. Resorting to a pre-legal duty to accept reasonable effective collective action solutions when they arise produces the same problem I raised earlier against the strong constraint—that it appears to distort the relevant facts. We have a case of an offence which appears to clearly depend on criminalisation to make it wrong, only for an objection to deny that we have to describe the world this way. I can't see a reason why this objection must fail, but as I outlined earlier it is at least a little costly and certainly unnecessary.

It is costly because it would be better if principles came to plausible conclusions in conjunction with a recognisable picture of the relevant facts, and this is especially so for principles which play some role in justifying to us when the state may and may not intervene in our lives. And it is unnecessary because we can constrain the scope of the criminal law to wrongs by adopting the weak constraint without appearing to distort the relevant facts. Finally, it is unclear why we should have a pre-legal duty 'to accept reasonable effective collective action solutions when they arise', which just happens to save the strong and moderate wrongness constraints rather than a duty, for instance, 'to

support just institutions.'[27] A duty to support just institutions justifies criminalisation in the knife possession case above but need not save the strong and moderate constraints since it could allow that just institutions act to alter the precise content of our duties via legislation, criminal and non-criminal. Again, I can't see a decisive reason why we ought to reject a duty to accept reasonable effective collective action solutions when they arise, but nor can I see a reason to prefer it to a duty to support just institutions either.

If I am right about what the case above shows and my responses to the preceding objections, then the strong and moderate constraints cannot costlessly account for the wrong because the wrong appears to straightforwardly depend upon details of the *criminal* law. The problem generally is that this case demonstrates the strong and moderate constraints cannot account for all cases of *prima facie* plausible criminalisation without making implausible factual claims. As a result, we have found that Duff's reply to Tadros' problem does not resolve the difficulty which that problem raises.

§4.3.3 Why the weak constraint compares favourably

The preceding arguments show that maintaining the strong or moderate constraints is problematic. The weak constraint, by contrast, is not similarly problematic because, according to the weak wrongness constraint, criminalisation and wrongness can come together. Recall: '*it is a necessary condition of morally permissible criminalisation that the conduct proscribed is morally wrong, but criminalisation may be a necessary condition of the wrongness of the conduct*.' The considerations so far, then, count in favour of the weak wrongness constraint. In the remainder of this section I argue that the

[27] I have in mind here Rawls' natural duty of justice from: Rawls, *A Theory of Justice*, 99.

weak wrongness constraint is most defensible because its attendant drawback is less troubling.

The central criticism of the weak wrongness constraint is that it is not consistent with an expressivist theory of criminalisation whereas the strong and moderate variants are. Recall from above that a wrongness constraint can be a corollary of expressivist theories of criminalisation because wrongness is a necessary condition of having expressivist reason (reasons grounded in condemnation) to criminalise. As the weak constraint admits of cases where conduct is not wrong before its criminalisation, however, an expressivist theory cannot endorse the weak constraint. This is because there can be no expressivist reason to criminalise non-wrongful conduct. According to expressivism, wrongness is what makes conduct criminalisable; so, if the conduct is not wrong before criminalisation then there is no property which makes it criminalisable when the offence is created. And if there is no property which makes conduct criminalisable then (obviously enough) it should not be criminalised. If expressivism did allow criminalisation in order to create condemnable conduct, that would be a departure from the initially plausible view that wrongs ought to be condemned, in favour of the implausible view that we should generate wrongs so that we can condemn them.[28] That's the rather more serious penal equivalent of laughing at your own jokes.

However, it remains the case when endorsing the weak constraint that all conduct criminalised is apt for condemnation and its punishment just,[29] and that autonomy is not

[28] "It would be very odd indeed to criminalize conduct in order to make it wrong... Retributivists believe that the suffering of wrongdoers is good in itself. But surely they don't believe that its goodness can motivate us to bring about more wrongdoing so that we can pursure more of this good." Tadros, "Wrongness and Criminalization," 171. These claims are true of a non-retributive expressivist view too.
[29] That is, *if* punishment can be just at all. But it will be easier to argue it is just when the conduct is wrongful than when permissible.

(unreasonably) limited—three of four reasons for endorsing a wrongness constraint that I outlined above. I take a moment to note this as it is not clear from the existing literature. Duff defends the moderate constraint in pursuit of maintaining an expressivist theory and so need not consider the virtues of the weak constraint.[30] At the same time, those who might endorse a weak constraint do so without noting that they do so at so little comparative cost.[31] It would not be unusual for some reasons to drop out as the wrongness constraint becomes weaker: for example, consider how the reasons for adopting a speed limit on the roads weaken as the speed constraint is weakened (i.e. as the speed limit is increased the safety provided reduces). But while one reason does drop out as the wrongness constraint is weakened, most remain.

Inconsistency with expressivism is a drawback for the weak constraint, though, as it means the weak constraint can call upon fewer reasons in its favour in comparison with the strong and moderate constraints. Still, I argue that the weak constraint is preferable to the strong and moderate constraints because this drawback is acceptable, unlike the drawback of the strong and moderate constraints. Inconsistency with expressivist reasons in some cases is acceptable because the value of maintaining these reasons can be minimal, so minimal to raise doubts about whether they are absolutely necessary.

Imagine a minor licence infraction. In this case, the wrong in the minor licence infraction must be small by definition but this may not rule out criminalisation. Criminalisation may well be the best way of enforcing the licensing scheme and the licensing scheme may

[30] To be clear, Duff defends what I characterise as the moderate constraint. Duff, following Tadros, does not distinguish a variant stronger still and so claims to defend a 'strong' constraint. See footnote 4 (above).
[31] Simester and von Hirsch, for example, would appear to be open to the weak wrongness constraint, although this is unclear as they do not distinguish their position from a moderate constraint. See: Simester and von_Hirsch, *Crimes, Harms, and Wrongs*, 27.

be very beneficial. Perhaps the threat of punishment is required because civil penalties are insufficient deterrents. For example, if a company is required to obtain a licence for some business venture but the maximum proportionate civil fine for non-compliance is less than the expected return on investment, then civil enforcement will be inadequate. In this case, there will be some reason to condemn the conduct on the grounds that it is wrong. But condemnation of wrongdoing is unlikely to play any significant role in justifying the criminal offence, all the significant work is being done by other concerns such as achieving some important social good. Condemnation does little justificatory work because the value of condemning a minor infraction alone won't come close to overcoming predictable troubling consequences of criminalisation (for these consequences see Chapter 7, §6.3).

Expressivism claims that although condemnation cannot even come close to justifying the offence all things considered in the present example, it must nevertheless be present in addition to any other reasons which can justify the offence. But why should we believe this? Given the very minimal role condemnation can play in justifying a criminal offence in cases like the example above, why insist the box must be ticked? In my view, given condemnation can play such a minimal role, we should be comfortable admitting that it is not always absolutely necessary. At the same time, we can believe that condemnation often plays a significant role, perhaps often a decisive role, in justifying a criminal offence. It would seem to play such a pivotal role in criminalising things like murder, for example (see Chapter 6, §6.3). The weak wrongness constraint allows for this: it does not deny that conduct may be wrong because of non-criminal regulation or wrong independently of law and so be condemnable before it is criminalised. All the weak constraint does is admit of (reasonably rare) cases where conduct is not condemnable unless and until it has been criminalised. That violates the expressivist's claim that reasons to condemn

must be present for a criminal offence to be justified, but we have seen why that requirement is suspect. Lastly, remember that condemnation need not drop out of the picture entirely once the conduct has been criminalised for non-expressivist reasons. It is perfectly consistent with criminalising a minor licence infraction because this tends to best enforce the publicly beneficial licencing system that the post-criminal wrong committed in breaking the licence is condemned after the fact.[32]

So, I conclude the weak constraint is most defensible. The weak wrongness constraint has one fewer reason in its favour, but the additional value of that reason is minimal. We should not be opposed to violating expressivism's requirement that conduct be condemnable prior to criminalisation as this requirement is suspect on the grounds that it amounts to mere box ticking in some cases. Contrastingly, the strong and moderate constraints are vulnerable to counterexamples of plausible offences they disqualify or else resort to implausible factual claims about the dependence of wrongness on criminal and regulation.

§4.4 Objection: The weak wrongness constraint is a spare wheel

The preceding comparative evaluation of the constraints would suggest that I adopt the weak wrongness constraint as the appropriate wrongness constraint against which to test the candidate criminal offences raised in Chapter 2. But that would be to jump the gun. In this section I consider and reply to a final objection; an objection peculiar to the weak wrongness constraint (and to a lesser extent the moderate constraint, but not the strong constraint) so not previously considered in Chapter 3, §3.3.

[32] Ibid.

The weak constraint admits of cases where conduct is not wrong unless and until it is criminalised. The conduct is wrong in these cases because the conduct violates a morally justified (all-things-considered permissible) law. The objection here is that if any violation of a justified law is wrong, then the weak wrongness constraint is a spare wheel because it does not operate as an independent constraint on criminalisation. It may as well be dropped if we also accept the claim that legislators have a duty to enact only morally justified laws (absent the wrongness constraint); and almost anybody can accept that legislators have a duty to enact only morally justified laws.[33] This argument does not doubt that there are suitable defences of the wrongness constraint which may be offered against critics (such as the defences raised in Chapter 3, §3.3): it claims that those defences prove pointless as the weak wrongness constraint does not do any independent work.

The problem with this objection, however, is that violation of a wrongness constraint may be part of what makes a law unjustified. Consequently, we cannot drop the wrongness constraint in favour of the claim that legislators ought to enact only morally justified law in every relevant respect except satisfying a wrongness constraint. Only if we adopt a wrongness constraint will the claim that legislators ought to enact only morally justified law adequately explain what is unjustifiable about some laws. To see this, consider criminalisation of trespass, at least the rather innocuous sort of walking on private land.[34] It seems to me that the state has legitimate interests in regulating access to private land, and that it may do so without falling foul of many typical objections to regulation: for

[33] Vincent Chiao, *Criminal Law in the Age of the Administrative State* (New York, NY: Oxford University Press, 2018), 172–79.
[34] UK Government and Parliament Petitions, "Don't Criminalise Trespass," 2020, https://petition.parliament.uk/petitions/300139.

instance regulation is not prohibitively expensive and has public support. At the same time, it seems to me manifestly unjustified to criminalise trespass. But since the regulation of trespass is otherwise justified, what might be wrong with criminalising it?

Without recourse to an independent wrongness constraint on criminalisation we will have an inadequate explanation of what would be unjustified with criminalising trespass. Criminalisation would still be unjustified without recourse to a wrongness constraint if criminalisation would impose disproportionate sanctions for trespass, or that it would be wasteful to spend criminal justice resources on trespass, or some other reason. But those explanations, however numerous, would be inadequate. They would be inadequate as they fail to acknowledge that criminalisation would be unjustified in part *because* the conduct criminalised remains morally permissible even if legally prohibited. The wrongness constraint is sensitive to the inapt condemnation and punishment of morally permissible conduct (see Chapter 3, §3.3) whereas a duty to enact morally permissible law in every respect other than respecting a wrongness constraint cannot appeal to these explanations by definition.

Consequently, a wrongness constraint cannot be dropped in favour of the duty for legislators to enact only morally justified laws in every other relevant respect. Sometimes part of what makes law unjustified can only be explained by appeal to the reasons a wrongness constraint should be endorsed. This demonstrates that the weak wrongness constraint does do independent work and defeats the objection that the weak wrongness constraint is a spare wheel.

§4.5 Conclusion

In this chapter I have argued that the weak wrongness constraint is preferable to the strong and moderate wrongness constraints. The weak constraint requires that the criminal justice system does not condemn permissible conduct inaptly, requires that criminal punishment not be unjustly meted out for permissible conduct, and it requires that the criminal law not objectionably impede autonomy to act permissibly. On these scores, the weak wrongness constraint does just as well as the strong and moderate constraints. The strong and moderate constraints, however, implausibly disqualify some criminal offences or else they make peculiar factual claims about the dependence of wrongdoing on the criminal law. This is a meaningful drawback, particularly when we consider the importance of principles which communicate to us in recognisable ways when justifying state interference in personal conduct. It was argued that this drawback compares unfavourably to the weak wrongness constraint's inconsistency with expressivism—one available theory of criminalisation. That drawback is of little importance since expressivism is committed to the necessity of conduct being condemnable before it is criminalised despite the fact that commitment amounts to mere box-ticking in some cases. Finally, I defended the weak wrongness constraint against the objection that it is a spare wheel.

Consequently, the weak wrongness constraint emerges as a necessary condition the candidate criminal offences identified in Chapter 2 must satisfy. The next chapter investigates what, if anything, is wrong with contributing to climate change, in order to determine whether the candidate criminal offences satisfy this test.

What's wrong with contributing to climate change?

Chapter 4 adopted and defended the weak wrongness constraint on criminalisation. As a result, contributions to climate change must be morally wrong if they are to be permissibly criminalised but they may be wrong conditionally on the existence of a criminal law making them an offence. But whether—and, if so, exactly how—contributions to climate change are wrong is in dispute. In Chapter 1, §1.1, I presented a simplified picture of what is wrong with contributions to climate change, a picture I will now deconstruct. There I argued that climate change results in several serious harms which contributions, in the aggregate, avoidably cause. But the effects of individual contributors are different from the aggregate effects of all contributors. Contributions make a difference, but single contributions make little to no difference. If my contributions do not therefore harm, what is wrong with my contribution? And if there is nothing wrong with my contribution, then I shouldn't be held criminally liable for it according to the weak wrongness constraint.

Nevertheless, I argue that each of three influential accounts of moral responsibility for climate change can agree that contributors would act wrongly *malum prohibitum*. That is, they would act wrongly provided there were a legitimate, just law prohibiting contributions. Consequently, I find that the candidate criminal offences identified in Chapter 2 satisfy the weak wrongness constraint. I outline the three influential accounts separately, even though they can all agree to the one crucial claim, because their implications for the permissibility of criminalisation differ and those are worth teasing out. Each view can accept that the candidate criminal offences satisfy the weak wrongness constraint (the question at present), but each view has different implications for whether particular candidate criminal offences would be all-things-considered justified (the

operative question in Chapter 6 and Chapter 7). The present chapter therefore tests the candidate criminal offences against the weak wrongness constraint, whilst also setting up some of the discussion to come in later chapters.

In §5.1 I will introduce the arguments philosophers have given to doubt the moral wrongness of ordinary contributions to climate change. I will then introduce three influential accounts of when and why contributors to climate change act wrongly in §5.2, §5.3, and §5.4. §5.4 will also detail the crucial point of agreement among these views. Each view can agree that were there to be a legitimate, just law prohibiting contributions then contributions in violation of the law would be morally wrong. §5.5 then extends this reasoning from just contributions (strictly speaking) and facilitation to legitimation and oversight of climate change too. §5.6 will then conclude.

§5.1 Reason to doubt contributions are wrong

Whether contributing to climate change is wrong is in dispute because, individually, ordinary contributions make a miniscule difference to the atmospheric concentration of greenhouse gases. Moreover, the precise concentration of greenhouse gases in the atmosphere is itself morally irrelevant. So, even if we say that a contributor increases the concentration of greenhouse gases by one *n*th, that tells us nothing about the moral quality of the contribution. The morally relevant impacts of a higher concentration of greenhouse gases in the atmosphere are climate harms resulting from dangerous weather, drought, rising sea-levels, and so on. But the relationship between these harms and individual contributions is not straightforward.

Some harms from climate change, such as freshwater scarcity, are arguably continuous.[1] That is, there is a positive, uniform linear relationship between global average temperature and some climate harms, such as fresh-water scarcity. Assuming that this is a correct physical description of at least some climate harms (if it is not, all climate harms are of the sort discussed in the next paragraph), each individual contribution causes some marginal change in the contribution of greenhouse gases which in turn causes some marginal change to global average temperature. If these harms are continuous, individual contributions make some physical difference, but they make no morally relevant difference because an individual contribution is enough to increase the scarcity of fresh water by only an imperceptibly tiny amount and these imperceptibly tiny amounts do not cause any morally relevant change. For example, someone who collects their water by hand may need to travel a fraction of a millimetre further to get water, but that makes no morally relevant difference to them. If we can't be harmed by imperceptible effects in isolation, one contribution cannot harm and if one contribution cannot harm, it is not wrongfully harmful.[2]

Most, if not all, climate harms are the consequence of a stepped, or chaotic, relationship between contributions and harm. In a stepped relationship, not all contributions cause harm because harms only materialise after a threshold of warming is passed. One contribution won't cause additional, or worse, dangerous weather events, for example, but a group of contributions will. On this picture, some contributions add to the total concentration of greenhouse gases in the atmosphere without crossing a threshold, and so make no difference. Since we have no way of telling if any given contribution will in

[1] John Broome treats some climate harms as, in large part, continuous. See: John Broome, "Against Denialism," *The Monist* 102, no. 1 (2019): 112, https://doi.org/10.1093/monist/ony024.
[2] But, see Broome for a recent argument against the assumption that imperceptible effects aren't harmful. Broome's argument is self-confessedly contentious. See: Broome, 122–25.

fact pass a threshold, we have no way of knowing whether a given contribution is wrongfully harmful.

A chaotic relationship is somewhat similar, except there is a third possibility, the three possibilities are either: (i) a contribution harms, (ii) a contribution reduces harm, or (iii) a contribution has no morally relevant effect.[3] The trend is that more contributions produce more harm, but the effect of individual contributions in a chaotic relationship is variable. To illustrate, imagine you're gambling with a six-sided dice and the dice is partially loaded to sides one and two. All outcomes are possible but the likelihood of either a one or a two is greater than would be true of a fair dice ($p > ⅓$). The stake for each roll is fixed (e.g. £1). You lose your stake if you roll a one or two. You keep your stake if you roll a three or four. You double your stake if you roll a five or six. Since the dice is loaded, players will tend to lose money over time. But the outcome of each role might be that you lose, you break even, or that you win. On the chaotic model, this is what contributions to climate change are like. Contributions tend to warm the climate, and this tends to harm, but the outcome of particular contributions may vary from a cooling effect, to no effect, to a warming effect. Given the complex interaction of greenhouse gases in the atmosphere, and the various positive and negative feedback effects, this chaotic picture is probably the most accurate. The moral status of individual contributions is not at all clear in the chaotic model. Not only are some contributions not wrongfully harmful, some even reduce harm.

[3] For a more detailed discussion of stepped and chaotic relationships see: Broome, 113–14; and: Garrett Cullity, "Climate Harms," *The Monist* 102, no. 1 (2019): 124, https://doi.org/10.1093/monist/ony020.

On the basis of something like the foregoing arguments Walter Sinnott-Armstrong famously concludes that individual contributors do no wrong, unless and until governments act.[4] To borrow Sinnott-Armstrong's example, while every Sunday afternoon drive in an SUV makes an imperceptible difference to the concentration of greenhouse gas in the atmosphere, this does not (necessarily) translate into a morally relevant difference and so the Sunday driver does no wrong. Sinnott-Armstrong's famous paper is primarily concerned with whether individual contributors are morally responsible for climate change, and notice that responsibility is not the same thing as wrongness.

They are not the same thing because wrongdoing and responsibility might come apart: on some views an agent can act wrongly without being morally responsible. Agents can have excuses, after all. By claiming coercion as a defence against a criminal conviction, an agent need not claim that they acted permissibly by, for example, intentionally robbing a bank; they might claim they cannot be held responsible for the wrong they committed since someone else forced them.[5] Since lack of responsibility does not entail lack of wrongdoing, demonstrating lack of responsibility does not show the wrongness constraint is not satisfied.

[4] Walter Sinnott-Armstrong, "It's Not My Fault: Global Warming and Individual Moral Obligations," in *Climate Ethics*, ed. Stephen M. Gardiner et al. (New York, NY: Oxford University Press [2005], 2010), 332–46.

[5] This isn't the only explanation available. You might be tempted to say the coerced bank robber does no wrong. I'm not convinced, but if you take this view you can just skip to the claim that contributors to climate change do no wrong. R. A. Duff maintains that we should still consider the agent responsible, in the sense that they are still to some extent answerable for what they've done, and what they lack is blameworthiness and corresponding liability to justified condemnation. If you prefer this view you may substitute "responsibility" above for "blameworthiness" instead and the point still stands. Demonstrating a lack of blameworthiness does not demonstrate a lack of wrongdoing. I speak of responsibility only because the debates that Sinnot-Armstrong's argument spark tend to be expressed in terms of our 'responsibility' for climate change. Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law*.

But Sinnott-Armstrong's argument is an argument for *both* a lack of responsibility and a lack of wrongdoing. The conclusion is not that contributors are for some reason excused—as we might excuse the contributions of children—his conclusion is that contributors are not responsible because there is nothing for which they should be held responsible, no morally relevant consequence of their action. In a more recent paper, Sinnott-Armstrong argues explicitly that joyguzzlers—those who go out for a wasteful Sunday drive just for fun—do no wrong.[6]

Call Sinnott-Armstrong's argument the 'no difference objection.' The no difference objection, including Sinnott-Armstrong's defence of it, comes in more varieties than I have presented above.[7] I will raise another variety when relevant to the responses to the no difference objection I discuss below but, for now, we have enough of a basis for the no difference objection to proceed. The no difference objection seems to show the wrongness constraint cannot be satisfied for criminalising contributions to climate change. Contrary to this inference, in the remainder of the chapter I show that criminalising contributions to climate change can satisfy the wrongness constraint. Sinnott-Armstrong acknowledges that individual contributors would act wrongly in a particular context—namely, once the government has prohibited contributions. I argue that two other popular explanations of why individual contributions to climate change are wrong can agree to this, even though they dispute Sinnott-Armstrong's arguments. To

[6] Ewan Kingston and Walter Sinnott-Armstrong, "What's Wrong with Joyguzzling?," *Ethical Theory and Moral Practice* 21, no. 1 (2018): 169–86, https://doi.org/10.1007/s10677-017-9859-1.
[7] In a review article, Fragnière discusses four distinct grounds for what I label the no difference objection. Two I have outlined above, that individual emissions make (1) no difference or (2) an imperceptible difference. A third I discuss later, (3) someone else would make another contribution anyway. And a fourth grounding I do not disucss. For more on these groundings see: Augustin Fragnière, "Climate Change and Individual Duties," *Wiley Interdisciplinary Reviews: Climate Change* 7, no. 6 (2016): 800–803, https://doi.org/10.1002/wcc.422.

put it in jurisprudential terms, all views agree that contributions to climate change are at least *malum prohibitum* ('wrong because prohibited').

§5.2 Holding individuals responsible for their own contributions

The first view in response to Sinnott-Armstrong's no difference objection holds that although individual contributions do not *always* make a difference, some individual contributions do; and even if we cannot pinpoint which emissions make a difference in fact, *each* individual contribution is wrong because it carries an expected harm. This is still an appeal to the consequence of an individual contribution, but rather than consequences in fact it focuses on the expected consequences given uncertainty. John Broome, Shelly Kagan, and Avram Hiller all argue that individual contributors act wrongly because they cause expected harm.[8]

An expected harm is the harm of an event multiplied by the probability of its occurrence. Here is a simple case to demonstrate the idea. The expected harm of a 0.2 (one in five) probability event which would cause five days of pain is one day of pain (5x0.2=1). Expected harm therefore gives us a way to quantify the wrongness of risks of harm. Although the harm might not materialise, and so the risky act might not make any difference, it is wrong to risk harm to others. This is well recognised by our treatment of drunk drivers, for example.[9] Contributions to climate change are wrong for the same reason, according to the expected harm view: it is just that the calculations are more complex than the simple case above.

[8] Broome, "Against Denialism"; Shelly Kagan, "Do I Make a Difference?," *Philosophy & Public Affairs* 39, no. 2 (2011): 105–41, https://doi.org/10.2307/41301865; Avram Hiller, "Climate Change and Individual Responsibility," *The Monist* 94, no. 3 (2011): 349–68, https://doi.org/10.2307/23039149.
[9] John Broome, "A Reply to My Critics," *Midwest Studies in Philosophy* 40, no. 1 (2016): 162, https://doi.org/10.1111/misp.12053.

