



## Preferences, choice, goal attainment, satisfaction: That's life?

Rowena A. Pecchenino\*

Department of Economics, Finance & Accounting, National University of Ireland, Maynooth, Maynooth, Co. Kildare, Ireland

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### ABSTRACT

We make choices to achieve an objective. The objective is defined by an individual's preferences. Subject to constraints, the objective is approached or achieved. Is this a good characterization of life? To answer this question we weaken one of the most basic assumptions of economics: individuals know their preferences. Instead we assume that an individual's preferences are shaped and reshaped by his environment, experiences, expectations, and by exogenous events. In this model of individual self-discovery, preferences emerge, evolve, and change. These redefinitions change the future course of the individual's life and reinterpret his past. They characterize a life lived.

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### 1. Introduction

We make choices to achieve an objective. To be able to formulate these choices, economic analysis usually begins with a presumption of knowledge, knowledge of one's preferences, of the distribution of the states of nature, of the constraints faced, of one's identity, of current and future prices—actual or expected, of computational constraints on knowledge, of how to learn and the (expected) costs and benefits of so doing, of how one compares with one's peers, of society and one's place therein, of institutions, of who, what, where and why one is who one is. It is this presumption of knowledge that allows us to make choices and to know, at least in expectation, the fruit these choices will bear. The benefit of this to the researcher is straightforward: (economic) behaviour can be interpreted and explained and satisfaction quantified.

Two questions arise. Does this presumption of knowledge well-characterize the circumstances in which decisions are made and the outcome of those decisions for an individual's life? Does it matter? To attempt to answer these questions in this paper we examine an alternative presumption, that of lack of prior, verifiable, or immutable knowledge. Thus an individual is initially, from his own perspective, a blank slate. His identity, a composite of many distinct yet interdependent identities, which is a manifestation of his preferences, is not given but is shaped and reshaped by his environment, his experiences, his expectations, and by exogenous

events interacting with and revealing or obscuring his essence. His essence is given. It defines who he can be not who he will be. It is not known nor fully knowable and can only be discovered by living. What an individual discovers is only partial since those discoveries are mediated through his social environment which is defined by family, peers, community, country, region, ethnic group, legal and economic institutions; his experiences which can be planned to achieve a purpose or unplanned as a result of pure chance; his expectations of the future, both those based on objective evidence and those on unfounded hopes and dreams; and through events, those that can be anticipated and which can be characterized by a probability distribution and those that cannot be anticipated and which cannot be so characterized but which can change his environment, cause him to reinterpret his experiences, shatter his expectations, reveal heretofore undiscovered aspects of his essence and modify his perception of who he is.

When an individual discerns what he believes to be his composite identity and all its component identities, that is, his preferences, he then aspires to attain the ideal or archetypal identity which is defined in the context of his history: his environment, his experiences and his expectations and the events that have formed him. Identities can evolve or atrophy and new identities can emerge. Thus, an individual's current identity (preferences) may not be his future identity (preferences). The future identity he expects, hopes and aspires to have may not be the one he will have or, indeed, can have. The individual faced with his own complex and mutable make up as he understands it and his specific history balances the many aspects of his current composite identity and his expected and hoped for future composite identity both by actions

\* Tel.: +353 1 708 3751; fax: +353 1 708 3934.

E-mail address: [Rowena.Pecchenino@nuim.ie](mailto:Rowena.Pecchenino@nuim.ie)

taken, experiences and skills gained, and identity ideals aspired to. The individual's social environment may constrain the experiences he has or is likely to have. It also is likely to constrain the set of ideal identities which he perceives. However, events can cause a structural break, destroying what had been, revealing different components of his essence, placing the individual in a new environment, opening him to new experiences, changing his expectations, thereby putting him on a new path with a new composite identity but with his same, if reinterpreted, life.

