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Justice in Time

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Justice in Time

Robert Hockett*

Abstract

Challenges raised by the subject of intergenerational justice seem often to be thought almost uniquely intractable. In particular, apparent conflicts between the core values of impartiality and efficiency raised by a large and still growing number of intertemporal impossibility results derived by Koopmans, Diamond, Basu and Mitra, and others have been taken to foreclose fruitful policy assessment done with a view to the distant future.

This Essay aims to dispel the sense of bewilderment, pessimism, and attendant paralysis that afflicts intertemporal justice assessment. It works toward that end by demonstrating that the most vexing puzzles raised by questions of intergenerational justice afflict only one family of justice theories, a family whose members never were coherent to begin with. By contrast, it argues, the correct approach to justice is no more challenged by transtemporal puzzles than is any other exercise in future planning.

The Essay proceeds first by showing that puzzles concerning intergenerational—or what it also calls "intertemporal," "transtemporal," or "diachronic"—justice can be helpfully divided into two classes. One such class the Essay calls "epistemic." The other it calls "analytic." The epistemic puzzles are those occasioned by uncertainties endemic to all contemplation of future contingencies, not simply our justice assessments thereof.

The analytic puzzles, by contrast, afflict only one family of justice conceptions—those that erroneously take maximizing ("efficiency") imperatives to be logically independent of distributive imperatives. The analytic puzzles afflict these conceptions, moreover, irrespective of whether the latter be applied synchronically or diachronically. The supposed intractability of intergenerational justice, that is to say, is in fact nothing more than an incoherence afflicting that mistaken understanding of justice which currently predominates in intertemporal distributive-ethical inquiry.

The Essay next shows that all of the notorious intertemporal impossibility results from Koopmans's on down afflict only the erroneous justice conceptions just mentioned. Indeed, like all of the other best known impossibility results from Arrow's on down, the intertemporal results are no more than in-

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* Associate Professor of Law, Cornell Law School. Thank you to Matt Adler, Kaushik Basu, Neil Buchanan, Sherry Colb, David DeGrazia, Mike Dorf, Doug Kysar, John Roemer, the organizers, and other participants in the *What Does Our Legal System Owe to Future Generations?* symposium held at The George Washington University Law School in October 2008. Matt Adler has been an especially thoughtful, generous, and stimulating interlocutor on the present and closely related subjects for several years now. Many thanks yet again, Matt. My debts to Kaushik, Doug, and John, for their parts are of broad scope and lengthy duration. Those to Neil, Sherry, and Mike have arisen more recently but are extensive indeed. Thanks to all three of you again!

stances of a more general incoherence—an incoherence the Author has shown elsewhere to afflict all putatively independent maximizing imperatives mistaken for justice conceptions.

The Essay concludes by showing that the correct, analytically coherent take on justice faces little more challenge from the diachronic than from the synchronic case. In both cases, it demonstrates, the correct account of justice offers straightforward guidance to all who would act in a pragmatic spirit to work justice among persons across space and through time.

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I. Introduction

Good afternoon and thanks to you all. I would like first to express gratitude to Professor Buchanan, Dean Lawrence, The George Washington University Law School and *Law Review*, Jackie Lasaracina and the other student organizers, and my fellow participants for making the next two days' colloquy possible. I mean more

than a pun in saying that it would be difficult to imagine a more timely subject upon which to work here together this week. It would also be difficult to imagine a subject more apt to render us *worthy* of thanks, well into the future, for having undertaken to treat seriously now.

Now I do not say these things merely to flatter us. I say them because for the next couple of days we shall be generalizing outward from some already very "big" topics widely appreciated as urgent: One such topic, for example, is that of global climate change, along with its likely effects upon those who will follow us here on this planet—a topic that figures into much of Doug Kysar's work.[1] Another such topic is that of our quickly ballooning national debt, and how much or how little its servicing will limit the freedom of those who come later—a topic that figures in some of Neil Buchanan's work.[2] And of course there are many such topics more specifically rooted in the particulars of our legal order, including both constitutional ones of the sort that Mike Dorf will be addressing tomorrow, and the often posed choice between retrospective damages and prospective injunctive relief that I recall routinely to have come up in the Section 1983 civil rights cases I dealt with first as a law student, then as an appellate court clerk.

The obvious import of these and other "hot topics" would seem to carry quite quickly over to that larger class of actions we take that affect future others—others who cannot, notwithstanding their future interests in the matter, voice any concerns to us. Our subject for discussion over the next couple of days, then, though not yet widely discussed, is in urgent need of much careful discussion.

Now the actual title of our conference, you will have noticed, takes the form of a question. It is: *What Does Our Legal System Owe Future Generations?* That query can be read in a number of ways. I shall read it in one way that seems to me plausible, then address my remarks to that take on the question. My read on the question is this: what are we, who live now, obligated to do through our law and policy, on behalf of such beneficiaries as do not live now, but will likely be living in future?[3]

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1 We are of course fortunate to have my erstwhile colleague, Doug Kysar, here to say more on that.

2 More on this will be presented in Neil Buchanan's presentation. *See* Neil H. Buchanan, *Four out of Four Panelists Agree: U.S. Fiscal Policy Does Not Cheat Future Generations*, 77 GEO. WASH. L. REV. 1402 (2009); *see also* Robert Hockett, *Bailouts, Buy-Ins, and Ballyhoo*, 52 CHALLENGE 36 (2009); Robert Hockett, *A Fixer Upper for Finance*, 87 WASH. U. L. REV. (forthcoming 2010).

3 Please leave open the possibility that those "beneficiaries" to whom I refer here include

On this rendition, our question is "meta-legally" normative in character. It is a question concerning how we "ought" to design or improve our law and policy, in light of whatever it is that we ethically owe those who are not yet here. I think that this means that our question at bottom is deeply *ethical* in character. It is about what we owe to others. We are asking what we ought to do, in our shared capacity as stewards or "co-owners" of a body of law and a legal system, in light of such obligations as we might individually or collectively owe those yet to come.[4]

Now in that light note that this, our conference's first panel, is for its part not only ethical, but ethically *foundational* in character. It concerns those "first principles" apt to be implicated by all of the ethically salient inquiries that we shall be conducting in the next couple of days. For our panel is devoted to what its title calls *Philosophical Perspectives on Intergenerational Justice*. And our panel's subtitle here strikes me as *especially* helpful in indicating what we are called on to do in this connection, given my own generally "grammatical" take on the subject of distributive ethics, or justice.[5] For the subtitle asks, *Who, What, How, and Why?* And in my estimation, all fully *determinate* specifications of positions one might take in respect of distributive-ethical questions have to address *precisely* these, as well as a few cognate questions.[6]

But I anticipate, so more on this "grammar" business a bit further below. For the moment let me say simply that I have come to believe, and shall presently argue, that attending carefully to the "Who," "What," and "How" questions raised by our panel's subtitle offers us *very* good reason to hope we might actually manage to *do* justice to future generations as well as to those presently living. And that is significant not only for ethical reasons. It is significant for context-specific *disciplinary* reasons as well: For much of the justice inquiry, and nearly *all* of the *intergenerational* justice inquiry conducted over

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more than human beings. If, as we might, we owe obligations to nonhuman animals and perhaps other living—even nonliving?—things, then these too will be among the "beneficiaries" here. *See infra* Part III.B.

4 "Or" here to be taken in the inclusive sense—"*a*, *b*, . . ., *n*, or some combination thereof."

5 *See, e.g.*, Robert Hockett, *The Deep Grammar of Distribution: A Meta-Theory of Justice*, 26 CARDOZO L. REV. 1179 (2005) [hereinafter Hockett, *Deep Grammar*]; Robert Hockett, *Taking Distribution Seriously*, 59 EMORY L.J. (forthcoming 2010) [hereinafter Hockett, *Taking Distribution Seriously*]; *see also infra* Parts II and III.

6 *See* Hockett, *Deep Grammar*, *supra* note 5, at 1210 n.85 ("I classify questions according as they pertain to what is distributed, to whom it is distributed, and how it is distributed.").

the past fifty years or so, has, in my estimation, found itself unnecessarily stultified precisely by *failure* to take seriously—or even so much as to address—precisely those critical questions raised by our panel's subtitle. Or so, at any rate, I shall argue.

Here then is how I will proceed. First, for expository purposes I shall partition the class of "hard questions" that typically come up in connection with inquiry about intergenerational—or what I shall also call "intertemporal," "transtemporal," or "diachronic"—distributive ethics. Then I shall argue that *one* of the resultant subclasses of question, which I shall call "epistemic," afflicts *all* contemplation of and planning for the future, not merely distributive-ethical contemplation of and planning for the future. The other such subclass, which I shall call "analytic," by contrast afflicts only one style of distributive-ethical theorizing—a style, alas, which has tended to dominate the discourse on intertemporal justice until now. Questions of this subclass do not, on the other hand, afflict another mode of justice theorizing familiar to nonintertemporal contexts—a mode that I shall show in all events to be more plausible than that to which I have just alluded.

Finally, I shall argue that attending with care to the "Who," "What," and "How" questions I have mentioned yields very good reasons to *favor* that second mode of justice theorizing to which I have alluded and which I think most compelling. The upshot, in turn, is that we have excellent means at our disposal for developing a maximally plausible, temporally invariant conception of justice. The upshot is also, in consequence, that once we arrive at this proper conception of justice, the intergenerational case affords no special problems apart from those known to afflict *all* forms of planning—all forms of decisionmaking oriented toward a distant and accordingly uncertain future.

The currently troubled state of that subdiscipline of welfare economic and justice theory known as "the theory of intergenerational justice," in other words, is almost *entirely* attributable to the dominance of an approach to welfare economic and justice questions that we ought to have seen all along to be incoherent. I shall therefore conclude that we can accordingly, on the basis of that more plausible understanding of distributive ethics I shall specify, proceed confidently in a practical spirit to do justly *both* by those who now share the globe with us, *and* by those who will inherit the globe from us.

II. Two Kinds of Challenge to Intertemporal Justice

Let me begin, then, with the partition that I have just promised. Puzzles that afflict intertemporal justice theorizing can both readily, and helpfully, be divided into two classes. I shall characterize them briefly en suite.

A. Epistemic Puzzles

One class of puzzles that afflict intertemporal justice inquiry comprises what I shall term "epistemic" puzzles. These are puzzles occasioned by uncertainties—some of them perhaps full-blown indeterminacies—that seem to be endemic to *all* contemplation of future contingencies.[7] They are not, in other words, limited to forward-looking contemplation in which we engage with a view to the *justice* of future contingent distributions of one sort or another. Instead they afflict *all* forms of planning, precisely inasmuch as such planning is done partly on the basis of presently unverifiable beliefs about what will happen later.

Puzzles of this first class, then, are invariant in all forward-looking decisionmaking contexts, and in that sense are unavoidable in them. They afflict *any* planning we do as regards the future, hence any planning we do at all, since all planning seems by its nature to be forward-looking. These puzzles also afflict, *a fortiori*, any conception of distributive *justice*, or indeed any normative view whatever by reference to which we attempt to elaborate an account of what ought to be done in respect of future generations. It is, in short, the "planning" aspect that occasions the puzzles, not the "justice planning" aspect.