In order to calculate the expected harm of contributions to climate change we observe the difference in resultant harm between arbitrary greenhouse gas concentrations and discover the expected harm of a contribution on average. The arbitrary points of comparison are usually pegged at their subsequent average global temperature, so we observe the difference in harm between two and three degrees of warming, for instance. We then take the difference in harms between the two arbitrary points as our measurement for total harm and we assume the probability that any contribution causes the total harm is proportional to the magnitude of the contribution (i.e. the magnitude of the contribution in CO_2eq divided by the total difference in CO_2eq concentration between the two arbitrary points). The result is very large total harm multiplied by a very low probability. To my knowledge there is no estimate of the expected harm of a single, everyday contribution but, according to an estimate from Broome, the resulting expected harm of the average US citizen's lifetime contribution is non-trivial—shortening a life by six months.[10]

The expected harm account is the subject of a large literature of criticisms and defences. It is objectionable, Sinnott-Armstrong claims, to hold that individuals act wrongly on the basis of a simplification—we just don't know the marginal effect, in harm, of additional contributions and merely assume that *some* contributions must harm.[11] This is tantamount to claiming, so the argument goes, that plucking a hair from someone's head carries some probability of turning the person bald.[12] In addition, the expected harm view

[10] John Broome, *Climate Matters* (New York, NY: W.W. Norton, 2012), 74.
[11] Kingston and Sinnott-Armstrong, "What's Wrong with Joyguzzling?," 179–80. Cullity appeals to the claim that there must be a difference at some point on more than one occassion. Cullity, "Climate Harms," 23 & 38–39. Also see Broome's reply: Broome, "Against Denialism," 115–18.
[12] Kingston and Sinnott-Armstrong, "What's Wrong with Joyguzzling?," 180. Of course, this is no objection if epistemicism about vagueness is true. If it is true, then there is, in fact, a probability that plucking a hair from someone's head will turn them bald.

assumes the emissions of others are fixed when ascribing a personal share of an aggregate harm. But if others do not in fact contribute, then individual contributions will make no difference, expected or actual.[13] By holding the contingent contributions of others fixed, the expected harm view ignores the collective nature of the problem.[14] Julia Nefsky argues that when a contribution makes a small physical difference and the tipping-point is imprecise then balance-tipping cannot occur to produce expected harm.[15] Aaron Maltais and Ben Hale both argue that contributions merely hasten an inevitable crossing of the threshold because, had the threshold tipping contribution not occurred, another would have occurred in its place.[16] And, lastly, Cullity argues that individual contributors, even if they cause expected harm, have a lower degree of responsibility for harm; so, contributors need only encounter relatively modest costs in avoiding contributions (foregoing the fun of an afternoon drive in an SUV, for example) to make their contributions permissible on balance.[17]

Despite those many objections to the expected harm view, it remains influential in climate ethics. Largely because it is influential, I continue to consider the expected harm view. Also, it is not important to my project to know whether the expected harm account is ultimately defensible. My aim is to consider a selection of different (reasonably plausible) explanations for why contributions to climate change are wrong from the literature. From

[13] If the relationship between contributions and harm is chaotic rather than stepped, then there may be an expected harm associated with single contributions even if others do not contribute but it would be incalculable given the complexity of the climate system and may, in any case, turn out to be insignificantly small.
[14] But see Cullity for why this is not an objection to the expected harm view. It merely points to the importance of additional concerns. Cullity, "Climate Harms," 29–30.
[15] Julia Nefsky, "Consequentialism and the Problem of Collective Harm: A Reply to Kagan," *Philosophy & Public Affairs* 39, no. 4 (2011): 364–95, https://doi.org/10.1111/j.1088-4963.2012.01209.x.
[16] Aaron Maltais, "Radically Non-Ideal Climate Politics and the Obligation to at Least Vote Green," *Environmental Values* 22, no. 225 (2013): 589–608, https://doi.org/10.3197/096327113X13745164553798; Benjamin Hale, "Nonrenewable Resources and the Inevitabilty of Outcomes," *The Monist* 94, no. 3 (2011): 369–90, https://doi.org/10.5840/monist201194319. But this objection assumes a stepped relationship between contributions and harm. For this and further response see: Broome, "Against Denialism," 117–18.
[17] Cullity, "Climate Harms."

there I can proceed to consider the case for criminalisation consistent with several explanations of wrongdoing; as well as uncover how different accounts of wrongdoing generate different strength cases for criminalisation (see Chapter 6). If you find the expected harm view unpersuasive, I am yet to present some plausible alternatives you may find more convincing.

§5.3 Violating duties to non-governmental collectives

A competing view of how individual contributors act wrongly is presented by Elizabeth Cripps. Unlike the expected harm view, individual contributors on Cripps view do not act wrongly directly. Although individual contributions do not make a difference, collectively our contributions do and (when certain conditions are met) *we* have a collective duty to refrain. When the collective fairly distributes duties to limit contributions, it is then wrong to continue to contribute in violation of those duties.[18] We have a collective duty to refrain even if *we* are uncoordinated; Cripps provides conditions for when an *unstructured* collective can be held responsible.[19] For example, all uncoordinated 'polluters' globally:

> As Polluters, we have a weakly collective duty to mitigate climate change caused by current generations, to enable adaptation to such change as cannot now be prevented, and to compensate (where possible) if neither is achieved in time to prevent serious harm to individuals. This is grounded in an expanded notion of collective responsibility for foreseeable harm.[20]

[18] Cripps, *Climate Change and the Moral Agent*, 119–27.
[19] Ibid., 27–42 & 70–71.
[20] Ibid., 3.

For Cripps, ascription of collective responsibility to some group on the basis of past or foreseeable aggregate harm is dependent on the satisfaction of the following three individually necessary and collectively sufficient conditions:[21]

(1) "the individuals acted in ways which, in aggregate, caused harm, and which they were aware (or could reasonably be expected to have foreseen) would, in aggregate, cause harm (although each only intentionally performed his own act)"

(2) "they were all aware (or could reasonably be expected to have foreseen) that there were enough others similarly placed (and so similarly motivated to act) for the combined actions to bring about the harm"

(3) "the contributory actions were avoidable at less than comparable cost to the individuals"

Condition (1) is a combined factual and epistemic condition. Contributors must have collectively caused a harm in fact, and that the fact was understood (or should have been understood) in advance. This is to ensure that collectives are not held responsible for non-occurrences nor genuine ignorance. This is an appealing limitation of the view since responsibility is at least *prima facie* unreasonable in such cases. For example, suppose that a family together cause great damage to a village of tiny invisible elves living on the same land by walking to and from their home.[22] The sheer unforeseeability of this circumstance would be sufficient to excuse the family of responsibility—although they may incur duties to compensate.

[21] Ibid., 69.
[22] This example is from the Netflix series *Hilda*. See also Mary Norton's *The Borrowers* novels (and adaptations) and Terry Pratchett's *The Carpet People* for similar scenarios. A less fanciful example could be possible impacts, unknown to us, of the debris we leave in space.

Condition (2) is a further epistemic condition. It must have been known (or should have been known) to each contributor that enough others would similarly act to bring about the occurrence of harm. This condition blocks responsibility in cases of assurance that the harm will not occur; when, again, responsibility would be *prima facie* unreasonable. Suppose a park ranger is hungry and, rushing to lunch, knowingly walks across the grass to get back to base quicker. They also know that the other rangers enforce rules strictly and there won't be enough others to damage the grass. It is objectionable, so the thought goes, to hold the ranger responsible for a fact (the aggregate harm) which the ranger has reasonable assurance will not obtain. We might be tempted to say the ranger does something wrong nonetheless—they violate a perfectly reasonable rule which ought to apply to them as well as everyone else—but that is not the same thing as attributing moral responsibility for an aggregate harm. Even if every ranger thought similarly, whereby every ranger walks on the grass with similar assurances that others won't so that they together damage the grass, it is not clear that we should attribute to them moral responsibility for damaging the grass in addition to any other moral criticisms we may have. That said, I'm not denying the possibility that Cripps is too lenient on contributors by adopting this condition and intuitions about the example may differ—this is just Cripps' view as it is presented. I'll set aside the complication of relaxing this condition save to say it looks like relaxing it will make it even easier to conclude contributors to climate change act wrongly and so potential disagreement on this point won't undermine any conclusions later on.

Finally, condition (3) is a moral condition. It appeals to a (variable) threshold (variable in proportion to the degree of the anticipated aggregate harm) at which the individual cost of avoiding the collective harm would be too high to bear, thus justifying being a contributor all things considered. As a last example, suppose a drought causes water

scarcity. If an upstream village does not stop irrigating their crops, then downstream villagers will need to sell assets to import food (making them poorer in the long run). If, however, the upstream village does stop irrigating their crops, then the upstream village will have to sell their assets to import food. In this case the upstream villagers cannot avoid imposing an aggregate harm downstream at 'less than comparable cost'. If it asks too much of the upstream villagers that they sell their assets to prevent the downstream villagers from suffering the same fate (as seems plausibly the case) moral justification blocks (or provides a defence for) moral responsibility.[23]

Cripps maintains, plausibly, that contributors to climate change satisfy these three conditions on the whole. Hence, Cripps maintains that 'Polluters' globally are collectively responsible for climate harms. Contributors are aware of climate harms; or at least ought to know given the availability and promulgation of unambiguous scientific evidence on anthropogenic climate change and its impacts. Contributors cannot plausibly maintain that there are insufficient other likely contributors. And contributors often face costs of not contributing significantly less than comparable to harms resulting from climate change (see Chapter 1, §1.1).

For Cripps, prior to an agreement among members of the responsible collective, individuals are primarily duty bound to promote collective action and only secondarily, if at all, bound to reduce their personal contributions. Consequently, it is unclear if

[23] Blameworthiness (acting without justification or excuse) need not be relevant to the ascription of responsibility itself. Instead, the first two conditions alone might be sufficient for responsibility. Then blameworthiness is relevant in the transition from responsibility to liability: i.e. the lack of a defence of moral justification which would block transition to liability. Here, by incorporating a test of blameworthiness into the ascription of responsibility (whether avoiding contributing to the aggregate harm is too costly), Cripps departs from theories of moral responsibility which sharply distinguish responsibility and liability, e.g. Duff, *Answering for Crime: Responsibility and Liability in the Criminal Law*.

continuing to contribute is wrong, on this account, unless and until the collective distributes duties to its members to refrain from contributing. Group members need only agree amongst themselves to be bound by a scheme which distributes duties to reduce their contributions—so long as the distribution is fair and decided legitimately. In practice, however, it is most likely that agreements between members of the collective will take the shape of democratically agreed laws, with the state acting as a representative for group members. Acting within the existing state apparatus is preferable to creating a new organisational structure for at least a few reasons. First, state decision making structures already exist, and so new ones need not be set up with a cost to time and effort. Second, the state already controls a vast compliance mechanism for assurance that agreements will be kept. In short, continuing to contribute in violation of a just and legitimate law forbidding contributions would be wrong on Cripps account, as democratic legislation is a reasonable proxy for a group decision among contributors.

I highlight Cripps' account of collective responsibility because it contrasts clearly with the expected harm view, but I should mention some similar views if only to set them aside. Cripps' account is similar to an earlier collective view defended by Larry May.[24] Also, Christopher Kutz defends a view with similarities to both the expected harm view and Cripps' view. Kutz argues that individuals may be personally responsible for the harms they cause with others.[25] Like the expected harm view, and unlike Cripps' view, individuals are personally responsible for their contributions directly according to Kutz.

[24] Larry May, *Sharing Responsibility* (Chicago, IL: University of Chicago Press, 1992). The views differ primarily with respect to the type and distribution of responsibilities. Cripps emphasizes promotional duties to get the group to act, rather than mimicking duties to reduce ones contribution as if there were collective agreement. In addition, May believes responsibility is simply shared by group members, Cripps defends group responsibility with derivative agreements.
[25] Christopher Kutz, *Complicity* (Cambridge: Cambridge University Press, 2000), https://doi.org/10.1017/cbo9780511663758.

This is to say that *I* am (partly) responsible for the harm we cause together, rather than that *we* (the others and I) are responsible for the harm we cause together. But unlike the expected harm view, and like Cripps' view, for Kutz individuals need not be responsible for the (expected) consequences of their own actions. For Cripps this is because individuals only cause harm together and so can only be responsible as a member of the group which harms, and for Kutz individuals can themselves be responsible but, because Kutz adopts a novel account of moral responsibility, it is not necessary for their contribution to make an individual difference. I'll proceed with just a binary distinction between expected harm and Cripps' view and, although Kutz' view disturbs the binary presentation, it does not differ in implication in any relevant respect to my arguments.

§5.4 Violating just, legitimate government regulation

A third and final view is this: individual emissions do not make a difference, and nor can we be held responsible collectively, but once the government prohibits contributions (justly and legitimately) individuals are duty bound to obey the law and act wrongly if they violate this duty. Call this the '*malum prohibitum* duty view.' Walter Sinnott-Armstrong is expressly open to the *malum prohibitum* duty view. Sinnott-Armstrong's deflection of responsibility from individuals to the government does not absolve individuals of duties when the government has taken action. It is not that joyguzzling cannot possibly be wrong: it's that joyguzzling is not wrong under the present circumstances.

> Our thesis is about current circumstances for most people. We remain open to the possibility that circumstances might change so as to generate a moral requirement to refrain from joyguzzling. If a government passes laws against joyguzzling, if a near-universal social norm against joyguzzling emerges, or if a certain person promises not to joyguzzle, then that law, promise or social norm might create a moral

> requirement to refrain from joyguzzling. Our claim is only about common current circumstances when joyguzzling does not violate any law or break any promise.[26]

To be precise, in the passage above Sinnott-Armstrong is also open to Cripps' collective view, which allows that group members could generate promissory obligations between themselves without codification in law (although they have not yet done so). I outline the *malum prohibitum* duty view separately, as it is available to those who also object to uncoordinated collectives being held responsible.[27]

Although the expected harm view, Cripps' collective view, and the *malum prohibitum* duty view disagree with each other, they can all agree to something. Broome is welcome to believe both that individual contributions are wrong because they carry expected harm and that it is wrong to break a law which forbids contributions. Cripps' view is consistent with the *malum prohibitum* duty view too—contributions may be wrong because both (a) contributors violate duties owed to the collective to which they are a member and (b) because the law justly and legitimately forbids contributions. But neither Broome nor Cripps needs to accept the *mala prohibita* duty view to agree with its conclusion; even if all views are mutually exclusive, they can agree that contributions are wrong once they have been made illegal. The expected harm view and Cripps' collective view may believe that it is wrong to contribute in violation of a law forbidding contributions even though this has nothing to do with the fact that there is a law forbidding contributions. This is because the law forbidding emissions makes no important difference to the grounds on which they think individual contributors act wrongly: the law doesn't change the fact that

[26] Kingston and Sinnott-Armstrong, "What's Wrong with Joyguzzling?," 169–70.
[27] See, for instance, Holly Lawford-Smith: Holly Lawford-Smith, "What 'We'?," *Journal of Social Ontology* 1, no. 2 (2015): 225–49, https://doi.org/10.1515/jso-2015-0008.

contributors cause expected harm, and nor does it change the fact that contributors have duties to other members of the collective when the collective has agreed to a solution.

§5.5 On legitimation and oversight

Lastly, it is important to provide an explanation of when and why legitimation and oversight of contributions could be wrong. This explanation is needed as it is not obvious that legitimation or oversight can be criticised on all the same grounds as contributions and facilitation and not all the candidate offences listed in Chapter 2, Table 2.1, proscribe contributions, strictly speaking. For instance, climate denial might not alter the concentration of greenhouse gases in the atmosphere at all. As I discussed in Chapter 2, §2.1.3, climate denial and climate misinformation legitimise further contributions, merely raising the probability of further contributions, rather than directly or indirectly contributing to climate change. Meanwhile, members of government who oversee the contributions of others without intervention do not themselves contribute directly or indirectly.

The characteristics of legitimation and oversight make ascriptions of expected harm more controversial. Merely allowing contributions to take place can appear to carry zero expected harm. We might ascribe the same expected harm to both the contributor and those overseeing the contribution, but this could be criticised for double counting. The overseer does not cause *additional* (expected) harm, after all. Contributor and overseer may be equally culpable, but to come to this conclusion we need not assign the same expected harm to both. The overseer might act wrongly because they fail to satisfy a duty to intervene, not because they themselves cause expected harm. The expected harm of legitimising contributions is also problematic. Since legitimation only raises the

probability of further contributions, the expected harm of legitimation is the expected harm of a contribution (already a product of the probability of causing harm and the resultant harm) multiplied by the probability that legitimation produces another contribution. The resultant expected harm might then be insignificantly small in several cases—although not, admittedly, in egregious cases such as systematic media interventions like those of the climate sceptic lobby.[28] It is also objectionable on the grounds that the causal chain between legitimation and more contributions requires the intervening agency of others—not just the physical relationship between higher GHG concentrations and climate harms. It may well be argued that the intervening human agent who contributes to climate change after having been encouraged by a legitimiser bears sole responsibility for the expected harm—even if the legitimiser acts wrongly for some other reason.[29] In addition, those who legitimise or oversee climate change are not obviously members of a collective who together cause harm because neither legitimation nor oversight combine to cause climate change. If they are not members of a group responsible for aggregate harm, they would not owe duties to fellow members to comply with collective agreements on Cripps account.

On the basis of the preceding thoughts, there might be fewer reasons to conclude that legitimation and oversight of climate change are wrong in comparison with contributions but the *mala prohibita* view is still effective for both oversight and legitimation of climate change. Regarding oversight, a health inspector who fails to inspect local restaurants acts wrongly even if we're unwilling to claim that they make patrons sick by omission. It

[28] See, e.g., Oreskes and Conway, *Merchants of Doubt*.
[29] For example, the case law on causation absolves agents of criminal liability when there is a "free, deliberate, and informed human intervention." See: Simester et al., *Simester and Sullivan's Criminal Law: Theory and Doctrine*, 96–98. Perhaps we should reject this doctrine, or give some reason to think that moral responsibility and legal responsibility should differ on this point. The point is only that there is some reason to believe expected harm will have difficulties in cases of legitimation and oversight and that we can avoid these if we adopt the mala prohibita duty view.

is not the case that any random person who fails to inspect the restaurant acts wrongly, but once there is a law to require that restaurants are safe and individuals consent to be appointed to the role of inspector, it is wrong for the inspector to violate their assumed duty to the public. Much the same can be said for more powerful public officials, such as members of government, if they are bound by a legal duty to support the important social goal of preventing (further) dangerous climate change. We might be tempted to say they act wrongly even without such a specific duty, but the presence of a specific duty would make it especially clear.

Now regarding legitimation, climate denial might not be impermissible just because it feeds into a culture of continued fossil-fuel use, making further contributions to climate change more likely; but if society recognises this relationship and subsequently seeks to regulate climate denial to halt its legitimating effect, then continuing to deny the scientific consensus abrogates for oneself an exemption to reasonable rules applicable to all (see the discussion on 'stipulative offences' in Chapter 3, §3.3.2). That abrogation is plausibly impermissible even if the underlying conduct is at most a vice. Consider by way of analogy what we would think of someone who interjects their question in the middle of a speaker's presentation in full recognition of a rule which keeps audience questions for the end of a presentation. Absent any rules this might be rude, and it legitimates conduct which might make discussion worse (repeated interjections may disrupt the flow of argument; interjections may tend to displace more timid, but no less insightful, voices; etc.), but it is perhaps not bad enough to be wrong all things considered. But with the rule in place interjecting would be wrong. This reflects how we are likely to deal with the interjection in the two scenarios: without a rule we would likely reluctantly tolerate the interjection (provided interjections aren't welcomed by the organisers) but with an

express rule we would stop the interjection. The same transition from mere vice to wrong would happen if climate denial were made illegal—it would be wrong *malum prohibitum*.

§5.6 Conclusion

The preceding arguments have established that all four grounds of liability to criminal sanction discussed in Chapter 2, §2.1—contribution, facilitation, legitimation, and oversight—are wrong. Three influential accounts of what is wrong with contributing to climate change can all agree that contributions are wrong *mala prohibita*—that is, if they are made illegal, violating the law to continue to contribute is wrong. The same is true of facilitation, legitimation, and oversight of contributions.

It will help now to emphasise again the link between the conclusions of this chapter and Chapter 4. In Chapter 4, I argued that the weak wrongness constraint is preferable the strong and moderate wrongness constraints and that we should adopt the weak wrongness constraint having dealt with a final objection. Because *mala prohibita* satisfy the weak wrongness constraint and contributions to climate change (and faciliation, legitimation, and oversight) are wrong *malum prohibitum*—contributions to climate change satisfy the wrongness constraint. Consequently, each of the candidate offences identified in Chapter 2, Table 2.1 clear the first hurdle for permissible criminalisation presented to them.

For what it's worth, the candidate offences would also, most likely, satisfy the moderate wrongness constraint too. It is not clear that any candidate criminal offence falls into the special category of criminal offences which would be wrong only once criminalised. In

Chapter 4 I presented a highly idealised case to demonstrate the under-inclusivity of the moderate wrongness constraint. But it seems to me that contributions to climate change could be rendered wrong with non-criminal regulation. As a result, the satisfaction of the wrongness constraint by the candidate offences is not reliant on adoption of the weak wrongness constraint. We should, I think, adopt the weak wrongness constraint, but the case for criminalising contributions to climate change does not stand or fall with it, something which advocates might be reassured to know.

Looking forward, satisfying the weak wrongness constraint is a necessary, but insufficient, step to justifying criminalisation of the candidate offences under consideration. Just because we are not morally prevented from criminalising contributions to climate change does not mean we should. From here on in I turn to whether there are good justificatory reasons for criminalisation, and whether these are significant in comparison with reasons we may have against criminalisation.

Would criminalisation of contributions to climate change be proportionate?

In Chapter 3, §3.3 I argued that wrongness is a necessary condition of morally permissible criminalisation and defended this view against objections. I then argued that *mala prohibita* satisfy the best interpretation of the wrongness constraint in Chapter 4 and that contributions to climate change are wrong *malum prohibitum* (at least) in Chapter 5. But demonstrating wrongness does not complete the case for criminalisation. Perhaps the cure would be worse than the disease. Criminalisation could be disproportionate in two different ways.

Following Victor Tadros, I distinguish narrow and wide proportionality.[1] Criminalisation is narrowly proportionate when a would-be offender's punishment is no more severe than is fitting. Narrow proportionality is therefore undermined when the minimum typical criminal sanction is disproportionately severe for the conduct criminalised. If the minimum criminal sanction is disproportionate, then it becomes difficult to justify criminalisation to a would-be offender. This is not the sort of justification we expect actual offenders to accept, but a justification which offenders ought to accept—that is, a justification which answers reasonable complaints. Admittedly, not every normative theory of criminalisation will maintain that criminalisation must be justified to a would-be offender, nor that justification takes the form of showing that punishment is proportionate. A classic utilitarian, for example, need only justify criminalisation by appeal to aggregate utility. And perhaps some would argue that disproportionate punishment is justifiable to would-be offenders: this might be true of especially paternalistic rehabilitative views. But I will apply the standard of narrow proportionality as many serious theories are

[1] Tadros, *Wrongs and Crimes*, 170–72.

concerned with it. Most obviously, desert theorists regard undeserved punishments unjust.[2] Proportionality is central to theories which make censure a central feature of punishment—as appropriate condemnation, like desert, is proportional to blameworthiness.[3] Also, Tadros' duty view claims offenders' conduct makes them liable to punishment as defensive harm—with the extent of their liability proportional to the severity of their offence (mirroring proportionality constraints in just war theory).[4]

In contrast to narrow proportionality's concern for justification to a would-be offender, wide proportionality concerns justification of criminalisation to society. Criminalisation is proportionate in the wide sense when the social good achieved by criminalisation (prevention, condemnation, etc.) is at least as substantial as social considerations against criminalisation (financial cost of enforcement, side-effects, etc.).[5] Shortly put, the bad must not exceed the good—but wide proportionality is not a simple utility calculation. Both the good and bad effects of criminalisation can be moralised. In part, this is to say they can both present as moral imperatives. For example, consider criminalising infidelity. Infidelity in a committed exclusive relationship is widely regarded as morally wrong, and so satisfies the wrongness constraint adopted in Chapter 4. For a retributivist, it is very important that would-be offenders get the criminal punishment they deserve but, on the other hand, it is also very important that sexual autonomy is respected. Consequently, if we adopt a particular combination of views, then there are moral

[2] Moore spends considerable effort in formulating theories of wrongdoing and culpability in order to know when an offender is deserving of punishment and how much. See: Moore, *Placing Blame*, pt. II.
[3] For a classic statement of the connection between censure and proportionality see: Andrew [Andreas] von_Hirsch, *Censure and Sanctions* (New York, NY: Oxford University Press, 1996), https://doi.org/10.1093/acprof:oso/9780198262411.001.0001.
[4] Tadros, *The Ends of Harm*, especially chap. 12.
[5] Although not couched as a concern for "wide proportionality", a concern for the social implications of criminalisation, and the limits these introduce, is widespread in theories of criminalisation. Feinberg's classic account of the limits of the criminal law limits the application of the harm principle for a number of reasons: Feinberg, *Harm To Others*, chap. 5; Husak is motivated to reduce the use of criminalisation drastically and defends a number of principles to limit criminalisation: Husak, *Overcriminalization*; see also: Simester and von_Hirsch, *Crimes, Harms, and Wrongs*, chap. 11.

imperatives in favour of, and against, criminalisation of infidelity. In addition, that both the good and bad effects of criminalisation can be moralised is to say that there is no common metric for assessing the relative weight of the effects. This does not mean that we cannot evaluate which effect is more important—clearly, our society considers sexual autonomy more important than giving cheaters their just deserts (such as they may be) and so we do not criminalise infidelity—but having no common metric of evaluation does mean that we cannot come to precise utility judgements. We assess wide proportionality with careful evaluation of our considered opinions on the relative importance of moral imperatives.

