Philippe Van Parijs

In Defence of Abundance¹


Every single day, every newspaper in the world carries some further evidence as to how limited the Earth’s resources are². Every single day, therefore, we should grow more deeply convinced that the notion of abundance has become hopelessly irrelevant and can safely be shelved forever. Or so it seems. In the final section of this paper, I shall defend the opposite view: that growing awareness of the limits of our resources should make the notion of abundance, suitably (though still plausibly) defined, more and not less relevant to our pursuits. Whether or not this defense turns out to be successful, I hope this paper will go some way towards clarifying this notoriously elusive notion, as well as its no less elusive and no less important antonym: scarcity.

1. Abundance in Eve's orchard

Let us first focus on a highly simplified one-person economy; define, in that context, an intuitively adequate notion of abundance, and explore what it does and does not imply. The economy is called Eden. Its one member is called Eve. Eve's welfare is affected by only two factors - in addition to the nature of her tastes. It increases with the amount of fruit she consumes - up to a point where any further fruit consumption leaves her indifferent. And it decreases with the amount of time she spends picking fruit - but only as from a certain threshold below which she is indifferent between doing more or less fruit picking. I shall call Eve's satiation set the set of combinations of fruit consumption and fruit picking which Eve weakly prefers to any other³. Of course, the amount Eve can consume is finite, and it is, moreover, dependent on the amount of time she spends picking fruit. Let us call Eve's feasible set the set of combinations of fruit consumption and fruit picking that are actually possible, given the location, yield and shape of the fruit trees, as well as Eve's picking skills. By definition, I submit, Eden

¹ This is a much revised version of a paper discussed at the Universities of Amsterdam and Louvain-la-Neuve in May and November 1985. I am very grateful to Philippe Mongin, Alec Nove, Roald Ramer, Gérard Roland, Ian Steedman, Robert van der Veen and Bob Ware, for having helped me out of some of the confusions contained in earlier versions. Conversations with Hans Achterhuis, Ivan Illich, Riccardo Cappi and Marc Germain have drawn my attention to neglected dimensions, which I am sure I have not incorporated to anything like their satisfaction. I have been greatly exercised by a number of earlier treatments of these issues, especially by Tartarin (1981), Nove (1983: ch.1), Phelps (1985: ch.1) and Roland (1989: ch.1). It is because these have not left be fully satisfied that I felt I wanted to have a go at it myself. Without them, however, my job would have been far tougher, and the end result far rougher.

² So at least I feel confident enough to infer, on the basis of casual observation of an admittedly unrepresentative sample.

³ That is, combination C is in Eve's satiation set if, for any combination X, either Eve strictly prefers C to X, or she is indifferent between C and X. Note that satiation is not bliss and that, on some absolute scale of happiness, satiation may still leave Eve pretty miserable.
is an abundant economy if Eve's satiation set and her feasible set intersect (see Figure 1). Abundance prevails, in other words, if and only if Eve can consume as much as she cares to consume without having to do anything she minds doing, however slightly⁴.

[Figure 1]

Let us briefly focus on some key features of this definition. Firstly, note that abundance, thus defined, constitutes a capacity, a potential of the economy, which may or may not be actualized. An economy is here being characterized as the conjunction of its member's tastes - which determine the shape of the satiation set - and of its material and human resources - which determine the shape of the feasible set. Suppose that tastes and resources on Eden are such that abundance can be said to obtain. It does not follow that Eve, its sole member, is satiated, i.e. consumes as much as she cares to consume while doing no work she minds doing. For all abundance means is that such satiation is possible. This potential may fail to be realized for two distinct types of reasons. Firstly, Eve may make an inefficient use of available resources - for example, she has overlooked a couple of magnificent trees, from which fruit is particularly easy to pick (point 1 in Figure 1). Secondly, though using resources efficiently, Eve may select a combination of leisure and consumption which does not optimally fit her preferences - for example, God obliges her to spend 16 hours a day picking fruit (point 2 in Figure 1). Neither Eve's failure the magnificent trees nor God's cruel command prevents abundance from prevailing in Eden. For what abundance means is not that Eve is not short of anything she wants (whether fruit or leisure), but that it is possible for her not to suffer any such shortage. And the possibility of satiation only implies satiation under the further assumption of fully rational behavior⁵.

It follows that abundance can be characterized as the negation of scarcity, understood as the impossibility for Eve to satisfy all her material wants while working no more than she fancies. But - and this is the second feature I want to stress -, abundance remains consistent with "scarcity" in two more demanding senses. (1) There can be abundance even if it is the case that, however hard Eve works, the fruit available for her to consume will always be in finite supply. Abundance, in other words, does not entail unlimited resources. (2) There can also be abundance even though it is the case that, without any work on her part, Eve cannot possibly get enough fruit to satisfy her wants, or even simply

---

⁴ This definition and much else in this section are largely inspired by Tartarin's (1981: 247-254) illuminating formal discussion. Phelps' (1987: 7) characterization of the "economy of plenty" expresses a closely related notion, even though it makes abundance a matter of satiation, not just of potential satiation: "Everyone would work to the point where working longer would not be enjoyable, so all available job satisfactions would be completely realized. And thanks to those efforts, the technology, and the plentifulness of natural and capital resources, everyone's desires for the outputs produced would also be completely satisfied."

⁵ It may be objected to both examples that they should be construed as illustrating the absence of abundance (as defined), rather than the coexistence of abundance and non-satiation. For since satiation, by definition, is preferred by Eve to any feasible alternative, and since abundance, by definition, implies that satiation is feasible, Eve's ending up with less than satiation must mean that abundance was not really present: in the first example, because Eve lacks the skill which would have enabled her to notice the magnificent trees (her actual feasible set is smaller than was assumed); in the second example, because Eve has a taste for not angering God (her actual satiation set is smaller than we thought). I trust, however, that the examples lend themselves to a more refined description which enables them to meet such objections, as long as those who raise these allow for the possibility of irrational behaviour, and hence for the possibility that what is both feasible and (unanimously) preferred may fail to materialize, even in a one-person world.
to survive. Abundance, in other words, does not entail the possibility of idleness\(^6\). As long as there is scarcity in this last sense, i.e. as long as the satiation of material wants requires that some work be done - even work that one does not mind doing in the least\(^7\), it remains as relevant as ever to allocate correctly one’s time and other resources. Abundance does not make economic calculation obsolete. Scarce means still need to be wisely allocated\(^8\).

