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COMMENTARY

Why Future Generations Deserve Equal Moral Consideration

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Climate policy makes societies confront a difficult question: How much should the well-being of future generations matter compared to our own? This question is the foundation of climate economics, discount rates, and policy recommendations for governments. My hypothesis is simple: we have a moral duty to value the welfare of future generations equally to our own when designing environmental and economic policies. Doing otherwise leads to minimizing long-term climate risks and making decisions that are both ethically wrong and economically careless.

One of the central issues in this debate is the practice of discounting, which, in simple terms, means reducing the value of future welfare relative to present welfare. In climate models, even small changes in the social discount rate drastically change the predicted economic damages of global warming. The IPCC (2023) notes that damage occurring in 2100 can seem almost insignificant today if measured with a high discount rate, thereby minimizing harm to future generations. This raises a serious ethical problem: why should a person born today deserve more weight in policy decisions than someone born in 100 years?

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The Nordhaus–Stern debate illustrates how discounting encourages climate policy recommendations. The Stern Review (2007) applies a low social discount rate (around 1.4%), reflecting the assumption that future generations should receive near-equal moral consideration, achieved by assigning a near-zero pure rate of time preference in a social utilitarian welfare function. This is consistent with Ramsey (1928), who famously argued that discounting later enjoyments is “ethically indefensible and arises merely from the weakness of the imagination,” rejecting pure impatience as a basis for social choice. Pigou likewise condemned pure impatience as a moral error, describing it as a “defective telescopic faculty”. Solow (1974) also concluded that an impartial social planner “ought to act as if the social rate of time preference were zero,” even though consumption discounting may still apply if future generations are expected to be richer. Stern finds the present value of future climate damage extremely large, even under the belief that future generations would be wealthier than the current generation, thereby justifying immediate climate action. In contrast, Nordhaus (2006) uses a higher social discount rate (around 6%) based on market rates and public investment, which yields higher returns. This approach makes future damages look much smaller and supports more steady mitigation. Although both economists use different climate science models and assumptions, their different conclusions come primarily from disagreement over discounting. Table 1 summarizes the main differences between Stern and Nordhaus.

Table 1: *How Discount Rates Shape Climate Policy Recommendations*

Carbon Dioxide Removal Method	Stern Review	Nordhaus Model
Ethical basis	Intergenerational equity	Opportunity cost from observed market returns
Social Discount Rate	~1.4%	~6%
Pure rate of time preference	0.1% in case of catastrophe	2% a more "impatient" view of intertemporal welfare
Effect on Future Generations	High moral weight, damages matter greatly	Lower moral weight, damages heavily discounted
Long term economic growth	1.3% per capita	2% per capita
Elasticity of marginal utility of income	1	2
Social Cost of Carbon	US$250–$300 /tCO_2 (2025)	US$50–60/$tCO_2$ (2025)
Targets	Eliminate most future damages with immediate action.	Higher long-run atmospheric concentrations (600 ppm), and warming of roughly 3.5°C by 2100
Overall implication	Strong action now to avoid long-term harm	Slower action justified economically

Note. The Stern Review (2007) estimated the social cost of carbon (SCC) at approximately US$85 per tonne of CO_2 in year-2000 prices, based on simulations. However, the SCC rises over time as atmospheric concentrations increase and marginal damage becomes progressively larger. Integrated assessment models (IAMs) typically produce real SCC growth of about 2–3% per year, implying that Stern's 2000 estimate would more than double in real terms by 2025. When this real growth is combined with observed inflation from 2000 to 2025, the implied SCC for emissions released today is on the order of US$250–300 per tonne of CO_2 in 2025 dollars. Nordhaus (DICE model) suggests approximately US$30/$tCO_2$ (2005 dollars). (Sources: Stern 2007; Nordhaus, 2006; IPCC AR4 WG3; Hänsel et al., 2020)

William Nordhaus received the 2018 Nobel Prize in Economics for pioneering IAM models such as DICE, which link economic growth to climate dynamics. Many scholars have criticized his framework for relying on high discount rates and conservative damage assumptions that yield a low social cost of carbon. Pindyck (2013) argues that key DICE parameters are essentially arbitrary and underestimate risks. Ackerman et al. (2010) show that once you allow for fat-tailed risks and more realistic damage structures, Nordhaus-style DICE calibrations produce SCCs that are far too low. Revesz et al. (2014) also criticize standard IAM

models, including Nordhaus's, for using discounting approaches that "undervalue the welfare of future generations" and yield SCC estimates inconsistent with precautionary climate goals.

If our ethical commitment is that future generations matter equally, then a low discount rate is not optional; it is necessary. High discounting is a form of moral exclusion, assigning less value to people simply because they will live later in time. Partha Dasgupta's work further argues that pure time discounting has no ethical justification unless we believe that future populations might not exist at all. According to him, intergenerational equity requires treating the welfare of future individuals as morally equal to that of present individuals (Dasqupta, 2021). He also highlights that sustainability must be assessed not only by GDP but also by changes in inclusive wealth, a measure that includes natural capital, ecosystems, and biodiversity. If climate policy destroys natural capital for short-term gain, then we are giving a poorer world to future generations, violating basic principles of justice.

Another perspective comes from Martin Weitzman (2009), who argues that climate change contains "fat tail" risks, meaning low-probability but high-impact events such as catastrophic warming. In these situations, we should not focus on finding the perfect discount rate. Instead, we should think of climate action like buying insurance to protect ourselves against potentially irreversible future harms. From this point of view, ethical concern for future generations aligns with economic rationality: if we don't know what might happen and the damage could be irreversible, it is better to be safe and invest in prevention.

Future generations should matter just as much as people living today. Lower discount rates are fairer because they reflect responsibility to those who will live after us. Valuing future people equally helps guide climate policies that prevent serious, irreversible harm. If we agree that people in 2100 deserve the same security we want for ourselves, then our climate choices must protect their well-being too.

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