Here are some examples of these, what I am calling "epistemic," puzzles: Who or what creatures actually will be around in the future? What will their numbers be? What sorts of things will they count as goods, or as ills? What resources are they apt to have at their disposal? What other circumstances—e.g., climatic or biospheric—of the sort that might affect answers to those questions, will obtain in the future? Will those on whose behalves we are now professing concern

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[7] Uncertainty is of course an epistemic category, while indeterminacy is a metaphysical one. The former is accordingly more salient, in that we would seem to be unavoidably afflicted by it irrespective of whether the future is, as a metaphysical matter, determined or not. We shall presently find some occasion to note, however, that at least one form of bona fide indeterminacy—at any rate, an agent-relative form—afflicts intertemporal justice theorizing. It is the form found in the fact that, in asking what we are obligated to do in respect of the future, we cannot but view certain portions of the future as indeterminate, precisely because what will happen depends upon our decision about what to do and then doing it.

all be on earth, or will some, many, or even all among them eventually inhabit some other heavenly bodies, naturally occurring or manufactured?

How can we reply to any of these, or a multitude of cognate questions, with any degree of confidence? And don't answers to all of them ride at least partly on decisions we make now, hence afflicting the questions themselves with an ineliminable degree of indeterminacy?[8] Tough questions all, these admittedly are, but again they are not limited to justice inquiry.

B. Analytic Puzzles

Now to the other class of puzzles that afflict intertemporal justice theorizing, which I shall call "analytic." Puzzles of this class are more foundationally justice-*conceptual* than futurewise-epistemic in character. They accordingly afflict justice theorizing irrespective of its temporal orientation. They can afflict, that is, either of or both diachronic and synchronic justice inquiry. Unlike puzzles of the first class, then, they are time-wise invariant.

Puzzles falling within this subclass, precisely because they are analytically foundational, tend to be fairly technical in character. At any rate, they tend quickly to turn up in technical work, precisely because work of the kind is intended to attain clarity as to the logical entailments of our value commitments. Here are some typical examples: What is the appropriate "tradeoff" between justice and efficiency?[9] Is impartiality compatible with the Strong Pareto criterion? How about the Weak Pareto and Pareto Indifference criteria?[10] Is *any* familiar

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8 For more on these forms of indeterminacy, see, for example, Robert Hockett, *Noncomparabilities and Nonstandard Logics*, 25 ECON. & PHIL. (forthcoming 2009), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=931042.

9 I shall argue that this is no puzzle at all, but is nonsense. Nevertheless, this interrogative sentence is taken by many theorists to express a bona fide question, so I shall pretend likewise for the moment. The additional puzzles I shall name likewise are afflicted by varying degrees of "pseudo" stature of this sort.

10 Strong Pareto: If at least one person views one state of the world as better than another, while nobody views it as worse, then "society as a whole" should regard things this way. Weak Pareto: If everyone views one state of the world as better than another, then so should "society as a whole." Pareto Indifference: If everyone is indifferent between two states of the world, then so should "society as a whole" be deemed. For fuller discussion, see Robert Hockett, *Why Paretians Can't Prescribe: Preferences, Principles, and Imperatives in Law and Policy*, 18 CORNELL J.L. & PUB. POL'Y (forthcoming 2009).

conception of justice or fairness compatible with *any* rendition of "the Pareto Principle"?[11] How about with "welfare"?[12]

These questions, which are commonly encountered now in much of the technical welfare economic, some of the justice-theoretic, and even a bit of the law and policy literatures, are temporally indifferent: They make no more, and no less, sense in diachronic contexts than they do in synchronic contexts, nor are they any more acute or resoluble in one of those contexts than in the other. They have equal application or nonapplication across time and space alike.

Notwithstanding their temporal indifference, however, puzzles of this second sort are ironically apt to afflict only some—albeit most—proffered accounts of justice that we find typically employed in intertemporal contexts. The reason is that they actually afflict only such justice conceptions as take distribution-antecedently specifiable maximizing imperatives to be independently normatively compelling, and thus analytically "prior" to distributive imperatives.[13] For those conceptions accordingly take Paretian criteria to be fit for justice theorizing, and Pareto, we shall see, is what brings all the mainstream work done on intertemporal justice to grief.[14] We will get an inkling of the troubles simply by looking back to the terms of art figuring into the questions themselves as I framed them a moment ago—"efficiency," "Pareto," "welfare," and so forth. But I shall draw this all out in more detail below.

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11 There are yet more renditions of Pareto, most of them developed quite recently. See, e.g., the papers by Basu & Mitra, and Mitra & Basu, discussed *infra* Part IV.B.

12 It has recently been argued that Paretian criteria entail a strict form of "welfarism," according to which worlds can be deemed better or worse only in keeping with the preferences—even if these be morally arbitrary or indeed immoral or anti-ethical preferences—of individuals. It has likewise been argued that this form of welfarism is incompatible with justice. Hence it has been argued that justice is an offence against "welfare" and "the Pareto Principle" alike. This is all nonsense, as shown formally in Robert Hockett, *Pareto Versus Welfare*, SOC. CHOICE & WELFARE (under review 2009), and as argued at length in Hockett, *supra* note 10. *See also* Hockett, *Taking Distribution Seriously*, *supra* note 5.

13 I note elsewhere that one can "translate" any distributive imperative into a maximization imperative, and vice versa. *See* Hockett, *Taking Distribution Seriously*, *supra* note 5. To specify a maximization imperative without reference to distribution is thus effectively the same as to treat maximization as analytically "prior" to distribution. It is to suggest that one can first specify a normatively interesting maximandum without any reference to distribution, and then derive distributive norms therefrom. This, I argue at length elsewhere and shall note again further below, is a form of fetishism. *See id.*

14 I shall argue that this affords added reason to displace these imperatives from their currently dominant role in intertemporal justice theorizing. But there are many more reasons for such a displacement, which I have offered at length elsewhere and will partly rehearse below. So here we shall find simply another reason to have done with a mode of justice theorizing that is already, independently, worthy of the scrap heap.

Now, I believe that to take maximization imperatives for "prior" to distributional ones—or, therefore, for being in any way independently interesting from a normative point of view—signals a critical foundational error.[15] I accordingly likewise believe it mistaken to think that Paretian criteria can play any useful role in distributive ethics.[16] Hence I believe that those puzzles which these commitments occasion in respect of intertemporal justice theorizing are merely symptomatic of deeper errors. They signal errors, on the part of these conceptions, about justice simpliciter, not simply errors about diachronic justice.

A plausible account of distributive ethics, I believe and shall argue, takes normatively interesting maximization to be merely the flipside of antecedently applicable distributive imperatives. In that sense it takes maximization imperatives to be ethically otiose. It accordingly finds Pareto to be at best parasitic upon, and more often an unjustifiable impediment to, independently compelling distributive norms—norms more directly keyed to what we take ourselves to be and thus to be entitled to.

I shall say more on this presently, after returning to those questions raised by our panel's subtitle. For, in effect, I have just dropped a hint as to why that subtitle is so apt: I have said that distributive norms have to do with what we take ourselves to be—i.e., who "we" are.

III. The "Grammar" of Distribution: Justice's "Who," "What," and "How" Questions—And Their Plausible Answers

Now, I think that we situate ourselves to see clearly why one might say all I have just said, only upon undertaking carefully to address questions of the sort I have cheerfully noted our panel's subtitle to pose. For, at that level of abstraction at which we are operating, justice is always about distribution.[17] And "to distribute," of course, is a verb—more specifically a transitive verb. Verbs, for their part, like

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15 *See* Hockett, *Taking Distribution Seriously*, *supra* note 5.

16 More on why *infra* Part IV.A. *See generally* Hockett, *supra* note 10; Hockett, *supra* note 12. This is scarcely surprising, by the way, when one recalls that Pareto developed his efficiency criteria, in part, precisely in order to duck politically controversial distributional questions. *See* Hockett, *supra* note 10; Hockett, *supra* note 12.

17 It is conventional to subdivide justice into distributive, retributive, and nowadays even "corrective" categories. What all have in common, however, is the venerable Aristotelian idea of giving everyone her due. And "due giving" is simply "just distribution" at the level of abstraction at which we are here operating. *See, e.g.*, ARISTOTLE, NICHOMACHEAN ETHICS 110–14 (Martin Oswold trans., 1962) (lines 1129a–1130a).

other word-forms, always implicate grammar. In particular, they implicate "case grammar,"[18] a species of grammar that I believe theorists of distributive ethics—of justice—do well to consider with care.

A. "Doing Justice" as a Verb: "To Distribute" Is an Action Word

So what *is* this "case grammar" to which I obliquely refer? Case grammar is the set of relations subsisting among certain "variables" opened by words like "distribute" and other infinitives—in the present context, for example, infinitives such as "to allocate," "to spread," "to mete out," etc. We can think of case grammar as the set of rules governing what means of filling those variables make sense—as well as, relatedly, how filling one variable in one way might constrain ways in which one can plausibly fill other variables.

Now before you begin to think that this all sounds mysterious, let me note quickly that "variable" in this context is simply the generic term for sundry grammatical subcategories whose names, I suspect, will ring more familiar. For we are speaking, in essence, of "subjects," "direct objects," "indirect objects," and verb-modifying "adverbs" here. Case grammar can accordingly be viewed as the study of what can fill those roles for particular verbs, as well as how filling one such variable one way might constrain how one can then fill remaining variables.

Case grammar is germane to justice theorizing, in my view, precisely because once we announce that we are aiming to develop a "theory" of "appropriate distribution"—that is, a theory of justice—we invite certain questions. We invite questions concerning who it is we think are or ought to be distributing; what it is we think is or ought to be distributed; to whom we think that it ought to be distributed, pursuant to what pattern or formula, and by what mechanism, we think that it ought to be distributed, and so forth. I call these questions concerning who the "distributors" and "distribuees" are, what

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18 Careful study of case grammar appears to originate with Fillmore. *See generally* Charles J. Fillmore, *Toward a Modern Theory of Case*, *in* MODERN STUDIES IN ENGLISH: READINGS IN TRANSFORMATIONAL GRAMMAR 361, 361–75 (David A. Reibel & Sanford A. Schane eds., 1969); Charles J. Fillmore, *The Case for Case*, *in* UNIVERSALS IN LINGUISTIC THEORY 1, 1–88 (Emmon Bach & Robert T. Harms eds., 1968); STUDIES IN LINGUISTIC SEMANTICS (C. Fillmore & D.J. Langendoen eds., 1971). The analysis of predicates as argument-taking functions appears to have originated with Frege. *See* Gottlob Frege, *Begriffsschrift, eine der arithmetischen nachgebildete Formelsprache des reinen Denkens*, *translated in Begriffsschrift, a Formula Language, Modeled Upon That of Arithmetic, for Pure Thought*, *in* FROM FREGE TO GÖDEL: A SOURCE BOOK IN MATHEMATICAL LOGIC, 1879–1931 1, 5–82 (Jan van Heijenoort ed., 1967); GOTTLOB FREGE, FUNKTION UND BEGRIFF (1891). I make fuller use of case grammatical categories in Hockett, *Deep Grammar*, *supra* note 5.

the "distribuendum" or "distribuenda" is or are, and what the appropriate "distribution formula" and "distribution mechanism" are.[19]

Now unless all of these questions are answerable by one's putative account of justice—that is, unless all of the "variables" are filled by that putative account once it is fully articulated—one will not actually have specified a theory, as distinguished from a theory-fragment, at all. One will not have said anything that can guide actual, distributive action. It will be as if one had commanded another, "Go to the . . ., and then turn to the . . .," without ever having filled in the ellipses. The normative, would-be action-guiding clutch will not yet have engaged. Only by filling all case-grammatical "variables," then, does one succeed in specifying a determinate account of appropriate distribution—that is, of justice.