To describe this process of preference discernment we draw on a number of literatures in economics which are briefly reviewed in Section 2. The model is developed in Section 3. Implications of the model for economic analysis are discussed in Section 4. Section 5 concludes.

## 2. Identity and preference formation

### 2.1. Identity

An individual in economics is generally represented by a single preference ordering, a single identity, that is fixed through time. Individuals pursue their own self-interest. What others think, societal norms of behaviour, moral imperatives, have no role unless they increase the individual's atomistic well-being. Sen (1977) challenged this. Sen (1985, 2002) argues that individual decision making cannot be characterized by optimizing self interest. Individuals have goals and make choices that are inconsistent with self interest and are, instead, committed to particular social behaviours either to obtain a social goal, which may come at a personal cost while benefiting society, or to maintain the social structure within which they live by holding to societal behavioural norms (Sen, 1997). He also argues that individuals do not have a single preference ordering but, rather, have multiple preference orderings, one for each identity, over a given set of choices. The individual then must have a preference ordering over the multiple orderings, but this ordering may not be complete. This incomplete ordering can lead to individuals exhibiting time inconsistent behaviours, as which ordering takes precedence at a moment in time may depend on any number of factors.

Akerlof and Kranton (2000, 2005) brought the concept of identity and preferences based on achieving an assigned social identity into mainstream economics. They maintain the concept of a single preference ordering and while broadening the analysis to include the individual's social setting, how he is placed therein (by assignment rather than choice), and how he behaves to both be what society expects him to be and to minimize the cognitive dissonance of defying social expectations. Their models are closely related to models of socially referenced preferences, which also assume a single preference ordering and self-interested behaviour, such as Duesenberry (1949), Easterlin (1974), Frank (1985) and Clark and Oswald (1998), among others. In Akerlof and Kranton's analyses, in contrast to the socially referenced preference literature, individuals try to obtain an *assigned* ideal identity rather than assessing their happiness relative to others in their *chosen* reference group.

Kirman and Teschl (2004, 2006), Teschl (2006) and Horst et al. (2006) acknowledge the strengths and weaknesses of standard economic theory. The simple picture of an agent's identity at each moment in time is given by a fixed preference ordering. This ordering and the agent's attempt to maximize his utility subject to specific constraints describe what the agent is. Introducing preferences for his social identity expands rather than changes this simple view of a global and unchanging preference ordering, by adding to the description of the economic agent's identity more information as to where the agent is situated within a social space. Individuals change by choosing to belong to social groups in order to become

who they want to be and to realize their, not necessarily fixed, self-image. By choosing their social groups, people are consciously changing what and where they are right now, thus changing their preference ordering, to become who they would like to be in the future. The social group is a mechanism for people to acquire those characteristics they would like to have now. This process may be repeated in the future and new social groups chosen to meet new goals. This conscious and continuous change leads to incomplete preference orderings.

Kirman and his colleagues model how an individual defines himself by choosing to change through time. That individual remains identifiable as a unique individual across change, as required by Davis (2006) conception of the individual. This is in contrast to Parfit (1971) who characterizes the individual as a sequence of selves. Bazin and Ballet (2006) can be considered a formalization of Parfit's framework. They characterize the individual as having multiple selves simultaneously, like multiple but independent identities. Their model also suggests that the individual's preference ordering will not be complete.

Similar in emphasis are Schelling (1985) analysis of multiple selves and Loewenstein (2000) recognition of our inability to resist visceral urges. Both Schelling and Loewenstein suggest these visceral factors cause us to behave in a manner inconsistent with our true (or dominant) preferences, while only Schelling contends that individuals have multiple selves, each with his own preference ordering. Loewenstein, in contrast, contends that decisions are made by a single self with a single preference ordering, but effects of (visceral) states cause our lower order or primitive (irrational) nature to overwhelm our higher order (rational) nature when decisions are made under their influence. In their models an individual's identity (identities) is (are) fixed and known, the dilemma is how to ensure the true self takes the decisions and that visceral urges are minimized.

