

## (QUASI)SCARCITY AND GLOBAL HUNGER

### A Sociological Critique of the Scarcity Postulate with an Attempt at Synthesis<sup>1</sup>

BY

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*Abstract.* The purpose of this essay is to formulate a sociological critique of the concept of scarcity in mainstream economics by synthesising necessary conceptions in the construction of a theoretical structure with greater explanatory power than the current mainstream articulation. Mainstream economics asserts the universality of scarcity (the scarcity postulate). A critical scrutiny of this assertion is conducted by discussing the empirical phenomenon of global hunger in relation to a theoretical elaboration of the concepts of scarcity and abundance. The historical origins of the scarcity postulate is traced to the work of Carl Menger (1840–1921). The concern of global hunger shows that there is abundance of food goods, but still frustration of human needs occurs. An alternative approach is developed through a theoretical synthesis of Menger, Amartya Sen and critical realism, which asserts an ontologically stratified, differentiated and geo-historically conditioned understanding of scarcity and abundance. It is proposed that this approach is more fruitful than the scarcity postulate in explaining the process and conditions of frustration and satisfaction of human needs. Merely postulating scarcity tends to veil the underlying causes of poverty in general and hunger in particular. Central implications of the new model for socioeconomic analysis are considered.

*Keywords:* abundance, emancipation, global hunger, human needs, mainstream economics, scarcity

#### 1. *Introduction*

The notion of ‘universal scarcity’, in the shape of the scarcity postulate, is a lynchpin of contemporary mainstream economics (ME).<sup>2</sup> It is used to motivate

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<sup>2</sup> Refer to the end of the paper for a full list of abbreviations.

mainstream analysis of the socioeconomic domain. However, this essay demonstrates, with an example from the same domain, that the postulation of universal scarcity leads to inconsistent and static reasoning, consistently neglecting alternative explanations of the frustration of human needs. Its main contribution is to offer an alternative dynamic explanatory theory of scarcity and abundance, informed by critical realist ontology.

Hence the purpose of this essay is to make a sociological critique of the concept of scarcity in mainstream economics; this is effected by synthesising necessary conceptions, grounded in the empirical case of global hunger, in order to construct a theoretical structure with greater explanatory power than the current mainstream conception. My interest is in given conceptions, their inconsistencies and the possibility of resolving them, rather than in seeing ME as a social element reproducing a given ideological apparatus in the economy. Consequently, the main approach is immanent critique rather than explanatory critique.<sup>3</sup> This framework elicits four basic research questions: (a) what is the meaning of the concept of scarcity within ME; (b) what is the historical origin of this concept; (c) is scarcity of food an exhaustive explanation of the phenomenon of global hunger; and (d) how could a synthesis of necessary concepts be conducted?

The elaboration is carried through from the perspective of critical realism in economics (CRE).<sup>4</sup> CRE uses the general methodological propositions of critical realism, but the difference is that CRE transforms these propositions into a specific methodology, namely 'economic methodology'. Hence, economic ontology focuses on the economic phenomena of reality. Nevertheless, according to Steve Fleetwood and Tony Lawson, CRE is not concerned with methodology for its own sake. It is the underlabouring for a more fruitful scientific approach that is the main concern.<sup>5</sup> Fleetwood formulates the point: 'A distinguishing feature of the critical realist project is its concern *not* with methodology for its own sake, but with *underlabouring* for an alternative economics, one that is intended to be rather more relevant and fruitful than the current mainstream'.<sup>6</sup> Hence, CRE can be seen as an alternative to the current mainstream, offering a richer socioeconomic analysis within general economic theory.

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<sup>3</sup> Cf. R. Bhaskar and A. Collier, 'Introduction: explanatory critiques', in *Critical Realism: Essential Readings*, eds M. Archer, R. Bhaskar, A. Collier et al. (London: Routledge, 1998), 385–9.

<sup>4</sup> See, for example, S. Fleetwood, ed., *Critical Realism in Economics: Development and Debate* (London: Routledge, 1999); T. Lawson, *Economics and Reality* (London: Routledge, 1997) and *Reorienting Economics* (London: Routledge, 2003).

<sup>5</sup> Lawson, *Reorienting*, 28–32.

<sup>6</sup> Fleetwood, *Critical Realism*, 127.

The methodological tools used in this essay comprise different types of logical inferences, but mainly abduction and retrodution. Abduction will be used in terms of an analytical re-contextualisation of the phenomenon of global hunger within the framework of Carl Menger's theory of 'economic and non-economic goods'. Retrodution (transfactual reasoning) will be used with the assistance of a thought experiment.<sup>7</sup> A retroductive question will be formulated: what must the global socioeconomic realm be like for frustration of needs to occur in a realm of abundance? Consequently, the assemblage of these logical types of inference will guide the elaboration and synthesis.

I start with a demarcation between relative and absolute scarcity, and then relate this to previous conceptualisations of scarcity and abundance. The discussion then focuses on global hunger as an empirical case. Next, an account of the scarcity postulate of ME is presented; this includes a study of its historical origins. Lastly, an elaboration and synthesis is attempted focusing on scarcity and abundance, and grounded in the features of the phenomenon of global hunger.

### 1.1. *Absolute and relative scarcity: a demarcation*

An important demarcation between 'relative' and 'absolute' scarcity has to be made. Relative scarcity refers generally to all wants and needs a human being has in relation to given resources under a particular 'time unit', whereas absolute scarcity refers only to one type of 'need', the basic necessities for the maintenance of life (e.g. food, water, air). Wants mainly refer to non-necessities (e.g. cars, sweets, films).<sup>8</sup> Consequently, relative scarcity arises when 'many wants' (competing ends) are related to given means.<sup>9</sup> Absolute scarcity is more visible than relative scarcity. As Ernest Raiklin and Bülent Uyar write: 'absolute scarcity ... manifests itself during times of social disturbance, economic crisis, revolution, war, or as a result of natural disasters; this is when the system fails to produce adequate amounts of items needed for survival'.<sup>10</sup> According to Raiklin and Uyar, the focus of ME is, or should be, relative scarcity, which is

<sup>7</sup> B. Danermark, M. Ekstöröm, L. Jakobsen and J. Karlsson, *Explaining Society: Critical Realism in the Social Sciences* (London: Routledge, 2002), 96.

<sup>8</sup> S. Baumgartner, C. Becker, M. Faber and R. Manstetten, 'Relative and absolute scarcity of nature: assessing the roles of economics and ecology for biodiversity conservation', *Ecological Economics* 59 (4) (2006), 487-98. Of course, the distinction between needs and wants is not clear-cut.

<sup>9</sup> L. R. Robbins, *An Essay on the Nature and Significance of Economic Science*, 3rd edn (London: Macmillan, 1984), 14.

<sup>10</sup> E. Raiklin and B. Uyar, 'On the relativity of the concepts of needs, wants, scarcity and opportunity cost', *International Journal of Social Economics* 23(7) (1996), 54-5.

its *raison d'être*. Maybe so, but there is a failure to distinguish it from absolute scarcity in many prominent books, I argue.<sup>11</sup> The critical identification of this absence is supported by Karl Polanyi, who distinguishes between the formal and substantial economy.<sup>12</sup> As a consequence of this absence, confusion arises about what kind of scarcity ME is actually referring to: absolute, relative or both? Irrespective of this, the issue of global hunger refers to absolute rather than relative scarcity, which is the main focus of this essay.