I find it interesting and even surprising, in this connection, how very few justice theorists or welfare economists actually *do* get around to filling the variables. But what is more interesting, I think, is how some fillings of variables turn out to be much more plausible—much more true to our experience of ourselves as acting agents deliberating even now about justice, as well as to our intuitive judgments of right and wrong—than others once we explicitly attend to and think about the matter. And equally interesting, I find, is how certain fillings of some variables tend to *constrain* plausible fillings of other such variables.

In fact, I have come to think, there is in the end only one plausible family of extensionally equivalent fillings of the case variables opened by "to distribute" and cognate infinitives.[20] And this family of fillings, we shall see, altogether *avoids* what I have above called the

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19 For fuller treatment, see Hockett, *Deep Grammar*, *supra* note 5.

20 By "extensionally equivalent" in this context, I mean that alternative full sets—"vectors," in the idiom of linear algebra favored by economists and some justice theorists—of variable-fillings can dictate identical distributive outcomes "on the ground." I can, for example, name "exogenous opportunity" as the distribuendum, "responsible agents" as the distribuees, and "distribute equally" as the distribution formula. I can, alternatively, name "satisfaction" as the distribuendum, "responsible agents" as the distribuees, and "to each precisely according to her expense of responsible choice" as the distribution formula. On certain plausible interpretations of the words I have used in characterizing them, these two distribuendum/distribuee/distribution-formula triples recommend identical distributive outcomes "on the ground." In this sense, just distribution can be likened to an isoquant—a sort of "indifference curve" of the sort familiar to decision theory and related disciplines. Two justice theories will bear the same distributive upshot, and in that sense be located on the same "curve," so long as a difference in specification of the distribuendum is matched by a "compensating" difference in specification of the distribution formula. I think that something like this accounts for the impression one has, upon reading some sets of justice theorists, that they don't really disagree as much as their casuistic terminological disputes at the margins might seem to imply. *See* Hockett, *Deep Grammar*, *supra* note 5.

"second" class of puzzles apt to afflict intertemporal justice theorizing. Let us turn, then, to this matter of filling the variables. I shall begin with the "who" questions implicated by justice inquiry, then move to the others.

B. Those Who Distribute and Those Who Receive: Distributors and Distribuees

The "who" questions are, not surprisingly, subject to highly contestable answers. That is partly because they can be read in much more than one way. So, for example, there is the question of who or what the "we" and the "our" are to be taken to embrace when we speak of what "we" owe to those who come later, and what we owe them through "our" legal system. And there is the question of who or what "they" are, to whom "we" and "our" legal system are taken to owe something in future.

What are the natures or identifying characteristics of these obligors and obligees? Are we speaking of human persons only, or perhaps other creatures or things too? If the latter, must the creatures be rational, "person-like," sentient, or something else? If, say, we mean humans only, do we mean all human beings, or simply rational ones or adult ones, or perhaps merely co-citizens, or rational co-citizens, or human beings as yet further characterized in some other way or ways?

As if that were not variety enough of possible answers in need of selection, note that in some of these possible cases there is also a looming question sounding in what lawyers would call possible "joint" and "several" interpretations of the plural terms "we," "our," "they," "their," and so on. Are we speaking, for example, of obligations that "we" collectively owe, as some manner of joint agent—e.g., a current generation, a polity, a group of government functionaries? Or are we speaking of obligations that each of us owes individually, as a distinct agent? Or is it perhaps both?

How about those to whom the obligations are owed: Joint, as the term "generation" might be taken to connote, without concern for particular members of groups? Or several, since it is often, if not indeed typically, individuals *within* generations or other groupings who elicit our concern?

Some of you might have found occasion to notice that controversy over how to address the "joint versus several" question, and then how to individuate individuals under the "several" interpretation, is particularly acute right now in the "global justice" arena. So-called "cosmopolitan" partisans to this controversy, for example, like

many human rights lawyers, advocates, and activists, hold that obligations sounding in political and even distributive justice run in favor of individuals irrespective of political or legal boundaries.[21]

Others hold so-called "political" or "constructivist" positions where rights and justice are concerned, pursuant to which obligations in justice bind persons to one another only in so far as they jointly participate in a particular form of common political venture.[22] The venture they have in mind is typically a nation state or cognate political entity, authorized in some sense to coerce some in the name of all.[23] Some who take such positions are prepared to countenance the prospect that "the global system" itself might at some point become such an entity, but few of these folk appear willing to think we are there yet.[24]

Finally, some advocates of "group" or "cultural" rights, as well as some international lawyers, emphasize *collectivities* of one sort or another as the primary beneficiaries of obligations in justice. The emphasis in such case is less on the person as a rights-bearing individual identifiable by reference to characteristics held by all persons, than it is on the person as part of some cultural, linguistic, or political community, which itself is then taken to be the bearer of rights.[25] Some sophisticated modern theorists, for their part, seek means of *reconciling* individualist and culturalist accounts of justice.[26]

Controversy over how to address the "joint versus several" question is implicated not only by current disagreement in the global justice arena. It also is implicated, I think, more specifically by the subject of our conference itself. Consider: If our obligations include not only that we act in a distributively just manner vis-à-vis future

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21 *See, e.g.*, THOMAS W. POGGE, GLOBAL POVERTY AND HUMAN RIGHTS: COSMOPOLITAN RESPONSIBILITIES AND REFORMS 169 (2002); *see also* Hockett, *Deep Grammar*, *supra* note 5; Hockett, *Taking Distribution Seriously*, *supra* note 5.

22 *See, e.g.*, JOHN RAWLS, THE LAW OF PEOPLES 23 (1999); Thomas Nagel, *The Problem of Global Justice*, 33 PHIL. & PUB. AFF. 120 (2005).

23 *See* RAWLS, *supra* note 22, at 38–39; Nagel, *supra* note 22, at 120–21. Nagel in particular emphasizes the role of coercive authority exercised in the name of a polity as that which underwrites obligations in justice between members of that polity. I don't see that this can be either necessary or sufficient, but here is not the place to argue the point.

24 *See, e.g.*, RAWLS, *supra* note 22, at 6; Nagel, *supra* note 22, at 137–38.

25 "Organicist" orientations of this sort were commonplace of nationalist ideologies of the nineteenth and early twentieth centuries. *See, e.g.*, GEORGE H. SABINE & THOMAS L. THORSON, A HISTORY OF POLITICAL THEORY (4th ed. 1973).

26 *See, e.g.*, WILL KYMLICKA, LIBERALISM, COMMUNITY, AND CULTURE (1991); WILL KYMLICKA, MULTICULTURAL CITIZENSHIP: A LIBERAL THEORY OF MINORITY RIGHTS 7–8 (1995).

generations in respect of the aggregate of resources we leave them, but also in respect of the likelihood of a just distribution, *inter se*, *among* them of such resources as ultimately are left to them, then we might well owe them much more than mere raw materials. We might also be under obligation to do the best that we can to ensure we are leaving to them stable *institutional* structures apt to work distributively just *synchronic* allocations of those materials among them.

Another instance of the problematic nature of the who "they" are question which is particularly relevant to the topic of our conference is rooted in, or generalizable from, what Parfit has famously called the "nonidentity" problem.[27] A distinct line of justice thought has it that obligations in justice run only to particular, determinate individuals.[28] The idea is that I can only wrong "you," or "him," or "her," or perhaps even "it" pursuant to this line of thought, but not merely "some possible beneficiary." One must be able to individuate each beneficiary of a justice obligation, that is to say, per this line of thinking. And if that is so, then it might seem that our conference itself is without proper object. For it will look as though there might be *no* obligation to "future" generations or individual beneficiaries. Why? Because these are not determinate, existing particulars.

Indeed, note here that even if we relax the existence constraint by saying, for example, that justice is owed not simply to existing beneficiaries, but also to all determinate, including future, beneficiaries who definitely *will* come to be, there remains at least one problem with that "determinate" characterization itself. For, even setting to one side the possibly problematic commitment to metaphysical determinism that the phrase "beneficiaries who definitely will come to be" seems to import, it is nevertheless true that what we do *now* will itself *do* some of that "determining" of who or which those future beneficiaries are.

One course of action, for example, will likely result in one set of people's (and other creatures') coming to be.[29] Another course of ac-

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27 *See* DEREK PARFIT, REASONS AND PERSONS 351–55 (1984).

28 The most forceful argument of this sort, in my estimation, is that of Michael Thompson, *What Is It to Wrong Someone: A Puzzle About Justice*, *in* REASON AND VALUE: THEMES FROM THE MORAL PHILOSOPHY OF JOSEPH RAZ 333, 379–84 (R. Jay Wallace et al. eds., 2004).

29 I'll prescind from nonhuman beneficiaries just for a moment here. I do happen to believe that we bear, both individually and collectively, obligations to nonhuman creatures. The obligations for their part are of course keyed to the constitutive features and functions of the creatures in question. For more on the latter, see Michael Thompson, *The Representation of Life*, *in* VIRTUES AND REASONS: PHILLIPA FOOT AND MORAL THEORY 247 (Rosalind Hursthouse et al. eds., 1995).

tion will result in another such set's coming to be. At least that is so if, as seems likely, different courses of action taken now will result, for example, in different people's coming to couple at differing times under differing circumstances, hence bringing differing zygotes together and thus bringing differing offspring into the world. And if that is the case, then specific future people—even those who "definitely" will come to be—cannot anchor or ground any specific present decisions or obligations to act in one way rather than another. For the differing actions will themselves determine who the future people actually are.

Like remarks by and large carry over to what particular creatures of other species will come to be. Take one course of action, and one group of coyotes inhabits the Northeast United States. Take another such course of action, and a *different* group of coyotes, or perhaps no coyotes at all, inhabit the Northeast United States. And so on.

Unless there are obligations to bring some persons, and perhaps nonhuman beneficiaries too, rather than others into the world, then, we would seem to be caught in a vicious circle. It is a circle that seems to prevent our settling upon any determinate obligation in justice. At least that is so if, with Parfit and a few others, we view "nonidentity" as a "problem" by taking obligations in justice to others to be ineluctably indexed by particular individuals who determinately do or will exist.