Since some conduct can be insufficiently wrong to warrant state punishment and criminalisation can be insufficiently good to justify the negative effects of criminalisation, a concern for proportionality, narrow and wide, prescribes similar limitations on criminalisation as constraints which forbid criminalisation unless the criminal conduct is a 'public wrong' or a 'non-trivial harm or evil'.[6] One virtue of these constraints is that they prescribe desirable liberal limits on criminalisation. Recall that this is a principle aim of the various harm principles considered and rejected in Chapter 3, §3.2. A concern for proportionality in criminalisation is similarly virtuous and goes a long way, I think, to neutralising any objection to excluding these alternative constraints on the grounds that a suitable theory of criminalisation should prescribe liberal limits to criminalisation. A concern for proportionality yields a theory of criminalisation "liberal-in-content if illiberal-in-form," to borrow a phrase from Michael Moore in defence against a concern that

[6] For a defence of a "public wrong" constraint see several works by R. A. Duff and Sandra Marshall: Duff and Marshall, "Public and Private Wrongs"; Duff, "Towards a Modest Legal Moralism"; Duff, *The Realm of Criminal Law*. For a defence of the "non-trivial harm or evil constraint" see Husak: Husak, *Overcriminalization*, but note Husak has since expressed doubt about the non-trivial harm and evil constraint. See: Husak, "Wrongs, Crimes, and Criminalization."

Moore's retributive theory does not contain a harm constraint.[7] Since the implications of either (i) conceptualising liberal limits to the criminal law as enshrined in a constraint or (ii) the outcome of an evaluation of proportionality (narrow and wide), are very similar, I set aside the conceptual debate because I am focused on the implications of theories of criminalisation for tackling climate change.

There might be extraordinary cases where we relax a concern for one or other form of proportionality (just as there might be extraordinary cases where we relax a wrongness constraint, see Chapter 3, §3.3.1). Perhaps some narrowly disproportionate offence is so socially destructive only criminalisation will do, for instance. Climate change might be just such an example. Still, I will assume concern for neither form of proportionality is relaxed here as this is the most concessive position.

In what follows I focus first on the narrow proportionality of criminalising contributions to climate change. In §6.1, I argue that the narrow proportionality of criminalising contributions to climate change may depend on which explanation of why contributions to climate change are wrong one adopts (these explanations are outlined in Chapter 5, §5.2–§5.4). If one adopts the *mala prohibita* duty view or Cripps' account of collective responsibility, then criminalisation seems clearly narrowly proportionate. By contrast, the narrow proportionality of criminalising contributions to climate change is in doubt if one adopts the expected harm view exclusively. Then I turn to wide proportionality. In §6.2, I make a nearly parallel argument to that concerning why contributions to climate change are wrong and narrow proportionality. I argue that the good achieved by criminalisation is smaller if one adopts the expected harm view exclusively and so the prospect of wide

[7] Moore, *Placing Blame*, 80.

proportionality weaker than if one adopts the *mala prohibita* duty view or Cripps' account of collective responsibility. Finally, in §6.3, I outline some typical bad effects of criminalisation which ought to be assessed to determine the wide proportionality of a candidate criminal offence. The list of typical bad effects sets up the final chapter, wherein I assess in detail the wide proportionality of each of the candidate offences identified in Chapter 2 (listed in Table 2.1).

In short, this chapter will conclude that criminalising contributions to climate change is narrowly proportionate and that the prospect of wide proportionality is strong, provided expected harm is not all that's wrong with contributing to climate change

§6.1 Narrow proportionality: Is punishment for contributing to climate change proportionate?

Before I can assess the narrow proportionality of contributing to climate change, an explanation of why any offence might be narrowly disproportionate is needed. An explanation is prompted by the following thought: if we can call upon less severe sanctions for less serious crimes, then all we need to do to avoid narrow disproportionality is reduce the severity of the sanction. So why would any offence ever be narrowly disproportionate? I address this question directly to begin. An offence can be narrowly disproportionate because the minimum typical criminal sanction is onerous—too onerous to be a proportionate response to some conduct. As Tadros puts it: "State punishment is a sledgehammer. Trivial wrongdoing is a nut."[8] Of course, contributing to climate change is not trivial, but it may still be insufficiently wrong to make criminalisation narrowly proportionate.

[8] Tadros, *Wrongs and Crimes*, 116.

Nearly a fifth of all offenders in England and Wales are dealt with out of court.[9] At one in every five cases, out of court disposals comprise the minimum *typical* criminal sanction. There are arguably less severe outcomes, which I will address shortly, but the least severe outcomes are far from typical. If a suspect admits to an offence, the police or prosecution services decide not to prosecute the case, and the offender agrees to an out of court disposal, then an out of court disposal is issued. An out of court disposal is not classified as a conviction, but sanctions include community resolutions, penalty notices, and cautions. These outcomes, save for conditional cautions, do not appear on a 'basic' criminal record check—they appear only on 'standard' and 'enhanced' checks for more security-cautious purposes (e.g. access to some professions, such as teaching)—so their consequent impact on offenders' lives are more limited than the marring effect of a more serious criminal record on life prospects. But offenders with an out of court disposal still face lifestyle-limiting implications such as exclusion from (at least difficulty entering) certain professions and limitations on international travel. The implications of a caution stop at these lifestyle limitations. The implications of a penalty notice, community resolution and conditional caution, however, also include additional sanctions. Offenders issued a penalty notice must pay a fine; offenders issued a community resolution need to attend a restorative justice process; and offenders issued a conditional caution must abide by rehabilitation processes of one form or another or face prosecution.

[9] Between September 2018 and September 2019 214,000 individuals were issued an out of court disposal. In the same period, 1,190,000 individuals were sentenced at court. Out of court disposals comprise 18% of the sum of those sentenced and issued an out of court disposal. UK Ministry of Justice, "Criminal Justice System Statistics Quarterly: September 2019," 2020, 3–6, https://www.gov.uk/government/statistics/criminal-justice-system-statistics-quarterly-september-2019.

Out of court disposals are the lower end of a scale of sanctions. Most offenders are sentenced at court. A fine is by far the most common outcome at court—78% of all offenders sentenced in England and Wales between September 2018 and September 2019 were fined.[10] Sentenced to a fine, offenders have a conviction on their record and are exposed to all the disadvantages of a criminal record revealed by a 'basic' check—e.g. difficulty finding a job and housing—in addition to the financial penalty itself.[11] So, the typical outcomes for an offender, onerous as they clearly are, generate a minimum requirement for the severity of wrongdoing which must be demonstrated to make these outcomes a proportionate response.

It might be argued at this point, though, that the typical outcomes are not the least onerous possible outcome. The least onerous outcome in England and Wales is either a caution or an absolute discharge. When sentenced to an absolute discharge, a defendant is convicted but their offence is immediately spent (and so appears only on 'standard' and 'enhanced' checks for more security-cautious purposes) and they receive no compliance conditions, no punitive fine, no community sentence, and no imprisonment.[12] The effects of an absolute discharge and a caution are therefore the same—save, perhaps, for the effect of a trial which those given a caution do not endure. These, an objecting argument continues, are the appropriate minimum relevant to assessing whether a criminal offence would be narrowly proportionate, since the corresponding sanction could be restricted by statute to a caution or an absolute discharge. This objection prompts two responses. The first response is decisive alone, but there's a

[10] Ibid., 6.
[11] Research on the negative effects of a criminal record is predominantly focused on the US, which is exceptional in that it includes more than convictions and makes records widely publicly available, but findings on impacts to access to employment and housing, for instance, should be more widely applicable. See: James B. Jacobs, *The Eternal Criminal Record* (Cambridge, MA: Harvard University Press, 2015), especially chap. 14.
[12] 'Standard' checks are misleadingly named since the 'standard' check is not likely to be the more common check. If it helps to clarify, consider 'standard' checks the 'intermediary' check.

second reply available too. The second reply is more controversial, and so I rely only on the first.

First, an absolute discharge is not the relevant minimum since they are rare for a reason: they are reserved for extraordinary circumstances where an offender ought not, on balance, be sanctioned in a way they otherwise ought to be. If an offender is very old or very ill, or otherwise exceptional, an absolute discharge may be appropriate but otherwise it is not. Defending the narrow proportionality of a candidate criminal offence by appeal to the availability of an absolute discharge is a Pyrrhic victory, since were an absolute discharge a typical sanction for a criminal offence then criminalisation would likely be *widely* disproportionate. This is because absolute discharges will have little to no deterrent effect, in addition to any expressive benefit, which makes it harder to justify the expense of investigation and criminalisation to society. I return to the interaction of narrow and wide proportionality in §6.2 (below). The same can be said for cautions. Even though cautions are not reserved for exceptional circumstances, it would be unwise to limit a statutory sanction to a caution as this offers no scale of sanction suitable to effectively deter and cautions require offender consent which will not always be forthcoming.

Second, a caution and an absolute discharge still include state condemnation, itself too onerous for some wrongdoing. It is common among theorists to acknowledge that one desirable function of a criminal conviction or out of court settlement (among others if not the sole or primary function) is to express state condemnation.[13] But even if we reject

[13] I have discussed expressivist/censorious/communicative theorists in earlier chapters and will discuss these ideas in more detail later too. The modern inspiration for these ideas stems from: Feinberg, “The Expressive Function of Punishment.”

the claim that the criminal justice system ought to condemn, the criminal justice system we have condemns. In practice, judges often make explicit condemnatory remarks in sentencing statements, for instance, and police officers distribute proverbial 'slaps on the wrist.' It is of course conceivable that our criminal justice system avoids condemnation. Coercive sanctions would generate purely prudential disincentives to offend without condemnation: 'murder is against the rules; it calls for sanction X, and so you receive sanction X.' But the criminal justice system as we know it does not take this position, and although conceptually coherent, it is difficult to imagine a *criminal* justice system eschewing condemnation.[14]

What makes state condemnation so onerous is that state condemnation is different in kind to ordinary interpersonal condemnation. State condemnation, for all those states which engage in it, is a non-negotiable judgement from an authority claiming moral oversight.[15] In order to condemn we claim the ability to oversee the norm in whose name we speak. The criminal law details which norms are to be upheld regardless of private disagreement in society and so corresponding condemnation for violating these norms therefore takes the perspective of the public at large. State condemnation thereby carries a greater weight because state condemnation symbolises condemnation en masse. It is this weightier response which can be disproportionate even when ordinary interpersonal condemnation is permissible. Some conduct does not warrant state condemnation just because it is not the sort of conduct on which the state need give, or should give, final arbitration: some wrongs are too slight, and some are insufficiently

[14] On this point I am convinced by Duff's rational reconstruction of the criminal justice system and condemnation/censure's central role within it. See: Duff, *The Realm of Criminal Law*, chap. 1.
[15] Bennett argues convincingly that any state which condemns necessarily claims for itself authority to decide which moral norms to oversee: Christopher Bennett, "The Authority of Moral Oversight: On the Legitimacy of Criminal Law," *Legal Theory* 25, no. 3 (2019): 153–77, https://doi.org/10.1017/S1352325219000119.

public, to warrant state condemnation. If we accept this view of state condemnation then even cautions and absolute discharges are too onerous for some wrongdoing.

Of course, it might be doubted that state condemnation really is this onerous. Contrast the experience of someone tried and found not guilty with someone tried, found guilty, and sentenced to an absolute discharge for the same offence. In this case there are few practical differences save for the state censure inherent in a (spent) conviction.[16] Still, it seems to me that there is a morally significant difference here—even if their subjective experiences are more or less the same—but I'm willing to acknowledge that judgements of the case may differ. Since this argument is not necessarily decisive, it is important to remember that the first response alone is enough to dispel the objection.

I can now move to the question at hand: do contributions to climate change warrant at least the typical minimum criminal sanction? It turns out that the narrow proportionality of criminalising contributions to climate change depends upon which explanation of why contributing to climate change is wrong is adopted upstream. I argue that despite the clearly onerous effects of a typical criminal sanction, contributing to climate change is sufficiently wrong to make criminalisation justifiable to the offender *if contributors wrongly violate collective duties to each other or a duty to obey a legitimate, just law*. But if contributors act wrongly only because their contribution carries expected harm, then criminalising some contributions (particularly breaching a carbon ration) may be narrowly disproportionate.

[16] Set aside, for the sake of argument, the potential impacts of a spent criminal conviction revealed by 'standard' and 'enhanced' checks.

Let's begin with a reminder of three explanations of how an individual might act wrongly when contributing to climate change outlined in Chapter 5. First, on the expected harm view, an individual is responsible for the expected harm caused by their contribution. This view claims that the harmful effects of climate change are the result of dangerous emissions concentrations which can only be reached with multiple contributors. Although no one contributor is individually sufficient to reach a dangerous emission concentration, each individual contribution has some probability of crossing a harmful emission threshold (at least, this is the picture in a stepped relationship, I omit the complication of a chaotic relationship here as the result in expected harm is the same). An individual contributor can therefore be held individually responsible for the expected harm of their contribution where the expected harm of a contribution is the total aggregate harmful outcome multiplied by the probability that the contribution tips the balance.[17] For a rough figure, John Broome claims that the expected harm of an average Western lifetime personal contribution amounts to six-months of lost life.[18] To be clear, one contributor does not shorten one victim's life by six months: six months lost life is one average contributor's expected share of the total harm. This methodology is controversial but, for the sake of argument, I am accepting it and overlooking further doubts about the expected harm view I've raised earlier.[19] As will become clear, I find limitations with the expected harm view despite these favourable assumptions.

Second, on Cripps' collective view, individuals act wrongly when they contribute to climate change if they have come to an agreement with other members of the group of

[17] See Hiller especially: Hiller, "Climate Change and Individual Responsibility."
[18] John Broome, *Climate Matters* (New York, NY: W.W. Norton, 2012), 74.
[19] For criticism of the six-months figure methodlogy see, in particular: Elizabeth Cripps, "On Climate Matters: Offsetting, Population, and Justice," *Midwest Studies in Philosophy* 40, no. 1 (2016): 114–28, https://doi.org/10.1111/misp.12050.

contributors who together cause harm.[20] Contributions are wrong when they violate a duty to respect a prior agreement between all contributors to stop the harm they cause together. Of course, if there is no prior agreement, then there is no duty to violate and contributions are not wrong on this account. But because we are discussing the criminalisation of contributions, and contributors can come to an agreement via national law, the presumption that there is a legitimate and just law forbidding contributions is enough to make contributions wrong on this account.

Third and finally, on the *mala prohibita* duty view, individuals act wrongly when they contribute to climate change if there is a just, legitimate law which forbids contributions. The *mala prohibita* view differs from Cripps' collective view because the *mala prohibita* duty view requires a law forbidding contributions for contributions to be wrong. Whereas, at least in theory, on Cripps collective view contributors could become bound by a duty to refrain from contributing without the need of a law—contributors could come to a decision amongst themselves using their own decision procedures. This is not unusual; individuals are often morally duty bound to collective decisions with no legal grounding. For example, each individual among a group of housemates who fairly agreed to cook for the group one day per week would act wrongly were they to not cook on their allotted day without justification.

Now to the argument itself: the reason expected harm alone might not justify criminal punishment to would-be offenders is that (a) the expected harm may be minor and (b) minor harms may not warrant criminal punishment. I'll take the former component first: why might the expected harm of some contributions be minor? I'll demonstrate how

[20] Cripps, *Climate Change and the Moral Agent*.

some contributions can have a minor associated expected harm by pointing to three factors reducing the expected harm of an ordinary carbon ration breach.

First, to keep efficient tabs on emission reduction, compliance with carbon rations would have to be checked regularly: once a year for instance. An individual's annual emissions are almost always lower than their lifetime emissions. The average annual carbon ration breach is also necessarily lower than the average lifetime breach. Assessing annually means we are considering only a fraction of Broome's six-months figure. Even if we facilitate a carbon credit and debit system which smooths annual variance and develops an accurate measure of ration over- or under-spend over time, at some point individuals will need to be held accountable for their ration. We can envisage a system which allows individuals to save their ration to take an intercontinental flight or allows individuals to debit a breach from next-year's ration in extenuating circumstances, for example.[21] But for a ration to effectively discourage emissions, carry-overs of carbon debt ought to be time-limited or else the system will permit permanent deferral of emission reductions and ultimately, emission impunity. Whatever a plausible time limit is (three, five, perhaps ten years), it will still amount to a fraction of average lifetime emissions.[22]

Second, the expected harm of a carbon ration breach is not the same as a person's net contribution to climate change. Broome's six-months figure is the total expected harm for an average (Global North) individual's lifetime net contribution. But some of an individual's lifetime contribution will be accounted for in the contribution allocated to them by a ration. That is, those contributions which are not easily prevented in the short

[21] To make this clearer you might liken this to taking a payment holiday on a loan or paying back a loan at a greater rate in one year in order to repay less another year.
[22] Similarly, rolling-over losses for tax purposes is time-limited.

term (such as excess emissions from heating before insulation is installed) and so should be included in an ever-decreasing ration. When considering the expected harm of a breach, therefore, we are speaking of a fraction of a smaller total than Broome's six-months: a fraction of the total produced by subtracting all rationed contributions from Broome's figure for all contributions.

Third, emissions vary by income bracket and many are highly likely to only marginally breach their allowance. A study into UK household emissions conducted on behalf of the Joseph Rowntree Foundation found that variance in emissions from household fuels by income was considerably weaker than variance in more discretionary emissions such as flights.[23] Poorer households were found to emit far less than richer households via these more discretionary sources and this is not just true of the poorest: the study finds a positive linear relationship between disposable income and carbon emissions. With little to no disposable income, the poorest will struggle to spend all their ration, let alone exceed it, and the likelihood of large breaches increases only marginally with disposable income from there. A great deal of would-be offenders can therefore be expected to breach their ration only minimally and the expected harm attributable to a typical breach is correspondingly small.

Consequently, the expected harm of many carbon ration breaches will be a far cry from Broome's six-months figure. The average carbon ration breach individuals will be held liable for will be a fraction of their average lifetime contribution due to annual

[23] Katy Hargreaves et al., "The Distribution of Household CO2 Emissions in Great Britain," 2013. A recent cross-national study is consistent with these findings: Yannick Oswald, Anne Owen, and Julia K. Steinberger, "Large Inequality in International and Intranational Energy Footprints between Income Groups and across Consumption Categories," *Nature Energy* 5, no. 3 (2020): 231–39, https://doi.org/10.1038/s41560-020-0579-8.

administration of rations. We should subtract those emissions from the six-months figure that are allocated to a person's ration. The six-months figure is the total expected harm for all an average (Global North) individual's lifetime net contribution, whereas we are considering criminalisation of only contributions over and above their personal ration. And many if not most breaches will be small because discretionary emissions are positively correlated with disposable income and most people are in lower disposable income brackets. These factors result in many breaches amounting to minor expected harms. Although not every candidate offence under discussion will target minor expected harms—some offences, such as corporate waste management, will target extraordinary emitters and some ration breaches will be extraordinary, such as those of the very wealthy—offenders breaching a carbon ration will often be responsible for a minor expected harm.

This matters even if only a minority of would-be offenders are responsible for a minor expected harm; when considering criminalisation of an offence in general, we should be responsive to the circumstances of any significant proportion of would-be offenders. If criminalisation would have widespread unjust impacts, and those impacts cannot be avoided by redesigning the legislation, then the offence itself is suspect. Some might doubt whether the offence itself is suspect and point to the fact that prosecutions for tax evasion tend to be reserved for particularly serious cases and recommend similar discretion in the present case. This response won't do. As I defend in more detail below, all cases of tax evasion are significantly wrong on the grounds that they violate a duty to pay the tax. If we only have recourse to expected harm (which is the position under discussion), then criminal liability for all tax evaders or all ration breachers results in criminal liability for many minor wrongdoers. Discretion to prosecute among offenders who warrant criminal sanctions is one thing, discretion to prosecute among offenders

who do and don't warrant criminal sanctions is another. The liability itself is the problem in the present case. Reliance on prosecution to separate liable from non-liable cases introduces an excessive degree of discretion into the criminal justice system along with its attendant problems (see Chapter 7, §7.3.3).

Moving on, what of the claim that minor harms may not warrant criminal punishment? I assume that at some level this must be true; we would not countenance criminal punishment for someone who is impermissibly rude (say they cut in front of others in line at a bar).[24] But a problem with applying this thought to the present case should be heard before concluding. The problem for appealing to the low-level of expected harm in the present case is that some similarly minor harms are criminalised. In Anglo-American jurisdictions merely shoving someone amounts to battery (common assault) and is punishable by fines and or imprisonment.[25] Offences against the person, like battery, look like *prima facie* good analogues of the expected harm of one individual's contribution to climate change because climate change threatens physical health—as Broome's six-months figure makes plain. Because shoving alone is barely, if at all, physically harmful it appears there is precedent for criminalisation of minor degrees of harm. So, by analogy, there is some reason to believe that criminalisation of minor contributions to climate change is narrowly proportionate on the expected harm view.

I reject the argument that criminalisation is narrowly proportionate by analogy to battery. I reject it by rejecting the analogy, as I will explain. But there is another sceptical

[24] It might be countered that we may countenance criminalising rudeness if it caused something as serious as climate change. Perhaps this is true, but it would be to relax the concern for narrow proportionality which I explicitly decided not to relax in the introduction, on the grounds that this is the more concessive opinion for the sake of argument.
[25] In England and Wales the offence of battery is not statutorily defined, but is set out in case law and available sentences are set out in: Criminal justice Act, 1988, c. 33, s.39.

challenge to the argument I'll detail first. One route to resisting the conclusion is to accept the analogy but doubt the claim that criminalisation of minor batteries is narrowly proportionate. Precedent does not establish that criminalisation is narrowly proportionate as the line for criminal battery may be drawn too broadly. The minimum typical criminal punishment might be too onerous for shoving and other minor batteries, and so also too onerous for contributions to climate change with minor associated expected harms. I take it that this position is controversial but not wholly implausible. Minor batteries might be decriminalised, without thereby being legalised, and it is not obvious that we have reason to punish shoving in addition to regulating it.

However, consider a second route which accepts the claim that criminalisation of minor batteries is narrowly proportionate but doubts the analogy between battery and contributing to climate change. When it comes to battery, our interest in bodily integrity (not just our physical health) is implicated. Martha Nussbaum's list of capabilities, for instance, distinguishes bodily integrity from bodily health as separate components of a flourishing life.[26] For Nussbaum, bodily health refers to good clinical health, nourishment and shelter whereas bodily integrity refers to having personal sovereignty over manipulation of one's body and how others interact with it.[27] If bodily integrity is very important, as is plausible, harms of this sort might always warrant punishment even if associated harms to bodily health are minor. Alternatively, harms to bodily integrity might not always warrant punishment, but the threshold for punishing harms to bodily integrity might be lower than the threshold for physical harm. This would explain why criminalisation of minor batteries is narrowly proportionate: shoving may be a minor (or

[26] Martha C. Nussbaum, *Women and Human Development* (New York, NY: Cambridge University Press, 2000), chap. 1, sec. IV.
[27] Ibid., 78.

non-existent) harm to bodily health but that does not make it a minor harm to bodily integrity. Unlike battery though, contributing to climate change does not directly implicate an interest in bodily integrity. Persons who bear the risks of expected harm materialising have their health threatened but not their bodily integrity. They remain sole authors of their bodily actions unlike someone who is (otherwise harmlessly) shoved. Therefore, criminalisation of contributions to climate change is not obviously narrowly proportionate by analogy since shoving is harmful for more than one reason.

To bring the discussion together, a tendency for typical individual contributions to climate change (ration breaches) to have minor associated expected harm, coupled with a distinction between harms to bodily integrity and harms to bodily health, make it difficult to resist the possibility that criminalisation of some contributions to climate change would be narrowly disproportionate when accounting only for expected harm. All this said, the circumstances in which the expected harm of a contribution is small may be limited. While there is reason to think personal ration breaches and perhaps excess animal farming are made problematic, the expected harm of plenty of other contributions are not similarly minor. Corporate fossil-fuel extraction beyond permitted levels would be a considerable contribution (in the sense that it facilitates a great deal of direct contributions). Expected harm is not therefore wholly flawed, but its justificatory potential to would-be offenders is limited.