## 2. *The Relevance of Studying Scarcity and Abundance*

A brief exploratory overview of previous accounts of scarcity and abundance follows, thus relating this essay to a more general debate. The English word 'scarcity', according to Nicholas Xenos, is of medieval origin, deriving from the Old Northern French *escarceté*. It was used to specify a period of insufficiency and was seen as the antagonist of human being. 'Scarcity could then be cast as the antagonist of the human story, a story with a happy ending; the vanquishing of the antagonist and a life of happiness ever after amid abundance for all.'<sup>13</sup> Conversely, abundance (or affluence) was the friend of human being. Scarcity was used in this sense until the late-nineteenth century, when (neoclassical) economics appropriated it as its essential postulate. Xenos writes that in the:

late nineteenth century ... neoclassical economics [ME] made the scarcity postulate its foundation and the term passed into general usage though its transformation into a concept signifying a general condition: not 'scarcity of', or 'a time of scarcity', but simply 'scarcity'. This etymology suggests a history that is discontinuous; that scarcity in the general sense is a modern invention.<sup>14</sup>

Accordingly, the scarcity postulate was born. It is arguable that there are two theoretical tendencies (crudely divided) concerning the assessment of scarcity, along a continuum between: (a) a positive assessment made by those who argue that scarcity is a non-revocable (necessary) condition of human existence (e.g. Smith, Malthus); and (b) a negative assessment that under the right conditions scarcity is a revocable (non-necessary) condition of human existence (e.g. Marx, Mill). This essay leans towards the latter tendency.

<sup>11</sup> See, for example, P. A. Samuelson and W. D. Nordhaus, *Economics*, 17th edn (Boston, MA: McGraw-Hill, 2001).

<sup>12</sup> See K. Polanyi, ed., *Trade and Market in the Early Empires: Economics in History and Theory* (New York: Free Press, 1957), 244-6.

<sup>13</sup> N. Xenos, *Scarcity and Modernity* (London: Routledge, 1989), 35.

<sup>14</sup> *Ibid.*, 3.

- (a) ME's postulate harbours a positive assessment of scarcity, because of the universality of scarcity.<sup>15</sup> Adam Smith argues that the creation of new needs and wants creates the momentum of material progress. They will exceed the given resources, therefore scarcity arises. By industrial production the gap between needs and resources is reduced, and so scarcity diminishes. This diminishing is called wealth.<sup>16</sup> Thomas Robert Malthus argues that the state of scarcity results in a struggle to survive. Malthus laid the theoretical foundation of the 'conventional wisdom' that has dominated the debate on global hunger and famine in general for almost two centuries.<sup>17</sup> Malthus argues that God created a universe ruled by the 'principle of population', namely, the pressure of scarcity, in order to force people to use the power of mind to overcome the natural human tendency to indolence.<sup>18</sup> This struggle for survival is the very pulse of civilisation.
- (b) Karl Marx argues that the third and final stage of the revolutionary transformation of society is the creation of a society founded on abundance, such that all people could flourish and freely develop without constraints of scarcity of resources. The first two stages, however, are characterised by scarcity and thus struggle.<sup>19</sup> John Stuart Mill shared some of Marx's claims. Xenos writes:

John Stuart Mill and Karl Marx ... devised theories that looked to a process of historical progress that would fundamentally alter the human condition. Both theories entailed a notion of abundance as the necessary precondition for the full realisation of human capacities ... the hope of an abundant future to assuage their sense of the injustices of present-day scarcity.<sup>20</sup>

Both Marshall Sahlins and John Kenneth Galbraith are critical of ME's scarcity postulate. Galbraith argues that affluence prevails in modern society. ME's assumption of scarcity of resources is erroneous, and this error leads to a misplaced focus on how to combat poverty in an affluent society.<sup>21</sup> As this is not recognised, an endless stream of production is encouraged, while at the same time poverty continues to be reproduced.<sup>22</sup>

<sup>15</sup> See p. 208ff., below. See also Robbins, *Essay*, 15.

<sup>16</sup> A. Smith, *An Inquiry into the Nature and Causes of the Wealth of Nations*, vol. 1, eds A. S. Skinner, R. H. Campbell, and W. B. Todd (Oxford: Clarendon, 1976), 100–104.

<sup>17</sup> P. L. Kutzner, *World Hunger: A Reference Handbook* (Santa Barbara, CA: ABC-Clio, 1991).

<sup>18</sup> T. R. Malthus, *An Essay on the Principle of Population*, ed. D. Winch (Cambridge: Cambridge University Press, [1798] 1992), xiii, 17–19.

<sup>19</sup> G. A. Cohen, *Karl Marx's Theory of History: A Defence* (Oxford: Oxford University Press, 2000), 361–2.

<sup>20</sup> Xenos, *Scarcity*, 37.

<sup>21</sup> J. K. Galbraith, *The Affluent Society* (London: Hamish Hamilton, 1958).

<sup>22</sup> Cf. M. Sahlins, *Stone Age Economics* (Chicago, IL: Aldine-Atherton, 1976), 5 ff.

Hence the question of scarcity (and abundance) is a fundamental issue of human existence. Let us now bring the empirical case of global hunger into the analysis in order to see the real (actualised) relevance of the issue of scarcity and abundance.

### 3. *Global Hunger*

This part of the essay focuses on the case of global hunger, which serves as an empirical grounding for the ensuing elaboration and synthesis. Its main point is to illuminate the fact that hunger does not necessarily arise because of insufficiency of food supply, that is, scarcity of food.

The definition of global hunger is as follows. The human need for food is commonly operationalised into energy requirement in terms of calories per day. When sufficient calories are absorbed by the biological body then it is said that the energy requirement is fulfilled; if not, then the body is undernourished ('hungry'). According to the World Health Organization (WHO) and the Food and Agriculture Organisation of the United Nations (FAO), the explicit energy requirement approach (calories) assumes implicitly that not only energy requirements but also other vital nutrients (proteins, vitamins (A, B, C, D etc.) are fulfilled.<sup>23</sup>

For the purposes of this paper we need one crude number of the average minimum energy requirement. WHO concludes that the average minimum energy requirement for the developing countries is approximately 2100 calories per day; and for the industrialised countries 2180 calories per day; the difference is mostly due to activity level. These numbers are used as a crude estimate for all individuals of all demographic groups (of whatever age, sex and activity level). From personal consultation from representatives of WHO, the United Nations World Food Programme (WFP) and FAO, I conclude that the average of these two numbers is sufficient. Consequently, *the minimum energy requirement* for the global population is set at *2140 calories per day*.<sup>24</sup> Importantly, this number is only used for comparison with global food supply.<sup>25</sup> As a result, 2140 calories is used as a complement to FAO's calorie estimations.

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<sup>23</sup> United Nations University (UNU), World Health Organization (WHO) and Food and Agriculture Organisation of the United Nations (FAO). *Human Energy Requirements: Report on a Joint FAO/WHO/UNU Expert Consultation* (Rome: UNU, WHO, FAO, 2001), 4. [www.fao.org/docrep/007/y5686e/y5686e00.HTM](http://www.fao.org/docrep/007/y5686e/y5686e00.HTM)

<sup>24</sup> This essay is not a critique of FAO or WHO methodological estimates. Therefore, a critical stance will be omitted. For critical reflections see, for example, T. Dyson, *Population and Food: Global Trends and Future Prospects* (London: Routledge, 1996), 35; Kutzner, *World Hunger*, 174.

<sup>25</sup> See Table 1, note b.