These models all lead to behaviours that are inconsistent with those predicted by the atomistic, self-interested agent model which has formed the backbone of economic analysis. Behaviour that appears to be time inconsistent is the norm. Society imposes behavioural constraints. The good of the collective may dominate the good of the individual. Interpersonal comparisons explicitly or implicitly are indicators of individual wellbeing. The self, and thus what constitutes self interest, is not defined in isolation. But knowledge of one's preferences is not questioned.

### 2.2. Preference formation

Becker (1996) endogenizes preferences by extending the standard utility function to include personal and social capital, both of which can be bequeathed to an individual by society or family, providing initial personal and social capital, and invested in to affect future preferences. The underlying utility function, which is known to the individual, is time independent, so stable, but present choices affect future levels of personal and social capital and thus the utility one gets from the consumption of goods, which he defines broadly. Individuals know that their choices today affect their future utilities via their personal and social capital and take this into account in their utility maximization decisions. However, they do not have perfect foresight nor can they, in the social sphere, do more than choose their social network through which their social capital is accumulated, so their actions represent the best they can do given the information and knowledge they have. Habits can be formed, mistakes can be made, and decisions made in the past can be regretted.

Bowles (1998) argues forcefully that preferences are not innate but are rather endogenous. What individuals' preferences are, how they evaluate choices, depend on the institutional structure of the world around them, the legal institutions, the economic institu-

tions, and the cultural institutions of family, religion, and school which define their environment and provide them a framework in which to evaluate their experiences. Changes in these institutions lead to changes in preferences and thus have effects beyond the narrow sphere in which the institution operates. For example, market exchange may diminish the value of cultural traits such as trustworthiness and generosity, which while essential in situations of repeated non-anonymous exchange, are not in non-repeated, anonymous exchange. In a related analysis Bar-Gill and Fershtman (2004) show that laws change not only incentives to behave in specific, socially approved, ways, they can also affect preferences. Specifically, they show that a preference for fairness can be undermined by a law which provides a strong remedy for breach of contract.

Palacios-Huerta and Santos (2004) develop a model in which individuals interact in an incomplete market setting. The incompleteness of the market and their patterns of interaction endogenously determine their degree of risk aversion, the key preference parameter in this analysis. Bisin and Verdier (2000) and Bisin et al. (2006) model the transmission of cultural preferences from parents to children, thereby establishing how minority cultures survive the forces of assimilation by the majority culture. While parents may try to define who their child becomes by controlling their environment, restricting their experiences, and providing the lens through which those experiences are interpreted, the media can also give greater definition to and suggest societal norms for emergent identities, such as that of the working woman analyzed by Starr (2004). Internal forces are also at work in enabling the individual to become who he wants to be. These forces are studied by George (1998, 2007) in which individuals take actions to constrain their choice sets and which allows them to be true to their preferred preferences.

These papers on endogenous preference formation stress the role of the individual's environment, whether familial, ethnic, social, economic or legal in defining his preferences, that is who and why he is as he is. Identity theory provides context since it looks at the whole individual and what he aspires to be and shows how the ideal set of preferences, those of the archetype, are adopted. We draw these two literatures together and examine how an individual is defined, how he tries to redefine himself, and is redefined by his actions and events beyond his control. We will question whether full knowledge of his preferences, even at a point in time, is achieved or achievable, and then consider whether and how this matters for the assessment of decision making and, more importantly, of wellbeing, the value of life.

### 3. The model

This model is inspired by Pecchenino (2009) and Jeitschko et al. (2008). It is a description of how individuals learn about themselves, their preferences, and thus make choices given the society in which they live and of which they are a part. Individuals live for two periods. At birth each individual is endowed with an essence and emotional, psychological, spiritual, intellectual, and economic potentials. An individual's essence can be interpreted as a preference ordering defined over  $N$  distinct yet interdependent identities in both the first and second periods of his life. At birth the individual has no knowledge of his preferences or the extent of his potentials, which can be considered latent resources, and only discerns them, perhaps inaccurately and incompletely, through experience.