Thirdly, what is the relation between abundance and gratuity? For Eve, as her situation has been described so far, both goods she cares for have a price in the following sense. Assuming she makes an efficient use of available resources (i.e. her choice lies on the frontier of her feasible set), if she wants to take more leisure, she has to cut down on her fruit consumption. And if she wants to eat more fruit, she has to work more. Increased access to either good has an opportunity cost in terms of the other\(^9\). This follows, of course, from the downward shape of the curve which expresses production possibilities, itself in this case the reflection of the very fact that it makes sense to distinguish work and leisure.

---

6 Of course, abundance entails both unlimited resources and the possibility of idleness in the special case in which Eve only reaches satiation with an infinite amount of fruit and no fruit picking whatever. But this is, precisely, no more than a special - and most implausible - case, even though it is one that is commonly assumed to obtain: see e.g. Debreu’s (1959: 46) insatiability axiom, which states for each consumer that “no matter what his consumption is there is another one which [he] prefers”. Gérard Roland has objected that although satiation is conceivable for some finite amount of any good or service, it is not conceivable for any finite amount of human time. Though people may not want to work a lesser proportion of a day or life of given length (there is satiation for leisure, in the sense that no further substitution of leisure for labour would yield any additional utility), they will always want (with the rare exception of suicidal cases) to have more time available to them (human time is radically scarce, its marginal utility is - almost - never zero). I am not sure, however, that there is a fundamental difference here. For given how tired we are at the end of the day (or how decrepit we are likely to be at the end of our lives), most of us would not care for a bit of extra time, unless it came along with a matching dose of physical and mental rejuvenation. But in that case, where lies the difference with the consumption of goods? Would we not care indefinitely for more cake or more opera music if it came along with some physical or mental improvement that enabled us to digest the former or enjoy the latter? Satiation for leisure no less than for goods is always relative to one’s personal features. (One implication is the fact, noted in footnote 2, that satiation need not amount to bliss.)

7 Work is standardly defined, and contrasted with leisure, in at least three distinct ways: (1) by reference to the utility of the activity’s product, (2) by reference to the disutility of the activity itself, and (3) by reference to the payment to which the activity gives rise. It is the first definition, which equates work and production (of goods or services), that has been used so far and will be used throughout this article. By definition, therefore, leisure is totally unproductive and idleness means that there is no production at all. By no means does it follow, of course, that one cannot be highly productive or make most useful things without toiling (i.e. while indulging in leisure according to the second definition) or while being “off work” (i.e. indulging in leisure according to the third definition).

8 See Tartarin (1981: 251-254), who points out that “economic calculation could only disappear completely if all goods entering consumption were available without production in amounts that saturate wants”. The opposite view, which closely associates abundance and the end of economics - is expressed, among many others, by Ernest Mandel (1969: 185), Alec Nove (1983: 5) and Edward Phelps (1985: 9). In Phelps’ formulation, economics studies the economy of scarcity, i.e. situations where unfilled wants for the economy’s goods press the economy to the limits of some of its resources, leaving wants still unfilled. The point is that even if all wants are filled - and they can be, by definition, when abundance obtains -, economic calculation has been necessary (except under the far stronger condition spelled out in Tartarin’s quote) to make sure that resources are so allocated that this result is indeed achieved. On the other hand, as pointed out to me by Philippe Mongin, Tartarin’s condition, though sufficient, is not a necessary condition for the pointlessness of economic calculation. If the supply of goods entering consumption were insufficient for satiation but allowed for no trade off between them (which entails, in particular, the absence of production) - think of fixed amounts of various types of manna -, there would no doubt be room for distributive decisions, but not for economic calculation. Scarcity, therefore, is neither necessary (Tartarin’s point) nor sufficient (Mongin’s point) for economic calculation to make sense.

9 Economists usually refer to this "technical" opportunity cost as the rate of transformation of one good into another, and reserve the term "opportunity cost" to the welfare opportunity cost to be introduced below.
(Nothing would count as work if there was nothing Eve could do to increase the amount of some goods she cares for.) Of course, as long as she moves inside her satiation set, this opportunity cost, expressed as the quantity of the other good which has to be given up, is no real cost to Eve. For it follows from the definition of the satiation set that giving up this quantity does not make her welfare any lower than it would be if she did not have to give it up.

This brings us to a fourth and final remark, which concerns Marxists' central use of the concept of abundance, i.e. to the relation between abundance and communism. Let us define a communist society as a society which inscribes not just on its banners, but in its actual functioning "From each according to his capacities, to each according to his needs", and interpret this formula, for the time being, as follows: people provide their labour spontaneously, for no pay, while all their material wants are satisfied, thanks to the free provision of all the goods they care for. What would communism look like in Eden? For communism to be realized, Eve's fruit picking must no longer give her access to increased fruit consumption (paid labour has been abolished), while, conversely, an increase in Eve's fruit consumption must no longer be paid for by the giving up of some of her leisure (gratuity now obtains). In other words, the trade off, or opportunity cost, described in the previous paragraph no longer applies to the economy's sole agent, even though it still holds, of course, for the economy as such.) And yet, enough fruit gets picked for everyone's desire for fruit to be satiated.10 Is communism, thus characterized, possible in abundant Eden? Not without some strengthening of the condition of abundance. For if Eve is told that she can choose to consume and (independently) to pick as much or as little fruit as she wishes, she can be relied upon to choose a point in her satiation set, but there is no guarantee that this point will also be in Eden's feasible set. Indeed, as inspection of Figure 1 readily shows, even if she were told to display some moderation by choosing first any level of consumption and next the highest level of fruit picking that would leave her satiated (or, conversely, by choosing first any amount of leisure and next the lowest level of consumption that would satiate her wants), there would still be no guarantee that her choice would be feasible.11