Hungry people do not have enough food to eat and so enough to sustain an active life. This is an involuntary and chronic situation. It is thus demarcated from being deliberately hungry (hunger strike, fast). Moreover, hunger is different from famine, but related to it. The main difference is that famine is sudden, or explosive, prevailing for a short time. Famine can lead to hunger, but not vice versa.<sup>26</sup> The focus of this paper is mainly on hunger. Why use the term *global* hunger? Besides the macro perspective adopted, the term 'global' in global hunger indicates that the phenomenon of hunger occurs in an interrelated global socioeconomic system, which is not restricted to one area (Africa). Hunger occurs in Asia, Latin America, Europe and North America. Yet the magnitude and the underlying causes of hunger is the differentiating factor. It is thus not suggested that all hunger situations have necessarily the same causes. The point is still that hunger occurs in the global system, and potentially regardless of time and space; hence the term 'global hunger'.<sup>27</sup>

### 3.1. *Estimating global hunger*

FAO estimates that 852 million people globally were hungry around the year 2002. Table 1 summarises the figures. The essence of this summary is that all regions seem to produce enough food to feed their population, but still hunger occurs.

According to Table 1, 815 million of the 852 million hungry people, approximately 96 per cent of the total, live in developing countries. These countries include most of the countries in Asia, Africa, the Middle East and Latin America. Still, sub-Saharan Africa and Asia are particularly worrying, with 204 million and 519 million hungry people respectively. Almost 33 per cent of the sub-Saharan population and 16 per cent of the Asian population is classified as undernourished. The daily calorie supply as a percentage of requirements is 125 per cent for Asia and 106 per cent for sub-Sahara. Daily supply in Asia should be sufficient to feed everyone; although the 106 per cent is close to the minimum, it should also be sufficient to feed all in sub-Sahara.<sup>28</sup> There is hunger in the 'rich' countries as well; more precisely, nine million undernourished people. The daily calorie supply for these regions is 160 per cent; in other words, there is more than enough food supply.

<sup>26</sup> See A. K. Sen, *Poverty and Famines: An Essay on Entitlement and Deprivation* (Oxford: Clarendon, 1981), 40–41.

<sup>27</sup> J. Scholte, *Globalisation: A Critical Introduction* (New York: Palgrave Macmillan, 2005), 424.

<sup>28</sup> For this region the data are somewhat insufficient. There is a lack of governmental censuses and a considerable quantity of the food consumed is collected from wild plants and meat; see Dyson, *Population*, 34.

Table 1 Measures of undernutrition (hunger) and calorie supply per region, around year 2002.<sup>29</sup>

Region	Undernourished (millions)	Population undernourished (%) <sup>a</sup>	Daily per capita calorie supply	Daily per capita calorie supply as % of requirements <sup>b</sup>
Sub-Saharan Africa	204	33	2262	106
Middle East & North Africa	39	10	3110	145
Latin America & Caribbean	53	10	2865	134
Asia (excluding Middle East)	519	16	2682	125
Industrialised countries	9	- <sup>c</sup>	3410 <sup>d</sup>	160
Eastern Europe	28	7	3152 <sup>d</sup>	147
Globally	852	14	2804	131

Notes: (a) 'Population undernourished (%)' is a proportion of the *regional* total population, and not of the *global* total population.

- (b) 'Daily per capita calorie supply as % of requirements' is a proportion of 2140 calories (the minimum energy requirement for the global population).
- (c) 'Population undernourished (%)' for the industrialised countries is not given by FAOSTAT (the FAO online statistical service).
- (d) All numbers refer to the year 2002 except those for 'Daily per capita calorie supply' for industrialised countries and Eastern Europe, which refer to the year 1999 (data is not available for 2002).
- (e) Food supply refers mainly to cereal products.

Approximately 14 per cent of the global population is undernourished. The global food supply is currently (year 2002) at 2804 calories per capita per day. This is 131 per cent of the daily food requirement. At the same time, Figure 1 indicates that there has been a steady increase in global food in the years 1961–2002. Yet the absolute number of hungry people has increased from under 800 million for previous years to of 852 million (year 2004). What about future food production and food needs?

Consider Figures 1 and 2. Per capita food supply has increased steadily in spite of a big increase in population. Figure 2 illustrates the global population curve from 1950 (actual numbers) to 2050 (projected numbers). From this figure we can see that global population has increased from approximately 2.5 billion in 1950 to 6.3 billion by 2003, and by 2050 there will be 9 billion inhabitants of earth. At the same time, global food supply tends to increase.

<sup>29</sup> FAO, *The State of Food Insecurity in the World 2004: Towards the World Food Summit and Millennium Development Goals* (Rome: FAO, 2004); FAO online statistical service (FAOSTAT), *Food and Agriculture Organisation of the United Nations*, 2005, <http://faostat.fao.org>; UN, *World Population Prospects: The 2004 Revision and World Urbanisation Prospects*, <http://esa.un.org/unpp>

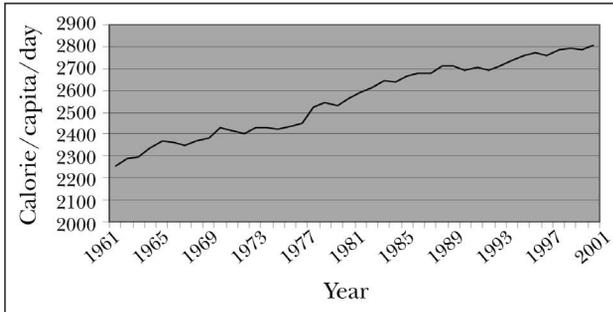


Figure 1 Global food supply in calories per capita per day, 1961-2002.<sup>30</sup>

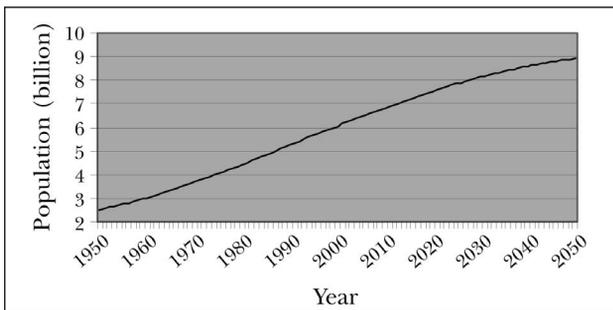


Figure 2 Global population tendency, actual and projected, 1950-2050.<sup>31</sup>

Complementing FAO numbers with Tim Dyson's makes a projection of food production towards 2020 possible. Still, the situation for sub-Sahara instils some doubt; this region will probably need to rely on other regions (e.g. aid, imports) to fulfil food needs. Nevertheless, the other regions and thus the global food supply should be sufficient, according to Dyson:

Assuming that levels of consumption in the two developed world regions remains constant, then nearly 3 billion tons of cereals will need to be harvested in 2020 in order to satisfy global demand ... Given no unforeseen huge calamity, the world's farmers will certainly be able to meet this volume of demand.<sup>32</sup>

Hence hunger occurs in spite of an abundance of food. This actual event poses a serious anomaly, or challenge, to the scarcity postulate of ME. Is it possible to maintain this postulate in the face of this actuality?

<sup>30</sup> FAO, *Food*.

<sup>31</sup> UN, *World*.

<sup>32</sup> Dyson, *Population*, 204.