An individual is born into a social environment defined by his family or guardians, his ethnic or cultural group, where he lives and the political, economic, legal, religious, educational, informational and other institutions that characterize his community or nation, his society. Experience, the interaction of the individual

with his social environment, the society of which he is a member as a result of his birth (although he may choose to affiliate with subgroups within that society), leads to some identities being discerned (the individual 'discovers' who he is), and others remaining latent.<sup>1</sup> Experience also enables the individual to learn about his potentials, the resources in his control. Once a set of identities is discerned and incorporated into a composite identity, the individual chooses the identity ideal or archetype to which he will aspire for each component identity. The individual chooses his ideals from the set of archetypes he perceives. His perceptions are a function of his social environment and experience, and are thus socially defined, and of perceived resources, since availability of resources determines what identities are feasible. Experience and perceived resources are also affected by his social environment, the society in which he lives.

Having chosen his identity archetypes, and given his perceived current and expected and hoped for future resources, the agent invests effort today and plans to invest effort tomorrow in achieving his desired identities. These identities define who the individual believes himself to be today. He also invests today in identity specific behaviours and skills that prepare him to take on additional expected or hoped for identities to achieve what he now believes to be his lifetime ideal composite identity.<sup>2</sup> This defines who he wants to become. These investments can augment or diminish his future resources by enhancing or, unintentionally, reducing his overall ability to achieve the identities that are now desired and those that may actually be discerned in the future.

Two forces are at work in determining his current actions and plans for the future: his life's course. Mathematical expectations of the future that are based on an objective evaluation of what is likely to occur, and hopes for the future that are not based on an objective evaluation, yet motivate current choices<sup>3</sup> (Sharot et al., 2007). One's expectations and hopes, however, may not be realized and may be based on achieving identities that while discerned are not consistent with his essence. Individuals, no matter how much they try to be otherwise, are constrained by their essences.

Assume that an individual's composite identity and the effort, his psychological, emotional, spiritual and physical resources expended, required to attain it are related both temporally and intertemporally. The individual believes that he can harness his resources to approach or attain his composite identity ideal. These personal beliefs over resources expended can depend on context, the personal, familial, social, intellectual and spiritual environment in which the individual finds himself. Intertemporal spillovers from actions taken today on the situation in which the individual finds himself in the future can be intentional or unintentional. In either case they affect the individual's initial position as he begins his second period of life.

The initial identities an individual discerns and from which he builds his composite identity depend on environmental, familial,

<sup>1</sup> While in one social environment a set of identities may remain latent, this same set may be discerned in a different social environment. Thus, consider the child born to a poor family in a rural region of a developing country who is adopted at birth by a rich family in an urban area of a developed country. While the child's essence and individual potentials, as opposed to family resources, are the same, the discerned identities and perceived individual resources will be different because of the change in social environment.

<sup>2</sup> These investments are similar to investments in Beckerian personal and to some extent social capital. Here social capital is more participatory as the individual is a member of society, although he may affiliate with sub-groups thereof as in Becker (1996), the value of that memberships depends on his behaviour in and toward the group as well as the behaviour of other group members.

<sup>3</sup> Sharot et al. (2007) have found in neurobiological studies that "[H]umans expect positive events in the future even when there is no evidence to support such expectations." And these expectations "motivate adaptive behaviour in the present towards a future goal."

spiritual and societal factors. They depend on how the individual's essence interacts with his environment and the extent to which his social environment constrains his knowledge. The identities an individual may discern in the future depend on the identities discerned today. This discernment process can be affected by his investments in future identity capital which allows the agent to try to influence his lifetime identity composition. But, his actions dedicated to achieving his current identity goals, his social environment, his essence as well as factors beyond his control, those that can be anticipated in period 1 and affected by the individual's actions and those unanticipated and unable to be anticipated in period 1, also affect which identities may be discerned in the future as well as future potential, his resources. Finally, investments today in identity specific capital can leave the agent well or ill-prepared for a future in which these hoped for or expected identities are or are not realized.

