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Post Keynesian consumer theory: Potential synergies with consumer research and economic psychology

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Abstract

The paper argues that Post Keynesian consumer theory offers an interesting experimental research agenda to those studying psychological economics and consumer research. Post Keynesian consumer choice relies on six principles: procedural rationality, satiable needs, the separability of needs, the hierarchy of needs, the growth of needs, and the principle of non-independence. This consumer theory does not rely on the Archimedes principle that ‘everything has a price’, and it may be particularly relevant when decisions involve moral choices or public goods such as the environment.

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1. Introduction

While Post Keynesians have spent a great deal of effort on macroeconomics and monetary issues as well as methodological issues, they have devoted less attention to microeconomics, seemingly avoiding in particular the subject of consumer choice. For instance, in the two guides on Post Keynesian economics, published at a 20-year

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interval, there is no chapter devoted to consumer theory (Eichner, 1979; Holt & Pressman, 2001). However, despite its apparent neglect, there exists a Post Keynesian theory of consumer choice, based on the indications left by the best-known and most productive Post Keynesian authors, such as Joan Robinson, Luigi Pasinetti, Edward Nell, Philip Arestis, or Alfred Eichner. These indications on consumer choice show a great degree of coherence, and in my opinion they fit tightly with the rest of Post Keynesian theory. Indeed, Drakopoulos (1992b) goes so far as to argue that Keynes himself had in mind such a heterodox consumer choice theory.

The purpose of the present article is to show what a research agenda on Post Keynesian consumer theory could look like, and to show that such an agenda offers plenty of synergies with research programs of institutionalists, social or humanistic economists, marketing specialists, the literature in economic psychology, and the work of some dissident mainstream economists.

2. The coherence of views on Post Keynesian consumer choice theory

As a general statement, one could claim that Post Keynesian economists, in contrast to their neoclassical colleagues, are very much distrustful of the ability of the market price mechanism to solve most contemporary economic problems. This suspicion is based on a rejection, or at least a questioning, of the allocation role that is being attributed to prices by mainstream authors. Post Keynesian economists doubt the general validity of the principle of substitution. These doubts arise in particular from the results achieved with the Cambridge capital controversies, but also from the observation that factors of production are generally complementary, rather than substitutable, and also from the observation that most successful activities are being pursued on the basis of cooperation and trust. Applied to the field of consumer theory, this lack of confidence in the principle of substitution implies that Post Keynesian authors doubt that price is often a key determinant of purchasing decisions, and hence they question whether households or individuals take decisions based on compensatory rules. As claimed by Arestis (1992, p. 124), ‘The Post Keynesian theory of household demand begins with the fundamental assumption that in an economic system it is the income effects rather than the substitution effects which are most important’.

The most detailed examination of a possible Post Keynesian consumer theory can be found in two books by Earl (1983, 1986), and the motivations supplied above are quite apparent there. Other specific contributions to Post Keynesian consumer choice can be found in the works of Arrous (1978), Eichner (1987, Chapter 9), Drakopoulos (1990, 1992a, 1994), Lavoie (1992, Chapter 2), Hanmer and Akram-Lodhi (1998), Lah and Sušjan (1999), and Gualerzi (2001), and a substantial amount of overlap with Earl’s initial attempt at defining a specific Post Keynesian consumer choice vision is obvious. However, I consider that the first article that ought to be read to get a sense of what a Post Keynesian consumer theory implies is the one written by Roy (1943) – an author unrelated to heterodox economics, although he was teaching in the same school as Maurice Allais.