#### 4. *Mainstream Economics and the Origins of the Scarcity Postulate*

According to Alec Gee, ME refers mainly to the neoclassical school. It is the dominant school of economics; university courses that major in economics are overwhelmingly grounded in the concepts of ME.<sup>33</sup> One of the fundamental principles of ME is the scarcity postulate. This postulate claims the existence of *universal scarcity*. It is found in every economic book and textbook related to ME. It claims that there are unlimited wants and needs in relation to limited resources; this generates universal scarcity, both at micro and macro level. ME is, then, the science of how people cope with this state of universal scarcity.<sup>34</sup> A world of abundance is characterised as follows by Paul Samuelson and William Nordhaus:

since all of us could have as much as we pleased, no one would be concerned about the distribution of incomes among different people or classes. In such an Eden of affluence, all goods would be free, like sand in the desert or seawater at the beach. All prices would be zero, and markets would be unnecessary. Indeed, economics would no longer be a useful subject.<sup>35</sup>

They quickly suggest that such a Garden of Eden is not the case of the present world:

But no society has reached a utopia of limitless possibilities. Ours is world of *scarcity*, full of *economic goods*. A situation of scarcity is one in which goods are limited relative to desire. An objective observer would have to agree that, even after two centuries of rapid economic growth, production in the United States is simply not high enough to meet everyone's desires ... Moreover, outside the United States, particularly in Africa and Asia, hundreds of millions of people suffer from hunger and material deprivation.<sup>36</sup>

As demonstrated, such formulations do not hold up to factual scrutiny. Scarcity of goods is not a necessary condition for hunger to occur. As a result, agreeing with Nurit Bird-David, such formulations tend to veil the real issues of our contemporary society, rather than illuminate them.<sup>37</sup> What are the reasons for this postulate? We find the origins of the scarcity postulate in the notions of the economist Carl Menger (1840–1921). Menger is principally interesting because he is the first economist (with references to David Hume) who most

<sup>33</sup> A. Gee, 'The neoclassical school', in *A Modern Guide to Economic Thought: An Introduction to Comparative Schools of Thought in Economics*, eds A. G. Miller and D. Mair (Aldershot: Elgar, 1991), 71.

<sup>34</sup> M. Parkin, *Economics*, 5th edn (Harlow: Addison-Wesley, 2000), 36.

<sup>35</sup> Samuelson and Nordhaus, *Economics*, 4.

<sup>36</sup> *Ibid.*

<sup>37</sup> N. Bird-David, 'Beyond "the original affluent society": a culturalist reformulation', in *Limited Wants, Unlimited Means: A Reader on Hunter-Gatherer Economics and the Environment*, ed. J. M. Gowdy (Washington, DC: Island Press, 1998), 133.

fully systemised the concept of scarcity, and thus greatly influenced the foundations of ME.<sup>38</sup> I shall focus on Menger's most important book, *Grundsätze der Volkswirtschaftslehre* (*The Principles of Economics*).<sup>39</sup>

#### 4.1. Carl Menger and scarcity

The foundation of human economy is the actions directed towards the satisfaction of human needs by planning for the future, and not the augmentation of resources, according to Menger.<sup>40</sup> The entities that have the capacity to satisfy a human need are denominated *goods*. Consider the following quotation:

Needs arise from our drives and the drives are embedded in our nature. An imperfect satisfaction of needs leads to the stunting of our nature. Failure to satisfy them brings about our destruction. But to satisfy our needs is to live and prosper. Thus the attempt to provide for the satisfaction of our needs is synonymous with the attempt to provide for our lives and well-being. It is the most important of all human endeavours, since it is the prerequisite and foundation of all others.<sup>41</sup>

The quantities of goods a person must have to satisfy her needs are called *human requirements*. We need a certain quantity of food and water to ensure our well-being; for example, housing, food, clothing. The concepts of goods and needs express the qualitative relation, while the concepts of human requirement and available quantities express the quantitative relation of that given quality. In other words, quantified goods are called *available quantities*.<sup>42</sup> The quantitative relations can take the following three forms:

- Human requirements (R) are quantitatively more than available quantities (A): ( $R > A$ ).
- Human requirements (R) are quantitatively less than available quantities (A): ( $R < A$ ).

<sup>38</sup> F. A. Hayek, 'Introduction', in *Principles of Economics*, eds J. Dingwall and B. F. Hoselitz (Grove City, PA: Libertarian Press, [1871] 1994), 18; L. R. Robbins, *A History of Economic Thought: The LSE lectures*, eds S. G. Medema and W. J. Samuels (Princeton, NJ: Princeton University Press, 1998), 277; E. Roll, *A History of Economic Thought*, 4th edn (London: Faber, 1973), 387.

<sup>39</sup> A further demarcation is required. I shall focus on the theory of 'economic and non-economic goods', leaving aside such other topics as exchange, price, value and commodity.

<sup>40</sup> C. Menger, *Principles of Economics*, trans. J. Dingwall and B. F. Hoselitz (Grove City, PA: Libertarian Press, [1871] 1994), 78, 190.

<sup>41</sup> *Ibid.*

<sup>42</sup> *Ibid.*, 51, 74–8.

- Human requirements (R) and available quantities (A) are quantitatively equal:  $(R = A)$ .<sup>43</sup>

In reality,  $R > A$  is the most common situation, according to Menger. Goods in this quantitative relation are called *economic goods*, meaning that there are not enough goods to satisfy all needs in a system. *Non-economic goods* (or free goods) is in the opposite quantitative relation, namely  $R < A$ .<sup>44</sup> Imagine a village near a river that is dependent on water. The normal flow of the river is 200,000 pails per day (in rainstorms the flow is 300,000 pails per day, while in drought the flow is 100,000 pails per day). Imagine, moreover, that the village normally needs 200 pails per day, and at most 300 pails per day. In this case, and every other case, where the quantitative relation is  $R < A$  there will neither be any need to economise nor any reason for struggle between the members of the society (the village) over the particular good (water), because the needs of all members can be fulfilled without any problem. There will be no reason to economise, and so these goods are not subjects of the human economy. According to Menger, the determination of whether a good is an economic or non-economic good is not an inherent property of the good itself. Instead, it is subjectively determined by the people who need it, that is, when R are quantitatively related to A ( $R < A$ ). The character of goods will vary depending on where (spatially) and when (temporally) the quantitative relation is situated. In the previous example, water was a non-economic good. However, if the same village were situated in another time and space, say in a desert, water could easily become an economic good.<sup>45</sup>

According to Menger, there are goods that are intermediate between economic and non-economic, which are of special scientific interest. For example, where nature does not make goods naturally abundant, governments (or other authorities) can, by organising the production of large quantities. He writes that:

such goods, in highly civilised countries as are produced by the government and offered for public use in such large quantities that any desired amount of them is at the disposal of even the poorest members of society, with the result that they do not attain economic character for the consumers.<sup>46</sup>

State-supplied education, for instance, is such an intermediate good (non-economic). Or, pure healthy water available and accessible for drinking in the city

<sup>43</sup> Ibid., p. 94. Menger does not use the short forms given, that is,  $R > A$ ,  $R < A$  and  $R = A$ . I introduce them because I believe that they can simplify the outline without losing its essence.

<sup>44</sup> Ibid., 95.

<sup>45</sup> Ibid., 101-2.