Now, I think that we do bear obligations in justice to beneficiaries who will inhabit the world later but do not do so right now—including beneficiaries whom and which we have no means of determinately individuating right now. And that means, of course, that I do not actually view the "nonidentity problem" as a serious problem for justice.

So let me turn to saying a bit more about how I think problems concerning the distributors and distribuees implicated by questions of intertemporal justice—justice through time—*are* best approached and addressed. This means that I shall be saying what I think "we" ought in justice to be doing, through "our" law and policy, on behalf of those who do not yet live, but indeed shall live in future. It means, that is to say, that I aim now to begin answering specifically those very queries that constitute our panel's subtitle, as well as to justify my answers.

To begin, then, recall that my approach to justice more generally, hence to justice in its particular manifestations such as in the intertemporal case, is in some ways theoretic, in some ways even what I call "metatheoretic," and in some ways pragmatic or "commonsensical."

On reflection, I do not think a complete account of justice can avoid being all three—for reasons I think will emerge as I proceed.

Metatheoretically, then, as mentioned before, I think that justice is always at bottom about distribution. It's about the spread of various things over various loci—i.e., various persons to whom, or creatures to which, or places at which, things in some sense "belong" or "are due." Justice is "aptness" or "fittingness," we might say. It is about what tends to befit—or "is due"—beneficiaries, hence what "it behooves" those who are subject to justice to do. There's an obvious link, in this sense, between justice and beauty, a link corresponding to that often noticed between ethics—especially "virtue ethics"—and aesthetics.[30]

Now in light of such background considerations, it is hardly surprising that justice should bear a structure—a determinate "internal" arrangement of constitutive elements. And because justice, as correct distribution, is something one "does" or we "do," it is not surprising that its structure in turn should be mirrored in the grammar of such verbs as "to distribute," "to allot," "to mete out," "to spread," and the like that we noted above. The cognitive grammar of these infinitives, which I mentioned before, naturally replicates—and is replicated by—the structure of justice itself.

Now, how we fill one or more of the case grammatical "variables," as I also mentioned before, tends to constrain plausible fillings of other such variables. For example, if we view ourselves as distributors and distribuees—subjects and indirect objects of the infinitive "to distribute"—alike, as we well might in a democratic polity, then we will tend to view the recipients of distributions in a particular way: We will view them as possessed of some capacity—and presumably therefore of some responsibility as well—to determine their own well-being. For some such presumption would seem to be raised, if not indeed presupposed, by the fact that "we" take ourselves, after all, in our presumed role as distributors, as able to act upon—in this case, to spread—the makings of well-being.

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30 There is a large literature on the notion of justice as a form of "symmetry," which latter in turn is associated with beauty. The locus classicus is ARISTOTLE, NICHOMACHEAN ETHICS 113 (Martin Oswold trans., 1962). A stimulating contemporary meditation on the linkages is ELAINE SCARRY, ON BEAUTY AND BEING JUST 86–93 (1999). A compelling assimilation of ethics and aesthetics is found in, among other places, LUDWIG WITTGENSTEIN, TRACTATUS LOGICO-PHILOSOPHICUS (D.F. Pears & B.F. McGuinness trans., 1974) (1921). As for virtue ethics, the literature is vast and still growing. Let me confine myself, then, simply to citing that article from which the contemporary revival has sprung. That is G.E.M. Anscombe, *Modern Moral Philosophy*, 33 PHIL. 1 (1958).

This is, in fact, how I tend to view at least most human distribuees, and how I think others do too.[31] I think that as beneficiaries of distributive ethical obligations—that is, obligations in justice—the overwhelming majority of those of "us" who are human are what I call "boundedly responsible agents."[32] We are, on the one hand, largely responsible for, and thus far appropriately held responsible for, our own well-being. For the latter is something we actively make "from the hand we are dealt."

We are not, on the other hand, responsible for the mentioned "hand," since it is "dealt" us by forces outside of ourselves. Hence the "boundedness" portion of my formulation. Now this "hand," for its part, conspicuously includes exogenously given material resources, some of which are "internal" to our physical bodies, and others of which simply are "out there" in the world. The "hand we are dealt" also of course includes families, polities, and other institutional affiliations into which we are born, and which can influence our life prospects profoundly, particularly during the earlier phases of our lives.

The components of the hands we are dealt tend to be mutually complementary and indeed reinforcing. For the resources to which we bear early access are determined in critical part by socially, politically, or legally determined entitlements to the use of material and cultural resources held by those persons who are in turn socially, politically, or legally charged with our care when we are young or are otherwise vulnerable.

All of these exogenously given resources, capacities, and institutions, for their part, are, as intimated a moment ago, what constitute the "boundary" of those I call "boundedly responsible agents." Now, there are of course always "boundary disputes" concerning precisely where our responsibilities end and our environments kick in. But this is precisely because we view the boundary as normatively important. It is, in other words, precisely because we see justice—what people are owed—as partly, yet not wholly, riding on what they themselves *choose* to do, that we *argue* over the respective limits of choice and circumstance.

So I think that justice's human distribuees are implicitly viewed by all of us as being the same as its distributors—that is, as "us." And

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[31] There is a growing body of empirical evidence grounding this belief. *See generally* Hockett, *Deep Grammar*, *supra* note 5; Hockett, *Taking Distribution Seriously*, *supra* note 5. I am again sidestepping, for the moment, nonhuman beneficiaries of justice.

[32] Again see Hockett, *Deep Grammar*, *supra* note 5; Hockett, *Taking Distribution Seriously*, *supra* note 5.

I think that we view ourselves, hence the distributors and the human distribuees, as boundedly responsible agents in the sense I have just sketched.

C. What Is Distributed: Distribuenda

Now insofar as we view distribuees as agents who are in part responsible for their own well-being, in turn, I think we are apt to view that which should be distributed—the aforementioned distribuendum, or vector of distribuenda—as the aforementioned "makings" of well-being. We will think of distribuenda, that is, as "inputs" to well-being, which recipients in turn are at least partly responsible for transforming into well-being.

This means, from an operational point of view, that we shall see justice as more immediately concerned with "inputs" to well-being than with well-being "outcomes." See to it that agents receive the right materials, in other words, and just outcomes will take care of themselves. Or rather, the agents will produce the right outcomes.

Note, however, that I have not yet said enough to afford full confidence that those "right outcomes" will indeed be produced. Why? Because I have not filled all of the variables yet. I have characterized distributors, distribuees, and distribuenda, but still have said nothing of distribution formulae or mechanisms—I have not yet *adverbially* modified "to distribute."

On the other hand, as if to corroborate my earlier claim that fillings of some variables some ways tends to constrain plausible fillings of other variables, note that the specifications I have already given tend to lead us to a particular view of the appropriate distribution formula and mechanism: They seem to point us toward what I call an "opportunity-egalitarian" distribution formula and toward distribution mechanisms that tend to spread resources accordingly.

D. How It Is Distributed: Patterns and Mechanisms

"How so?" you might ask. Well, suppose, as seems natural, that we view our responsible agents as bearing equal moral worth, at least antecedently to their taking variously commendable or blameworthy actions for which they might be considered responsible. Prior to acting, that is to say, you are not ethically better or worse than, and therefore not ethically entitled to more or to less than, I am; nor am I better or worse than, or therefore entitled to more or to less than, you are. Apart from our particular actions, we are indistinguishable under the aspect of justice, and so symmetrical treatment means equal treat-

ment here. That would be equal treatment of us as agents, hence equal entitlements to the materials of agency—viz., to material opportunity.

If all of that is sound, then it would seem to suggest straightaway what we are to take for the appropriate pattern pursuant to which well-being inputs should be spread: those ethically exogenous material inputs should be spread *equally* over distribuees. I think that our shared conception of justice—not simply political justice, but justice—shows that we are already committed to this view. We already believe that opportunity—i.e., inputs, as distinguished from outputs that impound our differential efforts in addition to the inputs—should be more or less equally spread over agents. We believe that on the very same grounds that we take one another for entitled to an equal voice in collectively deciding together, in a democratic polity whose laws we have not violated, what collective actions to take. Those are grounds of equal opportunity for agents.

Note that this doesn't mean equality of outcome, at least if by "outcome" we mean only some restricted portion of the full vector of "outcome *components*." If you and I are of more or less equal genetic capacity and begin with more or less equal bundles of equally desired or useful resources, and then you build a home while I lose a bet on the stock market, our outcomes will not be unequal in any sense interesting to justice as distinguished from, say, charity. It would only be by ignoring the fact that my "outcome" also includes whatever satisfaction I derived from the gamble that one could hold otherwise.

The opportunity-egalitarian distribution formula, then, counsels our equalizing inputs, not outputs. I am of course presupposing that inputs can be commensurated in saying this, but as I'll now note, properly designing our distribution mechanisms affords means of ensuring that this is done.

In such case we shall likely attempt to design and institute such distribution mechanisms as foster, not equal well-being or satisfaction outcomes, so much as equal resource or material opportunity inputs—leaving outcomes to vary with individuals' responsible efforts. Or, put differently, we shall be apt to deem voluntary leisure itself as among the justice-relevant outcomes, such that one person's possessing more manufactured goods than another does not itself amount to an unequal outcome if both parties have in fact begun with equal initial endowments and if differing compositions as among their outcomes are accordingly traceable to differing preferences and choices.

Now if, by contrast, we were to view distribuees as not being responsible for how well they fare, and yet bearing equal ethical worth, then we might well aim at equalizing satisfaction *outcomes*. Hence we would not be committed to equalizing material inputs if, as seems likely, differing people are born with differing utility functions, hence apt to require differing inputs to be brought to the same outcome.

I do not think that the latter view is plausible, nor do I think anyone else will who thinks about the matter with care. There are many considerations that militate in favor of taking distribuees to be boundedly responsible agents rather than mere patients. One is that, in a democratic polity, where distributors and distribuees are ultimately the same, our taking responsibility *qua* distributors undercuts any suggestion that distribuees are *not* in some measure responsible for their lots. Doesn't our taking the trouble to deliberate about justice and then act upon our conclusions, in other words, itself undercut any suggestion that we are not partly responsible for our lots?

For this and related reasons, I think that the first view I have sketched is the correct one. Other views apart from these two I have mentioned are of course possible. But I shall leave the full set of possible permutations of variable-valuations to one side for now in the interest of time.

In sum, then, I think distributors and distribuees are most plausibly conceived as boundedly responsible agents, who produce their own satisfactions out of exogenously given material opportunities or resources, which accordingly ought to be distributed equally in keeping with our equal moral worth. Material opportunity, or "resource," is of course to be understood broadly on this conception, to include physical capacities and handicaps, genetic and legal endowments and inheritances, and so forth. It corresponds, more or less, to what Arneson calls "opportunity for welfare," Cohen calls "access to advantage," Dworkin calls "resources," and Sen calls "capabilities" and "functionings."[33]

Of course this view, like virtually any view, raises familiar measurement and practicability "issues." Resources broadly construed in the manner I have mentioned comprise many distinct kinds, after all. The relative values of these heterogeneous resources, in turn, in relation to one another will tend to differ from user to user. What would

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[33] *See* Richard Arneson, *Equality and Equal Opportunity for Welfare*, 56 PHIL. STUD. 79, 85–86 (1989); G.A. Cohen, *On the Currency of Egalitarian Justice*, 99 ETHICS 914 (1989); RONALD DWORKIN, SOVEREIGN VIRTUE 285–86 (2000); AMARTYA SEN, INEQUALITY REEXAMINED 39–40 (1992).

it be, then, as a practical matter, to attempt to "equalize" bundles of *all* of them—of "resource stuff"—over individuals, one might ask.