In his little-known article, Roy (1943) puts forward several propositions that would seem to constitute the core of a Post Keynesian theory of consumer choice and that are quite compatible with the rest of Post Keynesian theory. For instance, Roy denies that the preferences of consumers (demand) explain the prices of consumer goods, thus rejecting the neoclassical view of value based on scarcity. He rejects the generalized use of indifference curves, for he believes that such a representation is not a realistic representation of human needs. He argues that goods can be, to some extent, separated into groups of goods with common features, substitution effects playing an important role within a group, but not in-between groups. In addition, he believes that these groups can be ordered in a hierarchy, with consumers moving from one group of goods to another, as their most urgent needs get progressively satiated and as their incomes rise. Variations in the prices of goods located in core groups (the basic needs) will have an impact on the demand for the goods of peripheral or discretionary groups ('luxury goods'), but by contrast variations in the prices of goods located in discretionary groups will have no impact on the demand for the goods of core groups.

As will become obvious, there is a tight link between Roy's views and the common ground of Post Keynesian consumer theory, as represented below under the form of six principles (Drakopoulos, 1999; Lavoie, 1994), which are:

- (i) the principle of procedural rationality,
- (ii) the principle of satiable needs,
- (iii) the principle of separability of needs,
- (iv) the principle of subordination of needs,
- (v) the principle of the growth of needs,
- (vi) the principle of non-independence.

These six principles will be briefly explained in the next section, although their names are by themselves evocative. In the meantime, I would like to provide readers with a few quotes from past and present leaders in the Post Keynesian field, which clearly illustrate the convergence of views that was mentioned in the introduction. The numbers in square brackets inserted within the quotes refer to the above list.

[vi] . . . There is a kind of competition in consumption, induced by the desire to impress the Joneses, which makes each family strive to keep up at least an appearance of being as well off as those that they mix with, so that outlay by one induces outlay by others. . . [iv] Generally speaking, wants stand in a hierarchy (though with considerable overlaps at each level) and [v] an increment in a family's real income is not devoted to buying a little more of everything at the same level but to stepping down the hierarchy. (Robinson, 1956, p. 251 & 354)

[iv] . . . Although possibilities of substitution among commodities are of course relevant at any given level of real income, there exists a hierarchy

of needs. [v] More precisely, there exists a very definite *order of priority* in consumers' wants, and therefore among groups of goods and services, which manifests itself as real incomes increase. (Pasinetti, 1981, p. 73)

[iii] . . . Purchases of various consumption goods are thought to serve different physical needs so that substitution can only take place within extremely narrow subcategories. [vi] Secondly, substitution possibilities are very much limited by social conventions and acquired tastes. . . [iv] Household expenditures are assumed to follow a lexicographic ordering. (Arestis, 1992, p. 124)

[iii] As far as I can see, all theories of wants and their satisfaction (except the neoclassical) negate the generality of substitution and postulate hierarchies of needs and their satisfaction. . . [iv] To the extent that there is a hierarchy of wants, a system of preferences allowing the construction of a utility function with the appropriate properties of substitutability does not exist. . . First elementary needs have to be fulfilled before there comes the turn of higher needs; in the extreme, there is no substitutability whatever between them (though there may be a substitutability between goods fulfilling the same need). (Schefold, 1997, p. 327)

[ii] The moral is that price changes may have little or no effect over a substantial range, and then suddenly have large effects, sometimes in unexpected directions. . . [vi] Of course, even within a given lifestyle a social function can normally be filled in a number of alternative ways, substitutes for one another, so that price changes will lead to changes in consumption. [iii] But these substitutes are all goods or services of the same *category*. . . Within categories, substitution holds, but between categories complementarity tends to be the rule. . . The more specific the good, the greater will be the possibilities of substitution, the more general the category, the more fixed the complementarity. (Nell, 1992, pp. 396–397)

[v] . . . Post Keynesians generally assume that, in an economy that is expanding over time, it is the income effect that will predominate over the relative price, or substitution, effects. . . [iii] Substitution can take place only within fairly narrow subcategories. [iv] Consumer preferences are, in this sense, lexicographically ordered. . . [vi] A household's consumption pattern, at any given point in time, thus reflects the lifestyle of the households that constitute its social reference group. (Eichner, 1986, pp. 159–160)

All these quotations help to show that Post Keynesians have a common vision of a heterodox consumer theory, and that this vision can be embedded within the six principles listed above and which now need to be discussed.