However, only a mild strengthening of abundance is required in order to make communism possible. For communism, as defined, can be implemented as follows. First, society chooses some level of consumption consistent with Eve's satiation (say, C1 in Figure 1). Next, Eve decides to do the maximum amount of fruit picking (L1 in Figure 1) that she does not mind doing (or to enjoy the minimum level of leisure that does not jeopardize her satiation), given the unconditionally promised level of consumption C1. Eve is thus given her satiation bundle of fruit free of charge and supplies her work for no pay - Eden has turned communist. But this can only be guaranteed to be possible if in addition to abundance one assumes that Eve is willing to choose the lowest of the levels of leisure among which she is indifferent. If she did not, the lifting of the pressure (and guidance) of opportunity costs, as entailed by the very definition of communism, would constantly lead Eve to make choices

10 This agrees, for example, with Lenin's (1917: section V.4) canonic description of the higher stage of communism, where no norm of consumption is socially imposed and everyone just takes according to her/ his needs.

11 This is the case because all abundance requires is that the satiation set should intersect the feasible set, not that it should be interior to it. If the latter were the case, i.e. if some feasible combination of leisure and consumption were such that no unfeasible combination would be at least as good as it, no social coordination would be required to select it. This is, however, a far stronger assumption than our condition of abundance, and one, therefore, which would be even more difficult to justify. (One can of course point out that Eve would get bored if she did not do some fruit picking and that the fruit she would thus pick would be at least as much as her stomach could cope with. But this still falls far short of what is needed to substantiate the stronger assumption: the fact that the satiation set does not contain the infinite point is a necessary but no sufficient condition for its being interior to the feasible set.)
incompatible with the constraints of production which (as we have seen) even an abundant society cannot ignore. Mildly strengthened along these lines\textsuperscript{12}, abundance can thus also be characterized as a the following dispositional property of the society concerned: abundance obtains in a society if and only if it is (economically) possible to introduce communism in it, i.e. to leave work unpaid and provide goods free of charge, without generating shortages\textsuperscript{13}.

Put differently again, abundance is not just the potential to fully satisfy the demand for goods, for excess demand can always be removed through the price system, say by making Eve pay a sufficiently high price (in foregone leisure) for the fruit she wants. Nor is abundance just the potential to satisfy the demand for goods under conditions of ample leisure, for the latter may have nothing to do with satiation and simply reflect poor labour productivity, i.e. the fact that the price (in forgone leisure) to be paid for increased material satisfaction soon becomes prohibitive\textsuperscript{14}. Abundance, as defined, is more than this. It is the potential to satisfy the demand for goods in the absence of any quid pro quo, i.e. the potential to simultaneously avoid shortages and dispense with prices.

2. Many goods, many people

Most of what has been said so far generalizes easily when there is more than one good Eve cares for (in addition to her leisure). Suppose Eve does not only like to eat fruit, but also to drink water, which needs fetching from a well. Both the feasible set and the satiation set are now made up of four-dimensional points (combinations of amounts of fruit, water, fruit picking and water fetching), and abundance can again be defined by the existence of a non-empty intersection between these two sets\textsuperscript{15}. Such abundance does not imply actual satiation, nor an unlimited supply of both fruit and water, nor the possibility of satiation without any picking or fetching, nor the absence of opportunity cost (more water, for example, means less fruit and/or less leisure). What it does imply is the possibility of communism, i.e. gratuity without shortage, providing some more specific guidance is given by society to its single agent than in the one-good case. Society must not just select amounts of fruit and water consistent with Eve's satiation and made available to her free of charge. It must also instruct Eve about which combinations of fruit picking and water fetching - among those among which she is indifferent - she should perform if society's production and consumption plans are to be consistent. Whatever the

\textsuperscript{12} Strictly speaking, all we need is a propensity to choose some satiating level of leisure in the feasible set, not the lowest among them. But it would be hard to provide this weaker assumption with a plausible rationale which would not also hold for the stronger one.

\textsuperscript{13} Along similar lines, Nove (1983: 15-17) defines abundance as a "sufficiency to meet requirements at zero price". Elster (1985: 231) too establishes a connection between abundance and communism: "Abundance, in the sense of suppression of scarcity, means that all goods under communism would be free goods, that is that demand for all goods would be saturated. When everyone had taken from the common consumption stock, there would be something of each good left over." But he imposes requirements which are too strict on two counts. Firstly, what is required is that there should be enough, not more than enough, for the desire for each type of good (including leisure) to be satisfied. Secondly, abundance is a potential. It does not mean that the demand for all goods is saturated, but that it could be.

\textsuperscript{14} This point invalidates the inference commonly made, in the wane of Sahlin's (1972), from stone-age leisure to stone-age abundance.

\textsuperscript{15} Three-dimensional points, with leisure as the third good (in addition to fruit and water), would be insufficient, because different work activities may bear differently on people's welfare. Abundance may fail to obtain even though Eve does not mind working for a longer time than is required to produce her satiation bundle of water and fruit: for example, if she does not mind picking fruit all day long but hates fetching even one handful of water.
number of goods involved, abundance implies that demand for them can be met even at zero price. But the more numerous the goods - whether final, intermediate or capital goods -, the more differentiated the required productive activities, and hence the more detailed the instructions society will have to make available to Eve.