I think that these challenges can be handled rather more readily than is commonly appreciated, as I work at length to show elsewhere.[34] Moreover, it is not strictly necessary to show with precision how this can be done for my present purposes. For no challenge of this sort faced by the opportunity-egalitarian take on intertemporal justice that I advocate here is *avoided* by any *competing* such take, as is readily verified when one stops to consider the fact that "utility" cannot be distributed directly, but only indirectly through the distribution of sundry heterogeneous, subjectively valued goods.

I shall accordingly leave these measurement matters mostly to one side for the present.[35] All I shall say right now is this: The measurement problems are actually best handled—I might say "sidestepped"—by satisfactorily addressing the other, more practical "how" question: that concerning the appropriate distribution mechanism.

How can I say that, you might now be asking. Well, in short form the answer is this: If I am correct in saying that distributors and distribuees are best viewed as boundedly responsible agents, and that what they are owed is an equal distribution of exogenously given material opportunity, then it is easy to show that one's distributively appropriate holdings can be modeled as those that proceed from exchanges on markets that bear certain attributes. These markets, moreover, can be approximated in practice by actual markets constituted by well-crafted law. Indeed, I show elsewhere, much of our present law is best interpreted as inchoately prompted by aims to create such markets.[36]

The attributes in question are two forms of neutrality that I call "entry" and "process" neutrality, and another attribute that I call "completeness." Entry neutrality is equality in respect of initial resource endowments.[37] Process neutrality is ongoing equality in re-

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34 *See, e.g.*, Hockett, *Deep Grammar*, *supra* note 5; Hockett, *Taking Distribution Seriously*, *supra* note 5.

35 *See* Hockett, *Deep Grammar*, *supra* note 5; Hockett, *Taking Distribution Seriously*, *supra* note 5.

36 *See* Hockett, *Deep Grammar*, *supra* note 5; Hockett, *Taking Distribution Seriously*, *supra* note 5.

37 "But don't problems of measurement and commensuration afflict equalization at the outset just as they might further along?" you might ask. The question is fair, but is answerable. The trick is to start with certain core endowments that can be roughly measured and equalized over persons early on in their lives—before their responsibilities as agents fully kick in. Those

spect of bargaining power not traceable to responsible decisions made by market participants. Completeness is that attribute whereby all and only desired exchanges can be made on the market in question. These attributes, as mentioned, can only be approximated in practice. But insofar as they are approximated they tend toward producing what welfare economists will recognize as so-called "equal division Walrasian equilibria."[38]

Such equilibria, for their part, are justice-preserving, in that all changes in persons' holdings of goods are traceable to responsible choices that they have made. Just as importantly, markets that produce such equilibria "automatically" do such measuring and commensurating as is necessary in respect of heterogeneous goods, in a manner that justly aggregates differing persons' differing valuations of such goods. And, what is as a practical matter most encouraging, each step we take in the direction of enhancing the degrees of neutrality and completeness possessed by our markets, is a step unambiguously in the direction of greater justice. How that can be true takes me to my final set of remarks in connection with how we ought to think about justice.

E. Interformulability: Of Distribution, Maximization, Equalization, and Identification

Now, a final metatheoretic observation to make concerning accounts of appropriate distribution, hence justice, is this: There is an oft-ignored, yet thoroughly systematic analytical linkage among distribution, equalization, what I shall call "identification," and maximization. And this is so no matter which of these abstract nouns—these "-tion" words—you tend to concentrate on as your normative "focal point" when thinking about appropriate law and policy.

Any time we distribute anything over persons, for example, we equalize one thing among those persons, and we then socially "maximize," *ipso actu*, another thing that is analytically tied to that equal-

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include genetic and educational endowments, among others. Then as exchange behavior commences on markets which we do our best to keep process-neutral and complete, we work regular estimates of the degrees to which resultant or persistent inequalities can be attributed to responsible choice or to non-responsible disparities. *See* Hockett, *Deep Grammar*, *supra* note 5; Hockett, *Taking Distribution Seriously*, *supra* note 5; Robert Hockett, *Three (Potential) Pillars of Transnational Economic Justice: The Bretton Woods Institutions as Guarantors of Global Equal Treatment and Market-Completion*, 36 METAPHILOSOPHY 93, 99 (2005) [hereinafter Hockett, *Three Pillars*]; Robert Hockett, *Whose Ownership? Which Society?*, 27 CARDOZO L. REV. 1, 37–38 (2005).

[38] *See* Hockett, *Three Pillars*, *supra* note 37, at 100.

isandum. Moreover, whatever we thereby equalize corresponds to some attribute with which we identify each person to whom we thus distribute. The importance of this linkage, I think, tends to go overlooked in the ethics and economics literatures.

Here is an example of what I mean: If we set a goal of socially maximizing something that we call "utility," and accordingly "count" each individual's "utility function" for one in our aggregative *social* utility function—typically in form of a Bergson-Samuelson social welfare function ("SWF")[39]—then we shall be treating individuals as equals in respect of their utility functions. Precisely this fact is what underwrites some utilitarians' (alas, specious) claims to the effect that utilitarianism is egalitarian by dint of its counting each person's utility "only once."[40]

What seems to be forgotten by those who advance such claims, however, is that *any* social aggregating function that counts each individual once in respect of the aggregandum treats individuals as equals in respect of that aggregandum. The ethically interesting question is accordingly whether that aggregandum is the *right* one. And the best way to address *that* question is first to note that that aggregandum in respect of which you socially "count" individuals and thus treat them as equals is, *eo ipso*, a respect with which you socially *identify* them—or, in another idiom, to which you "reduce" them. Utilitarians, on this understanding, are readily seen to identify persons with their utility functions, in effect taking them for something like automatic "utility cows," or utility factories, so to speak.

Here is another example: If we view individuals as boundedly responsible agents as I suggested above—agents who actively produce satisfaction outputs out of opportunity inputs—then we shall socially identify them with, and treat them as equals in respect of, *this* defining attribute of themselves. And so we shall endeavor equally to distribute the aforementioned ethically exogenous material opportunity over them, and thus "maximize," socially, something quite *distinct* from Benthamite "utility" or preference-satisfaction simpliciter. In-

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39 *See infra* Part IV; *see also* Hockett, *supra* note 12. I believe that Matt Adler also will be presenting us with a thorough treatment of SWFs tomorrow, in the first panel of our second day's treatment of intertemporal justice. *See also* MATTHEW D. ADLER, SOCIAL WELFARE, LIFETIME WELL-BEING, AND EQUITY: A NEW FRAMEWORK FOR POLICY ANALYSIS (forthcoming 2009, manuscript on file with the author); Matthew D. Adler & Chris William Sanchirico, *Inequality and Uncertainty: Theory and Legal Applications*, 155 U. PA. L. REV. 279 (2006); Matthew D. Adler, Well-being, Inequality, and Time: The Time-Slice Problem and Its Policy Implications (2007) (working paper, on file with the author).

40 *See* H.L.A. Hart, *Between Utility and Rights*, 79 COLUM. L. REV. 828, 830 (1979).

stead we shall maximize something that might aptly be called "equal-opportunity-grounded satisfaction." That is something quite different from satisfactions proceeding from background conditions which do *not* afford equal opportunity.

Note that, operationally speaking, or mechanism-wise, in this latter case "we" won't directly be "maximizing" at all. "Output" maximization will "take care of itself" in this case, through the actions of individual agents, including ourselves, to whom "we" have but equally distributed material opportunity inputs.

The systematic interlinkages among maximization, equalization, and identification, then, affords helpful guidance to those who would think carefully and completely about distributive ethics, or justice. It affords guidance, moreover, quite complementary to that offered by the "grammar" of "to distribute" and cognate infinitives with which I have been concerned here. For it tends to flesh out the full panoply of claims to which we effectively commit ourselves when we make what at first might appear to be simply one sensible claim—such as that to the effect that public policy ought to be concerned with "maximizing happiness" or some other such thing.

The linkage also tends to lend further weight to a venerable idea that Doug Kysar here recently has reintroduced to the legal and policy literature: namely, that "process" is often what nineteenth century German philosophers might have called "internal" to, or what we moderns might call "determinative" of, "product."[41] For the means by which some social aggregate is actually produced would seem to be decisively constitutive of that product itself.

A social "utility" aggregate on the traditional Benthamite understanding just is a sum of utilities that can be maximized without attention to the question whether people are treated as equals in respect of, and hence identified with, an attribute of themselves for which they might not be responsible. I allude of course to their utility functions, which, if a matter of innate endorphin endowment, would seem to be as ethically arbitrary a matter as forehead height or pigmentation. Incidentally, this is, I think, precisely what underwrites the objectionability highlighted by Nozick's notorious "utility monster" objection to utilitarianism.[42]

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[41] *See* Douglas A. Kysar, *Preferences for Processes: The Process/Product Distinction and the Regulation of Consumer Choice*, 118 HARV. L. REV. 526, 617–18 (2005); *see also* Hockett, *supra* note 12. Those works trace many implications stemming from justice's "internality" to—or "constitutivity" of—welfare itself.

[42] *See* ROBERT NOZICK, ANARCHY, STATE, AND UTOPIA 41 (1974).

For precisely such reasons as these, a social satisfaction or welfare aggregate emergent from an equal material opportunity backdrop, by contrast, deliberately vindicated and maintained by a society committed to identifying its citizens as boundedly responsible agents of equal moral worth, will constitute something *other* than a Benthamite utility aggregate. Its "internal structure"—its "DNA," so to speak—differs, and hence so does the aggregate itself.

Now, how do these theoretic and metatheoretic considerations "apply," practically speaking, to the matter of intertemporal distributional ethics, better known as justice? Well, I think the most important upshot of the foregoing discussion for present purposes is the following: *Where true justice is concerned, there is no difference, in respect of core principles, between the diachronic and synchronic cases*. The only real difference between the two cases is epistemic, hence pragmatic, in character.

If I am right about this, the consequences would seem to be both very significant and indeed hope-inducing. For, in effect, we find that the most vexing problems hitherto affecting intertemporal justice thinking stem from asking the wrong questions—questions rooted in an incoherent understanding of distributive ethics. Let me now explain why.

IV. How the Right Answers Avoid the Wrong Questions

Note first that, up to the present, by far the greater part of intertemporal distributive ethics thinking has been done within two closely allied traditions. The first is the utilitarian tradition in ethics, which carried over into normative economics quite early on as the discipline first separated off from ethics.[43] The second is the theory of economic growth, a subfield that took off in earnest shortly after the Second World War.