<sup>46</sup> Ibid., 103-4.

fountains to all the members of the society; hospitals and medicine available for all the sick and needy. These goods take an intermediate position because they are *artificially* produced under the influence and command of people. By analogy, these good are called *quasi-non-economic goods* (manipulated into  $R < A$ ); the opposite is *quasi-economic goods* (manipulated into  $R > A$ ). Quasi-economic goods arise when people in the economy are excluded, or hindered, from acquiring naturally abundant goods (non-economic goods).<sup>47</sup> If the quantitative relation is  $R = A$ , or near, and future development is uncertain, they are usually treated as quasi-economic goods. If an unforeseen diminution of the good causes frustration of needs, the future availability of the good is jeopardised.<sup>48</sup>

In this way, (quasi)economic and (quasi)non-economic goods arise. In order to increase the well-being of the parties, nations, households and persons will engage in exchange (trade) when they have an abundance of one type of good but scarcity of another. Hence the individual will engage in the human economy to satisfy the needs that are inadequately provided for. This is the intrinsic purpose of human economy, according to Menger. The economising activity is not an end, or pleasure, in itself but a necessary activity that can mean the difference between well-being and suffering.<sup>49</sup>

### 5. *Elaboration and Synthesis*

What follows is an attempt to synthesise some of Menger's and Amartya Sen's concepts with CRE's notions, using global hunger as a sounding board. By doing this we shall arrive at a 'model of (quasi)scarcity and (quasi)abundance' and consequently be able to offer a better socioeconomic alternative to the scarcity postulate. The elaboration and synthesis will be done in three analytical steps: the first constitutes, via abduction, the foundation of the model, and is inspired by Menger; the second consists, via retroduction, of a modification of the model to understand frustration of needs in abundance, and is motivated by Sen's concept of entitlements; and the third encompasses a final modification to understand the holistic connections (wider anchorage) and causal conditions of the first and second steps, and is stimulated by critical realism.<sup>50</sup>

<sup>47</sup> *Ibid.*, 104-5. Menger uses the term 'quasi' only as a suggestion (cf. *ibid.*, 105 n.11); here I will use it consistently.

<sup>48</sup> *Ibid.*, 105.

<sup>49</sup> *Ibid.*, 176-7.

<sup>50</sup> On Menger's methodology, see, for example, U. Mäki, 'Mengerian economics in realist perspective', in *Carl Menger and his Legacy in Economics*, ed. B. J. Caldwell (Durham, NC: Duke University Press, 1990); C. Lawson, 'Realism, theory and individualism in the work of Carl Menger', in *Critical Realism in Economics: Development and Debate*, ed. S. Fleetwood (London: Routledge, 1999).

### 5.1 First step: Carl Menger – re-contextualisation of global hunger

How would Menger explain global hunger? His conceptualisation can be graphically illustrated in a model (Figure 3):

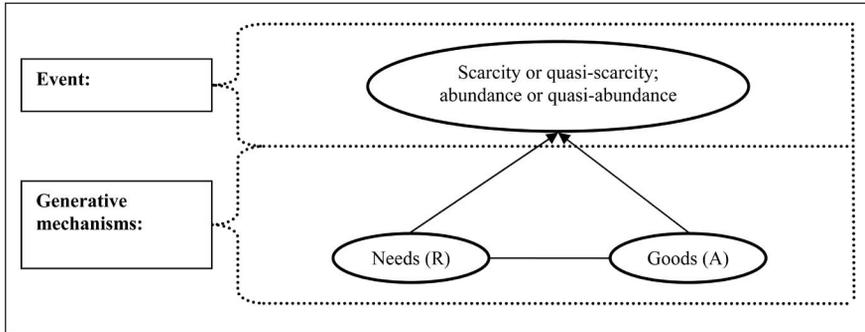


Figure 3 The first step. The Mengerian model of (quasi)scarcity and (quasi)abundance – (R-A) duality.

The model shows that scarcity or abundance as an *event* arises when goods (A) are quantitatively related to human needs (R). Consequently, when we claim that there is ‘scarcity of goods’ we must then mean, there is ‘not enough to satisfy all human needs’ in a given system. If so, frustration of human needs will occur. Accordingly, ‘scarcity of goods’ and ‘limited goods’ are essentially different. Limited resources do not automatically mean that resources are at the same time scarce. *They can be limited and scarce (insufficient), or they can be limited and abundant (sufficient)*. Limited goods are limited in the sense that there is a given quantity of such goods in a given system.

According to the Mengerian model, frustration of needs, and so global hunger, occurs in two situations: (a) an event of scarcity ( $R > A$ ); and (b) an event of quasi-scarcity, that is, people are somehow excluded despite the quantitative relation  $R < A$ , abundant goods. Despite the somewhat doubtful situation of the sub-Saharan region food supply, the case of global hunger shows that there is an abundance of food goods, namely  $R < A$ . Subsequently, event (b) prevails. So food goods are not scarce goods; instead, they have somehow attained a kind of quasi-scarce (quasi-economic) character. Nonetheless, we have reached the explanatory limit of the Mengerian model, I argue. This model can claim that there will be frustration of needs, but cannot specify *whose* needs are going to be frustrated (respectively satisfied), and *why*. To correct this explanatory insufficiency, let us try to identify using a thought experiment the necessary conditions for the frustration of needs to occur in a system of abundance. This illuminates the next analytical effort, the second step.

### 5.1.1. The auction: a thought experiment<sup>51</sup>

Imagine an abstracted closed system (i.e. no other mechanisms are intervening in this system than the given) in order to examine the underlying logic, the basic mechanism, of frustration of needs in a quasi-scarce system. Visualise an auction in which all given actors are located in the same place (spatiality), with the following conditions:

(Ia) Primary conditions: actors with *equal* bidding possibility

*Rules of the auction:* The highest bidder acquires command over given food goods. Bidders must translate their need into the language of money.

*Seller:* (1) under the command of the seller there are sufficient (abundant) food goods to satisfy all the food needs in the auction and plenty more (thus,  $R < A$ ). (2) The seller is interested in exchanging food for money, and maximisation of revenue in terms of money. (3) The seller has satisfied her food needs.

*Bidder A:* (4) Under the command of this bidder there is X quantity of money to acquire command over food goods. (5) This bidder has food needs and is intentionally engaged in satisfying them.

*Bidder B:* Equivalent conditions to those for bidder A.

(Ib) Chain of events (temporality)

$T_1$  - *the auction begins:* All bidders (A and B) are intentionally engaged in satisfying their needs. Accordingly, they have to translate their needs into the language of the auction and try to be the highest bidder.

$T_2$  - *interaction:* Both bidders A and B try to outbid each other in order to acquire command over food goods. It is impossible for them to do this, however, as A and B have exactly the same monetary possibilities and feel the same pressure to satisfy their needs. The seller sees the impossibility in the situation and decides therefore to end the bidding in a draw.

$T_3$  - *the satisfaction of needs:* Thus both bidders A and B transfer (exchange) an equal amount of money for an equal amount of food necessary to satisfy their needs. At this time, all actors can completely satisfy their needs in the auction.

$T_4$  - *post-bidding period:* After the satisfaction of all needs there are still more goods than the need for them ( $R < A$ ). Either food goods are stocked (if

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<sup>51</sup> See N. Rescher, *What If? Thought Experimentation in Philosophy* (New Brunswick, NJ: Transaction Publishers, 2005), ch. 1, for a discussion of the limitations and possibilities of thought experimentation. See Danermark et al., *Explaining*, 101, on the compatibility of thought experimentation with critical realism.

they are durable), over-consumed, or wasted (their characterisation as goods is eliminated).

$T_{etc.}$  - *a new cycle begins*: A new cycle of bidding, interacting, satisfying and wasting begins.

(IIa) Secondary conditions: actors with *unequal* bidding possibilities

*Ceteris paribus*, only one additional condition is added, that is, a new actor (bidder C).

*Bidder C*: (6) In the command of this bidder there is Y amount of money. Compared to bidders A and B, bidder C's command over money is much less, thus  $Y \ll X$ .