3. The principles of Post Keynesian consumer choice

3.1. Procedural rationality

The principle of *procedural rationality*, as proposed by Simon (1976), asserts that agents have designed rules and procedures that allow them to reach decisions quickly and efficiently, despite an environment of imperfect knowledge and an overload of information. A lot of these rules are based on non-compensatory procedures, where only some elements or possibly a single one, are taken into consideration, provided they reach a certain threshold, so that they *satisfice* a given target, as in the so-called conjunctive and disjunctive rules, or in elimination by aspects. Rules are often based on a hierarchic design.

The fact that procedurally rational agents often do use compensatory procedures or do not behave as if they were approximating regression analysis or expected utility theory to arrive at their decisions does not mean that these agents are error-prone or suffer from some biases. Rather, as Gigerenzer (2000, Chapter 8) has demonstrated, non-compensatory procedural rules can arrive at the right decision just as often, when such a decision exists, and much more efficiently than compensatory ones. In addition, as recalled by Dhar (1999), non-compensatory rules lead to more decisions than compensatory ones; when there is no decisive advantage, there is no choosing at all and the purchase decision is postponed.

These means and procedures include rules of thumb, the acceptance of social conventions, and reliance on the hopefully better informed opinion of others. Seen from the perspective of neoclassical substantive rationality, procedural rationality may seem to be *ad hocery*, but procedural responses are the only sensible answer to an environment characterized by bounded knowledge and computational capabilities, time constraints and fundamental uncertainty (in the sense of true, ontological, uncertainty). It could also be called the principle of *reasonable rationality*. The purpose of economics ought not to define an ideal consumer that would have all the nice mathematical properties that are required by an elegant theory; rather the purpose should be to define realistic behaviour.

3.2. Satiabile needs

The second principle, that of *satiabile needs*, can be likened to the neoclassical principle of diminishing marginal utility (or its non-satiabile principle), but it takes a particular meaning in the Post Keynesian theory of the consumer. Here satiation arises with positive prices and finite income. There are *threshold* levels of consumption beyond which a good, or its characteristics, may bring no satisfaction to its consumer. Beyond the threshold, no more of the good will be purchased, regardless of its price.

One has carefully to distinguish wants from needs, as do Lutz and Lux (1979). Following Abraham Maslow, and in line with the groups classification proposed by Roy (1943), they argue that there is a hierarchy of needs, where some are more basic than others, which implies that they must be fulfilled in priority. In that sense all needs are not equal. Some needs are bound to be satiated much earlier than

others. Needs are subject to a hierarchic classification and are the motor of consumer behaviour. By contrast, wants evolve from needs. They can be substituted for each other and constitute 'the various preferences within a common category or level of need' (Lutz & Lux, 1979, p. 21). This distinction will be useful in defining the next two principles of a Post Keynesian consumer theory.

3.3. Separability of needs

The principle of the *separability of needs* asserts that categories of needs or of expenditures can be distinguished from each other. In the case discussed by Lancaster (1972), with goods described by a matrix of consumption technology with various characteristics, a separate need will be associated with a submatrix of goods and characteristics arising out of a decomposable matrix. The principle of the separability of needs is illustrated by the widely used econometric models of consumer demand, which assume that broad categories of expenditures enter separately into the overall utility function. In the utility-tree approach of Strotz (1957), the principle of separability is pushed one step further, since these broad categories of expenditures are further subdivided into several branches.

The separability of needs allows the consumer to divide the decision-making process into a series of smaller multi-stage decisions, and is consistent with the *hierarchic principle* designed by Simon (1962) to deal with complex systems or complex issues. The consumer first makes an allocation of his budget among needs, and then spends that allocation among the various wants or subgroups of each need, independently of what happens for the other needs. Changes in the relative prices of goods within a given category of wants will have no effect on the budget allocation between various needs, while a fall in the overall price of a group of goods corresponding to a given need will have repercussions on the budget allocation of all needs. The principle of the separability of needs imposes substantial restrictions on the neoclassical principle of price substitution, since separability limits severely the degree of substitutability between goods in different groups.