Now each of these traditions, as it happens, carries within it a critical tension where diachronic justice is concerned—a tension I shall show to carry over to the synchronic context as well. The tension has found expression in a sequence of startling, but in retrospect hardly surprising, "impossibility results" of the sort that has been familiar to economic theory since Arrow's celebrated result first was published in 1950.[44] And, crucially, these results, like the tension to

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43 This tale has been widely told. *See* JOSEPH A. SCHUMPETER, HISTORY OF ECONOMIC ANALYSIS 126–37 (1954).

44 *See* KENNETH J. ARROW, SOCIAL CHOICE AND INDIVIDUAL VALUES 102–03 (1951). The work, which grew from Arrow's doctoral dissertation, was first published in 1950.

which I allude, afflict only those takes on diachronic justice that are inattentive to the "grammatical" matters discussed above, and which in consequence take maximizing imperatives to be independent of distributive, equalitative, and identificational imperatives.

A. A Tension in the Dominant Tradition of Intertemporal Justice Theorizing

"What tension?", you might now be asking. And "which impossibility results?" I can best answer these questions by first highlighting two value commitments at work in the utilitarian and growth-theoretic traditions to which I have just referred. For the tension to which I refer is at bottom a tension between these commitments themselves.

Here then are the two commitments to which I refer: First, owing to the utilitarian, aggregationist heritage still operative among welfare economists, there is a tendency among many normatively oriented economists to take the maximization of something, rather than the interpersonal distribution of something, as the appropriate normative focal point. This tendency has been with utilitarians from the start, commencing with Bentham, thence extending to Sidgwick on down to other, more modern utilitarians.[45] And of course it has continued in much mainstream economic thought, including that of Ramsey, Harrod, and others who were groundbreakers both in the field of growth theory and in the economic approach to intertemporal distribution.[46] It is also, of course, a tendency at odds with what we noted above in Part III—namely that all maximization imperatives entail distributional imperatives and vice versa.

Now, two consequences of the utilitarian and mainstream economic focus on aggregation, maximization, and growth are salient for purposes of diachronic distributional thought. The first, and simplest, is that we can immediately expect a puzzle to arise in the intertemporal case. For if generations go on and on, we will move continually in the direction of an "infinite" utility aggregate quite irrespective of what we do. The injunction to "maximize" might in such case appear superfluous. Diachronically speaking, utilitarians might thus appear

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45 *See, e.g.*, JEREMY BENTHAM, AN INTRODUCTION TO THE PRINCIPLES OF MORALS AND LEGISLATION (1932); HENRY SIDGWICK, THE METHODS OF ETHICS (1907); J.J.C. Smart, *An Outline of a System of Utilitarian Ethics*, *in* J.J.C. SMART & BERNARD WILLIAMS, UTILITARIANISM: FOR AND AGAINST (1973).

46 *See, e.g.*, R.F. HARROD, TOWARDS A DYNAMIC ECONOMICS: SOME RECENT DEVELOPMENTS OF ECONOMIC THEORY AND THEIR APPLICATION TO POLICY (1948); Frank P. Ramsey, *A Mathematical Theory of Saving*, 38 ECON. J. 543 (1928).

to have no raison d'être. For the maximization problem might seem to "take care of itself" where utility streams proceed toward infinity.

As we shall see, however, this puzzle might be sidestepped were it possible to determine that some indefinitely continuing growth paths would "strictly dominate" others—i.e., exceed them at every stage. So where the proverbial "rub" actually is found is with the second consequence of maximization-speak to which I have just alluded. On, then, to that one.

Secondly, then, closely allied with maximization injunctions of the utilitarian aggregationist sort is attachment to Paretian "efficiency" criteria.[47] Now these are of course in obvious potential tension with distributive ethics insofar as the latter can counsel redistribution when existing distributions fall short of what is ethically apt. The reason is that insofar as one recognizes a Paretian "veto" in constructing one's social welfare function,[48] her social welfare function will potentially veto any such distributional norm as can guide distributional action. For any consistently applied such distributional principle can, "in principle," come to counsel redistribution in some sets of circumstance. And that which the Paretian "veto" vetoes is of course none other than redistribution.[49]

This, Paretian strain of the utilitarian and mainstream economic traditions opens immediately into the *second* puzzle to which I have alluded. For now note that *also* deeply constitutive of the utilitarian and mainstream economic traditions, at least in the intergenerational context, is the sensible view that it would be *ethically irrational* not to view *all* generations as *equally entitled* to utility. So-called "discounting," "time preference," or what used to be called "impatience" in these traditions, in other words, is sensibly viewed in the traditions as ethically retrograde. Sidgwick, Marshall, Pigou, Ramsey, Harrod and others, all of them have described discounting as reflective of none but a primitive attachment to the present, a bestial want of imagina-

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47 Theorists typically cash out the Pareto criteria in terms of individual preferences. They say that one state of the world "dominates" another in a "strongly Paretian" sense when at least one person prefers the first to the second, with no one preferring the second to the first. They say that the first state dominates the second in a "weakly Paretian" sense when everyone prefers that first state. Finally, they say that two states of the world are "Pareto indifferent" to one another when nobody prefers one to the other. When at least one person prefers one state of the world, and at least one prefers another such state, the two states are said to be Pareto noncomparable. *See* Hockett, *supra* note 12.

48 See AMARTYA SEN, COLLECTIVE CHOICE AND SOCIAL WELFARE 21–28 (1970), where the term "unanimity" is employed. *See also* AMARTYA SEN, CHOICE, WELFARE AND MEASUREMENT 167–69 (1982) [hereinafter SEN, CHOICE, WELFARE AND MEASUREMENT].

49 *See* Hockett, *supra* note 12.

tion, a self-centered favoring of one's own generation, or some combination of such atavistic shortcomings as these.[50]

Curiously, however, the same norm in favor of eschewing ethically arbitrary distinctions in the *diachronic* case is *not* generally applied by these thinkers to the *synchronic* case—at least not apart from the spurious "only once" claim that we noticed above at the end of Part II, in connection with some utilitarians' claim to be egalitarian by dint of counting each individual's utility function but once.[51] In other words, the matter of appropriate distribution is not treated by these thinkers as being on all fours with, or independent of, that of appropriate aggregation in the synchronic case, notwithstanding its being treated thus in the diachronic case.

Had it not been for this inconsistency between the synchronic and diachronic cases, I think, the results that I am about to report might have been discovered much sooner than they actually were. For in that case they could have been derived directly from the same incoherence as underwrites the earlier Arrow and other impossibility results.[52] But more of this presently.

Now, as I mentioned, there is an obvious potential tension, when you think about it, between the intergenerational equity ideal taken for independently compelling on the one hand, and the unfiltered transgenerational maximization and Paretian ideals taken for independently compelling on the other. For there is no reason *a priori* to suppose that intergenerational equity will be intergenerationally maximizing of any aggregate understood independently of that which is equalized. Nor is there reason to suppose that intergenerational maximization of any such aggregate will be intergenerationally equitable.

There would be such coincidence, of course, if one is seeking to maximize pure subjective "utility" and all generations happen to have identical aggregated utility functions which are concave—"marginally diminishing"—in wealth. But that would be an *a posteriori*, empirical, and altogether remarkable truth were it a truth at all. And so as an *a priori*, conceptual matter we should expect troubles to arise in connection with intergenerational social welfare functions that give indepen-

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50 *See, e.g.*, HARROD, *supra* note 46, at 38–39; ALFRED MARSHALL, THE PRINCIPLES OF ECONOMICS 196–97 (1890); SIDGWICK, *supra* note 45, at 381–83; ARTHUR CECIL PIGOU, THE ECONOMICS OF WELFARE 28–29 (1920); Ramsey, *supra* note 46, at 543.

51 *See supra* note 40.

52 *See* ARROW, *supra* note 44.

dent weight to equity imperatives on the one hand, Paretian "efficiency" imperatives on the other.[53]

B. From Tension to Incoherence and Impossibility: Of Koopmans and Diamond on Down

The tension to which I refer here finally emerged, formally, in a sequence of striking impossibility results that began to emerge in 1960. The first was that of Tjalling Koopmans, which soon was sharpened by a notorious result derived five years later by Peter Diamond.[54] In essence, what the Koopmans and Diamond results brought out was that no intertemporal social welfare function—that is, no SWF aggregating "infinite utility streams"—could be continuous, Paretian, and what the authors called "anonymous"—that is, impartial—as between generations.[55] If the SWF is to be continuous and Paretian, in other words, it must also permit discounting—the favoring of earlier over later generations. It must give expression to what Koopmans called "impatience"[56]—or with what Graciela Chichilnisky, a student of Arrow's, later evocatively (and very Arrovianly!) called "dictatorship of the present."[57] That is of course inconsistent with intergenerational equity.

Like Arrow's 1951 result, which initiated the modern study of incompatible axiom sets of this sort in the domain of normative economic theory,[58] the Koopmans and Diamond results quickly became objects of fascination and dread among welfare economists and

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53 Hockett, *supra* note 12, shows all forms of Pareto to be potentially at odds with *any* normative principle of the sort that determines a social welfare function's argument domain and aggregation rule. The results I am about to report can accordingly, along with Arrow's 1951, Sen's 1970, and other notorious impossibility theorems, be viewed as ultimately unsurprising entailments of that more general impossibility.

54 *See* Peter C. Diamond, *The Evaluation of Infinite Utility Streams*, 33 ECONOMETRICA 170, 170 (1965); Tjalling C. Koopmans, *Stationary Ordinal Utility and Impatience*, 28 ECONOMETRICA 287, 287–88 (1960).

55 The "infinite utility stream" idea is less intimidating than might first be assumed. In essence, the idea is simply that the SWF is to aggregate, not simply the utilities of a finite particular population, but an ongoing sequence of overlapping generations of utility-experiencing persons.

56 Koopmans, *supra* note 54, at 306.

57 *See* Graciela Chichilnisky, *An Axiomatic Approach to Sustainable Development*, 13 SOC. CHOICE & WELFARE 231, 242 (1996). Chichilnisky's paper also is interesting in showing that convergence criteria of the sort commonly employed to avoid the "but isn't it all infinite?" objection mentioned above—in particular the widely preferred "long-run average" and "catch-up" criteria—for their parts imply dictatorship of the *future*. *Id.* at 242–43.

58 *See, e.g.*, Peter C. Fishburn, *Foundations of Decision Analysis: Along the Way*, 35 MGMT. SCI. 387, 393 (1989).

growth theorists alike. Many—again as in the Arrow case—accordingly sought ways around it, while others sought to determine how robust they might be on weaker axiom sets.[59]

Among the best known and most interesting of the subsequent results are the following: In 1980, Lars-Gunnar Svensson generalized the Diamond result, which had confined itself to the so-called "Sup Top"—or "supremum topology"—to other topological spaces.[60] Diamond's result, in other words, was not essentially the product of purely technical assumptions devoid of normatively salient intended interpretations.