Contrastingly, if we accept either Cripps collective view or the *mala prohibita* duty view, then we need not face the problem of minor expected harm for narrow proportionality. Criminalisation may be narrowly proportionate on these views because an offender's wrongdoing is not equal to the degree of their expected harm. On Cripps' view

contributors are members of a responsible group and (provided the group responds to its obligation to prevent the aggregate harm) members act wrongly by violating their obligations to the group. On the *mala prohibita* duty view, contributors violate a duty to obey a legitimate, just law. This difference between what's wrong with expected harms on the one hand, and what's wrong according to Cripps' collective view or the *mala prohibita* duty view is crucial. It is a crucial difference because violating obligations is not principally wrong because it harms a victim—let alone *only* wrong to the degree it harms a victim.

For example, suppose I promise to keep my friend's embarrassing secret. If I tell the secret to someone else, I do not wrong my friend only to the extent that I embarrass them. I also wrongly violate an obligation to keep the promise. Some moral theories accept this directly and others claim promise-breaking is wrong because it disturbs the social practice of promising which stabilises cooperation.[28] But on any plausible view, the wrong of violating an obligation to keep a promise does not amount only to the harm done to the direct victim. Expanding this reasoning to the present case, when justifying criminalisation of carbon ration breaches to an offender, Cripps' collective view and the *mala prohibita* duty view have a further reason available—the contributor has a duty not to contribute. Breaking these obligations is wrongful above and beyond the direct impact of non-compliance as is true of public co-operative duties, such as duties to pay tax and to follow crucial public regulations. When this is true, criminal punishment may be justified to an offender on grounds insensitive to the degree of their expected harm.

[28] For an example of the former see: T. M. Scanlon, *What We Owe To Each Other* (Cambridge, MA: Belknap, 1998), chap. 7; for an example of the latter see: Rawls, *A Theory of Justice*, 303–6; for a recent critical survey of established views see: Elinor Mason, "We Make No Promises," *Philosophical Studies* 123, no. 1–2 (2005): 33–46, https://doi.org/10.1007/s11098-004-5219-9.

To summarise the argument from this section, I have argued that criminalisation of contributions to climate change is narrowly proportionate provided we accept either Cripps' collective view or the *mala prohibita* duty view of what's wrong with contributing. The expected harm view alone may not always establish that contributions are always wrong in proportion to the minimum criminal sanction and this is a distinct possibility for many foreseeable breaches of a carbon ration.

To my knowledge, no one adopts the exclusive expected harm view I criticise. Broome, perhaps the best-known expected harm theorist, appeals to duties to do one's bit as a citizen too.[29] Broome's dispute is with a supposed responsibility gap—the claim that individuals bear no direct individual responsibility for climate change—and expected harm is the response.[30] Aren't my arguments therefore knocking-down a straw man? I do not think so, at least not in the problematic sense. Although no one adopts the position I show to be problematic, my arguments are instructive as they help explain *why* no one endorses an exclusive expected harm view. My arguments suggest that expected harm alone can't always render mitigation duties criminally enforceable. That is a limitation since criminal enforceability, where necessary, is a plausible desideratum of a theory of responsibility for climate change. Whether the expected harm view is independently plausible as a solution to the responsibility gap is one matter—on this Broome thinks he's succeeded while others have their doubts (see criticisms in Chapter 5, §5.2)—but its usefulness is another matter and I argue that, when the rubber hits the road, its usefulness diminishes.

[29] Broome, *Climate Matters*, 72–73.
[30] In a recent article, Broome frames the argument as a counterpoint to those who deny (direct) individual responsibility for climate change harms. See: Broome, "Against Denialism."

This failing is just one example of what is at fault with focusing on expected harm as the explanation of what is wrong with committing a host of 'regulatory' crimes. By regulatory crimes I mean those, like prohibiting contributions to climate change, which proscribe actions which don't have (perceptible) direct effects but are prohibited for the wider benefit of the community. These offences are commonplace: tax evasion, pollution restrictions, traffic regulations, and so on. No one seriously believes that their cash-in-hand job makes a difference to the government's tax intake or the public services funded by taxation in turn. Nor do they believe that their cash-in-hand job carries much *risk* of material harm to tax intakes. What risk there is will amount to a relatively trivial expected harm, hardly proportionate to criminal sanctions. At the same time few of us think tax evasion is morally permissible—even where cash-in-hand jobs are overlooked, they are often overlooked in the context of worse discretions elsewhere: 'the City of London's full of crooks, so why should I go by the book?' This is a rationalisation of wrongdoing, not a justification or excuse. Tax evasion is more or less universally understood as a violation of a duty to contribute fairly to a public good, and this is the standard explanation for why it is wrong—wrong enough to be criminalised. The expected harm view is a mainstay in climate justice literatures because addressing the 'responsibility gap' has been a popular point of disagreement. But it is just as limited at justifying criminalisation of contributions to climate change as it always is at justifying criminalisation of regulatory offences.

§6.2 Wide proportionality I: How much social good is achieved by criminalisation?

Shifting away from justification to a would-be offender to justification to society more broadly, wide proportionality requires that we balance the good achieved by criminalisation against criminalisation's bad effects. Wide proportionality is therefore

sensitive to the degree of both the good achieved by criminalisation and its bad effects. This raises two questions: (1) what social good(s) is (are) achieved by criminalisation and how much? (2) What are the bad effects of criminalisation and how bad are they? In this section I address question (1), the social good. In §6.3 I begin to address question (2), the bad effects.

This section argues that the expected harm view might struggle to justify to society criminalisation of all contributions to climate change as the social good achieved by criminalisation is limited when considering expected harm alone. This is a close cousin of the argument concerning expected harm and narrow proportionality. The argument is not exactly parallel, as wide proportionality is sensitive to both the good achieved by criminalisation and countervailing considerations whereas narrow proportionality is concerned only with whether punishment is fitting. But, if the social good of criminalisation is limited on the expected harm view, then less weighty countervailing considerations will be needed to make criminalisation widely disproportionate. The expected harm view will therefore have a harder time justifying to society the criminalisation of all contributions to climate change.

But before that argument can be made, it is necessary to understand what social goods are typically produced by criminalisation. I'm going to draw a rough two-place distinction between the sorts of good produced by criminalisation. The first of these goods is deterrence. Criminalisation is supposed to deter offenders from crime: experience of the criminal justice system is meant to deter offenders from re-offending (specific deterrence) and anticipation of the effects of criminalisation on offenders is meant to deter the public from offending (general deterrence). What makes deterrence good is

the prevention of (further) bad effects of criminal activity. So, insofar as criminalisation deters, one social good of criminalising contributions to climate change is the prevention of contributions to climate change. This good is importantly contingent—it relies on a genuine deterrent effect which is an important empirical question for any criminal offence. As only a contingent good, deterrence is not guaranteed to count in favour of a criminal offence. I will continue to assume, however, that there is some deterrent effect in criminalisation of contributions to climate change.[31]

The second good is achieving offender desert or condemning/censuring offenders as appropriate. Retributivists have historically championed a non-contingent good of criminalisation—criminalisation gives offenders their just deserts.[32] This, unlike a contingent good, is not dependent on the realisation of some related good in practice. Criminalisation, on this view, is non-contingently good as punishment *will* give correctly

[31] The evidence suggests that a system of criminal punishment, in general, deters. Whether any particular offence deters is another matter and depends on a set of necessary preconditions: (1) would-be offender knowledge of the prohibition; (2) would-be offender capacity to reason (in a rational choice framework); and (3) likelihood of would-be offender concluding that the costs of offending outweigh the benefits of offending. In many cases these preconditions are not affected by the drafting of criminal law. See: Paul H. Robinson and John M. Darley, "Does Criminal Law Deter? A Behavioural Science Investigation," *Oxford Journal of Legal Studies* 24, no. 2 (July 1, 2004): 173–205, https://doi.org/10.1093/ojls/24.2.173. Although drafting criminal law does not often make a difference, there is reason to think that criminalisation of contributions to climate change might meet these conditions because (1) criminalisation of contributions is a marked change from the status quo and can be expected to be advertised and commented upon en masse so few will be unaware of the law; (2) these changes are relevant to a broader population than typical criminal offences so we may not see the usual impediments to rational choice (e.g. dire need, drug use) to the same degree; and (3) the threat of punishment may be starker for those without regular engagement with the criminal justice system. These claims are suppositions, but I think they are sufficiently plausible suppositions to continue.

[32] I have opted to use a contingent/non-contingent distinction rather than an instrumental/intrinsic distinction. This is because desert is still in one sense extrinsic to criminalisation or so some authors argue. Thorburn argues that retributivism is a non-intrinsic justification of criminalisation and punishment and defends instead a theory of the intrinsic worth of the institution of criminal law. See: Malcolm Thorburn, "Criminal Law as Public Law," in *Philosophical Foundations of Criminal Law*, ed. R. A. Duff and Stuart P. Green (New York, NY: Oxford University Press, 2011), 21–43, https://doi.org/10.1093/acprof:oso/9780199559152.003.0002. More generally, Christine Korsgaard argues convincingly that intrinsic and instrumental are not opposites, and that there are in fact two distinctions at work. In addition, instrumental goods are not typified by their being contingent, but whether they are means rather than themselves ends; and something being a means to an end need not imply that the causal mechanism is contingent. Health, for example, is instrumentally good as it is a means to achieve other valuable ends, but health is non-contingently instrumentally good as to have health just is to have better access to a range of goods. See: Christine M. Korsgaard, "Two Distinctions in Goodness," *The Philosophical Review* 92, no. 2 (1983): 169–95, https://doi.org/10.2307/2184924.

convicted offenders what they deserve whereas there is only a *possibility* that criminalisation deters. Retributivism as a ground for criminalisation does have its contemporary adherents; but the theory that criminalisation appropriately condemns certain forms of wrongdoing offers a less contentious, albeit disputable, non-contingent good of criminalisation.[33] We need not believe anything mysterious about the desert of an offender to make the claim that criminal wrongdoing warrants public condemnation, and that it is good to condemn in this way, just as common wrongdoing (e.g. rudeness) warrants condemnation whatever a wrongdoer deserves.

I should note, however, that recognising there is some non-contingent good from condemning wrongs in criminal law is not ecumenical among all available theories of state legitimacy or theories of justified criminal punishment (see Chapter 1, §1.4.3). Those theories which limit state action to actions which can be justified with reasons acceptable to all reasonable citizens for example—a Rawlsian view—might exclude condemnation from the scope of legitimate state aims. Moreover, views which claim individuals should be punished because, and only because, they need to be deterred or some other contingent reason would deny that condemnation could play a justificatory role in criminalisation. But this need not derail the argument. Perhaps there is some non-contingent good achieved by criminalisation that is politically justifiable in the right kind of way—Duff's theory limiting state censure to 'public' wrongs for example (see Chapter 3, §3.3). And without recourse to some kind of non-contingent good then we might be required to accept some unpalatable implications—could we really agree that we would be required to decriminalise murder, for example, if it could be shown that criminalisation

[33] For a thorough retributivist legal moralist position on criminalisation see: Moore, *Placing Blame*; for the most recent statement of Duff's legal moralist view grounded in condemnation see: Duff, *The Realm of Criminal Law*.

has no marginal effect on deterrence or any other contingent good? For more on this example see §6.3 (below). In which case we should not purchase being ecumenical with some accounts of justified punishment at the cost of losing plausibility.

Another point of clarification is that many contemporary theories of criminalisation are not so neatly classified as deterrence or desert/condemnation theories and that my two-part distinction obscures details. Some views are mixed: in recent years Malcolm Thorburn, Lindsay Farmer, and Vincent Chiao have offered subtly different views which centre on criminalisation's preservation of civil/social order.[34] Maintenance of civil/social order is a complex good which has clearly contingent components—encompassing deterrence, for instance—but also non-contingent components such as fidelity to, or respect for, the stable rule of law. Moreover, deterrence is not the only contingent good criminalisation might achieve. Tadros' view, that criminalisation is justified when it satisfies enforceable duties incurred by offenders to promote the security of others, is detached from deterrence in at least two ways: first, deterrence is not the only way to promote the security of others because other means, such as incapacitation, can achieve this; second, only those who incur enforceable duties may be used for deterrent ends.[35] At least ostensibly, Tadros' view does not justify punishment of any individual who might effectively be used as a means to achieve deterrence—as it would on some consequentialist view—only those who incur enforceable duties to serve public safety may be so used.[36]

[34] Thorburn, "Criminal Law as Public Law"; Lindsay Farmer, *Making the Modern Criminal Law* (New York, NY: Oxford University Press, 2016); Chiao, *Criminal Law in the Age of the Administrative State*.
[35] Tadros, *The Ends of Harm*; and Tadros, *Wrongs and Crimes*.
[36] I say at least ostensibly, as the hope might be that only those who incur duties as a result of their culpable actions may punished to serve deterrent ends. But, as Tomlin makes clear, some may incur enforceable duties without satisfying a standard of culpability. Tadros' view does not, therefore, constrain justified punishment to only the morally culpable. See: Tomlin, "Innocence Lost: A Problem for Punishment as Duty."

Despite these complexities, I will continue to refer to deterrence and condemnation as the goods achieved by criminalisation in the main. Retributivists can substitute condemnation for 'giving just desert' and condemnation may be considered a placeholder for another more politically justifiable non-contingent good of criminalisation. Also, I will speak of deterrence as an umbrella term for many different contingent goods of criminalisation including, but not limited to, deterrence itself, incapacitation, and rehabilitation. To be absolutely clear, I rely on the conditional claim that if you accept at least one contingent *and* at least one non-contingent justificatory reason for criminalisation then you'll see the force of my arguments. Theorists who accept only one or another class of reasons may not be led to the same conclusion.

Returning to my argument on the limitation of expected harm for wide proportionality, observe that on condemnatory views the good achieved by criminalisation is sensitive to the degree of wrongdoing inherent in the offence. The condemnation of graver wrongs is a more pressing concern. Consequently, why contributions are wrong and the degree to which contributions are wrong are critically important—but these are contentious points. As discussed, they are contentious between expected harm, Cripps' collective view, and the *mala prohibita* duty view. Expected harm limits wide proportionality because when the degree of wrongdoing is equivalent to expected harm, ordinary wrongdoing might be small in a comparative sense. Assuming Broome's six-month figure to be accurate, it is not small in the absolute sense as it is a considerable loss (at least when we understand one person losing six months of life, which is not strictly analogous). But this wrongdoing may be small in a comparative sense, i.e. it may be smaller than

wrongs proportionately criminalised. After all, some considerably risky behaviour, with considerable associated expected harms, is tolerated by society.

Consider a comparison to the expected harm of driving. Annual fatalities from road traffic accidents in Great Britain (England, Scotland, and Wales) totalled 1,784 in 2018, and an additional 25,511 people were seriously injured.[37] Plus, premature mortalities caused by UK road traffic air pollution are "likely to be 50% greater than fatal accidents."[38] It is clear from these figures that driving is non-trivially risky. Each journey carries a tangible expected harm. The possibility that some similarly harmful tolerated conduct is enough to reveal a theoretical limitation of considering only the expected harm of contributions to climate change.

Of course, the comparison between contributions to climate change and driving is not perfect. Some of the expected harms from driving are not tolerated in law: wearing a seatbelt is a legal, albeit non-criminal, requirement but more than 20% of fatalities over the past five years of data were not wearing a seatbelt;[39] an estimated 13% of fatalities and 5% of accidents of all severities involved at least one driver over the drink-drive

[37] UK Department for Transport, "Reported Road Casualties in Great Britain, Annual Report: 2018," 2019, 1, https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-annual-report-2018.
[38] Steve H.L. Yim and Steven R.H. Barrett, "Public Health Impacts of Combustion Emissions in the United Kingdom," *Environmental Science and Technology* 46, no. 8 (2012): 4294–95, https://doi.org/10.1021/es2040416. The 50% figure stands up despite a few complications. First, the road traffic accident figures above exclude Northern Ireland, whereas air pollution figures appear to refer to the whole of the UK. Second, road traffic accidents in the year of comparison for this study (2010), were similar to the figure for 2018 quoted above (1850 compared with 1784). Note also a qualification in the comparison between road traffic accidents and early deaths from air polution: " an air quality-related mortality is not equivalent to a fatal road accident in terms of life years lost on average. For example, approximately half of those who died on UK roads in 2007 were under 40, implying a loss of life of [circa] 35 life years per mortality, compared to the [circa] 12 years lost per air quality mortality estimated... This means that road accidents are still likely to result in a greater loss of life years than road transport emissions."
[39] Ibid., 23.

limit;[40] and some proportion of fatalities and serious injuries will be a consequence of speeding. But it would appear that more than half of all harm associated with driving is tolerated, and total mortality and morbidity in the thousands every year generate a considerable expected harm per driver. And although the risks of road use are spread more reciprocally (though not uniformly) within societies than impacts of climate change[41]—climate impacts strongly disproportionately affect future poor people in the Global South—arguably, those most vulnerable to the impacts of climate change benefit to some extent, on some dimensions of their well-being, from industrialisation.[42] Meanwhile all members of society benefit to some degree from road traffic—logistics and emergency services serve us all—but the ratio of benefit to risk of an habitual cyclist is significantly different to that of an habitual SUV driver. The difference between the cases, then, is a matter of degree not categorical and it is unclear that the degree to which impacts are differentially dispersed is enough to justify wholly differential treatment.

If criminalisation of contributions to climate change are similarly risky to some behaviours we presently tolerate, then the wide proportionality of criminalisation of contributions to climate change is *prima facie* suspect. It is *prima facie* suspect because the case for criminalising the same level of expected harm is taken to be insufficient to outweigh countervailing considerations in other contexts. This is not to say that criminalisation of

[40] UK Department for Transport, "Reported Road Casualties in Great Britain, Provisional Estimates Involving Illegal Alcohol Levels: 2018," 2020, 1–2, https://www.gov.uk/government/statistics/reported-road-casualties-in-great-britain-provisional-estimates-involving-illegal-alcohol-levels-2018.
[41] The thought here is that it is legitimate for societies to democratically consent to reciprocal risks (driving) but not skewed risks (climate change)
[42] Human development narratives are very controversial. Still, even accepting that industrialised lives might compare unfavourably to pre-industrial lives in many respects (e.g. day-to-day autonomy and self-ownership) and, relatedly, that monetary measures of poverty and subsequent global poverty reduction statistics are dubious, industrialisation has incontrovertibly improved quality of life globally in some respects, especially health aspects. For an overview of some important statistics over time see: Max Roser, "The Short History of Global Living Conditions and Why It Matters That We Know It," Our World In Data, accessed September 10, 2020, https://ourworldindata.org/a-history-of-global-living-conditions-in-5-charts?linkId=62571595.

this level of expected harm *must* be widely disproportionate, for two reasons. First, perhaps we misunderstand the gravity of the risky conduct we tolerate. Perhaps there is institutional resistance to preventing these risks by prohibiting risky behaviour because that behaviour is socially embedded. Driving is the default in UK society, after all. An illustrative example of commonplace assumptions about car ownership is recent criticism of plans for several new 'garden villages and towns' on the grounds that inhabitants will be car-dependent, contrary to planners' stated sustainability goals and the notion that these settlements will be a break from car-centric developments past.[43] Normalisation of car use might lead to a systematic suppression of associated risks in the public conscience.

Second, wide proportionality is sensitive to the degree of both benefits and costs of criminalisation in each context. The countervailing considerations against criminalisation of presently tolerated risky behaviour (e.g. driving) may be especially or atypically weighty. The same might not be true of criminalising contributions to climate change. If the countervailing considerations against criminalising contributions to climate change are weaker, then even the same level of expected harm may justify criminalisation of this conduct when it does not justify criminalisation of some other conduct. What we can say for sure is that the expected harm view is liable to *prima facie* suspicion and could nevertheless be an impediment to wide proportionality because it is vulnerable to examples of risky conduct that is: (a) appropriately tolerated, and (b) has approximately the same weight of considerations against its criminalisation as is true of criminalising contributions to climate change. Without recourse to further reasons in favour of

[43] Roger Harrabin, "Garden Villages Locking-in Car Dependency, Says Report," *BBC News Online*, June 17, 2020.

criminalisation, this could leave us with a dilemma: criminalise inconsistently or fail to criminalise as we think appropriate.

Alternatively, if contributions to climate change are additionally wrong because they violate an obligation—as Cripps' collective view and the *mala prohibita* duty view explain—then criminalisation is more obviously widely proportionate. On this picture, the good achieved by criminalisation is not just the deterrence and condemnation of expected harm, but also the deterrence and condemnation of violation of important social duties. To illustrate, tax evasion is presently (and presumably proportionately) criminalised on the grounds that it is wrong because it violates an obligation, rather than on the grounds that it causes expected harm. If reliant upon the harm to the public purse caused by tax evasion, the case for criminalising ordinary tax evasion is (very) weak. Ordinary levels of tax foregone by evasion (cash-in-hand jobs, for instance) do not materially affect government programmes because of economies of scale, policy path dependence, government borrowing, and many more factors. Even if ordinary tax evasion makes a small difference, the costs of criminalisation are likely disproportionate to the benefits of criminalising evasion on the grounds of individual expected harm—professional investigation, prosecution, and administration of sanctions do not come cheap. But tax evasion is appropriately criminalised because it violates an obligation to pay reasonable taxes grounded in important public duties. Exactly which duty is contestable (justice, solidarity, etc.), but the general claim that tax evasion implicates some public moral duty is widely shared.

Moreover, the degree of wrong is not directly proportional to the sum of the tax avoided. Important public duties are violated whatever the sum of the tax avoided. The extent of

the accompanying harm might aggravate the wrong, but the wrongness of violating an obligation can make trivial harms non-trivial wrongs. Recall the analogous example of promising from §6.1, above. Few would claim, I think, that it is only trivially wrong to break a promise and reveal my friend's trivially embarrassing secret (they bite their nails, say, and would rather people didn't know this). The act of promise breaking amplifies the moral severity of the act in some way: perhaps it automatically raises it past some threshold, perhaps it acts like a multiplier, or some other explanation. The point is that reflection on these cases reveal a more complex relationship between the harmful consequences of violating a duty and the severity of wrongdoing than a simple proportional relationship allows. Exclusive adoption of the expected harm view cannot account for the moral severity of trivially harmful actions, and so will have a more difficult time finding candidate criminal offences widely proportionate, contributions to climate change included.

Finally, I want to consider how the limitations of exclusive focus on expected harm for narrow and wide proportionality interact. Reducing sentence severity in order to comply with narrow proportionality (justification to a would-be offender) weakens the social good achieved by criminalisation and so decreases the likelihood of wide proportionality (justification to society). This is because we might expect the deterrent effect of criminalisation to be positively correlated with sanction severity. In general, no such correlation is true.[44] However, there is evidence that sanction severity can affect the deterrent effect of "relatively minor forms of prohibited behavior" including tax evasion.[45] Offences targeting contributions to climate change, especially breaching carbon rations,

[44] Anthony N. Doob and Cheryl Marie Webster, "Sentence Severity and Crime: Accepting the Null Hypothesis," *Crime and Justice* 30 (2003): 143–95, https://doi.org/10.1086/652230.
[45] Michael Tonry, "Learning from the Limitations of Deterrence Research," *Crime and Justice* 37, no. 1 (2008): 281–82, https://doi.org/10.1086/524825.

are of this 'relatively minor' sort—in the sense that they are not grave *mala in se* (assault, sexual assault, murder). Offenders repelled for moral reasons from committing *mala in se* may be more comfortable committing non-violent regulatory offences like tax evasion and contributions to climate change unless and until meaningful sanctions are threatened. In contrast, those already committing *mala in se* are already insufficiently motivated by weighty sanctions or moral reasons. If this is true, then the limitation of expected harm to justify tough sentences to would-be offenders in the case of carbon rationing in particular (if it can justify criminal sentences at all) will in turn limit the ability for expected harm to justify criminalisation to society because the expected contingent good of criminalisation will be limited. In short, smaller sentences will deter fewer contributions. So, if we can only impose smaller sentences then there will be less reason to criminalise.

Let's bring this section together. I have outlined ordinary reasons in favour of criminalisation including contingent goods like deterrence and non-contingent goods like condemnation. I have argued that the case for criminalisation of contributions to climate change is at least theoretically limited on the expected harm view because the good of condemning and deterring expected harm might be equivalent to presently tolerated (i.e. non-criminal) conduct. By contrast, Cripps' collective view and the *mala prohibita* duty view give at least one more reason to criminalise: to condemn and deter the violation of an important obligation. This means that there is less chance criminalisation is widely proportionate on the expected harm view because it can overcome fewer (or less weighty) considerations against criminalisation. Lastly, I raised the possibility of an interaction effect between narrow and wide proportionality. If proportionate sentences are necessarily limited on the expected harm view, then the contingent social good of criminalisation will be limited in turn. This interaction effect compounds both problems

for justifying criminalisation of contributions to climate change on the grounds of expected harm.