(IIb) Chain of events (temporality)

$T_1$  - *the auction begins*: Equivalent to the primary conditions above (including bidder C).

$T_2$  - *interaction*: Bidders A, B and C try to outbid each other. Although C feels exactly the same pressure as A and B to satisfy her needs, C is being directly and chronically outbid: she has no chance of keeping up with the bidding (because  $Y \ll X$  compared to A and B). The seller recognises this and thus directs attention and interest towards A and B. Bidder C is neglected. The logic of maximisation of revenue causes this. Again, it is impossible for A and B to outbid each other and the seller decides to end the bidding in a draw for A and B.

$T_3$  - *the satisfaction and frustration of needs*: A and B acquire food goods and completely satisfy their needs. Although food goods are not scarce in this imagined auction, because  $R < A$ , bidder C incompletely satisfies her needs. C goes hungry.

$T_4$  - *post-bidding period*: Equivalent to the primary conditions above.

$T_{etc.}$  - *a new cycle begins*: The imagined auction repeats itself. Bidder C is now once again chronically outbid in accordance with the conditions of the auction. Hence, frustration of needs occurs once again and C is now chronically hungry ...

5.2. *Second step: Amartya Sen - the transfactuality of frustration of needs*

What is the implication of the auction? Sen argues that starvation is:

the characteristic of some people not *having* enough food to eat. It is not the characteristic of there *being* not enough food to eat. While the latter can be a cause of the former, it is but one of many *possible* causes.<sup>52</sup>

<sup>52</sup> Sen, *Poverty*, 1.

This centrality is reflected in the auction. The first step (the Mengerian model) could only indicate under what conditions frustration of needs occurs, whereas the second step will do this as well as respond to the question of whose needs are going to be frustrated or satisfied. It is time to respond to the retroductive question we posed previously: what must the global socioeconomic realm be like for frustration of needs to occur in a realm of abundance? Let us think transfactually (retroduction) in order to reconstruct the underlying conditions (mechanisms) of frustration of human needs and thus the occurrence of global hunger.

I argue that there are three necessary mechanisms involved in the production of the given events. The first and the second are derived from the Mengerian model above, namely R and A. We know from global hunger that food goods are generally abundant, but still quasi-scarcity arises in respect of given individuals (bidder C), one of the main features of the thought experiment. Therefore, a third mechanism must exist in order to actualise frustration of needs. The auction reveals that in order to acquire command over goods (A) one must be the valid 'winner', or validly entitled (recognised by others). The third mechanism is something that mediates between R and A; I argue that the concept of 'entitlements' (E) is apposite for this function. E is thus derived from Sen's entitlement approach, which focuses on, 'each person's entitlements to commodity bundles including food, and views starvation as resulting from a failure to be entitled to a bundle with enough food'.<sup>53</sup> This is illustrated in Figure 4.

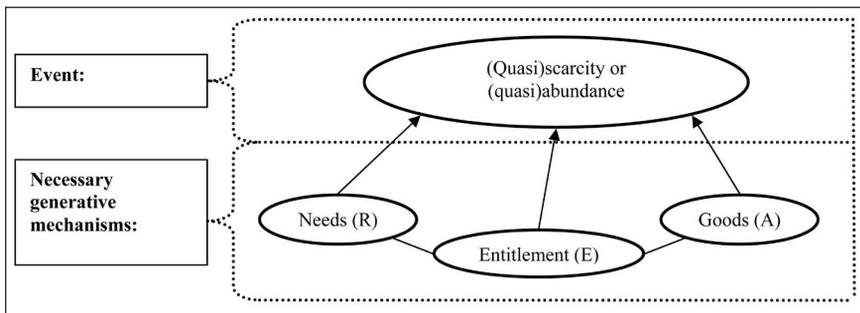


Figure 4 The second step. Sen's modification of the Mengerian model of (quasi)scarcity and (quasi)abundance: the R-E-A trinity.

This model is an elaboration of the Mengerian model; hence, it is a more complete proposal of the underlying necessary mechanism that generates (quasi)scarcity and (quasi)abundance. In the trinity of R-E-A, valid E gives

<sup>53</sup> Ibid., 45.

access to given A.<sup>54</sup> In this way, I argue, valid (or present) entitlement gives access to enough goods to satisfy given needs. Invalid (or absent) entitlement denies the acquirement of enough goods to satisfy given needs. Metaphorically, a valid entitlement can be seen as a key that opens up otherwise locked pantries or storerooms that are potentially filled with goods. Along this line, an invalid 'key' cannot open up locked storerooms that are potentially filled with goods. One of the central points in the thought experiment is that E is only an *indirect satisfier* (you cannot eat it) whereas A is a direct satisfier. That is, E cannot by itself fulfil or satisfy given needs. E gives only *access* to food goods. In other words, *both* valid entitlements *and* enough good are required in order to satisfy human needs in the socioeconomic domain. Consequently, as the quantitative relation is  $R < A$ , the suggested, general, explanation of global hunger must be invalid, or absent, E: people are denied a key that will open up the filled, pantries and storerooms. The trinity of R-E-A is a more complex relation than the duality of R-A, enfolding at the same time greater explanatory power. The mechanism of the model (see Figure 4) can attain six possible formations, creating events of either (quasi)scarcity or (quasi)abundance, at both the general system level and the lower unit of analysis situated in the system (individuals) (see Table 2).

*Table 2* Six possible formations in the trinity of R-E-A implying six possible events.

Formation	Consequence	Event, on individual level	Event, on system level
(i) $R > A$ and invalid E	→	scarcity	general scarcity
(ii) $R > A$ and valid E	→	quasi-abundance	general scarcity
(iii) $R = A$ and invalid E	→	quasi-scarcity	general quasi-scarcity
(iv) $R = A$ and valid E	→	quasi-abundance	general quasi-scarcity
(v) $R < A$ and invalid E	→	quasi-scarcity	general abundance
(vi) $R < A$ and valid E	→	abundance	general abundance

According to Table 2, the quantitative relations  $R > A$ ,  $R = A$  and  $R < A$  measure the needs and available goods in the *total system* (in a country, region, or globally). For example, in global hunger, A and R are given at the system level. However, the entitlements (E) are only seen from *the perspective* of the person or group of people that is in need; the relevant question is, does she or do they have valid entitlements to acquire enough goods? In our auction, the seller is validly entitled from the beginning to command given food goods (Table 2, point (vi)). The seller will thus experience abundance in a system were there is

<sup>54</sup> Sen does not use the terms valid (invalid). However, I believe that such terms can enhance our understanding of the issue.

general abundance. In the beginning bidders A and B will experience quasi-scarcity ( $T_{1-2}$ ); it is not until  $T_3$  (when the bidding is over) that they will manage to access food goods validly (sliding from point (v) at  $T_{1-2}$  to point (vi) at  $T_3$ ). Bidder C will experience quasi-scarcity during the whole process because of invalid entitlements (continuously being at point (v) at  $T_{1-3}$ ) in a system where there is general abundance. It is suggested, in Table 2, points (i) and (ii), that although there is  $R > A$  (general scarcity) in the total system, individuals with valid entitlements are individuals who are more successful and able to satisfy their needs (Table 2, point (ii)) in the socioeconomic system, compared to those with invalid entitlements (Table 2, point (i)). The more successful ones will thus experience quasi-abundance: 'quasi' because the general situation (the total system) is one of scarcity. Points (iii) and (iv) indicate a situation of uncertainty in the total system (see Menger), that is, general quasi-scarcity, and this will create ambiguity for the individual within the system. What influences one's chances of gaining valid and invalid entitlements? What is the wider contextualisation of R-E-A? In order to understand the underlying causality that conditions these mechanisms (R-E-A) we have to take a further analytical step, the third step.

