

Economic (Christian) Humanism¹

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Abstract

The standard economic model of human nature, Rational Choice Theory (RCT), conceives of human beings as decision machines for whom life is a series of individualistic cost-benefit analyses. Ethical life is consequentialist, and The Good is whatever satisfies the agent's subjective preferences. This is compared with an alternative which draws on Christian theology. It takes a [Humanizer of Science](#) stance by infusing the standard RCT analytic maximizing apparatus with Christian ideas, so that the mathematics of 'equilibrium' can describe the struggle of a divided self, motivated jointly by considerations of identity, duty and egoistic utility maximization. This model allows for more motivations, makes room for conflict between them and interprets gifts as potentially more than 'exchanges'. Anyone (Christian or otherwise) who accepts this should as a logical necessity want to expand the definition of money to include 'a means of gift' alongside 'a means of exchange'. However, recognizing that any optimizing model like ours most naturally describes what psychologists call [system 2 thinking](#), we are concerned lest we lose valid insights from psychology, and theology. A future research direction should take into account the 'love of money' and Augustine's 'ordered loves'. Such a [Limiter of Science](#) stance with respect to RCT could also allow for situations where a principled response is pursued instead of an immoral cost benefit analysis.

1 Introduction

Questions of human nature have not received much attention from economists, despite philosophical interest in the topic [since at least the ancient Greeks](#). But these questions matter because what we believe about human nature informs our understandings of both human behaviour and what is conducive to human flourishing.

This paper critiques the understandings of human nature imbedded in mainstream economics, and proposes an alternative. The gist of so called Rational Choice Theory (RCT), surveyed in section 1, is that human beings are decision machines for whom life is a sequence of cost benefit analyses (or, equivalently, optimizations) focused on the present and future outcomes, since these are where the consequences of present choices reside. Ethical life is consequentialist, and The Good consists of satisfying whatever subjective preferences the agent possesses. These preferences are usually, [but not always](#), self-focused. We critique this approach in section 2, drawing on a range of scholars. Of particular interest is Sen's observation that sometimes commitments rule out optimization, and to Christian Smith's location of these oft-egotistic decision machines within the 'liberal progressive narrative'.

In section 3 we present a Christian alternatives to RCT. We review our published work incorporating a Christian anthropology into economics using a framework which retains the maximizing structure of RCT but re-describes 'equilibrium' as a struggle of a divided self, motivated by considerations of identity, duty and egoistic utility maximization. This model allows for more motivations, makes room for conflict between them and interprets gifts as potentially more than 'exchanges'.

In section 4, we note that Augustine's loves and the scriptural idea of the 'love of money', let alone many insights from modern psychology, do not fit comfortably with RCT. We assert that RCT most straightforwardly describes what psychologists call system 2 thinking, and

¹ We thank without implication members of the Economics Humanists group in the UK and Australia, together with C Stephen Evans and Greg Forster.

while it is important to model this well, thinking that is heavy on principle and light on calculation might avoid an immoral cost benefit analysis. Section 5 concludes.

2 Rational Choice Theory

2.1 Origins

Economic analysis in the modern period, beginning with the Enlightenment, adopted the utilitarian model proposed by Jeremy Bentham, which claimed that human beings are solely motivated by the pursuit of pleasure and the avoidance of pain. This was thought to be a sufficient explanation of behaviour, and a basis for judging what is "good" for human beings.

[John Stuart Mill](#) likewise defined the pursuit of economic utility as the pursuit of wealth constrained only by laziness and impatience.

Thus, in the late nineteenth century, the economist [Francis Edgeworth](#) was able to claim that "the first principle of Economics is that every agent is motivated only by self-interest." Edgeworth was aware that this was not generally applicable, but argued that it was a reasonable assumption for the activities to which he applied his analysis - war and contract.

The **rational economic man** model emerged from the linking of the older utilitarianism of Bentham and John Stuart Mill, to the idea that human beings evaluated the range of actions available, seeking to identify the outcomes that would maximise their utility. This gave rise to the synthesis in Alfred Marshall's celebrated [Principles of Economics](#) in 1890, which was foundational to the development of economic analysis as a discipline in the twentieth century.

The weakness in Marshall's exposition was that "utility" is not measurable. So operationally it was impossible to tell if a person's actions did indeed maximise his or her utility. For the same reason, it also failed as an indicator of individual wellbeing. Moreover, since utility is not interpersonally comparable, it could not be used to evaluate social utility - hence Bentham's requirement that society should seek those outcomes that maximise the sum of individual utilities cannot be implemented.

The abandonment of the older utility analysis was instigated in 1934 by [Roy Allen](#) and [John Hicks](#), and completed by the work of [P.A. Samuelson](#), who showed that standard results in consumer theory could be derived with no more information than rationality in choice. In particular, all that was needed was "non-satiation" - that is, the consumer prefers more of a good to less of a good: this is known as "revealed preference" theory. This basis for consumer theory entailed a change in emphasis, from the utility to be maximized - which was increasingly an intellectual embarrassment - to the rationality of the choices.

For example, in deciding what to purchase in a given time period, the consumer is modelled as choosing, among the set of options available, the one that best satisfies her preferences, given her disposable income. Why she chooses a particular option is not important, but she must make rational, that is consistent, choices.

Importantly, a separation between the motivation and objective of the agent can emerge in the Allen/Hicks/Samuelson synthesis. The motivation can be described by the mathematical properties of the function being maximized. For example, in a choice between apples and oranges, the agent desires apples in such a way that each additional apple is desired less *ceteris paribus*, and, in such a way as an increase in the number of oranges makes a given amount of apples more desirable because they become relatively scarce. Both assertions arise

directly out of standard properties of preference functions such as declining-but-positive first partial derivatives and linear homogeneity.