§6.3 Wide proportionality II: What are the social considerations against criminalisation?

Now I turn away from assessing the strength of the social good achieved by criminalisation and towards the other side of the wide proportionality equation: the bad effects of criminalisation. Throughout, I'll use 'bad effects of criminalisation', 'considerations against criminalisation' and 'costs of criminalisation' interchangeably. So, what are the social costs of criminalisation and how costly are they? We need to have an answer before any determination of wide proportionality can occur. We can talk, as I have, of the likelihood of wide proportionality based upon the strength of the reasons to criminalise alone, but we will not know for sure until we account for concrete considerations against criminalisation.

Here is one view I reject quickly. It is sometimes said that criminalisation should always be a last resort. To present this view in the framework of reasons for and against criminalisation: before ordinary considerations against criminalisation get off the ground, we need to have defeated a second-order consideration against criminalisation—whether criminalisation is practically necessary. Unless all other feasible non-criminal regulation has been shown to fail (or can be reasonably expected to fail) to control the conduct in question, then criminalisation is unnecessary, and the second-order consideration is undefeated. Although this view seems attractive, I will not consider it as

other authors have convincingly rejected it elsewhere.[46] Their complaint is that the '*ultima ratio* doctrine' unduly prioritises deterrence at the expense of other (e.g. condemnatory) reasons for criminalisation. There remains good reason to criminalise murder, for instance, even if alternative regulation is an equally (or more) effective deterrent.

Having rejected the allure of the *ultima ratio* doctrine, we can move to ordinary considerations against criminalisation. Considerations against criminalisation will vary from candidate offence to offence. Still, there are two general types of consideration relevant to wide proportionality which might ordinarily count against criminalisation: (a) infringing a right to do wrong and (b) detrimental consequences. In the remainder of this chapter I want to explain these types of consideration and note some examples. I cannot, however, speak to how much either of these categories count against criminalisation in abstraction because specific analysis is needed to determine the wide proportionality of a candidate offence. I leave it to the next chapter to review my list of candidate offences and weigh the strength of considerations against each candidate offence in comparison to the strength of the case for criminalisation outlined in §6.2 (above).

§6.3.1 A right to do wrong

Often, we have a right that others do not prevent us from acting wrongly. In these situations, we are not morally permitted to act wrongly—so we do not have a right in the sense of having a privilege (we have a moral duty *not* to act wrongly)—but we do have a claim against others that they do not prevent us from acting wrongly (they have a moral

[46] Douglas Husak, "The Criminal Law as Last Resort," *Oxford Journal of Legal Studies* 24, no. 2 (2004): 207–35, https://doi.org/10.1093/ojls/24.2.207; Simester and von_Hirsch, *Crimes, Harms, and Wrongs*, 197–98.

duty not to interfere).[47] Jeremy Waldron dubs these claims 'rights to do wrong.'[48] Waldron argues typical liberal rights ground non-interference claims and offers a series of examples of wrongful conduct which is protected by traditional liberal rights. A right to freedom of expression protects hate speech on some views, for instance, and it permits some offensive speech at the very least. Moreover, qualified property rights allow individuals to withhold legitimately owned resources even when faced with a compelling duty of charity. For instance, you ought to give money to homelessness relief and, given the urgency of the cause and the minimal cost of effective donations, it would be wrong not to donate; but your right to property permits you to wrongly withhold a donation—at least and until the tax regime alters your property right and redistributes the money. Whether or not it is sensible to understand these liberties as *moral rights* to do moral wrong, as Waldron argues, is contentious but that society ought to afford its members a cluster of liberties which ground *legal rights* to non-interference for some wrongdoing is generally uncontroversial.[49]

Because criminalisation amounts to state intervention and sanctions conduct, to uphold a legal right to do wrong is to rule out criminalisation. Whether conduct is justifiably protected by a right to do wrong is therefore the first test of wide proportionality. It is first because if the case for criminalisation fails this test any further considerations are moot.

[47] Here I am using the standard distinctions identified by Hohfeld: Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, ed. Walter Wheeler Cook (New Haven, CT: Yale University Press, 1919).
[48] Jeremy Waldron, "A Right to Do Wrong," *Ethics* 92, no. 1 (1981): 21–39, https://doi.org/10.1086/292295.
[49] For a recent defence of a moral right to do moral wrong against various objections see: Ori J. Herstein, "Defending the Right to Do Wrong," *Law and Philosophy* 31, no. 3 (2012): 343–65, https://doi.org/10.1007/S10982-01.

§6.3.2 Detrimental consequences

Supposing that there is no legitimate non-interference claim to the conduct in question, the detrimental consequences of criminalising that conduct are then relevant countervailing considerations of wide proportionality. These consequences are the most obvious way the metaphor I raised at the beginning of chapter—cures worse than the disease itself—can be true of criminalisation. Criminalising conduct may bring about the good of condemning it and reducing its occurrence, but it would be foolish to pursue those goods at all costs. Clear examples have a common currency of costs and benefits. For example, taking false sick days is (somewhat) wrong and it has a financial impact on businesses and the wider economy. Criminalisation may reduce those financial costs but the financial costs of enforcement and sanctions likely vastly outweigh the financial loss resulting from sick days. Further, it is plausible that the costs outweigh the saving by enough to also outweigh the good of condemnation.[50]

There are several more detrimental consequences of criminalisation in addition to financial costs. Michael Moore lists opportunity costs; costs of false conviction; privacy costs; black marketization; and undermining the rule of law when the prohibition is predictably under-enforced.[51] Additionally, A. P. Simester and Andreas von Hirsch cite possible infringement of fair warning and fair labelling—the norms that offenders be aware of the prohibition before acting/omitting and that the prohibition be understandable.[52] Kimberlee Brownlee mentions the potential for social injustices to filter through to the criminal justice system, e.g. racial inequalities among convicted, and the way victims can be side-lined and traumatised by criminal processes and procedures.[53]

[50] This example offence would surely also be narrowly disproportionate, but that shouldn't obscure why it would be widely disproportionate too.
[51] Moore, *Placing Blame*, 661–65.
[52] Simester and von_Hirsch, *Crimes, Harms, and Wrongs*, chap. 11.
[53] Kimberley Brownlee, "Justifying Punishment: A Response to Douglas Husak," *Criminal Law and Philosophy* 2, no. 2 (2008): 127–28, https://doi.org/10.1007/s11572-008-9046-5.

We can also plausibly add: the increased risk of abuse of discretionary power by police, prosecutors, prison guards, etc.; costs in time and stress to the accused (irrespective of guilt) and to witnesses; and a stifling effect on autonomy (i.e. over-cautious abstention from legal conduct similar to criminalised conduct).

These possible consequences are probably not exhaustive, but together they cover most of what ordinarily might bother us about criminalisation. Here I've simply listed them, but I'll address them thematically, and in greater detail, in the next chapter. For now, they provide an indication of the inputs into the evaluation of costs required for an assessment of wide proportionality.

§6.4 Conclusion

In this chapter I have introduced and explored two further considerations for determining the permissibility of criminalising contributions to climate change: narrow and wide proportionality. I have argued that the narrow proportionality of criminalising some contributions to climate change depends upon which explanation of what is wrong with contributions to climate change one adopts upstream. Accounting only for expected harm, criminalisation of minor contributions to climate change (such as breaching a personal carbon ration) may be narrowly disproportionate. Only when we can resort to duties to fellow contributors or duties to obey a legitimate, just law can we confidently justify criminalisation of breaching personal carbon rations to would-be offenders. I've also demonstrated a parallel shortcoming for wide proportionality when accounting only for expected harm. I have not yet, however, concluded whether criminalisation of contributions to climate change is widely proportionate. I have indicated what social good could be achieved by criminalisation and I have noted several possible considerations against criminalisation in the abstract. But in order to come to a view on the wide

proportionality of criminalising contributions to climate change I need to consider candidate offences and their particular implications in closer detail—I undertake that task in the next chapter.

Considerations against criminalisation: offence by offence

In Chapter 6 I began to assess the proportionality of criminalising contributions to climate change. There I argued that criminalisation is narrowly proportionate: criminalisation is justifiable to would-be offenders because criminal sanctions are not disproportionate to an offender's wrongdoing (provided we accept Cripps' collective view or the *mala prohibita* duty view of what's wrong with contributing to climate change). But I have not yet established that criminalisation is widely proportionate (whether the social good of criminalisation is at least as great as its costs) because so far I have only considered the social good achieved by criminalisation of contributions to climate change and not the accompanying costs. All we have so far is a list of typical considerations against criminalisation in general with no indication of their relative importance for the present case.

In this chapter I take the list of typical considerations against criminalisation raised in the previous chapter and apply them to the list of candidate criminal offences from Chapter 2, Table 2.1. Although I cannot exhaustively examine every proposal, I rebut the main countervailing considerations to break through scepticism. To a degree, this chapter is necessarily speculative because of a lack of specific empirical data on the offences under consideration but, where possible, I have included relevant insights from empirical research. I do not claim to make an all-things-considered assessment on the basis of partially speculative information. I will conclude that several, but not all, candidate offences survive primary scrutiny. If sufficiently attentive to their moral obligations, legislatures could produce thorough reports on each candidate offence in committee, having commissioned tailored empirical evidence and invited expert testimony.[1] These

[1] Patrick Tomlin argues convincingly that legislatures consistently adherent to the presumption of innocence should be especially cautious and rigourous when considering new criminal legislation. A

reports would amount to a secondary stage of scrutiny and could approximate all-things-considered conclusions.

Throughout the chapter I will refer to a fictional interlocutor, the sort of person who, caring about the negative impacts of the criminal justice system, is suspicious of creating new criminal offences. Call this person, 'the principled opponent of more criminal law.' The principled opponent of more criminal law will present many countervailing considerations against the candidate offences throughout the chapter in order to challenge the offence's wide proportionality. The principled opponent of more criminal law espouses a deep-rooted scepticism of any new offence; for them, the burden of proof is on anyone who would create a new criminal offence to answer *every* reasonable consideration against criminalisation. But the principled opponent of more criminal law does not oppose new criminal offences for the sake of it and is not immovable. Nor does the principled opponent of more criminal law adopt the *ultima ratio* doctrine, that criminalisation should be used only as a last resort, as the principled opponent is receptive to claims about the value of condemning wrongs via the criminal law (I dismissed this view in Chapter 6, §6.3). Douglas Husak is perhaps the best example of the principled opponent of more criminal law. *Overcriminalization* is expressly critical of the proliferation of inadequately justified criminal legislation; moreover, Husak expressly endorses the claim that the burden of proof should be on those who would criminalise.[2] Since I do not want to be held hostage to fortune in questions concerning the correct interpretation of Husak's views, however, I do not claim to be raising objections Husak would raise; but I am trying to raise objections in the spirit of Husak's view.

thorough committee report would be an important practical assurance of rigour. See: Patrick Tomlin, "Extending the Golden Thread? Criminalisation and the Presumption of Innocence," *Journal of Political Philosophy* 21, no. 1 (2013): 44–66, https://doi.org/10.1111/j.1467-9760.2011.00411.x.

[2] Husak, *Overcriminalization*, especially 92-103.

At this point, the principled opponent of more criminal law is satisfied that the candidate criminal offences target wrongs and so satisfy the wrongness constraint. They are also satisfied that the candidate criminal offences are each narrowly proportionate. The remaining avenue they have for scrutiny is therefore wide proportionality. That is the focus of this chapter. To serve as a reminder before I begin, here is the longlist of candidate criminal offences under consideration in this chapter:

Candidate offence	Ground for liability	Likely defendant	Suggested actus reus	Suggested mens rea	Amendable existing legal frameworks	Related existing offences
Carbon ration breach	Contribution	Individual; corporate	Result: GHG emission beyond allowance	Intention	Strengthen EU ETS for industry; EU ETS as personal ration prototype	Breaching ammunition/explosive/toxic substance permit
Excess animal farming		Individual; corporate	Result: grazing or housing livestock without permit	Intention		Breaching intensive farming permit; breaching planning enforcement notice; illegal logging
Excess waste production		Corporate	Result: production of material in contravention of a ban; or Omission (legal duty): failure to comply with duty to justify production of regulated substance/design	Intention	Strengthen and reclassify existing waste management regulations	
Fossil-fuel investment	Facilitation	Individual; corporate; state	Conduct: financial investment or other in-kind contribution to fossil-fuel exploration or extraction	Intention		Breaching financial sanctions; money laundering;
Fossil-fuel exploration		Corporate	Conduct: excursion (or planning excursion) of unexplored regions with detection equipment	Intention	Strengthen existing permitting scheme	
Excess fossil-fuel extraction		Corporate	Result: extracting fossil fuels without permit	Intention	Strengthen existing permitting scheme	
Climate change denial	Legitimation	Individual; corporate; state	Result: unambiguous denial of established scientific consensus to large (to be specified) network of individuals	Intention		Holocaust denial (continental Europe)
Climate change misinformation		Corporate; state	Result: unambiguous or ambiguous challenge of established scientific consensus with false information to large (to be specified) network of individuals	Intention		
Spoiling atmospheric public good	Oversight	State	Omission (legal duty): failure to maintain GHG concentrations under statutory limit	Intention; recklessness		Sea/tidal waterways public trust doctrine in case law (predominantly US); misconduct in public office; bribery

Table 7.1: Longlist of candidate criminal offences under consideration

Hereafter ‘the longlist’, Table 7.1 (above) differs from the complete list in Chapter 2, Table 2.1, only because it excludes ecocide and postericide (see Chapter 2, §2.3.6 for the rationale for excluding these offences from consideration).

Although considerations against criminalisation can be divided into rights to do wrong and detrimental consequences, these are umbrella categories for many diverse rights claims and detrimental consequences. To discuss these considerations in a manageable way, I discuss different considerations thematically according to the group of offences they affect. The groupings I use are a combination of the basis for liability (contribution, facilitation, legitimation, or oversight) and which type of agent is being held liable (individual, corporate, or state representative). Each group has a set of considerations against criminalisation common to it. One group of offences I consider are legitimating offences by all types of agent: climate change denial and climate change misinformation. Another is contributions or facilitations typically committed by individuals including breaching a carbon ration. A third group I consider is contributions and facilitations typically committed by corporate agents such as fossil-fuel extraction. The fourth and final group I discuss are oversight offences, which amounts to just one offence—spoiling the atmospheric public good.

To begin, I consider claims to a right to legitimise contributions to climate change. In §7.1 I quickly defer to rights claims to legitimise contributions to climate change, in lieu of the protracted discussion these claims warrant, before rejecting right claims to other bases of liability. Consequently, contributions, facilitation, and oversight pass to the second test of wide proportionality: detrimental consequences. At this point I'm still left with too many detrimental consequences to discuss with reference to each candidate offence. So, §7.2 justifies excluding several typical detrimental consequences of criminalisation on the grounds that they are not especially problematic for any of the groups of offences I discuss. Then I work with what is left. In §7.3 I raise the special impacts to mobility, among

other things, of criminalising individual contributions and facilitation. In §7.4 I raise black marketisation as a detrimental consequence of criminalising corporate contributions and facilitation. Finally, in §7.5 I discuss the risk of exacerbating the politicisation of criminal justice, among other things, if state oversight of climate change is criminalised.

Overall, I conclude that all individual and corporate contributory and facilitative offences survive primary scrutiny—that is, they are widely proportionate given the evidence considered. These offences (listed in §7.6, Table 7.2) are: carbon ration breaches, excess animal farming; excess waste production; fossil-fuel investment; fossil-fuel exploration; and excess fossil-fuel extraction. I set aside all legitimating offences—climate change denial, and climate change misinformation—on the grounds that they raise possible rights to do wrong. And I conclude that the offence of spoiling the atmospheric public good does not survive primary scrutiny—that is, I find it widely disproportionate.

§7.1 A right to legitimise contributions climate change?

In the previous chapter I claimed that exploring a legitimate right to do wrong is the first test of wide proportionality. This is the first test because a legitimate right to do wrong is individually sufficient to defeat a case for criminalisation, after which detrimental consequences are moot. Naturally, because it is the first test, it is also likely to be the first source of reservations about wide proportionality which the principled opponent of more criminal law will raise.

Examining *prima facie* plausible rights to do wrong would lead me astray, however. Determining the precise contours of any right requires a great deal of attention and space, neither of which I can afford in addition to examining the case for criminalising contributions to climate change. Because of this I take what I deem to be the appropriate default view in the absence of a thorough examination—I defer to any plausible *prima facie* rights claim. The burden ought to be on those who would criminalise to present a compelling case and overcome these rights claims, rather than the reverse. So which rights claims are *prima facie* plausible and which offences from the longlist do they affect? I contend that only legitimation offences—climate change denial and climate change misinformation—implicate a plausible claim to a right to do wrong. Climate change denial and misinformation prohibitions—of any sort, not just criminal prohibitions—*prima facie* violate a right to freedom of speech. As these claims are plausible, albeit not necessarily successful, I set the offences they affect aside.

I do not think the remaining longlist offences raise rights to do wrong. Direct contributions such as excess waste production and facilitative conduct such as financing fossil fuel enterprise do not appear to raise inviolable rights. While it is true that individuals and corporations have legal property rights in natural resources or capital, whether these are simultaneously moral property rights is disputable. Even from a moral position sympathetic to private property claims we might, for instance, challenge the original acquisition of fossil-fuel reserves or capital (were 'enough and as good' resources left for others?) and thereby undermine a moral property right.[3] Moreover, even if individuals and corporations do hold moral property rights, their violation may sometimes be wholly

[3] The principal right-libertarian theory of justice includes a "Lockean proviso" stipulating that enough and as good (or compensation) be left for others in order to acquire property. In addition, property rights are subject to justice in transition which is probably another fruitful route for challeneging present holdings. See: Robert Nozick, *Anarchy, State, and Utopia* (New York, NY: Basic Books, 1974), 150–53 & 174–82.

rectified with compensation when circumstances call for regulation whereas compensation would not appear to (wholly, if at all) rectify violation of rights like freedom of expression.[4] A moral property right might then stop well short of ruling out criminalisation of some behaviour and demand instead that if the rights are to be violated—by any regulation, criminal or otherwise—compensation ought to be paid. But it is plausible that we needn't make so many concessions. On another view we have property rights in those goods we (individuals or corporations) are permitted by a theory of justice—distributive, corrective, etc—and permission to use them in limited ways when unlimited exercise of a property right would be unjust. This is to say property rights are determined by a theory of justice rather than inputs to determining a theory of justice (as a libertarian account would have it). If property rights are determined by a theory of justice, they would presumably not include rights to engage in conduct contributing to, and facilitating, the injustice (global, intergenerational, etc) accompanying climate change.

So, although they both concern property, we do have a plausible right to to withhold some of our property despite a compelling duty of charity (see Chapter 6, §6.3.1) but those with fossil-fuel assets do not have a right to contribute to climate change with those assets. Either because those with fossil-fuel assets may be compensated for violation of their right whereas the loss of liberty to have one's discretionary spending dictated cannot be adequately compensated. Or because a theory of justice determines that property rights are to be limited to a degree which prevents contributions to and

[4] Compensation may be an appropriate remedy only sometimes as sometimes we can have a deeper attachment to particular property—such as a centuries-old family residence or heirloom. Regulation of livestock farming might be thought to invite this kind of exception, but I am not convinced. The proposed offence of over-farming livestock is neither an expropriation of land, nor a total ban on the practice. According to the proposal, families with historical ties to farming animals may continue some animal farming or repurpose the land as they so choose, but they may not continue intensive animal agriculture (if they ever were). The special-attachment exception manifestly does not apply to corporate property rights in natural resources.

facilitation of climate change whereas a theory of justice does allow for individuals to withhold their discretionary spending even when presented with a compelling duty of charity—perhaps on the grounds that this is essential to respecting autonomy, for example.

The situation is much less complex for holding presiding government ministers liable because there is no widely acknowledged right, to my knowledge, which protects maladministration by those in a position of oversight. I therefore proceed to consider the possible detrimental consequences of all further longlist offences in the remainder of this chapter.

§7.2 Holding some detrimental consequences fixed

Having set aside rights to do wrong, the principled opponent of more criminal law will look to the possible detrimental consequences of criminalisation as an alternative means to question the wide proportionality of criminal offences from the longlist. But they won't successfully appeal to all detrimental consequences of criminalisation. Some consequences are commonplace and yet the case for various established criminal offences survives them. In this section I exclude many potential consequences from consideration on the grounds that those consequences are no more troubling for longlist offences than they are generally. This exclusion helpfully narrows the scope of investigation in the rest of the chapter.

The grounds for exclusion work like this: if, for example, the prospect of false conviction is insufficient to render a well-established crime, such as tax evasion, disproportionate,

then criminalisation can be widely proportionate despite a similar level of expected false convictions. So, if the positive case for criminalising contributions to climate change is roughly as compelling as the case for criminalising tax evasion (or any other clearly proportionate offence) then criminalising contributions to climate change also overcomes detrimental consequences constant across the comparison. I use tax evasion as my point of comparison because the structure of many longlist offences and tax evasion are similar: apparently negligible or inconsequential contributions to or facilitation of an aggregate harm. Moreover, tax evasion is 'victimless' in a similar sense to climate change. It is not true that there are no victims in fact, but discrete victims are difficult or impossible to identify.

Recall the list of typical detrimental consequences of criminalisation in general from Chapter 6, §6.3.2. These, collated from several philosophers of criminalisation with some additions of my own are: (a) abuse of discretionary power; (b) black marketisation; (c) costs in time and stress to the accused and witnesses; (d) error; (e) exacerbation of social injustices; (f) financial costs and financial opportunity costs; (g) infringing fair labelling and fair warning norms; (h) stifling autonomy; (i) undermining the rule of law; (j) victim side-lining; and (k) victim traumatisation. Of these, detrimental consequences (c), (d), (e), (f), (j), and (k) are roughly as troubling for tax evasion as they are for the longlist offences: costs in time and stress to the accused and witnesses; error; exacerbation of social injustices; financial costs and financial opportunity costs; victim side-lining; and victim traumatisation. My point is not that these consequences are uniform for all offences—victim trauma and side-lining might be especially troubling in cases of sexual violence, for instance, and drug offences may exacerbate social injustices more than

other offences—my point is only that they are uniform across the comparison.[5] I'll explain each of these assumptions in turn.

Firstly, I suspect criminal procedures for longlist offences will be similarly time-consuming and stressful to the accused and witnesses as they are for tax evasion, if not less (consequence (c), above). The stress induced by a criminal investigation must be particularly difficult to endure, and the cost in time is not insignificant, but of course we regularly determine that the good achieved by criminalisation can justify these costs—at least we make this judgement implicitly. I do not find reason to think there will be any aggravating factors which make longlist offences any more lengthy or stressful. Very serious *malum in se* offences might be especially stressful for the accused given how the offence is publicly perceived but no longlist offence is so serious as to be perceived in the especially hostile way murder is, for example.[6] Nor are the sanctions for longlist offences exceptionally stress-inducing since these should be proportionate to sanctions for similarly serious offences. The costs in stress for witnesses too are unlikely to be aggravated; the threat of retaliation from organised criminal groups is minimal for longlist offences (with the possible exception of testifying against a black market organisation—black marketisation is discussed in §7.4). Finally, I would expect criminal procedures for longlist offences to be just as timely as tax evasion if not swifter. The most complex

[5] On victim trauma generally see: Jim Parsons and Tiffany Bergin, "The Impact of Criminal Justice Involvement on Victims' Mental Health," *Journal of Traumatic Stress* 23, no. 2 (2010): 182–88, https://doi.org/10.1002/jts.20505; Uli Orth, "Secondary Victimization of Crime Victims by Criminal Proceedings," *Social Justice Research* 15, no. 4 (2002): 313–25, https://doi.org/10.1023/A:1021210323461; and on the differential trauma outcomes varying by offence see: Malini Laxminarayan, "Procedural Justice and Psychological Effects of Criminal Proceedings: The Moderating Effect of Offense Type," *Social Justice Research* 25, no. 4 (2012): 390–405, https://doi.org/10.1007/s11211-012-0167-6; Sarah E. Ullman, *Talking about Sexual Assault : Society's Response to Survivors* (American Psychological Association, 2010). On the amplification of social injustices in the criminal justice system, in particular the role of drug offences, see: Michael Tonry, "The Social, Psychological, and Political Causes of Racial Disparities in the American Criminal Justice System," *Crime and Justice* 39 (2010): 273–312, https://doi.org/10.1086/653045.

[6] This judgement might change as climate change begins to bite. Here and now, at least, this judgement seems plausible.

evidence required to prove a longlist offence in court would be financial evidence, but this is equally true of tax evasion.