Indeed, a substantial amount of empirical evidence shows that general categories of consumption expenditures have low own-price elasticities and cross-elasticities. Eichner (1987, p. 656) points out that most of these elasticities are not significantly different from zero, and he argues on technical grounds that all coefficients (their absolute values) probably are an overestimate of the actual values.

3.4. The subordination of needs

Further restraints may be added if one goes beyond the principle of separability of needs, by introducing a fourth principle, the principle of the *subordination of needs*. With this principle, utility cannot be represented by a unique catch-all utility measure; it can only be represented by a vector, and there is no continuity anymore. The principle of the subordination of needs is often associated with the notion of a *pyramid* of needs – a *hierarchy* of needs – as described by the humanistic school

of psychology (Lutz & Lux, 1979). The integration of the principles of separability and subordination leads to Georgescu-Roegen's (1954) principle of *irreducibility*. Needs are irreducible.

In the case of utility-tree analysis, the first-stage budgeting problem is now resolved by assuming that money is allocated first to necessities and then to discretionary needs. There is no substitution between the budget categories apportioned to necessary needs and discretionary ones. All the principles previously invoked culminate in this hierarchy: needs are separable and the most basic needs are first taken care of in their order of priority, until they are satiated at some threshold level. Several studies seem to offer some support to this principle of irreducibility, even when only material goods are concerned. For instance Johnson (1988) has shown that goods that have a small number of common attributes are more likely to be ranked lexicographically when purchasing decisions are taken, regardless of price changes; consumers were eliminating products on the basis of basic expenditures categories. Similarly, Sippel (1997, p. 1439) has found that 'every subject showed a marked preference for some of the goods, while other goods were not chosen at all, even at low prices'. Frequent substitution occurred, as one would expect, mainly in the case of goods fulfilling similar wants, such as Coke and orange juice. In general, subjects 'violated the axioms of revealed preference' – i.e., axioms based on the neoclassical theory of the utility-maximizing consumer subject to a budget constraint. Besides arguing that these consumers are error-prone or irrational, a way out of these results is to suppose that many of these consumers acted on the basis of the principles of the separability and the subordination of needs.

While strict lexicographic ordering is unlikely, more sophisticated lexicographic approaches have been suggested, with consumers setting targets and threshold, i.e., with the addition of the second principle of Post Keynesian consumer theory, that of satiation (Earl, 1986). These non-compensatory ordering schemes are not only reasonable but also compatible with procedural rationality, since a complete utility map is not required. Decisions about the most basic needs can be taken quite independently of the informational requirements of the higher needs. Consumers need know nothing whatsoever about the prices of the goods that are part of the higher needs, and they need not rank alternatives which they cannot attain or which are beyond their satiation levels (Drakopoulos, 1994).

Neoclassical authors deny that needs are subject to the principle of subordination. This, it must be presumed, is mainly due to the devastating consequences of the irreducibility of needs for neoclassical theory and its substitution principle. Irreducible needs imply that they are incommensurable and therefore that 'everything does not have a price'. A trade-off is not always possible. The axiom of Archimedes, so popular with choice theorists, does not hold any more (Earl, 1986, p. 249), and nor does the axiom of gross substitution (Eichner, 1987, p. 632), so often invoked among general equilibrium theorists.

A large number of economists have been tempted to associate Georgescu-Roegen's combined principle of the irreducibility of needs with Lancaster's approach to characteristics. Lancaster (1991) himself has suggested such a move, which he calls dominance. Such a combination was in fact already provided by Ironmonger (1972).

Among Post Keynesians, Arrous (1978, p. 277) and Lavoie (1992, pp. 78–85) have provided an analysis of irreducible needs tied to groups of characteristics. Other Post Keynesians have proposed to adopt the radical form of Lancaster's analysis of characteristics, such as Pasinetti (1981, p. 75) and Nell (1992, p. 392).