Let us now return to the one-good orchard, while letting Adam in. Abundance, in this enlarged society, can be analogously defined as the existence of a non-empty intersection between the social feasible set and the social satiation set. But we have to be very careful about how these two sets are defined. Neither the social feasible set nor the social satiation set can be viewed as sets of combinations of aggregate amounts of fruit and aggregate amounts of leisure. This is obvious enough for the satiation set. A given combination of total fruit and total leisure can lie inside or outside the satiation set depending of how fruit and leisure are distributed among Eve (who, say, loves eating apples) and Adam (who, say, loves picking them). That distribution matters is somewhat less obvious, but no less true, for the feasible set. Firstly, Eve's and Adam's fruit-picking skills are not necessarily equal. When they differ, how total leisure is distributed between Eve and Adam obviously affects the total amount of fruit picked. Hence, whether a given combination of total fruit and total leisure is feasible, cannot be determined as long as the distribution of leisure is left unspecified. Secondly, how much fruit picking Adam and Eve are willing to do will generally depend on how much fruit each of them is entitled to consume. This is the case both because how good one is at picking fruit may depend on how well one eats, and because how keen one is to pick fruit may depend on how much fruit one expects to get (or to retain) as a reward for the picking one does. As a consequence of such efficiency considerations (in a broad sense that covers both capacity and incentive effects), whether a given combination of total fruit, Eve's leisure and Adam's leisure is feasible, cannot be determined as long as the distribution of fruit consumption is left unspecified.

It follows that both the social satiation set and the social feasible set must be defined as sets of pairs of combinations of fruit consumption and leisure (one combination for each individual), and abundance obtains if and only if there is at least one such pair that lies in both sets. Note that abundance, thus defined, may be attained when Adam joins Eve even if it could not be attained by both of them separately, indeed even if it could not be attained by either separately. This is due, firstly, to the possibility of redistribution - constrained, but not abolished, by the efficiency considerations mentioned above. If abundance prevails for Eva, but not for Adam, when taken separately, it may prevail for both when they come together, even if their productivity is not enhanced by the change. Some of the fruit that (more productive or more austere) Eve does not mind picking, may be available for redistribution to (clumsier or greedier) Adam, without such redistribution jeopardizing Eve's own satiation. Secondly, society's production possibilities may of course be affected by interaction between Eve and Adam. The effect on productivity may be negative (Adam now picks some of the most accessible fruit), but it may also be positive (Eve and Adam can now carry one another on their shoulders). In the former case, the social feasible set is strictly smaller than the set of pairs of individually feasible combinations. In the latter case, it is strictly larger, and may therefore include a pair of individually unaccessible combinations that lie in Eve's and Adam's respective satiation sets. Finally, interaction between Adam and Eve may also affect their preferences. As a result of coming together, they may become more difficult to satiate (chatting has become an attractive substitute to fruit picking) or easier to satiate (eating fruit, they realize, was a poor Ersatz for making love). In the former case, the social satiation set is strictly smaller than the set of pairs of individually satiating combinations. In the latter case, it is strictly larger, and may therefore include a pair of feasible but individually non-satiating combinations, thereby turning two separate scarcities into one joint abundance.
This concept of abundance for a two-person world can easily be extended to the general case of any number of people. Both the social feasible set and the social satiation set are then sets of n-tuples of fruit-leisure combinations. And abundance obtains if and only if there is at least one such n-tuple that belongs to both sets (bearing in mind the three caveats mentioned in the previous paragraph). A society has reached abundance, in other words, if and only if there exists a feasible allocation of fruit and leisure among its members, such that none of these prefers any other fruit-leisure combination to the one (s)he has under that allocation. This more general concept possesses properties closely analogous to those mentioned in the single-agent world. In particular, it does not imply that anyone is actually satiated, nor that fruit is available without limits, nor that material wants can be satisfied without anyone working, nor that an increase in one agent's consumption has no cost in terms of consumption possibilities for the others.

What requires closer analysis is the relation between communism and abundance. In this more crowded world, the possibility of communism (which now becomes less of a misnomer) means that the social product - the fruit picked by all, whether alone or in cooperation - can be distributed free of charge, irrespective, that is, of each person's contribution to fruit picking, without this generating a shortage of fruit or requiring a compulsion to work. Here again, of course, abundance alone does not strictly guarantee the possibility of communism. For if each individual is left to choose any combination of (free) fruit consumption and (unpaid) fruit picking inside his/her satiation set, the odds are that shortages will set in. Even if society selects, for each individual, some level of consumption consistent with his/her satiation, and next asks him/her to work as much as is compatible with remaining satiated (the straight extension of the requirement that sufficed in the one-person case), there is still no guarantee that the end result will lie in the aggregate feasible set.

To make sure that enough will be produced for everyone to be satiated, one must not only ask people to keep to the lower frontier of their satiation set (they could not be satiated with less leisure and no more fruit or with less fruit and no more leisure), but also to select exactly that point of this frontier at which the surplus available for redistribution is maximized (or the deficit to be made up by redistribution minimized). At this point, their marginal productivity is equal to their marginal disutility from work (working any more would produce less fruit than what would be needed as a result to keep them satiated). And this they will have to be instructed to do, since no specific incentive will make them make such choices: working less than this would cost them nothing in terms of fruit consumption, and if they chose to work more, they could fully compensate this increased effort by consuming more. Thus, no great self-sacrifice is required of communist (wo)man. For abundance allows him/her to fully satisfy all his/her material wants, as well as all his/her taste for free time. In order for this potential to be actualized, however, some willingness to follow the planner's guidance will in general be indispensable. Not only will all agents have to give the planner adequate information about their tastes and productivity. But among the various combinations in their satiation set (all individually accessible to them, since they have no budget constraint, and all equivalent in their eyes, since they are all sufficient for satiation), they will have to choose the one the planner directs them to choose.

This conclusion is of course even more true if we combine the two complications introduced in this section - many goods and many people. All abundance means is that the set of n-tuples which satiate the n agents' preferences has a common intersection with the set of feasible n-tuples. (Each element of each n-tuple is itself an m-tuple of amounts of goods and activities that affect the agents' welfare.) It is only if abundance meant something far more demanding, namely inclusion of the former
set in the latter, that compliance with the planner's instructions could be dispensed with. For then the agents' preference of less consumption to more and of more labour to less (as from a certain point) would keep the agents' decentralized choices within the feasible set. Abundance as here defined is sufficient for communism, not for decentralized communism\(^\text{16}\).