Second, I do not anticipate any longlist offence to have an unusually high rate of error (consequence (d), above). A recent study by Loeffler et al. estimates that the average rate of false conviction in the US is around six percent, which is broadly consistent with a body of previous literature which estimated the rate of false conviction (in capital cases mostly) to be between two and five percent.[7] The Loeffler et al. study is an analysis of self-reported innocence in a prison population which presents problems for interpreting the results. One problem is that you would assume prisoners are unreliable sources, but the authors find their results are generally in line with estimates based on other sources and they include statistical corrections to try to exclude false inmate statements. Second, the study was conducted in the US whose culture of policing and criminal justice system is idiosyncratic to say the least.[8] To my knowledge, however, there are no UK studies or cross-national comparison studies—US studies are the best indicators we have. A third problem is that it is unlikely that the prison population is representative of all those convicted of crimes. The real rate of error also includes those convicted but given non-custodial sentences. Again, however, the Loeffler et al. study is the best indicator we have as there are no more representative studies to my knowledge.

[7] Charles E. Loeffler, Jordan Hyatt, and Greg Ridgeway, "Measuring Self-Reported Wrongful Convictions Among Prisoners," *Journal of Quantitative Criminology* 35, no. 2 (June 1, 2019): 259–86, https://doi.org/10.1007/s10940-018-9381-1.
[8] Excessive sentencing tariffs and extensive use of plea bargaining may be especially likely to lead to false convictions, for example. For a discussion of plea bargaining in the contemporary US see: Cynthia Alkon, "The US Supreme Court's Failure to Fix Plea Bargaining: The Impact of Lafler and Frye," *Hastings Constitutional Law Quarterly* 41, no. 3 (2013).

One virtue of the Loeffler et al. study is that it provides a more accurate picture of false convictions than is painted by exoneration records, as it includes those unable to prove their innocence to the required standard to achieve formal exoneration.[9] Its biggest virtue is that it disaggregates offence categories and estimates rates of false conviction for each. Unfortunately, tax evasion is not included in their disaggregation (perhaps because tax evaders are not routinely incarcerated) but there are some claims we can hypothesize about offence groupings based on their results. In general, 'assaultive' crimes (offences against the person) exhibit the highest degree of false conviction whereas most other crimes tend to exhibit rates at or below the average.[10] On the basis of this trend, I adopt the working assumption that the rate of false conviction for tax evasion is up to six percent. I also assume that the expected rate of false conviction for longlist offences (also non-assaultive) would be approximately the same. So, conditionally, because tax evasion is assumed to be widely proportionate, this rate of false conviction would not derail my longlist offences.

There are two further pieces of evidence to note before continuing which complicate this picture. On the one hand fraud bucks the trend, exhibiting a high rate of false conviction—although a wide confidence interval leaves this in some dispute. On the other hand, drink and drug driving convictions have a near zero false conviction rate after statistical correction. Prosecutions for drink and drug driving and longlist offences are both likely to rely on 'hard' evidence in the form of scientific tests and reliable

[9] For discussions of how exonerations are an under- and over-inclusive measure of false convictions see: Stephanie Roberts, "'Unsafe' Convictions: Defining and Compensating Miscariages of Justice," *The Modern Law Review* 66, no. 3 (2003): 441–51; Keith A. Findley, "Defining Innocence," *Albany Law Review* 74, no. 3 (2010): 1157–1208.
[10] Loeffler, Hyatt, and Ridgeway, "Measuring Self-Reported Wrongful Convictions Among Prisoners," 276–79.

documentation. Still, because these observations point in opposite directions, I won't alter my assumption.

Third, I assume longlist offences will not additionally exacerbate the reproduction and amplification of social injustices in the criminal justice system (consequence (e), above). To my knowledge there are no studies on social group distribution of tax evasion offenders. However, in general, richer individuals are less tax compliant than middle-income individuals.[11] This doesn't directly translate to criminal investigations, but it may well be something of a leveller that richer individuals are obvious targets of tax evasion investigations: in the sense that they are less compliant and withhold more recoverable income. That said, at least in the US, the obvious targets are not the most common targets as very low income individuals are more likely to be audited.[12] To the extent that this is a consequence of tax enforcement presently but does not generate arguments for abolishment over and above reform, I take it that this does not jeopardise the wide proportionality of criminalising tax evasion. Moreover, focusing on the UK, a PAYE (pay as you earn) system of taxation and majority non-taxable social security benefits should significantly reduce the tax investigation likelihood of lower-income individuals relative to the US. Since the longlist offences which target individuals are more likely to be committed by the advantaged (see Chapter 6, §6.1), and the prospective carbon rationing scheme would be PAYE-equivalent (i.e. tracked per relevant purchase, not by an annual declaration), I think there is sufficient similarity to hold the detrimental consequence under consideration fixed. Also, since the several candidate offences which target corporate agents will target the corporations themselves or their well-off,

[11] Katharina Gangl and Benno Torgler, "How to Achieve Tax Compliance by the Wealthy: A Review of the Literature and Agenda for Policy," *Social Issues and Policy Review* 14, no. 1 (2020): 114–16, https://doi.org/10.1111/sipr.12065.
[12] Paul Kiel and Jesse Eisinger, "Who's More Likely to Be Audited: A Person Making $20,000 — or $400,000? ," *ProPublica*, December 12, 2018.

disproportionately white male executives, I take it that there is no additional likelihood of amplifying social injustices. The complexity of proving corporate cases (particularly when excluding strict liability, see Chapter 2, §2.2.2) along with their high profile make them unproductive means of targeting the few executives from disadvantaged backgrounds simply for the reason they are from disadvantaged backgrounds.

Fourth, I assume that there is no excessive financial cost to administering longlist offences in comparison to administering tax evasion (consequence (f), above). Of course, the criminal offences themselves would not make a lot of sense without a pre-existing government agency which administered taxation (for the offence of tax evasion) and carbon rations (for the candidate offence of breaching a carbon ration). Here I am discussing the additional costs of administering the criminal sanction only, not the costs of administering the system which makes them possible, in line with my assumption that criminal offences piggyback on administrative bodies which are independently justifiable (see Chapter 1, §1.4.4). Since this point will be frequently relevant in the remainder of the chapter, it is worth reiterating the rationale and its implications. I make this assumption as the conditions of justifiable public policy may differ from the conditions of justifiable criminalisation, and to outline a theory of the former as well as the latter would lead me astray. This means that the thesis assumes, when it makes recommendations on particular offences, that there are good grounds to regulate emissions. I think that is plausible, but given the assumption my arguments aren't conclusive if it's not true (or, perhaps, that it is true for some offenders and not others—individual vs. corporate, for instance).

That limitation noted, when it comes to the additional costs of criminal administration only, we recognise some financial costs are associated with criminalising anything and there is no reason I can see to think that the longlist offences will be unusually expensive. Tax evasion is an unhelpful comparison offence in this respect, since tax agencies recoup more in withheld taxes than they spend in administration. However, it is not clear that this is a consequence of their criminal investigatory powers over and above their other enforcement powers, and since tax agencies are the exception not the rule in this respect, I'll ignore this complication.

Fifth, and finally, the victims of climate change are, like the victims of tax evasion, obscured from the process. Victims in both cases are side-lined by definition because they are indeterminable (consequence (j), above); but the positive side of this is that there are no victims to be traumatised by criminal procedures (consequence (k) above). Since my longlist offences have the same relationship to victims as tax evasion and this is not a fatal problem for criminalising tax evasion, I exclude these consequences from my discussion below.

The preceding discussion leaves the following typical detrimental consequences: abuse of discretionary power; black marketisation; infringing fair labelling and fair warning norms; stifling autonomy; and undermining the rule of law. These detrimental consequences, plus some special (i.e. atypical, but not necessarily unique) detrimental consequences raised by longlist offences, are discussed when relevant below. The strategy in what follows is to deflate, rather than refute, each concern. I will present reason to think each detrimental consequence is less troubling than it appears or that the appearance of a problem is correct, but a crucial complementary policy reduces the

concern. Taken together, my replies will sustain the conclusion that all individual and corporate contributions to and facilitations of climate change in the longlist survive primary scrutiny.

§7.3 Detrimental consequences: individual contributions and facilitation

In this section I discuss common consequences of offences targeting individual contributors and facilitators. With reference to the longlist of offences, this section primarily concerns breaching a carbon ration, but individuals might also be held responsible for excess animal farming and fossil fuel investment.

What detrimental consequences might the principled opponent of more criminal law raise to challenge the wide proportionality of holding individuals criminally liable for their contributions and facilitations of climate change? The most obvious answer is that there are serious privacy concerns with tracking individual purchases with embedded carbon. Each qualifying transaction with associated carbon needs to be logged and deducted from an individual ration. A parallel could be drawn to government access to everyone's bank statements. That is *prima facie* troubling. But those are troubling implications of administering a system of carbon rations at all, not a troubling implication of criminalisation. Since I am considering the wide proportionality of criminalisation—and not the permissibility of administering a carbon ration as public policy, which might have very different conditions to those concerning the permissibility of criminalisation—I set this obvious answer aside (see §7.2, above and Chapter 1, §1.4.4).

Criminalisation would raise at least one special privacy concern, but again this is not one I will consider in detail. Public disclosure of carbon expenditure evidence in open court is a troubling privacy concern of criminalisation itself. However, criminalisation of breaching a carbon ration is no more troubling in this respect that it is for tax evasion cases. Tax evasion cases are in fact worse in this respect, since any and all expenditure may be relevant to proving tax evasion—along with the information we might learn

indirectly from that expenditure. Whereas only carbon-relevant expenditure is necessary to prove a case of breaching a carbon ration. Hence, I'll apply the same reasoning as §7.2 (above) and hold this detrimental consequence to privacy fixed across the comparison between tax evasion and the candidate offences. I raise this issue now, rather than earlier, only because privacy is not necessarily a detrimental consequence common to all candidate offences.

I consider the chief detrimental consequences of criminalisation of individual contributions and facilitation which the principled opponent of more criminal law would be right to raise to be: (i) impacts to mobility, (ii) stifling autonomy, and (iii) exacerbating abuse of discretionary powers.

§7.3.1 Mobility

Friends and family networks are often geographically dispersed, and people often live considerable distances from their work, amenities, and holiday destinations. This makes mobility a very important instrumental good (a means to achieving the good of social interaction, for example) but rationing people's carbon-relevant consumption may limit their mobility by restricting permitted transport. Where lower- or zero-carbon alternative transport is lacking, debiting a carbon ration for personal vehicle fuel will cap personal mobility. Further, lower- or zero-carbon alternatives to long-haul flights are lacking but presumably ought still to be captured by a rationing system given the carbon intensity of flying. Much of the impact here is the result of administering a carbon ration in the first place, not criminalising breaches of a carbon ration, and so I'm assuming most of these worries away. But notice that criminalisation does have an additional detrimental impact on mobility.

Criminalisation is less likely to be accepted as a cost of business than, for example, a tax. Although some will have their mobility equally well limited by a tax as by criminalisation because they cannot afford the tax, this will not be true for wealthier contributors who opt to continue traveling and pay the tax. A criminal sanction would likely limit the mobility of those who could afford the additional cost of taxation but won't risk a criminal sanction. This would be a genuine detrimental impact to many people.

The negative impact on the rich, however, is just one side of the coin. The negative impact to mobility of criminalisation on wealthier individuals ought to be offset by the fact that criminalisation, in comparison with non-criminal alternatives, decreases inequalities of outcome. If the wealthy fear a criminal sanction, but not a tax or a financial civil sanction, criminalisation of breaches of a carbon ration will avoid translating material inequalities into inequalities in mobility because the wealthy cannot simply purchase, in effect, non-compliance. So, the principled opponent of more criminal law would be right to raise the detrimental impacts to mobility but the complaint about a reduction in mobility should be offset by a positive impact on the distribution of mobility compared with non-criminal regulation.[13] This neutralises the mobility consideration against criminalisation, if not revealing equality of mobility actually counts in favour of criminalisation.

[13] For a general discussion of the different implications for inequality of different types of mitigation policy see: Sanna Markkanen and Annela Anger-Kraavi, "Social Impacts of Climate Change Mitigation Policies and Their Implications for Inequality," *Climate Policy* 19, no. 7 (2019): 827–44, https://doi.org/10.1080/14693062.2019.1596873.

§7.3.2 Stifling autonomy

The next consideration I anticipate the principled opponent of more criminal law would raise is the stifling impact of criminalisation on individual exercise of autonomy. Autonomy can be stifled directly and indirectly. All regulation directly stifles autonomy by constricting an agent's permissible option set, but since this is a feature of regulation and not criminalisation, I think we can set this concern aside. That said, it might be argued that criminalisation has additional direct impacts to autonomy, since criminalisation may amend the subjective option set of a class of people unmoved by civil sanctions but worried about criminal sanctions. But even if this claim is accepted, it should be recognised that a carbon ration—albeit only one of several offences which make individuals liable in the longlist—responds to the necessity of restrictions in an autonomy-preserving way. A flying ban and a carbon ration both stifle autonomy in the direct sense by limiting option sets, but a carbon ration allows agents to choose for themselves how to make trade-offs whereas a ban forecloses one option entirely.[14] This, I think, seriously reduces the level of concern we should have for directly stifling autonomy. We surely ought to do something, and anything comes at a cost to autonomy; moreover, the option we're considering is the least objectionable option available.

Regulation indirectly stifles autonomy when agents refrain from permitted options due to over-cautious compliance. This over-cautious compliance is especially likely when the threatened sanctions for non-compliance are criminal. Although, therefore, some indirect effects to autonomy can be set aside as impacts of regulation, criminalisation itself amplifies the indirect effects on autonomy. To explain the phenomenon in the context of

[14] This form of choice-sensitive restriction is what Caney terms "ecological liberalism" in action. See: Simon Caney, "Human Rights, Population, and Climate Change," in *Human Rights and 21st Century Challenges: Poverty, Conflict, and the Environment*, ed. Dapo Akande et al. (New York, NY: Oxford University Press, 2019), 348–69.

a carbon ration, people might confusedly avoid de-carbonised conduct for fear of breaching their ration. Unclear that their energy provider is carbon neutral, say, someone might underheat their home. Although the problem here is pronounced, because carbon rations affect a great deal of conduct previously unregulated, the standard response to this worry is still appropriate. As is well noted, states have a duty to promulgate the laws they enact, and effective promulgation can reduce stifling autonomy to a minimum.[15] Promulgation can be especially effective if it moves beyond the typical expectation that laws are to be published in public fora for anyone to find if they so wish, and in the direction of protracted public awareness campaigns—learning, where possible, from evidence of best practice on designing and evaluating public awareness campaigns.[16] The extra effort of a public awareness campaign would be a proportionate response to the heightened risk of longlist offences stifling autonomy.

Overall, the direct and indirect effects to autonomy are both limited and limitable. They are of small concern in competition with the social good achieved by preventing and condemning contributions to and facilitation of climate change. Although all detrimental consequences of criminalisation can affect wide proportionality when summed together (I'll come back to this), autonomy alone is not a convincing counterpoint.

[15] Promulgation is widely considered a condition of the rule of law. For thorough discussions of the duty to promulgate in particular, in the Anglo-American legal tradition, see: Joseph E. Murphy, "The Duty of the Government to Make the Law Known," *Fordham Law Review* 51, no. 2 (1982): 255–92; and John Mark Keyes, "Perils of the Unknown - Fair Notice and the Promulgation of Legislation," *Ottawa Law Review* 25, no. 3 (1993): 579–606.

[16] Most research into success criteria for public awareness campaigns is in public health. In public health, the aim is not just public awareness, but also often behaviour change. I assume, however, that many insights translate well to promulgation of law. For an overview study see: Ross Gordon et al., "The Effectiveness of Social Marketing Interventions for Health Improvement: What's the Evidence?," *Public Health* 120, no. 12 (December 1, 2006): 1133–39, https://doi.org/10.1016/j.puhe.2006.10.008. For a recent critical theoretical review see: Walter Wymer, "Developing More Effective Social Marketing Strategies," *Journal of Social Marketing* 1, no. 1 (2011): 17–31, https://doi.org/10.1108/20426761111104400. And for a recent retrospective evaluation of campaigns on a particular matter see: Hazel Kemshall and Heather M. Moulden, "Communicating about Child Sexual Abuse with the Public: Learning the Lessons from Public Awareness Campaigns," *Journal of Sexual Aggression* 23, no. 2 (2017): 124–38, https://doi.org/10.1080/13552600.2016.1222004.

§7.3.3 Abuse of power

Next, the propensity for abuse of discretionary power is also a foreseeable risk of criminalising everyday individual behaviour. The rule of law requires that every law applies to everyone equally. So, the existence of even a single criminal law in accordance with the rule of law means that everyone is liable to the criminal justice system—since anyone could commit the offence and no one should be given favourable treatment by enforcement officials. Because of this, an additional criminal law does not make any additional person liable to the criminal justice system who wasn't already. But, in practice, laws have differing expected effects on subsets of populations and so new offences make some people more likely than before to be prosecuted. Everyone is liable to sanction for begging, for example, but most risk is borne by those in serious financial hardship. Criminalising everyday behaviour produces more dispersed risk of investigation, thereby dispersing the risk of becoming a victim of abuse of power by agents of the criminal justice system.

Abuse of power might arise in all tiers of the criminal justice system—policing, prosecution, and sentencing. Discretion is widespread in policing: particular officers have *de facto* discretion to implement the law when they are permitted to look the other way on routine stops and police departments and sub-departmental groups make policy decisions—such as where, when, and what to police—which affect who is brought before the criminal justice system and why.[17] Strategies to reduce abuse of discretion identified by Seumas Miller and John Backler are twofold: withdrawing discretion and making discretionary decision-makers accountable. The correct application of these two

[17] Seumas Miller and John Blackler, *Ethical Issues in Policing* (New York, NY: Routledge, 2005), chap. 2.

strategies, they argue, is piecemeal, noting that some police duties, like peace-keeping, might call for greater discretion but corresponding accountability and others, like responding to violent encounters, call for little to no discretion.[18] With particular reference to limiting abuse of power when enforcing individual contributions and facilitation, little discretion need be afforded in the first place as suspicion will be grounded on pretty matter-of-fact evidence. Moreover, exposure to the police can be kept to a minimum thereby reducing the risk of police abuse of power. Police arrests could be reserved for all but the most obstinate offenders with court summons used in their place. This would guard against any increase in police malpractice from additional demand and is almost certainly more cost-effective.

Similar remarks apply to prosecutorial discretion. Exposure to prosecutors need be minimal since carbon rations can be tracked electronically (see Chapter 2, §2.3.3) along with any applications to defer ration reductions or carry-over rations (see Chapter 6, §6.1). Preliminary decisions to send summons could be largely algorithmic: following a breach over a certain percentage with subsequent human investigations to check pre-defined criteria such as whether there are any predictable extenuating circumstances.[19]

In addition, precise guidance on scalar sentences for breaches mitigate the concern of abuse of judge and magistrate discretionary power. Narrow upper- and lower-limit sentencing thresholds could prevent exemplary sentences and unduly lenient sentences. Research in the US and England and Wales provides some evidence linking

[18] Ibid.
[19] The sort of algorithm I have in mind is not artificially intelligent and free to teach itself that this or that class of person is more likely to offend, for example. By algorithmic I simply mean a logical screening process. Were a more complex system adopted, the subsequent human involvement becomes more important for militating against machine bias.

sentencing guidelines to sentencing consistency.[20] Although guidelines seem to improve consistency, and so decrease abuse of discretionary power, it is worth noting that sentencing guidelines are not wholly positive since they may be amended—in light of 'tough on crime' policy positions among other incentives—so that they entrench excessive minimum sentences.[21] It is therefore worth considering guidelines which focus on maximum, rather than minimum, sentences which reduce the risk of entrenching excessive punishments at the cost of permitting unduly lenient sentencing.[22]

Let me bring these thoughts together. Taking the negative effects of increased risk of abuse of discretionary power in isolation, I think the effect of criminalising individual contributions and facilitation would be net positive and therefore widely proportionate. This is because the nature of the offences themselves, particularly carbon ration breaches, lend themselves to a low level of official-suspect interaction and so a great deal of mitigation of abuse of power. This seems to me like a reasonable price to pay for the good achieved in deterring and condemning individual contributions to and facilitations of climate change.

The same conclusion holds overall too, I think. All the detrimental consequences of holding individual contributors and facilitators need to be weighed together against the

[20] J. Pina-Sánchez and R. Linacre, "Enhancing Consistency in Sentencing: Exploring the Effects of Guidelines in England and Wales," *Journal of Quantitative Criminology* 30 (2014): 731–48, https://doi.org/10.1007/s10940-014-9221-x; Julian V. Roberts, "Sentencing Guidelines in England and Wales: Recent Developments and Emerging Issues," *Law and Contemporary Problems* 76, no. 1 (2013): 1–25; Susan R. Klein and Jordan M. Steiker, "The Search for Equality in Criminal Sentencing," *Supreme Court Review*, 2002, 223–69, https://doi.org/10.1086/scr.2002.3109719.
[21] Daniel J. D'Amico, "Rules Versus Discretion in Criminal Sentencing," in *James M. Buchanan: A Theorist of Political Economy and Social Philosophy*, ed. Richard E. Wagner (London: Palgrave Macmillan, 2018), 883–902, https://doi.org/10.1007/978-3-030-03080-3_38.
[22] Ashley Gilpin, "The Impact of Mandatory Minimum and Truth-in-Sentencing Laws and Their Relation to English Sentencing Policies," *Arizona Journal of International and Comparative Law* 29, no. 1 (2012): 91–136.

social good of criminalisation for a complete assessment of wide proportionality. Abuse of power alone does not make criminalisation widely disproportionate and I have argued that the costs to mobility of criminalisation itself can be offset by the good distributional effects on mobility of criminalisation itself; so, adding mobility to the mix cannot make criminalisation widely disproportionate either. Meanwhile, like abuse of power, the risk of stifling autonomy can be constrained, and I am not inclined to think these together can make criminalisation widely disproportionate. Finally, I do not think the detrimental consequences being held fixed including false conviction (see §7.2, above), or special privacy concerns with proving a case in open court, tip the balance. The brief case for criminalisation from Chapter 1, §1.1 presented what little room we have to manoeuvre and so the urgent need for action. Criminalisation can do a great deal of deterrent good in those circumstances along with its good condemnatory effects—I'd expect the detrimental consequences of criminalisation would have to be remarkably bad to make that social good disproportionate and I have not found any so remarkably bad consequences. All in all, I think criminalising individual contributions to and facilitations of climate change survives primary scrutiny.

§7.4 Detrimental consequences: corporate contributors and facilitators

In this section I switch my attention to corporate agents because criminalising their contributions and facilitation can produce different detrimental consequences, since their activities are larger in scope and result in more widespread effects. With reference to the longlist of offences, this section concerns: corporate carbon ration breaches, excess animal farming; excess waste production; fossil-fuel investment; fossil-fuel exploration; and excess fossil-fuel extraction.

As with individual contributions and facilitation, I think the most obvious objection to criminalising corporate contributions and facilitation would be misplaced because it objects to the underlying public policy, not criminalisation itself. The most obvious objection to holding corporations criminally liable, I think, is that this would damage the economy because it stifles free enterprise. There are two things to say about this claim. First, it is unclear whether criminal liability for corporate contributors and facilitators has any marginal economic impact over and above non-criminal regulation of climate-relevant commerce. Second, it is widely agreed that the economic consequences of climate change are worse than the economic consequences of mitigating climate change. For these reasons I'll set economic considerations aside, assuming that the economic costs of criminalisation are the financial costs of enforcement and government expenditure opportunity costs I consider fixed (see §7.2, above).

§7.4.1 Black markets

The detrimental consequence of criminalising corporate contributions and facilitation I think likely to be raised by the principled opponent of more criminal law is black markets, even though mere regulation will generate black markets to some extent. Criminalisation itself raises the likelihood of the pernicious effects of black markets because criminalisation reduces further the otherwise reputable corporations engaged in the prohibited commerce. The more otherwise reputable corporations leave the market, the more market share is left to thoroughgoingly disreputable organisations to take over. Subject only to civil sanctions, some otherwise reputable corporations might absorb civil sanctions as a cost of business and continue to dominate a market in non-compliant goods. But criminal sanctions—presenting too significant a threat to some—may force out a greater number of otherwise reputable corporations. Although the difference in civil and criminal sanctions for a corporation in practice might only be a matter of degree

(more or less severe fines), the expected difference will affect the reasoning of corporate directors. If this is right, then we can expect that making various corporate contributions and facilitations of climate change crimes will affect the sorts of agents who are non-compliant, and the sorts of actions non-compliers engage in simultaneously. In short, criminalisation raises the prospects of organised crime relative to mere regulation. Of course, criminal sanctions won't deter all otherwise reputable corporations, but I do assume some effect.