### 5.3. *Third step: critical realism in economics – a holistic approach*

Let us now complete the analytical elaboration and synthesis, which entrains the generation of a holistic socioeconomic approach to (quasi)scarcity and (quasi)abundance. It is assumed that the logic of the imagined auction (and causality of the chain of events) is similar to the logic of the real global food market (i.e. global markets) situated in modern capitalism. The sellers are assumed to be analogous with the producers in the global food industry, and the bidders with the global population (consumers): bidders A and B represent the upper socioeconomic strata, whereas bidder C stands for the hungry and undernourished. Consequently, in reality different bidders possess different possibilities in relation to bidding and satisfying their needs. One's position in the social structure will condition one's ability to gain valid entitlements. Moreover, it is reasonable to assume that how entitlements are constituted and how they develop depend on the sociocultural structures of society.<sup>55</sup> This is not

<sup>55</sup> M. S. Archer, *Realist Social Theory: The Morphogenetic Approach* (Cambridge: Cambridge University Press, 1995), 165-70. In the contemporary system the dominant entitlements are money. But other kinds of entitlements are possible (e.g. family relations), which are not specified by Sen.

directly developed by Sen.<sup>56</sup> The mechanism entitlements are then anchored in these structures.

All entities are geo-historically mediated, depending on ‘geography’ (space) and ‘history’ (time).<sup>57</sup> Consequently, Figure 5 below (which is an elaboration of Figure 4) takes this fact into account. This is the final proposed model of (quasi)scarcity and (quasi)abundance, a multifaceted (multi-causal) and stratified one.

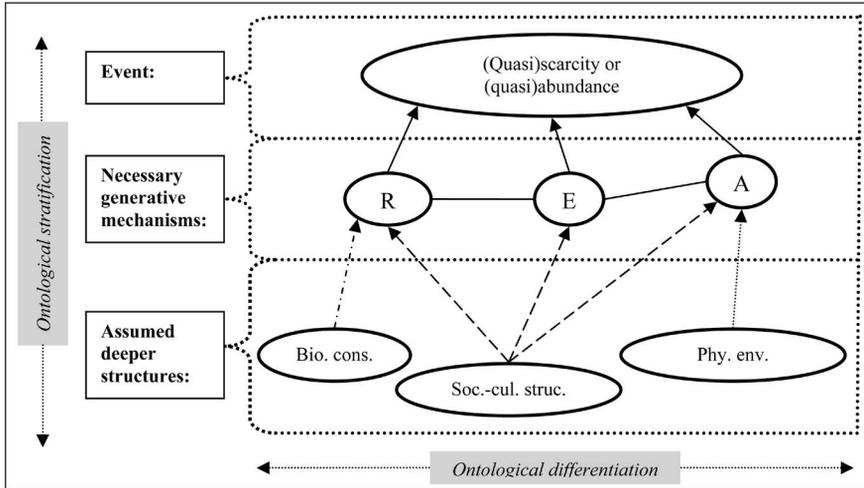


Figure 5 The third step: a proposed model. CRE’s modification of the Mengerian and Senian model of (quasi)scarcity and (quasi)abundance.

The third step reflects the ontological stratification and differentiation of reality, the necessary mechanisms and assumed deeper structures, which in turn condition the event of scarcity or abundance. Furthermore, the proposed model suggests how the socioeconomic analysis of (quasi)scarcity and (quasi)abundance could be conducted (see Figure 6). First, the scientist identifies an event where frustration (or satisfaction) of needs occurs (e.g. global hunger) (arrow (c)); the analyst wonders what kind of mechanism is in play. Next, she makes an effort to answer this question and investigates the formations of the necessary mechanism (R-E-A) and pinpoints the kind of scarcity (or abundance) in Table 2 (arrow (b)), which is a preliminary explanation of the event in question. Then she again moves further in order to understand and explain the formation and the conditions of the deeper structures (arrow (a)). Still, the effects of frustration, or satis-

<sup>56</sup> Cf. W. A. Jackson, ‘Capabilities, culture and social structure’, *Review of Social Economy* 63(1) (2005), 101–24.

<sup>57</sup> A. Sayer, *Realism and Social Science* (London: Sage, 2000), 15.

faction, of needs are highly relevant (arrow (d)). They could lead to opposition of various types of interests in society, leading to different types of conflict or consensus, which is the very momentum of human action; this is largely unexplored in this essay – the reason for the parenthesis in Figure 6 – and so awaits further research.<sup>58</sup> Consequently, the direction of the chain of causality could be articulated as in Figure 6.

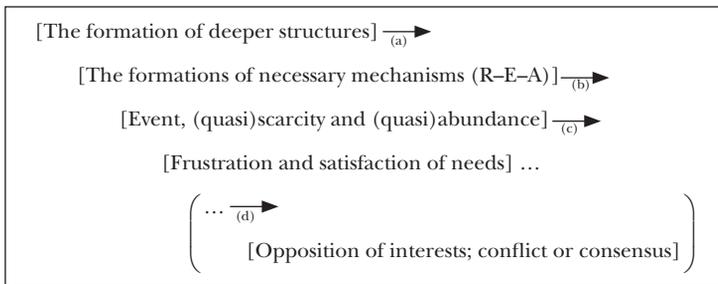


Figure 6 The chain of causality.

In this essay I have lingered at arrows (c) and (b), hence *assumed* deeper structures; the focus has not been primarily on explaining global hunger, but rather on developing a theory of scarcity and abundance. Still, let us briefly explore examples of the (assumed) deeper structures that condition the necessary mechanism in global hunger.

- *Example 1*: the physical environment conditions the general supply of A. This concerns the fluctuation and availability of supply relating from natural processes. Climatological explanations of hunger, for example, refer to ‘seasonality’, ‘global warming’, ‘cooling’, ‘drought’ and so on.<sup>59</sup>
- *Example 2*: political stability conditions A and E, as in the case of the sub-Saharan region, where war and political instability are common.<sup>60</sup>
- *Example 3*: sociocultural structures not only condition production (A) and distribution (E) of goods, but also people’s view of them. What we regard and define as a food good differs from culture to culture, as Sahlins argue: ‘In the United States, for example it is difficult to persuade people to buy cats and dogs for food, even though their meat is as nutritious and cheaper than other kinds’.<sup>61</sup>

<sup>58</sup> Cf. Menger, *Principles*, 97.

<sup>59</sup> S. Devereux, *Theories of Famine: From Malthus to Sen* (Hemel Hempstead: Harvester Wheatsheaf, 1993), 43.

<sup>60</sup> N. Alexandratos, *World Agriculture: Towards 2010, an FAO study* (Rome: FAO, 1995), 53.

<sup>61</sup> Sahlins, *Stone Age*, 170–79, citing N. J. Smelser and R. Swedberg, eds, *The Handbook of Economic Sociology* (Princeton, NJ: Princeton University Press, 1994), 6.

- *Example 4*: our biological constitution conditions our needs. For example, age, sex and pregnancy will condition how much food we need.<sup>62</sup>
- *Example 5*: property rights (and juridical structures) will affect the shape and the kinds of entitlements in society. For instance, in some hunter-gatherer societies property rights are not private, they are rather collective;<sup>63</sup> consequently, entitlements are affected in terms of validity.
- *Example 6*: cultural structures involve, inter alia, production of knowledge that will then affect the means of production. How technology is developed depends on knowledge and how it is organised depends on structurally positioned interests.<sup>64</sup> Consequently, mechanism A is affected.