One final word on the relation between abundance on one side, conflict and class on the other. It is often said that conflict only makes sense on the background of scarcity, and that abundance, therefore, would put an end to all conflicts\(^\text{17}\). Under abundance, to use Tartarin's (1981: 248) telling formulation, the equilibrium is not just Pareto-optimal - it is impossible to make someone better off without making someone else worse off -, but also Marx-optimal - it is impossible to make someone better off even by making someone else worse off. Moreover, in so far as classes are defined in terms of differential access to assets - land, wealth, skills, jobs, etc. - which affect people's incomes, or their income-leisure bundles, or their material welfare, it can also be said, it seems, that an abundant society is bound to be a classless society: no one's material welfare could possibly go up as a result of a redistribution of assets, i.e. of a redistribution of whatever determines material welfare.

Let us not forget, however, that abundance is just a potential. It means that some allocation of resources (to various uses and various people) can generate the satiation of everyone's wants, but not that the way in which resources are allocated has no impact on the level and distribution of material welfare. Given that mismanagement, spiteful behaviour or random events may jeopardize their access to satiation, it can therefore be rational for individuals and groups to struggle over the control of resources even though abundance would seem to make this pointless. Furthermore, acute conflict and sharp class divisions (in a correspondingly broadened sense) can also persist under abundance because income or material welfare is not all that matters to people. Power, for example, may matter for its own sake. And even when everyone's material wants are actually satiated, people may still meaningfully fight over the distribution of power-conferring assets\(^\text{18}\). Finally, there are many conflicts - between two parents about how to educate their children, for example, or between fundamentalists and liberals about the nature of a good society -, which are not reducible to class conflicts even in this broad sense. There is of course no reason why we should expect them to disappear, or even to become any less acute, as abundance sets in. For these three distinct reasons, nothing prevents an abundant society from being a class society, and even less from being conflict-ridden.

3. Three transitions

Despite all these warning remarks about what it does not entail, abundance, as defined, still represents a rather grandiose state of affairs of which it is uncontentious enough to say that it is not within our current reach - and will never be. There are, however, two general ways in which one can conceive of getting closer to it: through an upward expansion of the aggregate feasible set and through

\(^{16}\) The planning, assessment and information work required by centralized communism is then of course among the activities which, under abundance, it must be possible for people not to want to do any less of, while doing enough of them for all material wants to be satisfied.

\(^{17}\) See, for example, Nove (1983: 15): "Abundance removes conflict over resource allocation, since by definition there is enough for everyone, and so there are no mutually exclusive choices, no opportunity is forgone, and therefore no opportunity cost."; and Phelps (1985: 7): "Thus, an economy without scarcity would have no opposing conflicts, no bones of contention."

\(^{18}\) The underlying concept of class is spelled out and defended in Van Parijs (1987a).
a downward expansion of the aggregate satiation set. The former is a matter of developing the productive forces, of increasing productivity. The latter is a matter of containing wants, of inducing more austere preferences. It is of course the former that has traditionally been given most emphasis in the Marxist tradition. But it has come under attack from various quarters. From Veblen (1899) and Goblot (1929) to Baudrillard (1972) and Hirsch (1977), or Girard (1962) and Dumouchel (1979), many authors have analyzed and/or denounced the dynamics of wants which fatally undermines current attempts to satisfy these wants through the expansion of industrial production. The more radical inference from such analyses is that the only way of getting closer to (or back to) abundance is the second one mentioned above - want containment -, in the form of some modern analogue of, say, Buddhist character building - as advocated by Schumacher (1973) or Kolm (1982) - or of the moulding of ambition by gender - as suggested by Illich (1983) or Sachs (1988). The more moderate inference, which I shall endorse in the remainder of this article, is that productive progress remains relevant to the pursuit of abundance, providing that the dynamics of wants can somehow be curbed.

Of course, even assuming that this condition is fulfilled, technical progress only has the potential to take us nearer to abundance, not to make us reach it in one stroke. For those who find communism an attractive ideal and are unwilling to wait (forever) until the condition for its full realization is met, it is therefore worth asking whether and how this ideal might be realized gradually, as the process leading up to abundance develops. If abundance has not been reached for all people, for all goods and at any level of want satisfaction, it may still have been reached for some people and/or at some level of want satisfaction, thus making it possible to introduce a correspondingly partial form of communism. Of the three paths thus suggested, the first two do not make much sense, for two contrasting reasons.

It is most probably the case that abundance restricted to some subset of the total population is already with us. It would be possible to let a small number of people consume (free of charge) a satiating amount of all the goods they wish, without requiring them to do any work. This might be viewed as a very partial realization of communism, to be developed into a fuller version as more and more people can be allowed to indulge all their material desires thanks to enhanced productivity. If each of the privileged "communists" is (successfully) asked to choose a bundle on the lower frontier of his/her satiation set, such partial materializations of communism can be efficient (there is no way of improving some people's lot without worsening that of some others). But they are, no doubt,

---

19 Since what matters is the per capita productive potential, one variant of this first strategy in a world with scarce natural resources consists in negative population growth. In most of what follows, however, I shall concentrate on the standard variant of technical progress (including productivity-enhancing capital accumulation).

20 This second strategy would be ruled out if it were the case, as Phelps (1985: 7) claims, that "Not even monks and mystics have enough - not as long as they could meditate longer or better with the help of more land or capital or the assistance of others. To have run out of uses for additional rewards is to suffer from a failure of the imagination." The point, however, is that satiation is not defined as the fulfilment of any want one might have, but of those one actually has. It denotes the fact that "all have access to whatever is needed to realize their ends (Levine 1984: 34), not the fact that all have access to whatever is needed to realize whatever ends they might want to pursue, and is therefore crucially different from, and significantly less ambitious than, full real freedom (on one plausible interpretation). Whereas curbing the "imagination" is, at best, ineffective as far as the latter is concerned, it is not irrelevant to the pursuit of the former.