In particular I expect that criminalising excess animal farming could produce a black market given that meat is culturally ubiquitous, but bans on excess fossil-fuel extraction, fossil fuel investment, excess waste production, and corporate carbon ration breaches could all generate or exacerbate existing black markets too. I will refer most often to a black market in meat for illustrative purposes.

In order to know how grave the threat of introducing or exacerbating black markets is, we need to know what it is that is bad about black markets. Strangely, what is bad about black markets is an underexplored question; to my knowledge there is no developed moral theory of what is bad about black markets.[23] In lieu of a theory, here are four intuitively bad features. I will outline each of them in turn, but to be clear only the fourth bad feature gives us reason to consider the effects of criminalisation.

[23] There is some philosophical discussion of the negative impacts of black markets in discussion of the permissibility of organ donation markets. See: James Stacey Taylor, "Why the 'black Market' Arguments against Legalizing Organ Sales Fail," *Res Publica* 12, no. 2 (2006): 163–78, https://doi.org/10.1007/s11158-006-9001-z.

First, a black market undermines the aims of the regulation it ignores. If the purpose of drug prohibitions, for example, is to restrict drug use, then a black market undermines the restriction by continuing to supply drugs for use. Undermining legislative aims means we fall regrettably short of an ideal, but it is crucial not to overstate how bad this is. The expectation of some crime does not nullify good reasons to criminalise. This is only bad to the extent that we do not live in a perfect world with full compliance—something we've come to terms with. So, I'll set this bad feature aside. What matters much more is how well *complementary* measures can prevent non-compliance from becoming widespread and causing a second, related problem.

The second bad feature of black markets is that they may ensure criminalisation will fail to achieve *any* social good because non-compliance is projected to be very high. To return to the drug prohibition example, if the black market in drugs is so extensive that anyone who wishes to access them can, then criminalisation does not succeed in its aims: it does not protect against purported harms because it does not deter dealers and users, and the value of condemning those few who are convicted should be discounted by the tolerant attitude the public take. In such a scenario, criminalisation achieves little to no social good; consequently, only very small considerations against criminalisation could render it widely disproportionate. It is worth noting, however, that criminalisation itself is unlikely to make any regulation less likely to achieve any social good. People do not pay less attention to drug prohibition because it is criminalised. It seems pretty clear that they would pay little attention to a non-criminal regulation all the same. Because, then, I'm interested in the marginal effect of criminalisation I'll set this bad feature of black markets aside too.

Third, endemic black markets undermine respect for the rule of law as noncompliance becomes commonplace in the population as a whole or in some subset. In this environment two damaging perceptions form: (i) that the justice system is ineffective and (ii) it becomes clear that laws are not enforced uniformly and must thereby be enforced objectionably selectively (arbitrarily and or discriminatorily). This, again, is true of non-criminal regulation. It is unclear that criminalisation would have a marginal effect on whether black markets become endemic and hence this won't concern criminalisation's balance of proportionality independent of whether we should regulate the activity at all. Of course, criminalising when a black market is already undermining respect for non-criminal law might ensure that the criminal law is so undermined too. But that is a case where the underlying regulation is not likely to be justified, and so a situation in which I am not considering criminalisation (for more on the assumption of the justice of underlying non-criminal regulation see Chapter 1, §1.4.4).

Fourth, black markets may increase violence, intimidation, coercion, exploitation and fraud. In part this is a result of the income provided to criminal enterprises by black markets, but also black markets may necessitate the use of violence to engage in them—a non-violent provider may well be quickly squeezed out. As many of these implications are crimes, we can put the point starkly as follows: criminalisation can indirectly cause crime by producing black markets. Further driving operations underground, criminalisation would appear to have a marginal effect on the sorts of agents and behaviours that take place in black markets. This, then, is the crucial detrimental consequence to weigh in the determination of wide proportionality.

One set of responses to the propensity for black markets to be more violent in the context of criminalisation is to minimise non-compliance; but we can't just assume away non-compliance because that is the source of the problem.[24] This speaks against 'solutions' which recommend solving non-compliance, but it doesn't speak against reliable methods of reducing the incidence of non-compliance. To the degree we can reduce non-compliance we should, and there are several measures recommended by some central perspectives in criminology.[25] These measures include (subject to sensible budget constraints and non-interference norms): adequately resourced enforcement in order to limit the success of non-compliance and, at the same time, effectively alter some of the conditions under which would-be offenders make some decisions; redistributive socio-economic interventions to reduce deprivation; redress of systematic grievances intersecting with deprivation (such as racial, gender, and geographic inequality) to liberate the marginalised;[26] plus finessed situational crime prevention to narrow the opportunities of those disposed to crime via, for example, conspicuous policing.

In addition to doing what we can to reduce the incidence of non-compliance, we can work with responses that take some non-compliance for granted. One option for reducing the negative impacts of black markets is to assume that temptation to seek profit in a black market persists (i.e. accept non-compliance in supply), and then seek to choke off opportunity to profit by altering demand. Effective demand-management tools in environmental black markets include the marriage of sustained public information

[24] See Tomlin's example of "circular recommendations" and discussion of why they are unhelpful: Patrick Tomlin, "Should We Be Utopophobes about Democracy in Particular?," *Political Studies Review* 10, no. 1 (January 20, 2012): chap. 43, https://doi.org/10.1111/j.1478-9302.2011.00245.x.
[25] For a thorough introduction to central theories see: J. Robert. Lilly, Francis T. Cullen, and Richard A. Ball, *Criminological Theory: Context and Consequences*, 7th ed. (Thousand Oaks, CA: SAGE Publications, 2018).
[26] This resonates with the critical tradition in criminology, but I am inspired to stress the inclusion of redress of systematic injustices in addition to socio-economic interventions by Shelby's critique of the "medical model" of interventions to reduce US ghetto poor deprivation. See: Tommie Shelby, *Dark Ghettos* (Cambridge, MA: Belknap, 2016).

campaigns, which inculcate sustainability norms and their justification, with sustainability accreditation of products (e.g. the Forest Stewardship Council (FSC) certification of timber and paper products).[27] Another, complementary, option takes non-compliant demand for granted and alters supply. For instance, subsidising substitute goods gives these industries a competitive advantage in the market and could reduce/eliminate the appeal of illicit goods.[28] This solution relies on regulated goods being substitutable but substitution for meat—the example with which I began this section—is improving. A recent Gallup poll in the US finds many are reducing their meat intake without direct substitution.[29] A similar Gallup poll found plant-based meat substitutes are popular among US omnivores as well as vegetarians and vegans, and plant-based meat substitutes offer modest sustainability improvements even compared with the most carbon-efficient animal products.[30] Meanwhile, lab-cultured meat is a promising technology (albeit early-stage).[31]

Lastly, we can also adopt measures which take all non-compliance for granted and ameliorate the after-effects. To the extent that non-compliance funds organised crime, existing agencies such as the UK National Crime Agency and the charity Victim Support (for example) offer support and protection.[32] And, while staying mindful of the partial role

[27] Gavin Hayman and Duncan Brack, "International Environmental Crime: The Nature and Control of Environmental Black Markets - Workshop Report," 2002, 30–33.
[28] Ibid., 33-34.
[29] "Nearly One in Four in U.S. Have Cut Back on Eating Meat," Gallup, January 27, 2020, https://news.gallup.com/poll/282779/nearly-one-four-cut-back-eating-meat.aspx.
[30] "Four in 10 Americans Have Eaten Plant-Based Meats," Gallup, January 28, 2020, https://news.gallup.com/poll/282989/four-americans-eaten-plant-based-meats.aspx; Peter Alexander et al., "Could Consumption of Insects, Cultured Meat or Imitation Meat Reduce Global Agricultural Land Use?," *Global Food Security* 15 (2017): 22–32, https://doi.org/10.1016/j.gfs.2017.04.001.
[31] Neil Stephens et al., "Bringing Cultured Meat to Market: Technical, Socio-Political, and Regulatory Challenges in Cellular Agriculture," *Trends in Food Science and Technology* 78 (2018): 155–66, https://doi.org/10.1016/j.tifs.2018.04.010.
[32] National Crime Agency, "Supporting Victims and Survivors," accessed May 14, 2020, https://www.nationalcrimeagency.gov.uk/what-we-do/how-we-work/supporting-victims-and-survivors; Victim Support, "How We Can Help," accessed May 14, 2020, https://www.victimsupport.org.uk/help-and-support/how-we-can-help.

remedial measures have within a more holistic enforcement strategy, strategies to improve community resilience in affected neighbourhoods can support victim adaptation.[33]

The remedial measures raised above significantly reduce the tendency for criminalisation to produce more dangerous black markets. My judgement is that the possibility of black markets is *a priori* insufficient to make criminalisation disproportionate. There is reason to believe that multiple policies, some idealistic and many not so idealistic, can together restrain black market saturation while criminalisation achieves considerable social good. Even accepting the financial cost of complementary policies to limit black markets, I do not find the expected consequences of criminalising corporate contributors and facilitators widely disproportionate. Nor, in my view, are the detrimental impacts of inevitable black markets enough to make criminalisation of corporate contributions and facilitation widely disproportionate in combination with the various detrimental consequences being held fixed (see §7.2, above). The social good which may be achieved by deterring and condemning considerable corporate contributions and facilitation is vast and can accommodate serious corresponding detrimental consequences. Without recourse to further objections—objections which I cannot foresee—the principled opponent of more criminal law fails to show that criminalising corporate contributions to and facilitation of climate change is widely disproportionate. As a result, excess fossil-fuel extraction, fossil fuel investment, excess

[33] For a discussion of the possibilities of community resilience see: Mary Ann Dutton and Rebecca Greene, "Resilience and Crime Victimization," *Journal of Traumatic Stress* 23, no. 2 (April 2010): 215–22, https://doi.org/10.1002/jts.20510; and for supporting empirical evidence demonstrating correlation between resilience factors and post-traumatic outcomes see: Kristen Lamp, "Personal and Contextual Resilience Factors and Their Relations to Psychological Adjustment Outcomes Across the Lifespan: A Meta-Analysis" (Loyola University Chicago, 2013). For an important rejoinder to resilience policy, stressing its nature as a partial response, see: Willem de Lint and Nerida Chazal, "Resilience and Criminal Justice: Unsafe at Low Altitude," *Critical Criminology* 21, no. 2 (April 16, 2013): 157–76, https://doi.org/10.1007/s10612-013-9179-2.

waste production, excess animal farming, and corporate carbon ration breaches all survive primary scrutiny.

§7.5 Detrimental consequences: presiding government ministers

There is one remaining offence at which the principled opponent of more criminal law can take aim. This section addresses the detrimental consequences salient to holding presiding government ministers liable. With reference to the longlist of offences, this section concerns only spoiling the atmospheric public good.

§7.5.1 Fair warning

On its face, what constitutes spoiling (more specifically, allowing the spoiling of) the atmospheric good is unclear. Criminalisation that relies upon an imprecise *actus reus* (act specification of the offence) is objectionable because it does not appropriately warn which conduct makes an offender liable to sanction and censure. Without fair warning, people do not have adequate opportunity to avoid criminality. To illustrate, suppose that 'spoiling public parks' is a crime. Charging someone who uses the park as their personal motorbike dirt track is unobjectionable because it meets any reasonable person's standard for spoiling the park. By contrast, suppose someone believes (reasonably) that in order to *spoil* the park, you need to cause widespread damage and, thinking as they do, they proceed to chuck their used dishwater over their garden fence every day which damages a patch of grass over time. Their arrest would be objectionable; not because their conduct cannot be reasonably interpreted as spoiling the park—one reasonable interpretation of 'spoiling the park' is spoiling a section of the park—but because this person was not given sufficient guidance to act within the law. Applying their own reasonable interpretation, this person was allowed to believe that they were not

offending. Only when another, unspecified reasonable standard is applied are they offending. Over time case law will help specify the content of an offence but this is not an ideal solution to laws with anticipated vagueness since people will be unjustly convicted in the process of working out the detail.

The parallels to 'spoiling the atmospheric good' should be clear. Here are some questions which admit several reasonable interpretations and so leave it unclear what conduct is criminalised. In what other ways might the atmospheric good be spoiled other than by climate change? What threshold for greenhouse gas concentrations constitutes spoiling? And, is being responsible at the point of passing a threshold necessary for guilt or is overseeing a pattern of emissions capable of passing the threshold in the future sufficient? These questions call for negotiated statutory stipulations. Here are some placeholders for now: a limitation to climate change for the time being, but a later extension to further specified environmental damage; a 1.5°C warming threshold; and liability for overseeing a pattern of emissions capable of breaching the threshold in the future (e.g. breaching derived annual targets in some number of successive years). Even when the scope of the offence might be less ambitious as a result of stipulations such as these, under-ambition is a reasonable price to pay for fair warning.

Of course, vagueness in law is to some degree ineliminable, as Timothy Endicott argues.[34] Spoiling, like baldness or what constitutes a 'heap', is a vague concept. Even with specification to overseeing breaching a 1.5°C warming threshold, there will be isolated policies about which it will be unclear whether these are sufficient to breach the

[34] Timothy A. O. Endicott, *Vagueness in Law* (New York, NY: Oxford University Press, 2000), https://doi.org/10.1093/acprof:oso/9780198268406.001.0001.

warming threshold. The ineliminability of vagueness is not necessarily a detriment, however. Endicott argues that the concept of the rule of law—insofar as it is concerned with fair warning—should accommodate inevitable vagueness rather than provide an impossible standard.[35] What fair warning requires instead of wholly determinate laws are laws which provide 'guidance' to judges concerning how to resolve a case: a guide, though is not a perfect decision-procedure for every possible case.

> The notion of a 'guide'… would be an incoherent notion if we counted nothing as a guide unless it answered all questions. No map, for instance, would be a guide, and no vague promise could guide our behaviour. The notion of a guide can only be coherent if we have a notion of what can be asked of a guide, and count something as a guide when it meets that need.[36]

We can make progress in understanding what is sufficient guidance in law by contrasting a manifest lack of guidance. The law lacks guidance when it conforms to the arbitrary will of officials rather than ensuring the will of officials conforms with the content of the law. For Endicott, an example of manifest lack of guidance (probably deliberately lacking) is Stalin's decree ordering 'dekulakization' since open-ended ideological use of the term ensured that the decree conformed to whatever aims officials pursuing collectivisation of Ukrainian agriculture chose.[37] What we need to ensure is not therefore perfect precision, but that criminalising spoiling the atmospheric public good does not write a blank cheque.[38]

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[35] Ibid., chap. 9.
[36] Ibid., 203.
[37] Ibid.
[38] This marries up closely with US constitutional doctrine on when offences are "void for vagueness". Statutes are unconstitutionally vague when they fail to give notice to citizens so they may choose to steer clear of the law or when the law is so vague as to encourage arbitrary enforcement. Endicott's concern for "guidance" is attentive to both condititions of constitutional doctrine. See: Andrew E. Goldsmith, "The Void-for-Vagueness Doctrine in the Supreme Court, Revisited," *American Journal of Criminal Law* 30, no. 2 (2003): 279–313. See also Faure et al. for discussion of "sufficient rather than absolute certainty" in UK case law: Michael Faure, Morag Goodwin, and Franziska Weber, "The Regulator's Dilemma: Caught between the Need for Flexibility & the Demands of Foreseeability. Reassessing the Lex Certa Principle," *Albany Law Journal of Science & Technology* 24, no. 2 (2014): 323–26.

Actus reus specifications such as those suggested above give partial guidance but there is room for further specification to provide guidance. There should be a period of time over which a minister must oversee a set of policies on course to breach a warming threshold in order to avoid ministers inheriting policies with no chance of putting them right. Legislators should stipulate how the emissions of other states affect whether UK ministers are responsible for overseeing a pattern of emissions consistent with breaching a *global* warming threshold. The appropriate calculation should ensure that UK ministers are not penalised for the non-compliance of other states: that is, the UK should not be expected to cut disproportionately in order to keep global temperatures below a given threshold because other nations fail to do their bit. While there might be a moral reason to pick up the slack, it is harder to argue that ministers have a criminally enforceable duty to pick up the slack such that ministers should be convicted if they do not.[39] Consequently, 'spoiling' should be considered relative to national responsibilities outlined in international agreements were all nations to comply (I am assuming some form of international agreement to get national policies off the ground, see Chapter 1, §1.4.6). Relative 'spoiling' can be measured as national ambition has frequently been measured to date, as percentage reductions in emissions compared with an historical

[39] Whether or not there is a duty to pick up the slack in conditions of non-compliance is contested among philosophers. Concerning duties of beneficence, Murphy famously argues that individuals have a duty to contribute only to the extent they would need to contribute were everyone to comply. See: Liam B. Murphy, "The Demands of Beneficence," *Philosophy & Public Affairs* 22, no. 4 (1993): 267–92. For a criticism of Murphy's view see: Tim Mulgan, "Two Conceptions of Benevolence," *Philosophy & Public Affairs* 26, no. 1 (1997): 62–79. For Murphy's reply see: Liam B. Murphy, "A Relatively Plausible Principle of Beneficence: Reply to Mulgan," *Philosophy & Public Affairs* 26, no. 1 (1997): 80–86. However, the debate between Murphy and Mulgan does not straightforwardly apply to the scenario I discuss in the text above. Murphy and Mulgan discuss cases of beneficence, cases of doing good. But failure to mitigate climate change is probably more plausibly understood as failing to meet the demands of a duty of justice. While it might still be attractive to think that agents need not pick up the slack of others even in these cases, the urgency of duties of justice might call that view into question--especially if it is already in question for duties of beneficence. Lastly, even if there is a duty to pick up the slack to some extent, that does not establish that the duty may be enforced with the criminal law. Criminal enforceability might be justified in some rare circumstances, but I'll set those circumstances aside here.

baseline.[40] Lastly, these stipulations can be kept up to date with independent specialist commission input, as well as legislative sunset clauses to ensure out of date obligations are repealed automatically given some failure of legislative will.

Provided a detailed set of specifications in legislation, criminalisation of spoiling the atmospheric public good could, I think, offer adequate guidance to prospective defendants—but here's the rub. The value of achieving guidance in legislation and fair notice for prospective defendants relies upon the prospective defendant being able to avoid offending; but it is unclear whether, even with the attendant specifications I have laid out, government ministers have the power to avoid offending. Ministers, even Prime Ministers, are not autocrats—they rely upon the cooperation of the legislature to alter industrial policy and implement a reduction in carbon emissions. As recent years attest, Parliament can and does withhold cooperation for government policies when it so desires despite party whipping organisations. In order that Ministers are provided meaningful fair warning—that is, warning they can act upon—the offence of spoiling the atmospheric public good will need to provide for a defence where ministers can avoid conviction by demonstrating they took the steps they could. Since ministers have the power to introduce bills to Parliament, consider the claim that introducing emission reduction compliant bills is a successful defence against conviction.

[40] On the carbon budgeting in the UK Climate Change Act, 2008, see: Mark Stallworthy, "Legislating against Climate Change: A UK Perspective on a Sisyphean Challenge," *The Modern Law Review* 72, no. 3 (2009): chaps. 420–421. Stallworthy discusses an attendant specification which would be necessary concerning the extent to which the UK can take credit for emissions reductions they make possible in other states via aid. Lastly, another attendant specification for national carbon budgeting is the extent to which goods manufactured elsewhere but consumed in the UK should count toward the UK's carbon footprint. On the displacement of carbon emissions to China via shifts in where goods are manufactured see: You Li and C. N. Hewitt, "The Effect of Trade between China and the UK on National and Global Carbon Dioxide Emissions," *Energy Policy* 36, no. 6 (2008): 1907–14, https://doi.org/10.1016/j.enpol.2008.02.005.

This defence buys a solution to the problem of fair warning at an almost ruinous cost, however. The defence would allow ministers to avoid liability with farcical ease and in bad faith. Ministers could introduce bills with no prospect of passing purely to absolve themselves of their criminal liability and plead ignorance, with plausible deniability, when their party whip's office commands the government benches to vote it down. If prospective defendants can so easily absolve themselves of their liability, prosecutors will never charge a case because they will never have a realistic prospect of conviction—no minister would be so foolish when their own neck is on the block. And what social good can an offence with no realistic prospect of use achieve? For certain it won't deter; at best it has symbolic condemnatory value on the grounds that it provides for hypothetical condemnation of a wrong were there a conviction.

Investigation into the effects of fair warning and its remedies reveal the very limited social good criminalising spoiling the atmospheric public good can fairly achieve. This is to be contrasted with the predicable bad effects of criminalisation. On the one hand, just as an offence with no realistic prospect of use achieves very limited social good there is no corresponding prospect of false conviction, costs in time and stress to the accused, no amplification of social injustices via conviction, and so on. In effect, there are great reductions to both sides of the evaluation of wide proportionality. Moreover, emissions reductions targets will be monitored anyway for non-criminal purposes so administering the specifications of the offence of spoiling the atmospheric public good comes at little to no additional cost. On the other hand, though, there is a legislative opportunity cost to introducing, debating, holding committees on, and voting on the legislation. With the evaluands revealed so far, I am just not sure whether criminalisation would be widely proportionate because the stakes on either side are so low.

§7.5.2 Politicising criminal justice

In this section, the balance tips decisively against the wide proportionality of criminalising spoiling the atmospheric public good. The principled opponent of more criminal law can rightfully warn of the non-trivial risk that criminalising spoiling the atmospheric public good becomes a stick with which political rivals can beat each other.

As described in Chapter 2, §2.2.3, although it is not necessarily entirely novel, holding government ministers criminally liable for spoiling the atmospheric good would be an exceptional state of affairs. This exceptional state of affairs, it is reasonable to suppose, might make it exceptionally tempting to use the law as a stick with which governments might beat their political rivals. In order to assess the prospective impact of the charge of spoiling the atmospheric public good being used as a political weapon, it is important to get clear exactly what is bad with making rival politicians liable to criminal charges. I will assume that it is *instrumentally* bad to make rival politicians liable to criminal charges because of the bad effects of investigating, prosecuting, and sanctioning rival politicians. I assume that the mere legislation is not in itself bad.

In order to know whether a candidate criminal offence is widely disproportionate because it makes rival politicians liable to criminal investigation, prosecution, and sanction we need answers to the following two questions. One: what is bad about investigating, prosecuting, and sanctioning rival politicians? I think there are three bad effects, outlined shortly. Two: to what extent does the candidate criminal offence affect the factors which lead to the bad effects of investigating, prosecuting, and sanctioning rival politicians? It will be unclear why we need an answer to the second question as well as the first until

we recognise that, whatever the bad effects of making rival politicians liable to criminal investigation, prosecution, and sanction are, they are not always decisive against criminalisation. Consider the fact that we do not object to the liability of politicians to ordinary criminal prohibitions such as theft. Consider also the fact that we do not object to offences to which rival politicians are disproportionately vulnerable in comparison with the public, such as receiving a bribe. What these observations show is that criminal liability of rival politicians is not necessarily all things considered bad. Indeed, we often have strong reasons to ensure that rival politicians are brought to answer genuine charges for two reasons. First, the nature of the charges themselves call for address; it is important that we effectively deter, condemn as appropriate, and so on. Second, it is important to maintain equality before the law; we ought to require in practice as well as in theory that the powerful are not above the law. Given this, not only do we need to know what is bad about criminally investigating, prosecuting, and sanctioning political rivals to adjudicate the wide proportionality of a new criminal offence, we need also to know how the new criminal offence might alter the factors which make criminal liability for rival politicians bad.