The individual, given his initial identity discernments, chooses his archetypes from the set he perceives and divides his total perceived resources in period 1 and plans to divide his expected total resources in period 2 to try to achieve his overall identity goals today given his aspirations for the future. Given the individual's understanding of the interrelationships among his component identities (which together define the composite identity) his decisions will take these interrelationships into account.

Thus, the individual, in the context of society and his perceived place therein, plans for what he believes is, what he expects will be, and what he hopes will be. He chooses his current resource allocation and his planned resource allocation for his hoped for and expected future. These choices are made and current actions are taken in period 1. These actions move him closer to his period 1 identity archetypes and prepare him for his now desired future. These choices may reveal mis-discernments of his underlying preferences causing the individual to question who he is. Then, at the onset of period two, events, both those that were anticipated and those that were not, are realized, which in conjunction with his first period identity discernments or now recognized mis-discernments and his first period identity investments provide the basis upon which he discerns his second period identities. At this juncture the relationship among his past and future identity perceptions is revealed. To the extent that his period 2 identities are not what he had hoped for or imagined if hoped for or expected, the individual must come to terms with what he now perceives, in the knowledge that he had been wrong in the past and may be so again. Further, to the extent that realizations of events that could not be anticipated can be considered life-altering, essentially creating a structural break, they displace some or all previous and hoped for or expected future identities, replace them with other identities, and thereby redefine who the individual now is and reinterpret who he then was. They change his life.

#### 4. Implications

In this model individuals take decisions based on partial, imperfect, and perhaps even wrong perceptions of who they are. That is, they do not know their own preferences they can only discern them. The discernment process is life-long and may be fraught with error since only with the accumulation of experience may it be possible clearly to perceive one's preferences, both current and past. The decisions taken based on preferences as currently understood may be revealing to the individual, allowing him to learn what does not make him happy while not necessarily directing him towards what does. This is in contrast to Becker's (1996) idea that while agents do know their utility functions they may not know precisely what the outcome of their investments in personal capital will be and so may, in an ex post sense, have made poor decisions although those

same decisions were maximizing ex ante. Revealed preference theory would, mistakenly, tell us that the decisions and actions taken do reveal the individual's underlying preferences, although at best they can reveal what the individual discerned his preferences to be. Standard theory with its assumption of known preferences, would explain away any anomalies, such as time inconsistent behaviour, by asserting, for example, hyperbolic discounting. Bounded rationality (Simon, 1955), while it may be a factor, will not change that the individual does not necessarily know and thus does not necessarily act on his true preferences.

Does this matter? In the context of how and why choices are made it does not. Choices are made to obtain or to move toward an objective. That the objective is ultimately shown not to be consistent with underlying preferences or who the individual determines himself to be does not alter the motive for the actions taken. It is in interpreting the outcome of choices taken in terms of utility or individual wellbeing where difficulties arise.

Choices taken in this framework may actually be welfare diminishing, even if unintentionally so. Welfare may be diminished because actions taken to achieve an identity may be successful, but if this identity is determined not part of one's essence, achievement of this identity goal will not bring satisfaction but instead may cause dislocation and distress. Thus, decisions, even if they immediately or eventually lead to greater self-knowledge and higher future wellbeing, may be regretted.<sup>4</sup> This is not just an issue of experience goods, credence goods, or positional goods that require experience with the good to determine its value. It is that preferences discerned and then acted upon do not lead to the expected/hoped for outcome because those preferences, although discerned, were not the individual's true preferences if this concept has any real meaning given that preferences can never be fully and decisively known, there is always still more to discover.