21 Marx himself displays some interest in the latter approach in some of his early writings, but unambiguously dismisses it later on. For a useful discussion and textual evidence, see Elster (1985: 71, 231). Some later Marxists have not followed this lead, including Lenin (1917: section V.4), when he insists that reaching the higher stage of communism "requires the disappearance of today's average man who takes pleasure in wasting public wealth and in demanding the impossible".
unacceptable on grounds of gross unfairness. Even on purely utilitarian grounds, a reallocation of resources away from the lucky few to some of the non-satiated is certain to commend itself (assuming decreasing marginal utility of consumption). And anyone caring for fairness or equality over and above what they contribute to aggregate welfare would of course be even more adamant in calling for such reallocation.

If it does not make sense to move towards communism person by person, can we not conceive of moving towards it good by good, as some have actually proposed\(^\text{22}\)? One could, for example, provide water, salt, bread, electric power, housing, etc. free of charge and at satiation level to all, while still make people pay for any other good. People would thus have to keep making trade offs between the amounts of these other goods they choose to consume, as well as between their total consumption and their leisure, while being given as much as they wish (but no more) of a selected few items. This might again be viewed as a very partial realization of communism, to be developed into a fuller version as more and more goods can be made available free of charge thanks to enhanced productivity. The trouble, here, is no longer unfairness, but inefficiency. For if one assumes, as is plausible, that the consumption of any particular good yields decreasing marginal utility, it follows that the resources required to achieve everyone's satiation for one good are inefficiently allocated: unless these resources could not have been used for the production of any other welfare-enhancing good (which is utterly unlikely as soon as they include some human labour), gratuity (without rationing) for some goods is bound to be inefficient, in the sense that everyone could be made better off as a result of abolishing it\(^\text{23}\). Inefficiency, of course, need not be a lethal sin. But it must be justified as a by-product of pursuing some other value, equality or fairness, for example, and no such justification is available in this particular case.

The two strategies explored so far have twin defects. By realizing communism for some people or some goods, they mobilize resources to guarantee abundance for those people or for those goods, thereby worsening scarcity for other people - which is unfair - or other goods - which is inefficient. This leaves us with the third strategy. All people now keep being faced with trade offs - i.e. with a budget constraint or opportunity costs - for the full satisfaction of their wants for all goods. But a certain level of satisfaction of material wants is given to all at no cost - i.e. without quid pro quo in terms of leisure foregone -, in the form of an unconditional income. Again, this may be viewed as a partial realization of

\(^{22}\) One classic instance is Lange (1937: 42): "If the price is already so low, and incomes so high, that the quantity consumed of those commodities is equal to the saturation amount, free sharing can be used as a methods of distribution. [...] It is quite conceivable that as wealth increases this sector increases, too, and an increasing number of commodities is distributed by free sharing until, finally, all the prime necessaries of life are provided in this way, the distribution by the price system being confined to better qualities and luxuries. Thus Marx's second phase of communism may be gradually approached." A similar line is taken by Ernest Mandel (1969: 156), Howard Sherman (1972: ch.23) and some Soviet theoreticians quoted by Tartarin (1981: 244-245).

\(^{23}\) See Tartarin (1981: 250-251). There are, however, three types of circumstances under which this does not hold: (1) the competitive process too would lead to a zero price, due to the absence of a genuine opportunity cost (think of a subject - say, philosophical logic - which a few people, who know it well, are so keen on, that they would gladly teach it for free, while nearly everyone else finds it so utterly boring that even in the absence of any fee they would never dream of enrolling for a course in it); (2) the administrative cost of making people pay according to their consumption more than offsets the loss stemming from overconsumption (think of Nove's example of water supply in Scottish town - which must be the sort of example Lange had in mind in the passage quoted in the previous footnote); (3) positive external effects justify that consumption should be encouraged by lowering the price, possibly all the way to gratuity (think of vaccination against contagious diseases or basic education). The question here is not whether under such circumstances some categories of goods should be provided free of charge, but whether it makes sense to expand the number of goods provided free of charge beyond these three categories, as a way of gradually realizing communism.
communism, to be developed into a fuller version, as the height of the income that can be unconditionally provided to all rises, due to enhanced productivity, up to the point where it is sufficient to enable everyone to buy a satiating bundle of goods. The objection of gross unfairness no longer applies, since the income is given to all. Nor does the objection of gross inefficiency, since what each good costs in resources used can keep affecting the allocation of resources, via the prices faced by consumers.

4. Three concepts of abundance

Pursuing this idea of a third path towards full communism naturally leads to a different notion of abundance, considerably weaker than the one explored so far but arguably present in many current uses of the term. For along this path, there is a point which is admittedly rather tricky to locate with precision but whose existence is nonetheless hard to question: the point as from which the level of people’s want satisfaction provided by the unconditional income is such that their needs can be said to be satisfied. It is no part of the purpose of this article to work out a defensible notion of need. On any defensible account, however, I regard it as certain that need satisfaction will fall far short of satiation, and that the income needed to reach it may vary considerably from one individual to another, though only to reflect some objective differences for which the individuals concerned cannot be held responsible. Hence, long before its productive development makes it achieve abundance as defined so far, a society may reach a point at which it could durably provide everyone of its members with an unconditional income, possibly differentiated to take objective differences into account, sufficient to cover her/his needs. I shall call this point abundance in the weak sense or, for short, weak abundance, to contrast it with the earlier concept, which I shall henceforth refer to as absolute abundance.

24 See van der Veen (1984) and Van Parijs (1985). This may also be the transition Nielsen (1985: 285) has in mind when writing: "Ideally, as a kind of ideal limit for a society of wondrous abundance, a radical egalitarianism would go beyond that [equal resources for the satisfaction of needs] to a similar thing for wants. [...] An egalitarian starts with basic needs, or at least with what are taken in the cultural environment in which a person lives to be basic needs, and moves out to other needs and finally to wants as the productive power of the society increases."