Before I outline the bad effects below, I want to exclude one more obvious bad effect. The criminal justice system can be used as a tool of authoritarian government to eliminate opposition. The bad effects I consider are not so extreme, as they are the bad effects of criminal liability for political rivals in imperfect, but not authoritarian, regimes. I appreciate there may not always be a bright line to draw between imperfect and authoritarian regimes (Brazil strikes me a borderline case, for example, given its recent history of disqualifying opposition leaders on the grounds of contentious criminal

convictions), but the UK is my principle focus (see Chapter 1, §1.4.5) and I assume the UK is a clearly imperfect, but not authoritarian state.[41]

The first bad effect of criminally investigating, prosecuting, and sanctioning rival politicians is that criminalisation marks conduct beyond the pale of legitimate political disagreement so criminal proceedings against a rival politician can have a delegitimising effect. This is to some extent bad even when a rival politician has a genuine case to answer because there is inevitable slippage from conviction (perhaps only investigation) for some particular conduct to delegitimisation as an *agent.* Here it is not just the particular criminal conduct of the agent that is delegitimised, but their standing to make political claims worth hearing at all. To illustrate the point, consider the status of various 'disgraced' politicians in public discourse. Although an agent may lose standing to make political claims on a matter on which they were justly convicted, plus a wide number of related topics, it is to some degree bad if this agent's earnest views on unrelated matters are publicly disregarded. Moreover, it is especially egregious when an agent is delegitimised by dubious criminal proceedings against them. The charge might be dubious for one of three reasons: (i) fabricated evidence, (ii) novel interpretation of an overly vague law, or (iii) atypical prosecution of a political rival for an offence normally overlooked.[42]

Consequently, targeting rival politicians with criminal investigations, prosecutions, and sanctions is a seductive prospect for present governments in imperfect states as they

[41] It might be objected that this move is too quick, since we might object to a criminal offence on the grounds that it could be misused by a future authoritarian. As I go on to reject the offence in question, I won't consider this possibility as the point is moot on this occasion.
[42] Judith N. Shklar, *Legalism: Law, Morals, and Political Trials* (Cambridge, MA: Harvard University Press, 1964), 152–53.

can recast their political rivals as beyond the pale and subsequently dismiss their concerns. As Bernat and Whyte observe in the context of Spanish prosecutions against several prominent Catalan politicians for holding a referendum on independence: "[w]hen stripped of political content, deeply *political* disputes and *political* conflicts can be devoured by the state and regurgitated as conflicts necessitating a purely legal or repressive response."[43] Machiavelli considers these incentives endemic to professionalised legal systems and rival politicians who are also establishment challengers are especially prone to being targeted.[44] And Otto Kirchheimer argues political trials have been historical mainstays; perhaps an age-old instance of the 'judicialization of politics' observed by modern political scientists—the delegation of political matters, especially contentious political matters, to judicial interpretation.[45] Present governments may not directly control independent police investigations or crown prosecutions, but they can certainly use their direct and indirect influence on these bodies—stressing in back rooms and in the media the 'importance' of cases against rival politicians. Criminal offences to which rival politicians are liable therefore carry the risk of being abused by targeted delegitimisation efforts.

This is not to say that delegitimisation must always necessarily follow investigation. Sections of the public may refuse to recognise the justice of a criminal case, rightly or wrongly. I am speaking of a general tendency rather than a hard and fast rule. Moreover,

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[43] Ignasi Bernat and David Whyte, "Spain Must Be Defended: Explaining the Criminalization of Political Dissent in Catalonia," *State Crime* 9, no. 1 (2020): 111, https://doi.org/10.13169/statecrime.9.1.0100.
[44] On Machiavelli's view see: John P. McCormick, "Machiavelli's Political Trials and 'The Free Way of Life,'" *Political Theory* 35, no. 4 (August 19, 2007): 385–411, https://doi.org/10.1177/0090591707302195. Machiavelli's solution is to introduce public trials instead of leaving trials to professional legal systems. I'll set this suggestion aside, however.
[45] Otto Kirchheimer, *Political Justice The Use of Legal Procedure for Political Ends* (Princeton, NJ: Princeton University Press, 1961). For an introduction to the "judicialization of politics" see: Ran Hirschl, "The Judicialization of Politics," in *The Oxford Handbook of Political Science*, ed. Robert E. Goodin (New York, NY: Oxford University Press, 2011), 253–74, https://doi.org/10.1093/oxfordhb/9780199604456.013.0013.

there is the associated tendency for political trials to reveal embarrassing information about defendants irrespective of the public perception of the charges. It may well be the delegitimising effect of embarrassing information in the public domain which is sought in addition to or instead of the capacity for the charge itself to delegitimise its target. Consider, for example, the expected reaction of left-wingers to 1) a charge of drug possession and 2) details of hypocritical private jet use revealed at trial (suppose the drugs were carried aboard). At least some of them would be willing to overlook the drug possession whereas those same individuals might consider private jet use, particularly hypocritical private jet use, unacceptable.

The second bad effect of investigating, prosecuting, and sanctioning political opponents is the side effect delegitimisation can have on the representation of popular views in national political discourse. Sizeable sections of the public can come to doubt that the national political discourse appropriately reflects the views of the electorate resulting in a democratic deficit. The problem is particularly pronounced if the rival prosecuted is a sole prominent exponent of an underrepresented view or the great majority of exponents of a particular view are targeted. Of course, democratic deficits are not caused only by the delegitimating effects of criminal investigation, prosecution, and sanction—other factors include systematic media bias, party hegemony, and so on—but the criminal justice system can play a role.

Third and finally, criminal investigation, prosecution, and sanction of rival politicians could undermine public respect for the law in turn, especially among supporters of rival politicians. The thought here goes something like: ‘why should I take the law seriously when it is being used as an instrument, not a system of norms for cooperation?’ Losing

respect for the law is detrimental because respect for the law is vital for compliance. Most of the time we do not even consider criminal actions because we have internalised and respect the rationale for the rule; the threat of being caught and sanctioned does not cross our mind.[46] This makes criminal law an especially dangerous way to attempt to achieve a public consensus on a given issue. It might be otherwise justified to hold politicians criminally liable for some behaviour but all-things-considered unjustified only because respect for the rule of law would be significantly undermined among a sizeable section of the population who disagree that criminalisation is otherwise justified. In the present context of holding ministers responsible for failing to uphold the public trust, what we want is not for politicians to be liable to divisive sanctions, but some method of inculcating norms of public accountability for climate change among the population at large. To the extent that we have reason to believe respect for the rule of law would be undermined in this way, there is corresponding countervailing reason against criminalisation.

Now we have a sketch of what's bad about criminal investigation, prosecution, and sanction of political rivals, we can turn back to considering how bad it would be to make political rivals liable to a new criminal offence. Since we know that making political rivals criminally liable is not irretrievably bad, because we would not countenance excluding politicians from ordinary criminal offences, what I need now to discuss is the marginal effect of a new offence on the bad effects of holding rival politicians criminally liable for spoiling the atmospheric public good. How would criminalising spoiling the atmospheric public good affect the factors which are conducive to, and preventive of, the bad effects of criminally investigating, prosecuting, and sanctioning rival politicians? The relevant

[46] Tom R. Tyler, *Why People Obey the Law* (New Haven, CT: Yale University Press, 1990).

factors are the factors that make abuse of the criminal justice system more or less likely, since it is abuse of the criminal justice system which has the most pernicious effects for rival politicians.

Here are three abuse-conducive factors. First, a national security threat, real or merely perceived, increases the amount of extraordinary action a population will tolerate from their government in pursuit of safety.[47] Second, high trust in government leads to fewer suspicions that government might be abusing their power and, consequently, a more fertile environment for abuse.[48] Third, vague criminal laws increase the latitude officials have to investigate, prosecute and sanction rival politicians on suspect grounds. "Rules may be so vague (or judicial interpretations so vague) that virtually any public action can be construed to appear criminal. That is the story of 'constructive treason.'"[49]

On the other hand, here are three abuse-preventive factors. First, investigation, prosecution, and sanctioning a rival politician may amplify dissent. Delegitimisation fails when the political motives are transparent and criminal proceedings provide several opportunities for the accused to raise their objections and gather popular momentum against government action. Although I don't consider hate speech prosecutions illegitimate, and I find the delegitimating effects on prejudiced speakers at least tolerable if not beneficial, hate speech prosecutions have demonstrated the potential for criminal proceedings to amplify dissent.[50] Second, criminal proceedings might be so scandalised in the public discourse that they distract from government objectives; according to

[47] Eric A. Posner, "Political Trials in Domestic and International Law," *Duke Law Journal* 55, no. 1 (2005): 102–3.
[48] Ibid., 103.
[49] Shklar, *Legalism: Law, Morals, and Political Trials*, 153.
[50] See, for example: Heli Askola, "Taking the Bait? Lessons from a Hate Speech Prosecution," *Canadian Journal of Law and Society* 30, no. 1 (July 31, 2015): 51–71, https://doi.org/10.1017/cls.2014.15.

Holmes, fear of distraction by scandal was one reason the Obama administration chose not to begin criminal proceedings against Bush administration members for multiple credible accusations of criminal conduct in the course of the War on Terror.[51] Third, exposure of political motives for criminal proceedings risks losing democratic confidence in two different ways. The electorate may lose confidence in the current government.[52] Meanwhile, opposition parties may lose confidence in peaceful transitions of power as duelling parties become locked in an arms race to prosecute and counter-prosecute alternating governments.[53]

What reason do we have for thinking criminalising spoiling the atmospheric public good will affect any of these factors? It doesn't seem clear to me that criminalisation of spoiling the atmospheric public good alters the ordinary strength of any of these factors save for the effect of vague legislation. Even though I have discussed various ways in which specification of what constitutes spoiling in statute can help achieve guidance in §7.5.1 (above) it is clear that some vagueness is ineliminable. To some, perhaps small, degree, criminalising spoiling the atmospheric public good comes with an increased risk of being used as a stick with which incumbent governments can beat rival politicians.

Now I can bring the conclusions from discussion of fair warning and the politicisation of criminal justice together. I think there is good reason to find criminalising spoiling the atmospheric public good widely disproportionate. In other words, the objections to

[51] Stephen Holmes, "The Spider's Web How Government Lawbreakers Routinely Elude the Law," in *When Governments Break the Law The Rule of Law and the Prosecution of the Bush Administration*, ed. Austin Sarat and Nasser Hussain (New York, NY: New York University Press, 2010), 138.
[52] Posner, "Political Trials in Domestic and International Law," 100–101.
[53] Paul Horwitz, "Democracy as the Rule of Law," in *When Governments Break the Law The Rule of Law and the Prosecution of the Bush Administration*, ed. Austin Sarat and Nasser Hussain (New York, NY: New York University Press, 2010), 172.

criminalisation in this case should be sustained and the candidate offence should not be made a crime. The reason this is so is because the various specifications for ameliorating the consequences for fair warning rendered the offence of little to no practical use. In such a situation, the social good that can be achieved by the offence is very limited at best. Although the corresponding detrimental consequences of an offence with no practical use are diminished too, they are not nil and so it was unclear whether the offence was widely disproportionate. In this section I've discussed another detrimental consequence which tips the balance. Creating the offence would expose rival politicians to the risk of being accused for political motives. Even if the offence were no more likely to lead to abuse than any other criminal offence, this detrimental consequence would still, I think, tip the balance. It would tip the balance because the social good which can be achieved by a practically useless offence is so limited. Finally, the risk of being accused for political motives remains even if charges are never likely to be successful in court. The mere investigation of rival politicians has a delegitimating effect—given the predictable leap from suspicion to guilt among a significant portion of society—and so the risk survives even if there is no prospect of conviction. Consider, by way of a suggestive example, the public perception of the FBI opening an investigation into Hillary Clinton's email server in the 2016 US presidential election and the not insignificant effect this could have had on the election result, despite the Director of the FBI closing the investigation, before the election, having taken no further action.[54]

On this matter, the principled opponent of more criminal law succeeds. This might be disheartening. While various offences targeting individuals and corporations are widely

[54] At the very least, there is some evidence of a relationship between the FBI Director's intervention and Clinton's electoral fortunes. See: Nate Silver, "The Comey Letter Probably Cost Clinton The Election," FiveThirtyEight, May 3, 2017, https://fivethirtyeight.com/features/the-comey-letter-probably-cost-clinton-the-election/. To be clear, I'm not claiming that Clinton was faultless.

proportionate after primary scrutiny in my judgement, those which target the most powerful decision-makers are not. This might affront our sense of fairness or worry us because politicians can act with impunity. To some extent I share this disappointment, but it is worth remembering Parliamentary accountability and judicial review as alternative forms of ministerial accountability; both of which play a role in overseeing the implementation of the five year emissions reduction plans mandated by the UK Climate Change Act (2008), amended to a net zero emissions by 2050 target in 2019. The targets may be insufficiently ambitious and we can have doubts about the efficacy of Parliamentary accountability and judicial review; but failing to justify criminalising spoiling the atmospheric public good does not leave us with nothing.[55]

§7.6 Conclusion

Here is a summary of the findings in this chapter. I have deferred judgement on legitimising offences (climate change denial and misinformation) as these offences raise *prima facie* rights to do wrong. I do not find these offences widely disproportionate, but nor can I argue they survive primary scrutiny either. Another negative conclusion (in the descriptive, not necessarily the evaluative sense) is that the oversight offence of spoiling the atmospheric public good would be widely disproportionate in my judgement and, unlike the case against legitimising offences, that case is conclusive. By contrast, the positive conclusions (again, descriptive) are that I have found all further offence groups—those targeting individual and corporate contributors and facilitators—are widely proportionate following primary scrutiny of expected detrimental consequences. The shortlist of offences surviving primary scrutiny is therefore as follows:

[55] For a retrospective on the mechanisms of the UK Climate Change Act see: Alina Averchenkova, Sam Fankhauser, and Jared J. Finnegan, "The Impact of Strategic Climate Legislation: Evidence from Expert Interviews on the UK Climate Change Act," *Climate Policy*, n.d., https://doi.org/10.1080/14693062.2020.1819190.

Candidate offence	Ground for liability	Likely defendant	Suggested actus reus	Suggested mens rea	Amendable existing legal frameworks	Related existing offences
Carbon ration breach	Contribution	Individual; corporate	Result: GHG emission beyond allowance	Intention	Strengthen EU ETS for industry; EU ETS as personal ration prototype	Breaching ammunition/explosive/toxic substance permit
Excess animal farming		Individual; corporate	Result: grazing or housing livestock without permit	Intention		Breaching intensive farming permit; breaching planning enforcement notice; illegal logging
Excess waste production		Corporate	Result: production of material in contravention of a ban; or Omission (legal duty): failure to comply with duty to justify production of regulated substance/design	Intention	Strengthen and reclassify existing waste management regulations	
Fossil-fuel investment	Facilitation	Individual; corporate; state	Conduct: financial investment or other in-kind contribution to fossil-fuel exploration or extraction	Intention		Breaching financial sanctions; money laundering;
Fossil-fuel exploration		Corporate	Conduct: excursion (or planning excursion) of unexplored regions with detection equipment	Intention	Strengthen existing permitting scheme	
Excess fossil-fuel extraction		Corporate	Result: extracting fossil fuels without permit	Intention	Strengthen existing permitting scheme	

Table 7.2: Shortlist of candidate offences surviving primary scrutiny

In general, I have found these offences widely proportionate by appeal to complementary policies which deflate attendant detrimental consequences. To some degree I have therefore traded a series of problems for another—financial expense. But the financial cost is considerably preferable to the impacts avoided and, I assume, far from ruinous.

Conclusion

Let's take stock. Both the urgent pressure of a rapidly diminishing carbon budget and a powerful, but too simple, appeal to climate harms puts criminalisation of contributions to climate change on the agenda. But existing literatures discussing the prospect of criminalisation do no more than put it on the agenda, as they overlook the normative work required to make prescriptions. We can only ascertain whether we *should* criminalise contributions to climate change if we engage with existing normative theories of criminalisation. In turn, we can only apply the most defensible normative theories of criminalisation if we have a set of reasonably clear candidate offences.

The work of the thesis therefore began by outlining a set of candidate offences to be tested against normative theories of criminalisation. I introduced four grounds on which conduct with a (quasi-)causal relationship to climate harms could be held criminally liable; gave an overview of doctrine for holding different agents liable; and addressed what conduct makes for a good target by examining the climate impacts of different activities by economic sector. Correspondingly, I drew up a complete list of candidate offences which addressed the full scope of grounds for liability, agents, and activities.

With attention fixed on some concrete proposals, I turned to scrutinise normative theories of criminalisation. I began with constraints: views which claim that conduct must not be criminalised unless it meets a necessary condition. I rejected a harm-based constraint on the grounds that harm does not constrain the criminal law in the way advocates of a harm constraint on criminalisation seek. But I adopted a wrongness constraint—the view that conduct must not be criminalised unless it is morally wrong—after a defence against objections from critical authors.

Demonstrating that the candidate offences proscribe moral wrongs was therefore the first normative hurdle that the case for criminalisation had to clear. I made two arguments which combined to clear the hurdle. First, I argued that there are three different variants of the wrongness constraint—strong, moderate, and weak—and that *mala prohibita* satisfy the weak constraint. Then, second, I argued that each of the four grounds for criminal liability on which the candidate offences rely amount to moral wrongs. Direct contributions to climate change, facilitating direct contributions to climate change, legitimising contributions to climate change, and overseeing contributions to climate change are all wrong *malum prohibitum* at least. That is, if there is a just and legitimate law forbidding them, it would be morally wrong to disobey the law. Moreover, competing views from the climate justice literature can agree to this much—both the view that contributions are wrong because they cause expected harm and the view that contributions are wrong when they violate a duty owed to the group of contributors who have collectively agreed to stop.

But showing that the wrongness constraint allows us to criminalise contributions to climate change does not show that we should. To better assess the reasons for and against criminalisation I relied on the distinction between narrow and wide proportionality in criminalisation. Whether criminalisation is justifiable to would-be offenders on the grounds that they would not be sanctioned disproportionately to their wrongdoing, and whether criminalisation is justifiable to society on the grounds that the social good achieved by criminalisation is at least as much as the social costs of criminalisation, respectively. I argued that the candidate criminal offences are narrowly proportionate, provided we do not rely upon the view that contributions are wrong only because they

cause expected harm. In addition, I argued that there is a reasonable prospect the candidate criminal offences are widely proportionate on the grounds that the candidate offences can achieve considerable social good, again provided we do not rely upon the view that contributions are wrong only because they cause expected harm.

Although I had established that there was a reasonable prospect the candidate criminal offences are widely proportionate, whether they are in fact remained an open question. I addressed the open question by examining the expected social costs of criminalisation of each offence and evaluating these in comparison with the expected social good. I was not able to make all-things-considered prescriptions, given the absence of tailored empirical evidence on the candidate offences, but drawing on the relevant empirical evidence available I was able to conclude that all offences targeting individual and corporate contributions to and facilitation of climate change survive primary scrutiny. That is to say, all offences targeting individual and corporate contributions to and facilitation of climate change are widely proportionate on the presently available evidence. By contrast, I concluded that the only offence targeting state oversight of contributions is widely disproportionate on the available evidence; and I was not able to determine whether legitimation offences survive primary scrutiny, as these offences target conduct which could be subject to a right to do wrong and I could not test those rights claims to the extent they warrant. All in all, the thesis concludes with the claim that the following offences (i) satisfy the wrongness constraint, (ii) are narrowly proportionate, and are (iii) widely proportionate on the available evidence: carbon ration breaches, excess animal farming; excess waste production; fossil-fuel investment, fossil-fuel exploration, and excess fossil-fuel extraction.

The individual and corporate contributions to and facilitation of climate change targeted by the candidate offences therefore satisfy three criteria raised by, and defensible within, serious normative criminalisation literatures. But one final plea might be heard from the principled opponent of more criminal law. This plea accepts that, on the available evidence, criminalisation of the candidate offences which target individual and corporate contributions and facilitation achieves at least as much social good as it has bad effects, but wonders if we should nevertheless avoid criminalisation as there are some associated costs. This, I think, is an important question, but it is not one on which I think normative theory can prescribe a substantive answer. The normative criminalisation literature recognises that criminalisation has negative effects when it pays attention to discovering whether the social good of criminalisation is correspondingly proportionate. At the same time, it acknowledges that the fact that criminalisation has social costs does not count decisively against criminalisation. It acknowledges this when it rejects the *ultima ratio* doctrine, which requires that criminalisation be used only as a last resort after other, less intrusive, methods of regulation than the criminal law have been tried and failed. The *ultima ratio* doctrine is rejected because it is acknowledged that society won't always favour an optimisation of social costs: as it wouldn't decriminalise murder even if it could be shown that doing so, for instance, could optimise social costs. Contributions to climate change might not have the salience of murder, but it does seem to me like their criminalisation has the sort of value which could persuade people to accept a sub-optimal level of social costs. But the guidance normative theory can provide stops there. Ultimately, I think, that is a matter for democratic decision-procedures.

Consequently, I stop a little short of answering conclusively whether contributions to climate change *should* be criminalised. Normative theory can't be quite so prescriptive. What I can conclude is that, on the available evidence, carbon ration breaches, excess

animal farming, excess waste production, excess fossil-fuel extraction, and fossil-fuel investment *may* be criminalised and that the case for criminalisation is now clearer and more robust than before. But whether society *should* criminalise those offences is a matter for their democratic decision-procedures since society may prefer less intrusive measures.

One thing for sure is that criminalising carbon ration breaches, excess animal farming, excess waste production, fossil-fuel investment, fossil-fuel exploration, and excess fossil-fuel extraction would be a significant break from the status quo, and even the dominant direction of travel in mitigation policy circles which myopically focus on economic instruments.[1] Criminal liability for breaching personal carbon rations and criminal liability for fossil-fuel investment would be wholly new, whereas criminal liability for excess animal farming, excess waste production, fossil-fuel exploration and excess fossil-fuel extraction all considerably tighten existing regulatory frameworks and make criminal sanctions central to enforcement.

[1] There is a large literature critical of the hegemonic status of economic theory in climate policy. For some examples, see: Ebbe V. Thisted and Rune V. Thisted, "The Diffusion of Carbon Taxes and Emission Trading Schemes: The Emerging Norm of Carbon Pricing," *Environmental Politics* 29, no. 5 (2020): 804–24, https://doi.org/10.1080/09644016.2019.1661155; Romain Felli, "Environment, Not Planning: The Neoliberal Depoliticisation of Environmental Policy by Means of Emissions Trading," *Environmental Politics* 24, no. 5 (2015): 641–60, https://doi.org/10.1080/09644016.2015.1051323; Elah Matt and Chukwumerije Okereke, "A Neo-Gramscian Account of Carbon Markets: The Cases of the European Union Emissions Trading Scheme and the Clean Development Mechanism," in *The Politics of Carbon Markets*, ed. Benjamin Stephan and Richard Lane (New York, NY: Routledge, 2014), 127–46, https://doi.org/10.4324/9781315886985-15; Matthew Paterson, "Who and What Are Carbon Markets for? Politics and the Development of Climate Policy," *Climate Policy* 12, no. 1 (2012): 82–97, https://doi.org/10.1080/14693062.2011.579259; and Clive L. Spash, "The Brave New World of Carbon Trading," *New Political Economy* 15, no. 2 (2010): 169–95, https://doi.org/10.1080/13563460903556049. For discussion of the emerging counter-current see: Jonas Meckling and Bentley B. Allan, "The Evolution of Ideas in Global Climate Policy," *Nature Climate Change* 10, no. 5 (2020): 434–38, https://doi.org/10.1038/s41558-020-0739-7; and Fergus Green, "The Logic of Fossil Fuel Bans," *Nature Climate Change* 8, no. 6 (2018): 449–51, https://doi.org/10.1038/s41558-018-0172-3.

The case can now be made with confidence to break so significantly from the status quo. My conclusions address a considerable shortcoming in the valuable contributions of green criminological work: I work through the normative claims they leave implicit. In so doing I add *criminal* justice to the array of measures defended in the climate justice literature and arm the growing number of advocates of criminal accountability for climate harms with the arguments they need to establish their case in the court of public opinion and the corridors of power.

Appendix

Complete list of candidate offences (reproduced from Chapter 2, §2.4, Table 2.1)

Candidate offence	Ground for liability	Likely defendant	Suggested actus reus	Suggested mens rea	Amendable existing legal frameworks	Related existing offences
Carbon ration breach	Contribution	Individual; corporate	Result: GHG emission beyond allowance	Intention	Strengthen EU ETS for industry; EU ETS as personal ration prototype	Breaching ammunition/explosive/toxic substance permit
Excess animal farming		Individual; corporate	Result: grazing or housing livestock without permit	Intention		Breaching intensive farming permit; breaching planning enforcement notice; illegal logging
Excess waste production		Corporate	Result: production of material in contravention of a ban; or Omission (legal duty): failure to comply with duty to justify production of regulated substance/design	Intention	Strengthen and reclassify existing waste management regulations	
Fossil-fuel investment	Facilitation	Individual; corporate; state	Conduct: financial investment or other in-kind contribution to fossil-fuel exploration or extraction	Intention		Breaching financial sanctions; money laundering;
Fossil-fuel exploration		Corporate	Conduct: excursion (or planning excursion) of unexplored regions with detection equipment	Intention	Strengthen existing permitting scheme	
Excess fossil-fuel extraction		Corporate	Result: extracting fossil fuels without permit	Intention	Strengthen existing permitting scheme	
Climate change denial	Legitimation	Individual; corporate; state	Result: unambiguous denial of established scientific consensus to large (to be specified) network of individuals	Intention		Holocaust denial (continental Europe)
Climate change misinformation		Corporate; state	Result: unambiguous or ambiguous challenge of established scientific consensus with false information to large (to be specified) network of individuals	Intention		
Spoiling atmospheric public good	Oversight	State	Omission (legal duty): failure to maintain GHG concentrations under statutory limit	Intention; recklessness		Sea/tidal waterways public trust doctrine in case law (predominantly US); misconduct in public office; bribery
Ecocide	Mixed	Corporate; state		Intention; recklessness		
Postericide		Corporate; state	Conduct: create or exacerbate an extinction mechanism	Intention; recklessness		

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