3.5. *The growth of needs*

Having assumed that indeed there exists a hierarchy of needs, how do consumers move up the steps of the pyramid, from the core basic needs to the higher but more peripheral needs? The basic answer is that individuals move upwards in the hierarchy due to income effects (Joan Robinson says that consumers 'step down the hierarchy', meaning that basic or subsistence needs have top priority, while discretionary needs have lower priority!). Beyond the principle of satiation, lies the principle of the *growth of needs* – the fifth principle of Post Keynesian consumer choice.

When a need has been fulfilled, or more precisely when a threshold level for that need has been attained, individuals start attending to the needs which are situated on a higher plane. There are always new needs to be fulfilled. If they do not yet exist, consumers will create them through innovation, but this may take time (Gualerzi, 2001). Needs, however, often require income to be satisfied. To go from one level of need to another dictates an increase in the real income level of the individual. The fulfilment of new needs, and therefore the purchase of new goods or new services, is thus related to income effects. This is the microeconomic counterpart of the Post Keynesian focus on effective demand, that is, on macroeconomic income effects. What is being asserted is that income effects are much more important in explaining the evolution of expenditure on goods than are substitution effects. The latter play only a minor role in a static analysis of consumer behaviour, when similar goods or goods fulfilling the same wants are being considered. Indeed, changes in relative prices have an impact on budget allocation between needs only in so far as they have an impact on real income.

Another issue related to the growth of needs principle is that of material versus moral needs. This is emphasized by Lux and Lutz (1999) in their handbook entry on the dual self, and in the work of Etzioni (1988). While many would still doubt the possibility of a lexicographic ordering in the realm of material goods, a large number of authors seem to agree that, unless one is a rational fool as Sen (1977) puts it, people will entertain lexicographic ordering when moral issues are at stake, and hence when moral issues are incommensurable with material goods. The use of lexicographic preferences is now much preeminent in the critiques of standard neoclassical measurements of contingency values in environmental studies (Gowdy & Mayumi, 2001; Spash & Hanley, 1995). A Post Keynesian consumer theory could become a strong (academic) argument for those favouring green choices.

3.6. *Non-independence*

The sixth and last principle is the principle of *non-independence*. The emphasis of traditional theory on substitution effects also has led to the neglect of the learning

process in consumption theory. How do consumers rank their new spending opportunities? How do they learn to spend their additional spending power? Consumers watch and copy other consumers. Preferences are not innate, they are acquired by experience and by imitation of the consumption pattern of friends or of people of higher ranks in the consumers' hierarchy. Fads leading to large sales of specific products reaction are thus explained by the informational content of consumption by neighbours, relatives, friends or acquaintances. The impact of socio-economic contact on purchases reinforces the belief that the composition of demand depends on socio-economic classes. Decisions and preferences are not made independently of those of other agents. A household's pattern of consumption will reflect the lifestyle of the other households that constitute its social reference group. Marketing officers, through publicity, will attempt to make sure that households follow the appropriate lifestyle (Hanson & Kysar, 1999a, 1999b).

The term 'principle of non-independence' must be attributed to Galbraith (1958), who called it the dependence effect. But of course it must be related to the large amount of socio-economic studies on conspicuous consumption and lifestyles inspired by Veblen, Duesenberry and Leibenstein, and their snob and bandwagon effects (Mason, 1998). Choices are dependent of the choice of others, and wealth and consumption relative to that of others is a key component of the degree of our satisfaction.

4. Conclusion

Post Keynesians have put forth an agenda for research in consumer choice theory, which should be appealing to academics dealing with consumer research and economic psychology. Instead of trying to demonstrate one more time that so many subjects fail to behave in accordance with the standard neoclassical axioms of rationality, one should attempt to provide evidence supporting some of the six principles being evoked here. A recent example of this kind of work is to be found in a recent issue of this *Journal* (Scott, 2002).

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