25 This does not mean that no other, more refined, objection of unfairness applies. Along with Elster (1986), for example, one could argue that even though everyone receives the same unconditional income, the outcome of introducing the latter is that some able-bodied people will become unfairly entitled to live off the labour of others. This is not the place to examine this sort of objection with the care it deserves. For an inchoate reply, see van der Veen & Van Parijs (1986b, 726-8) and, for a more extensive treatment, Van Parijs (1989).

26 For some recent work, see Hagenaars & Van Praag (1985), Braybrooke (1987), Doyall & Gough (forthcoming).

27 By speaking of "durably provide", I mean (1) that the granting of this income must not be achieved at the cost of running down the capital stock, and (2) that the possibility of granting such an income must be preserved, once it has been fully anticipated by the agents. The impact of such anticipation can of course vary greatly, depending, for example, on whether the means of production are privately or collectively owned. But this does not imply that whether or not a society is abundant (in this weak sense, as well as the earlier one) depends on its (currently) being capitalist or socialist: abundance has been reached in a given (capitalist or socialist) society when resources and tastes are such that under some institutional arrangement (whether capitalist or socialist), each could be durably given an unconditional income covering all her/his needs (or wants).
One way of characterizing the relation between these two concepts is as follows. Whereas absolute abundance means that it is possible to sustainably satisfy everyone's material wants without anyone toiling (i.e. working more than s/he fancies), weak abundance means that it is possible to sustainably satisfy everyone's material needs without anyone having to toil. This characterization suggests a third, intermediate concept, which I shall refer to as strong abundance and covers the situation where it is possible to sustainably satisfy everyone’s needs without anyone toiling\(^28\). To put it differently, weak abundance amounts to the sustainability of (i) an adequate universal grant, i.e. an unconditional income sufficient to cover everyone's needs; strong abundance to the sustainability of (ii) an adequate universal grant absorbing the whole social product; and absolute abundance, as we have seen, to the sustainability of (iii) communism\(^29\). Under both (i) and (ii) but not (iii), only need-level consumption is available to those who perform no labour. Under both (i) and (iii) but not (ii), (most) people can consume more goods than is required to satisfy their needs. Under both (ii) and (iii) but not (i), work is left unpaid, and toil, therefore, has disappeared. Weak abundance, in other words, means the possibility of giving people the individual freedom not to toil (i.e. the bearable option, for each of them taken separately, to give up the sort of work they would not do for no pay). Strong abundance means the possibility of giving them the collective freedom not to toil (i.e. the freedom to simultaneously stop toiling). And absolute abundance the possibility of giving them the collective freedom both not to toil and to indulge all their material wants. But in all three senses, abundance is consistent with the impossibility of giving people the collective freedom not to work, i.e. the freedom to simultaneously give up any form of productive activity\(^30\).

The relation between the three concepts of abundance can be further clarified with the help of Figure 2. Along the horizontal axis, \(t\) represents the proportion of the total product that is distributed in the form of a universal grant, i.e. irrespective of contributions. Along the vertical axis, \(G_1, G_2\) and \(G_3\) represent the maximum sustainable absolute level of the grant as a function of \(t\), for three levels of development of productivity. (The downward sections of the curves reflect the "supply-side" assumption that high levels of \(t\) have a negative impact on incentives). \(N\) and \(W\) represent the levels of income sufficient to cover everyone's needs and wants, respectively (both assumed to be homogeneous across individuals, for the sake of simplicity). Weak abundance is achieved if there is at least one value of \(t\) such that \(G(t) > N\), i.e. such that the corresponding sustainable level of the grant is adequate. This is the case with \(G_1, G_2\) and \(G_3\). Strong abundance is achieved if \(G(1) > N\), i.e. if

\(^28\) Weak and strong abundance coincide with what is thus labelled in van der Veen & Van Parijs (1986a: 644-45 and 1986b: 729-30). Strong abundance provides a possible interpretation of the "world of extensive abundance" which Nielsen (1985: 283, 291) views as the key condition of possibility for the ideal of equality to be turned into a right to equality. See, however Nielsen (1985: 285-6): "Before we can rightly aim for the equality of condition I mentioned, we must first have the productive capacity and resource conditions to support the institutional means that would make possible the equal satisfaction of basic needs and the equal satisfaction of other needs and wants as well." (my emphasis, PVP), which suggests instead that absolute abundance is meant after all.

\(^29\) There are, of course, more austere definitions of communism which make strong abundance, rather than absolute abundance, equivalent to the sustainability of communism. See, e.g. the pre World War II Soviet theoretician S.G. Strumilin, who insists that at the highest stage of communism goods should be distributed to match "scientifically assessed needs" (Tartarin 1981: 242-243).

\(^30\) The distinction between individual and collective freedom not to toil is parallel to, and inspired by, Cohen’s (1983) distinction between individual and collective freedom to leave the proletariat. Note that whereas the collective freedom not to toil which can be given under strong (and hence absolute) abundance is not also a collective freedom not to work, the individual freedom not to toil which can be given under weak (and hence strong and absolute) abundance is also an individual freedom not to work.
people's incomes could (sustainably) remain adequate to their needs even if they were entirely distributed irrespective of people's contributions to production. This is the case with G2 and G3. Finally, absolute abundance is achieved if \( G(1) > W \), i.e. if people's incomes could (sustainably) remain sufficient to satiate their wants even if they were entirely distributed irrespective of people's contributions to production. This is the case with G3 only.  