More interesting than the topological generalization was Svensson's also apparently proving that *some* ordering of infinite utility streams, satisfying both Anonymity and Pareto, *had* to exist. That was interesting because it would have seemed to defuse the Koopmans and Diamond impossibilities, and with them the disturbing apparent incompatibility between the seemingly independently compelling ideals of intertemporal equity and efficiency.

There was a problem, however: The proof was what is known in mathematics circles as "nonconstructive." It constructed what is known as a "pre-order," then appealed to a celebrated, if nevertheless recondite, mathematical result known as "Szpilrajn's Lemma" to conclude that a full ordering "must" exist.[61] That is problematic because Szpilrajn's Lemma notoriously relies upon the hotly contested Axiom of Choice, probably the most controversial of set-theoretic assumptions ever since its introduction at the turn of the last century.[62] In-

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59 *See, e.g.*, H. Stuart Burness, *On the Role of Separability Assumptions in Determining Impatience Implications*, 44 ECONOMETRICA 67, 77–78 (1976).

60 *See* Lars-Gunnar Svensson, *Equity Among Generations*, 48 ECONOMETRICA 1251 (1980). The sup top is the topology of least upper bounds of all point sets. It is accordingly familiar to all who have studied introductory analysis courses in the modern mathematics curriculum. *See generally* Robert Hockett, *Reflective Intensions: Two Foundational Decision-Points in Mathematics, Law, and Economics*, 29 CARDOZO L. REV. 1967 (2008).

61 *See* Svensson, *supra* note 60, at 1254–55. An ordering is a relation $\leq$ among objects within a defined domain $x, x', x'', \ldots$ such that (a) for all x, $x \leq x$; (b) for any x and x', if $x \leq x'$ and $x' \leq x$, then $x = x'$; (c) for any x, x', and x'', if $x \leq x'$ and $x' \leq x''$, then $x \leq x''$; and (d) for any two objects x and x', either $x \leq x'$ or $x' \leq x$. Condition (a) is typically called "reflexivity." Condition (b) is called "antisymmetry." Condition (c) is called "transitivity." And condition (d) is called "comparability." A preorder is a relation that satisfies only conditions (a) and (c)—reflexivity and transitivity. These definitions are standard, and can be found in most logic and set-theoretic texts. They also figure, under varying terminologies, in much of the social choice literature. *See, e.g.*, SEN, *supra* note 48, at 2–20.

62 The Axiom of Choice, also known (to followers of Russell and Whitehead) as the "Multiplicative Axiom," holds that for any class of classes, there is a function that selects one and only one member from each of them. *See* Hockett, *supra* note 60, at 2037–38. The link between the

deed it is common, in view of the Axiom's contestability, for mathematicians to note at the outset those of their results that rely upon it.[63] Svensson's result was accordingly intriguing and seemingly promising, but it was not enough fully to put aside those worries occasioned by Koopmans' and Diamond's results.

A large number of results subsequent to Svensson's in effect replicated them either in generalizing the Diamond result to other topologies, in demonstrating the existence of pre-orders and hence Szpilrajn-warranted orderings, or both. As a group they accordingly both demonstrated the robustness of the Diamond and Koopmans dilemma on the one hand, while seeming to offer a possible—if contestable—way out on the other. The best known of these results probably are those by Campbell,[64] Lauwers,[65] Shinotsuka,[66] Fleurbaey & Michel,[67] Asheim & Tungodden,[68] and Bossert et al.[69] I trust you'll thank me for sparing you the details, which I'll consign here to footnotes.

The hope raised by these results, to the effect that a full ordering might be found in light of Svensson's, Asheim & Tungodden's, and Bossert et al.'s proofs to the effect that it "must" exist, was ultimately to be dashed, however. For, in a remarkably beautiful paper by Zame

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Axiom and Svensson's result can be seen clearly when one reflects that the Axiom, first stated explicitly by Zermelo in 1904, is equivalent to Zermelo's Well-Ordering Theorem, to the effect that there is a well-ordering for every set—i.e., that every set is well ordered, and each of its nonempty subsets has a least member. *Compare id.*, *with* Svensson, *supra* note 60, at 1254–55.

These propositions are intuitively plausible enough for the finite and denumerably infinite cases, but are a bit more difficult to make sense of in the nondenumerably infinite case. *See* Hockett, *supra* note 60. The intuition that underwrites the Axiom of Choice is at work, incidentally, in the "Choice Functions" of which Sen has availed himself in many of his canonical works of the 1970s and 1980s. *See, e.g.*, SEN, CHOICE, WELFARE AND MEASUREMENT, *supra* note 48.

63 *See* Hockett, *supra* note 60, at 2042.

64 *See* D.E. Campbell, *Impossibility Theorems and Infinite Horizon Planning*, 2 SOC. CHOICE & WELFARE 283 (1985) (generalizing Diamond result to other topologies).

65 Luc Lauwers, *Continuity and Equity with Infinite Horizons*, 14 SOC. CHOICE & WELFARE 345, 353–54 (1997) (generalizing Diamond result to other topologies).

66 Tomoichi Shinotsuka, *Equity, Continuity, and Myopia: A Generalization of Diamond's Impossibility Theorem*, 15 SOC. CHOICE & WELFARE 21 (1998) (generalizing Diamond result to other topologies).

67 Marc Fleurbaey & Phillipe Michel, *Intertemporal Equity and Extension of the Ramsey Criterion*, 39 J. MATH. ECON. 777 (2003) (another pre-ordering with Szpilrajn's Lemma implying an ordering, a la Svensson).

68 Geir B. Asheim & Bertil Tungodden, *Resolving Distributional Conflicts Between Generations*, 24 ECON. THEORY 221 (2004) (like Svensson, constructing a pre-ordering, then relying upon Szpilrajn's Lemma to claim existence of an ordering—in this case, a version of leximin).

69 Walter Bossert et al., *Ordering Infinite Utility Streams*, 135 J. ECON. THEORY 579 (2007) (as with Asheim & Tungodden, *supra* note 68).

published less than a year ago, it is proved that the long sought extension can never be had.[70] Zame's paper, in other words, is a nonrepresentablility result, conducted in the idiom of model theory, showing that we *cannot* construct or even so much as *name* any ordering extension of Svensson's pre-orderings. The result is accordingly of the same family as those famously derived by Lowenheim and Skolem in 1915 and 1920, Tarski in the 1930s and 1950s, and Chaitin from the 1960s down to the present.[71] It has also been confirmed from another angle, in effect, by a recent result derived by Luc Lauwers.[72]

In addition to the results just briefly mentioned, which have generalized the Diamond and Koopmans impossibility results to topologies other than the Sup Top, many other results have explored the robustness of those results both on weaker forms of continuity and on weaker versions of Pareto. Many of these results have been derived by my Cornell colleagues Kaushik Basu and Tapan Mitra.

Probably the best known of these is Basu and Mitra's classic 2003 result,[73] which generalizes the Diamond result to cases involving weaker continuity requirements, and indeed shows the result to be independent of any topology chosen. In other words, they show that *no* preference relation meeting the Diamond desiderata of Anonymity and Pareto, continuous or otherwise, can be represented by a real-valued welfare function. In that sense the result anticipates the recent Zame and Lauwers results just mentioned. Four years later, in two

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70 *See* William R. Zame, *Can Intergenerational Equity Be Operationalized?*, 2 THEORETICAL ECON. 187 (2007).

71 See Thoralf Skolem, *Logisch-kombinatorische Untersuchungen über die Erfüllbarkeit oder Beweisbarkeit mathematischer Sätze nebst einem Theoreme über dichte Mengen*, 6 VIDENSKAPSSELSKAPET SKRIFTER, I. MATEMATISK-NATURVIDENSKABELIG KLASSE 1 (1920), *translated in Logico-Combinatorial Investigations on the Satisfiability or Provability of Mathematical Propositions: A Simplified Proof of a Theorem by Loewenheim*, *in* FROM FREGE TO GÖDEL: A SOURCE BOOK IN MATHEMATICAL LOGIC, 1879–1931, *supra* note 18. As suggested in the English rendering of the title, the Skolem result generalized an earlier one derived by Lowenheim. *See* Leopold Lowenheim, *Über Möglichkeiten im Relativkalkül*, 76 MATHEMATISCHE ANNALEN 447, *translated in On Possibilities in the Calculus of Relatives*, *in* FROM FREGE TO GÖDEL, *supra* note 18.

The Tarski results to which I allude are A. Tarski, *Sur les ensembles définissables de nombres réels I*, 17 FUNDAMENTA MATHEMATICA 210 (1931) and ALFRED TARSKI ET AL., UNDECIDABLE THEORIES (1953).

Greg Chaitin's many representation results appear over the course of many books and papers. Probably the most often read is GREGORY CHAITIN, THE UNKNOWABLE (1999).

72 *See* Luc Lauwers, *Ordering Infinite Utility Streams: Completeness at the Cost of a Non-Ramsey Set*, *available at* http://www.eea-esem.com/EEA-ESEM/2007/Prog/viewpaper.asp?pid=1956.

73 *See* Kaushik Basu & Tapan Mitra, *Aggregating Infinite Utility Streams with Intergenerational Equity: The Impossibility of Being Paretian*, 71 ECONOMETRICA 1557 (2003).

separate papers, Basu and Mitra, then Mitra and Basu, extended the Diamond result to cases involving weaker new versions of Pareto as well. These are novel renditions of their own devising, the details of which need not detain us here.[74]

C. Picking up the Pieces: The Correct Conception of Justice Is Coherent and Compelling Across Space and Time

So where does this leave us? I believe that it leaves us precisely where we ought to have expected to arrive all along. For as suggested above and as I show formally elsewhere, the hope of reconciling Pareto, which on the dominant preferentialist understanding is just anti-normative, with *any* such preference-incumbent normative principle as intertemporal equity is misconceived *au fond*.[75] Pareto's prefer-

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[74] *See* Kaushik Basu & Tapan Mitra, *Possibility Theorems for Equitably Aggregating Infinite Utility Streams*, *in*, INTERGENERATIONAL EQUITY AND SUSTAINABILITY (John E. Roemer & Kotaro Suzumura eds. 2007). Their paper (1) weakens Pareto and changes domain restrictions to find a way out of Diamond result; and (2) tries a "weak dominance" axiom, a "weak Pareto" axiom, and a "partial Pareto" axiom. There is some success with the last of these, but the authors note wryly that in reaching that success, they also show further robustness of the original Diamond result. *See id. See generally* Tapan Mitra & Kaushik Basu, *On the Existence of Paretian Social Welfare Quasi-Orderings for Infinite Utility Streams with Extended Anonymity*, *in* INTERGENERATIONAL EQUITY AND SUSTAINABILITY, *supra* (characterizing the class of possible finite permutations of infinite utility streams consistent with Pareto and social welfare quasi-orderings).

[75] *See* Hockett, *supra* note 12. By a "preference-incumbent normative principle" I mean simply a normative principle that is incumbent upon—that is, which can trump—preferences. The idea is that normative principles determine which preferences ought to be satisfied, and which are to be renounced or repudiated as contrary to our ethical, social, or legal norms. Any system of norms or laws, by dint of its bestowal of distributed entitlements upon persons, inherently imports some such "trumping," hence partitions the class of all possible satisfactions that an individual might have into distributively legitimate and illegitimate such satisfactions. Intergenerational "anonymity"—impartiality or equity—is of course such a norm.