These are only some examples of what could condition the outcome of R-E-A. The complexity described highlights the necessity to avoid a reductionism that takes into account only one type of mechanisms. As Patricia Kutzner vividly express this central point:

Nutritionists, economists, anthropologists, political scientists, sociologists, public health workers, head of state, community organisers, farmers, and agricultural scientist – all need to learn from one another, for no one profession and no one perspective has all of the tools or all of the answers needed to deal with hunger. More than ever before, the effort to end hunger is a cooperative venture among many different professions and institutions.<sup>65</sup>

Menger and Sen do not claim that geo-historical consideration is redundant; on the contrary, I believe that they argue that it is important.<sup>66</sup> Still, what our synthesis effects is the explicit relation of vital concepts in one interdisciplinary theoretical framework in order to illuminate (quasi)scarcity and (quasi)abundance more fully. This will require a pluralistic methodology that is able to handle such ontological and epistemological complexities, a mission that CRE seems well suited to accomplish.

## 6. Conclusion

If we accept universal scarcity, we also implicitly legitimise the frustration of human needs on the basis that there is an insufficiency of goods. The reality of global hunger demonstrates that quasi-scarcity prevails rather than scarcity, that is, that there is a general abundance of food goods in the total economic

<sup>62</sup> UNU, WHO, FAO, *Human*, 14, 28–9.

<sup>63</sup> Sahlins, *Stone Age*.

<sup>64</sup> Archer, *Realist*.

<sup>65</sup> Kutzner, *World Hunger*, 4.

<sup>66</sup> Cf. Menger, *Principles*, 102; Sen, *Poverty*, 113–31.

system but still frustration of needs occur in respect of given groups of people (see Table 2, point (v)). Therefore, the scarcity postulate of mainstream economics is an inconsistent and problematic proposition.

While the historical origins of the scarcity postulate (*viz.* Menger) are much more nuanced than the mainstream formulation, Menger's reasoning does not fully explain whose needs are frustrated or satisfied. This explanatory deficiency was complemented in the second step by Sen's concept of entitlements. Still, a third and final step was required in order to understand the wider and underlying structures that condition the mechanisms of entitlements (E), human needs (R) and available goods (A). This was achieved by critical realism in economics. If we accept this line of synthesis, then we arrive at a new approach to explaining (quasi)scarcity and (quasi)abundance that provides a holistic and dynamic framework with an invitation to interdisciplinarity and generates greater explanatory power.

Still, the critique of the scarcity postulate is incomplete, I maintain. This paper has focused solely on absolute scarcity and disregarded relative scarcity; a complete theory of scarcity would require both kinds of analysis. The study of relative scarcity especially will require a deeper understanding of consumerism and modern capitalism, which will among other things highlight the problematic relation between needs and wishes (wants). Moreover, the selected example of global hunger is chosen in order to support the arguments presented in this essay, which could be seen as a further analytical limitation. Yet this is done with one simple logical operation in mind, which exploits a deficiency of mainstream economics to raise new possibilities. Scarcity in mainstream economics is declared to be universal; analytically, to refer to *all* cases in a set. It is thus enough to find only *one* case in that set that is different (abundance) in order to falsify, or more conventionally, create serious anomalies in, this declaration. However, further research (on other cases as well as on relative scarcity and abundance) will be required in order to more fully complete the critique, the elaboration and the synthesis.

What difference do the proposed arguments make? Consider three main propositions advanced in this paper: (a) mainstream economics legitimises its practice using, among other principles, the notion of universal scarcity (which it considers its rational kernel); (b) this notion is shown to be inconsistent (c) given the new model presented. Taking these three points into account, we arrive at the claim: rather than inconsistently basing socioeconomic analysis in universal scarcity, we ought to (or, moderately stated, 'could') base it, where the focus is on scarcity or abundance, in the processes in which different groups of people, in relation to physical structures, attempt to 'create', 'maintain' and 'handle' (quasi)scarcity and (quasi)abundance in order to fulfil, or frustrate, given needs, interests or objectives; leading to explanatory critiques, if the

practices are ideologically maintained. Consequently, such analysis arrives at a new rational kernel with broader scope, embracing, for example, the analysis of how this process influences the reproduction and transformation of socio-economic structures (e.g. modern capitalism), socio-natural structures (the physical environment, sustainability), politico-economic structures (the political domain, political economy) and other domains of society (in general). This suggests the possibility that the new model is useful in understanding not only global hunger but also other types of phenomena. Furthermore, I would stress that there is an intrinsic link between (quasi)scarcity and (quasi)abundance and the notion of emancipation. Emancipation in critical realist theoretical perspective involves, according to Andrew Collier, a social science that:

also reveals human needs, their frustration, and the relation of those needs and that frustration to the social structure ... social science, then, generates practical emancipatory projects by showing there to be (a) a need, (b) some obstacles preventing its satisfaction, and (c) some means of removing this obstacle.<sup>67</sup>

As this essay demonstrates, it is necessary on socio-scientific and emancipatory grounds to ask why events of scarcity emerge. This is a *sine qua non* of emancipatory reasoning. It is arguable that the assumption of *continuous* scarcity in ME muddies the analysis of hunger in particular and poverty in general. Bird-David claims that 'the assumption of scarcity continues to influence economic conduct in the increasingly wealthy West and thereby act to preserve poverty'.<sup>68</sup> In order to create practical emancipatory projects, we (as social scientists) have to develop our reasoning about real possibilities, accomplishable in our geo-historical moment. As Immanuel Wallerstein argues:

*The possible is richer than the real.* Who should know this better than social scientists? Why are we so afraid of discussing the possible, of analyzing the possible, or exploring the possible? We must move not utopias, but utopistics, to the centre of social science. Utopistics is the analysis of possible utopias, their limitations, and the constraints on achieving them. It is the analytic study of real historical alternatives in the present. It is the reconciliation of the search for truth and the search for goodness.<sup>69</sup>

In the current reality, millions of children, women and men have so much food that they suffer and die from obesity. At the same time, millions of children, women and men suffer and die from hunger. There is enough food for all,

<sup>67</sup> A. Collier, *Critical Realism: An Introduction to Roy Bhaskar's Philosophy* (London: Verso, 1994), 182–3.

<sup>68</sup> Bird-David, 'Beyond', 133.

<sup>69</sup> I. Wallerstein, 'Social science and the quest for a just society', (1997), <http://fbc.binghamton.edu/iwquest.htm>, emphasis added. Cf. the Bhaskarian concept of concrete utopias.

but people are still hindered from acquiring enough food. Mainly as a consequence of structural conditions of sociocultural character, they lack the necessary entitlements or keys to open up locked storerooms filled with food goods. In the possible, however, everybody is granted the necessary keys. In the possible, all children, women and men can fulfil their needs and higher capabilities without fear of hunger. The possible is indeed richer than the real, but where global hunger is concerned the *real* and the *possible* can surely coincide.<sup>70</sup>

### Abbreviations

A	available quantity of goods
CRE	critical realism in economics
E	entitlements
ME	mainstream economics
R	human requirements
R < A	human requirements are quantitatively less than the available quantity of goods
R > A	human requirements are quantitatively more than the available quantity of goods
Quasi-scarcity	quasi-scarcity as such
(Quasi)scarcity	quasi-scarcity or scarcity or both

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<sup>70</sup> In critical realist terms, since the possible is a quality of the real, we should strictly speaking say that 'the possible is richer than the actual'.

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