[Figure 2]  
Of these three concepts of abundance, the last one - absolute abundance - is clearly relevant to the normative ideal of communism, but is hopelessly utopian. The second one - strong abundance - still remains highly utopian, and is anyway hardly relevant to any defensible ideal. For realizing the potential it consists in - distribution according to needs and no more - means foregoing the possibility of making everyone better off (by opting for a lower level of \( t \) in Figure 2), on the plausible assumption that reducing net pay for the labour performed has a significant impact on the level of output as long as the level of the grant falls far short of satiation. The third concept - weak abundance - is of course the least demanding and, therefore, the least utopian of the three. Moreover, realizing the potential it consists in - by introducing a universal grant at a level at least sufficient to cover needs - does not lend itself to the normative objection just mentioned. For those who find full communism an attractive ideal and are not willing to wait for absolute abundance before beginning to realize it, the introduction of such a subsistence grant is an obvious way to start. And weak abundance is the first thing they must check on if they want to assess the feasibility of such a programme.

5. Weak abundance and the limits to growth  
This is not the place to discuss the claim that weak abundance has now been achieved. I want instead to conclude this paper by returning to my opening claim that growing awareness of the limits of our resources makes the notion of abundance, suitably (though still plausibly) defined, more and not less relevant to our pursuits. The notion of abundance I had in mind was of course weak abundance, as it has now been defined. Though far less extravagant than absolute abundance, which no doubt fits some uses of the term, it can still be regarded as a plausible understanding of the way the term is often used, typically by twentieth-century advocates of the introduction of some version of a universal

---

31 In a language suggested by Nove, weak, strong and absolute abundance can equivalently be characterized as the sustainability of (i) uncompelled supply exceeding subsistence demand; (ii) zero-price supply exceeding subsistence demand; and (iii) zero-price supply exceeding zero-price demand. Or, if \( P \) means sustainability, while \( N_i, W_i, G_i \) and \( X_i \) refer to the needs, wants, unconditional income and total income of individual \( i \), they can also be defined as (i) \( P \) (for all \( i \), \( G_i > N_i \)); (ii) \( P \) (for all \( i \), \( G_i = X_i > N_i \)); and (iii) \( P \) (for all \( i \), \( G_i = X_i > W_i \)). Note, furthermore, that even weak abundance - \( P \) (for all \( i \), \( G_i > N_i \)) - is still far stronger than what could be called distributive sufficiency, or the potential to generate and distribute income in such a way that everyone's needs are covered - \( P \) (for all \( i \), \( X_i > N_i \)) - and a fortiori than aggregate sufficiency, i.e. the potential to generate an aggregate income larger than aggregate needs - \( P \) (\( X > N \)).

32 This makes the "Marxian point" in van der Veen & Van Parijs (1986a) very hard to defend on substantive grounds - as timidly conceded towards the end of that article and rightly stressed by some of our critics (see esp. the penultimate section of our reply: van der Veen & Van Parijs 1986b: 743-745) - quite apart from its being hard to square with the bulk of Marx's own statements on the matter.

33 For a useful discussion, see Przeworski (1986).
grant\textsuperscript{34}. But why should growing awareness of the limits of our resources make this admittedly weak notion of abundance more and not less relevant to our pursuits? I would like to suggest the following link.

Concern with the depletion of natural resources and environmental destruction has prompted appeals to stop economic growth, or at the very least to slow it down in the most advanced industrial countries. Low rates of output growth, however, are most likely to fall short of the rate at which labour productivity increases, due to technical progress. As a consequence, we need less and less labour to achieve the level of production we think is desirable, and unemployment is bound to expand. There is nothing like massive unemployment to generate a broad social consensus around pro-growth policies. As a consequence, whether or not they are bothered by the unemployment problem as such, environmentalists who mean business must find a way of tackling the unemployment problem through means other than the fostering of economic growth. This is where the idea of an unconditional income comes in. For by giving everyone an unconditional income whether or not s/he makes any contribution to the gross national product (i.e. to the magnitude whose increase is, by definition, growth), one reduces people's incentive to make such contribution, i.e. to work or invest in the formal, recorded sphere. And one increases instead the part of their lives which they will be able and keen to spend either producing nothing at all or, possibly, engaging in informal, unrecorded production - which can be trusted to be on average far less polluting and less natural-resource-intensive than formal production\textsuperscript{35}.

Of course, for the introduction of a universal grant to have a significant impact along these lines - and for it to be an acceptable alternative to prevailing social policies in advanced industrial countries, the level of this grant must not be shockingly low. This leads us straight to the question of whether an adequate universal grant is sustainable, i.e. precisely to the question of whether weak abundance obtains.

The link thus suggested rests on two main premises: (1) awareness of the limits of what the Earth can provide, or of what the environment can take, tends to induce policies which generate unemployment, and (2) the universal grant provides an appropriate solution to the unemployment thus generated. I am not claiming that a fully compelling case can be made for both of these premises\textsuperscript{36}. But their prima facie plausibility is sufficient to dispel the paradoxical appearance of the claim I made at the outset of this article. It is the growing awareness of the limits of our resources - and hence of how unaccessible absolute abundance is - that prompts us to look for a type of brake on the growth process that does not give rise to massive unemployment. If a decent universal grant provides such a brake, the question of its viability becomes of central importance. And weak abundance is just another name for what is at stake in this question.

\textsuperscript{34} From Major Douglas' Social Credit movement - whose Newsletter happens to be called Abundance - and the supporters of Jacques Duboin's "économie distributive" - whose organization used to call itself "le mouvement français pour l'abondance" - to Yoland Bresson's "participat" (see esp. Bresson & Guilhaume 1987: 34, 48, 83, 88). In the Marxist tradition too, some related uses of the term can be found. Cohen (1978: 307), for example, emphasizes that "the promise of abundance is not an endless flow of goods but a sufficiency produced with a minimum of unpleasant exertion". The stress on "sufficiency" makes the notion Cohen here uses weaker than absolute abundance. And reference to "a minimum amount of unpleasant exertion" (rather than no unpleasant exertion at all) makes it weaker than strong abundance too.

\textsuperscript{35} More or less explicit versions of this argument linking ecological concerns and basic income can be found in Johnson (1973: 181), Stoleru (1974: 306-308), Cook (1979: 6), etc.

\textsuperscript{36} I have explored a number of sore spots in the arguments behind these claims in Van Parijs (1987).
BIBLIOGRAPHY