It might bear noting in this connection that, insofar as norms can trump preferences, there is a clear category error manifest in such locutions, often encountered in some economic writing, as "tastes for justice," "preferences for fairness," and the like. Most who engage in such talk are effectively collapsing normative principles, which are incumbent upon preferences, into preferences themselves. Loss of that distinction in turn is to lose the capacity to prescribe or judge normatively at all. And the incoherence to which I am attending here stems directly from that loss. *See id.* I shall note here as well that Professor Kysar compellingly describes a counterpart problem in cost-benefit analysis. *See* Douglas A. Kysar, *It Might Have Been: Risk, Precaution and Opportunity Costs*, 22 J. LAND USE & ENVTL. L. 1, 44 (2006).

In case the distinction between preference on the one hand, and preference-incumbent normative principle on the other is not immediately clear to you, consider this observation: It is of course ever possible—and indeed to be hoped—that one will "prefer" to conform his actions to principles of normative propriety. But such principles underwrite ethical, legal, and other forms of prescription only inasmuch as they're taken for incumbent upon and hence bounding of preferences, not merely as objects of preferences. George Bush can "prefer" to drive sober and under 120 mph in our neighborhood, for example, and we all hope that he will, but a legal or

ence-rooted "veto" always can "veto," in some possible set of circumstances, the consistent application of any normative principle such as intergenerational equity.[76]

So much for negative results, then. What about affirmative ones? Well, here is *precisely* where I think that the hopeful consequences of my argument, as promised above, now emerge. The foregoing observations, that is to say, should render us encouraged, inspired, and determined to do justice by those yet to come. There is no reason what ever to be stultified or paralyzed by those seemingly intractable puzzles thought to afflict intertemporal justice theorizing. For they are all of them puzzles that fall in what I have called the "analytic" class, and these we have just seen to be occasioned solely by approaches to ethics and policy that have been incoherent all along.

The correct, opportunity-egalitarian take on distributive ethics and policy, by contrast, is completely untouched by these troubles. It is touched only by those difficulties that I have labeled "epistemic," and we deal with difficulties of this sort—which are endemic to temporal life itself—all of the time.

Once we see Paretian criteria, as imposed upon synchronic *or* diachronically applied social welfare functions, for what they are, and indeed once we see *all* putatively independent maximizing ("efficiency") imperatives for what *they* are—namely, as antinormative—we are immediately freed up to fix our attentions back where the belong. And where is that? It is on *individuals*, as the beneficiaries of distributive ethics and policy. And it is on individuals as boundedly responsible agents, in the sense described before, in Part III.

Now, so-called "individualist" and "welfarist" social welfare functions of the sort routinely used and defended by welfare economists of course *register* at least *inchoate* acknowledgment of this fact. Else why employ and defend the term "individualist" in describing the forms of social welfare function they favor?[77] But those who employ SWFs of

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ethical limit's being a "limit" is precisely its trumping his preference should he come to "prefer" otherwise and thus put all of us at risk.

76 On the Paretian "veto," see *supra* note 48.

77 "Individualist" SWFs simply are SWFs that take individual utility functions as arguments. *See* Hockett, *supra* note 12. The term appears to originate with Samuelson. *See* PAUL ANTHONY SAMUELSON, FOUNDATIONS OF ECONOMIC ANALYSIS 223 (1947); *see also* Louis Kaplow & Steven Shavell, *Any Non-Welfarist Method of Policy Assessment Violates the Pareto Principle*, 109 J. POL. ECON. 281, 281 (2001). "Welfarism" for its part misleadingly names the untenable position that SWFs should take "only" such individual utility functions as arguments. *See* Hockett, *supra* note 12; *see also* Louis Kaplow & Steven Shavell, *Fairness Versus Welfare: Notes on the Pareto Principle, Preferences, and Distributive Justice*, 32 J. LEGAL STUD. 331 (2003); Louis Kaplow & Steven Shavell, *Fairness Versus Welfare: Notes on the Pareto Principle,*

this form typically tend to lose sight of the interlinkages among maximization, distribution, equalization, and identification noted above in Part III. And so they lose sight of the fact that by treating maximization norms as if they were analytically *independent* of or *prior* to distributional norms—or indeed even so much as intelligible in isolation from them—they commit themselves, in effect, to implausible construals of those individuals they purport actually to care about. They construe individuals, for example, as nothing other than their genetically acquired utility functions—as "utility cows," in the sense noted above in Part III.

But what is an individual as *plausibly* construed for purposes of normative theory and policy? The answer, as seen above, is that she is an *agent*—or what I called a *boundedly responsible* agent. She is a being who makes her own welfare, out of material opportunity, subject to both physical and normative constraints. She is physically constrained in that she only can work with the material hand she is dealt, including the physical capacities with which she is endowed. She is normatively constrained in that some forms of possible satisfaction—for example, satisfactions derived only by illegitimately taking from others—will not be normatively or, therefore, socially cognizable as "welfare" rather than simply as satisfaction—*illegitimate* satisfaction. For again, as noted above, our distributive norms are constitutive of—they are "internal" to—our conception of welfare itself.

Now, if this is correct, what foundational difference can there be between the synchronic and diachronic cases so far as distributive normativity is concerned? The answer is that there is none. Justice is just about individuals, whether they live now or in future. And in particular, it is about equalizing exogenous material opportunity among individuals, on a pro rata basis. What this means from the standpoint of intertemporal justice is that *all* of our challenges are just *epistemic* in nature. They are no different in kind from any other decisions we are regularly called upon to make in respect of a future that is always inevitably afflicted with some measure of uncertainty. And the more distant the future in question, the more afflicted with uncertainty will be our thoughts about and planning for it.

Preferences, and Distributive Justice, 114 HARV. L. REV. 961 (2001). The term "welfarism" would be better replaced by "strict welfarism," however, or better yet "strict preference-regard," since (a) most self-described "welfarists" unpack "welfare" as no more than preference-satisfaction, while (b) it is of course possible to represent social welfare as riding upon one or more variables additional to individual preference-satisfactions in any event.

Does that mean that we are to give up engaging in such thinking and planning? Of course not. It means only that we must be humble and sensible in doing so, acknowledging that we can do no more than "doing the best that we can, under the circumstances." We must be forthrightly pragmatic, in other words, even while acting, as best we can tell, in conformity to that which we know to be just.

Now, what would it be to be doing that? What sorts of considerations ought we to act upon? Well, this seems a good start to me: We tell ourselves that each individual apt to come later is apt to be a boundedly responsible agent just as we ourselves are. We thus note that each of them is no more and no less deserving of her equal pro rata share of ethically exogenous resource—the materials upon which agents work in pursuing their aims and thus seeking their forms of satisfaction—than is any of us. We then turn to considering what that is likely to mean through time, in light of such knowledge as we are able to acquire at present—the time in which we are deciding upon how to act.

What are some bets we might reasonably make, then, in respect of what things are apt to be like beyond our lifetimes, with a view to ensuring that people in the future face no less pro rata opportunity than we do? Well, for one thing it seems very likely that people in the future will have much more knowledge than we have. That is a resource—a resource which we shall be not only bequeathing them, but which to some extent we will be responsible for the very existence of. Later folk in this sense will "owe" *us*, rather as we owe our forebears when it comes to this so-called "knowledge capital."

On the other hand, it is also quite possible that many *other* resources that we now enjoy will *not* be available to our descendants. It seems likely that many of these will be quite depleted. (Petroleum of course comes to mind, as do coal and other so-called nonrenewables.) But it also, of course, is in our power to determine the rates of such cases of depletion, and I suspect even to ensure that this rate does not *exceed* the rate at which *compensating* resources—new knowledge, new methods, new technologies, perhaps even new interplanetary colonies one day—come on line.

It is also not clear, of course, how many *more*—or less?—people in future there will be. And as mentioned earlier in Part II, *part* of the unclarity in this case is owing to the fact that it is within our power to *determine* how many such there will be—and even, before long, to determine to some extent what those people (and other creatures) will

be *like*.[78] Current trends indicate that the globe's population will continue to grow rapidly for some years to come. On the other hand, the trend also is for that rate of growth to slow, with the likely result that the world's population will "level off" at about nine billion within the coming century.[79] And since the trend also is for the material standard of living to grow and keep growing—as Professor Buchanan of course will be showing us—it seems that we are likely to be able to bequeath our descendants lives grounded in at least as much material opportunity as our own.

We can also, I think, bequeath our descendants a better set of material opportunities by bettering the *spread* of our *own* such opportunities, right here and now. We can do so by bequeathing them *institutions* that ensure justice is more fully instantiated than it is now—precisely by building those institutions right now. There is accordingly a very real sense in which we shall do better by latercomers by doing better by one another. And this is of course hardly surprising. For once we take seriously the claim that distributive ethics are about individuals, and trace that claim's consequences, we see straightaway that in speaking of justice we speak of a manner of cross-spatial and cross-temporal communion. We speak of a communion of agents, agents who owe one another *as* agents.

Note one more consequence of this fact: I speak of individuals as agents, not of individuals as Tom, Dick, or Mary. That shows us something about why I do not think the "nonidentity problem" noted earlier is a problem at all. I think that we as lawyers, in thinking about what our legal system owes future generations, should think in the manner that all the above manifests: We should be thinking in terms of a very familiar category which perhaps the philosophers would do well to rediscover—that of non-intentional tort. We should act, that's to say, to avoid creating a "zone of danger" in future into which we can be more or less reasonably certain that others, whoever they turn out to be, are apt to stumble. And for present purposes the "danger" in question is that of injustice. It is that of a maldistribution, through space or through time, of material opportunity.

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[78] In this connection, see, for example, JONATHAN GLOVER, CHOOSING CHILDREN: GENES, DISABILITY, AND DESIGN (2006). *See also* JONATHAN GLOVER, WHAT SORT OF PEOPLE SHOULD THERE BE? (1984). This is but the tip of a vast and vexing iceberg.

[79] DEP'T OF ECON. & SOC. AFFAIRS, UNITED NATIONS, WORLD POPULATION IN 2300, at 2 (2004), *available at* http://www.un.org/esa/population/publications/longrange2/2004worldpop2300reportfinalc.pdf.

V. Conclusion

And that's that. I hope my remarks have inspired some optimism in respect of our deliberations ahead. And I hope they show reason to move forward from here in a justice-respecting yet pragmatic spirit. There is every reason to think we will do justice by those who will follow us, precisely by thinking well about what justice requires right here and right now. Analytic puzzles that have plagued intertemporal justice theory are readily sidestepped by true justice theory. And epistemic puzzles that plague all future planning are just part of life. Here as elsewhere we get on with life notwithstanding the future's unclarity. Indeed we provide for that unclarity itself all the time; that after all is what "planning" *is*. We do the best that we can. As ever, we muddle through.

Thank you again. And here's to the more practical discussions to come!