While an individual's well being may be difficult to determine if the individual does not definitively know his/her own preferences, although he/she best understands them even if imperfectly, this should not hamper public policy designed to enhance individual functionings, as defined by either Sen (1993, 1999) or Nussbaum (1992, 1993). They both work from the assumption that it is the individual who best knows his/her own preferences, recognizing that these preferences are affected by society and choices made are influenced by that social environment, the individual's experiences and expectations, and by exogenous events. However, their public policy concern is to ensure that all individuals have the advantages and opportunities necessary to live a fulfilled life. Nussbaum, following Aristotle, asserts that everyone in society should be given the "basic necessary conditions of the capability to choose and live a fully good human life." (Nussbaum, 1993, p. 265) Sen, similarly, believes that each individual should have the "actual freedom to live well and be well." (Sen, 1993, p. 39) To the extent that Nussbaum's basic necessary conditions and Sen's freedoms are fundamental, they should aid the individual in his process of discernment by removing the constraints placed upon him/her thus allowing him to achieve basic and more complex functionings.

This model looks at the individual in society from the perspective of the individual rather than from a societal, public policy, perspective. It examines not what should be, what necessary conditions and freedoms society should provide, but what is and how individuals in society and therefore of society learn who they are, that is, discover their preferences, in the context of that society.

<sup>4</sup> These feelings of regret are similar to those analyzed by regret theory (Bell, 1982, 1983; Loomes and Sugden, 1982), in that the outcome of decisions taken in the past are evaluated based on the outcomes of foregone alternatives, what might have or could have been. Here, however, regret occurs as a result of finding out you are not who you thought you were.

However, like Sen and Nussbaum it takes the ethical individualistic view that “individuals, and only individuals are the units of moral concern. In other words, when evaluating different states of social affairs, we are only interested in the effect of those states on individuals” (Robeyns, 2000, p. 16) where individuals as members of society affect as well as are affected by those states. That is, individual functionings, that is the means by which commodities are turned into functionings, are to a large extent determined by the society in which one lives. In the context of the model in this paper identities and identity archetypes are determined by the society in which one lives. But, the choice of the vector of functionings that define one’s capabilities, similarly the choice of identity and identity archetype, is an individual not a societal choice even though societal context matters.

Additional issues arise since resources are not precisely known. Thus, choices taken may not be feasible, leading to failure to achieve or to be able to achieve what was planned, or they may be significantly inside the budget set if the perceived resources are significantly lower than they actually are. This is, perhaps, not a major problem when the resource constraint is simply an income constraint, but when resources are defined more broadly to include, for example, physical, mental and spiritual resources, and when one’s actions today affect one’s resources tomorrow, it could be.

## 5. Conclusion

Economic analysis is underpinned by strong assumptions on what individuals know, what they do not know, and how they can learn what they do not know and then know that they know it. Not knowing is usually reduced to knowing the distribution over all possible outcomes, and knowing what all possible outcomes are, but not knowing which will be realized. There are very few unknown unknowns. In this paper we have asked, in the context of an individual, what if there are many unknown unknowns that can be revealed only by the life lived, that is experience, where experience is the interaction of the individual today given his expectations of the future, well-founded or built on hopes and dreams, with his social environment and exogenous events, both predictable and unpredictable. Thus, the individual, through living, discerns his preferences, possibly suffering numerous setbacks where those preferences discerned turn out to be false or experiencing epiphanies through which some aspect of his true preferences can be, or is believed to be, discerned accurately. The lack of knowledge by the individual of own preferences and resources, of who, fundamentally, he is and will be, implies that many choices made are made on the basis of what is perceived to be rather than what is, but choices can be made, a life can be lived. Living, even if analytically reduced to a process of choosing in accordance with perceived preferences and resource constraints given one’s environment, one’s experiences, emotions and events, does not guarantee satisfaction, but rather just another step on the journey that is life.

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