These motivations are however distinct from the objective of the agent which is to maximize an aggregation of apples and oranges. The aggregate is sometimes called a utility function, but this is confusing because unlike the older utility analysis it is not necessarily grounded in net pleasure. The agent's choices between apples and oranges are, to use Friedman's famous phrase '[as if](#)' she were maximizing the aggregate, even though one need not suppose this is what the agent actually does.² What the new the model gained was the ability to discuss choices that were not obviously about the straightforward pursuit of net pleasure. Yet the cost of making the different components of the utility function not convertible to net pleasure was the units of the aggregate became undefined.

With all these changes in the basis for theorising, and in the intellectual backdrop, the "rational economic man" model was transformed into "rational choice theory"(RCT). According to this theory, [all human behaviour](#) can be viewed as involving participants who:

- accumulate an optimal amount of information in a variety of markets
- form a stable set of preferences; and
- maximise their 'utility', where this really means satisfies preferences.

What is maximised is one's own self-interest: so an individual who allows himself any goal or motivation other than single-minded pursuit of his own welfare is violating the demands of rationality.³ The hegemony of the rational choice model in economics has been noted by [Amartya Sen](#):

"not only does RCT, even in its broadest form, presume that people do not actually have different goals from the pursuit of their own welfare, but it also assumes that they would be violating the demands of rationality if they were to accommodate any goal or any motivation other than single minded pursuit of their own welfare."

2.2 Marriage and the limits of economic rationality

Rational choice theory has retained a stranglehold on economic theorising. It has of course been adapted and extended in scope. Perhaps its dominance does not matter too much if what is being analysed is the demand for potatoes, or the interaction of firms in oligopolistic markets. However, the extension of the model into other areas of life raises the issue of the proper limits of markets.

A particular example is the work of [Gary Becker](#) in applying economic rationality to the analysis of the family. He explored the economic gains of marriage, modelling the married

² As well as being motivated by the embarrassment of measuring net happiness, the shift away from a simple motivational narrative for people – the pursuit of net pleasure – ran in parallel with a loss of traditional notions of personhood. Up until the early twentieth century [Descartes Mind/Body dualism](#) held up under attack, allowing theorists to ascribe coherent and understandable narratives to agents. As the twentieth century ran its course, scholars increasingly became sceptical of such metanarratives, reaching the terminus of [postmodernism](#) in the latter half of the century. Challenges to traditional accounts of rational persons arose from Freud, behaviourism and brain science, to name a few.

³ There is a vast yet fragmentary discussion of whether pursuing 'self interest' and 'one's own welfare' can properly include looking out for the welfare of others. Terminology aside, the distinction that is debated is between acting for others 'to make oneself feel better (satisfy one's preferences)' and acting for others despite this action being against the agents preferences. As discussed presently, Sen upholds this distinction, using 'sympathy' for the former and 'commitment' for the latter. In the quote that follows he declares sympathy to be inadequate.

household as a "firm" which gains from specialisation in household production and outside employment, from sharing household expenses and from the production of children. In searching for a marriage partner in the marriage market, a person evaluates the range of possible candidates and the prospective gains with each one. She marries the one who promises to provide the greatest gains. Once married, the couple behave altruistically, pooling and sharing the gains: in some ways this is a traditional conception of commitment within marriage, and within his original work he even uses the language of love. However, the marriage may not last. One or other of the partners may identify an alternative partner who will generate greater economic gains, leading to divorce and remarriage.

Whereas Becker allowed for altruism in marriage, subsequent economics have pointed out the inconsistency in preferences and behaviour. If RCT dominates behaviour before marriage, and in divorce, why not within marriage? Becker's analysis breaks his own dictum that preferences should be consistent over time and across all situations.

In RCT the partners bargain over their shares of the gains from marriage. In bargaining the default is the 'outside option' of finding an alternative partner: if a bargained share is less than the gain from the alternative then the partner walks away from the marriage. Even if the marriage remains, the partners may no longer seek cooperative outcomes. They may revert to a non-cooperative equilibrium generating lower gains overall, but the marriage will continue if the gains remain better than the outside option. [Shelly Lundberg and Robert Pollak](#) call this a "separate spheres" model of marriage, where each partner pursues the best outcome for him or her in sharing out the gains.

What is missing from this analysis of marriage is any conception of marriage as a *covenant* in which the man and the woman commit to each other "for richer, for poorer; for better, for worse; in sickness and in health; until death us do part." The contract understanding of marriage has been particularly influential in the United States, where it has informed the reform of State laws relating to marriage and divorce. In its extreme form it suggests that the government should no longer make statutory provision for the regulation of marriage and divorce, but allow couples to make private contracts based on whatever "meanings" of marriage they happen to share.

2.3 Philosophical critiques of RCT

The thinness of the assumptions about human motivations in the above analysis are famously exposed by Amartya Sen in an article entitled, ["Rational Fools: A Critique of the Behavioural Foundations of Economic Theory."](#) At the core of his critique is a distinction between *sympathy* and *commitment*.

Sympathy denotes a situation where my welfare or sense of wellbeing is affected by the position of others. This can be envy of those whose lot in life is better than my own. But it could also be that the sight of misery experienced by others affects me personally, with a negative effect on my welfare. The typical example is the genuine sadness that a rich tourist may feel in encountering abject poverty on the streets of a poor nation. Giving to a beggar in such a situation may be entirely explicable within the rational choice framework: "altruism" in giving is completely rational.

Compare this with commitment, which is the choice of an action that will *lower* my welfare or wellbeing, such as giving to a neighbour without expectation of reciprocation or of 'feeling good' about it, or work motivated by the desire to serve others. Such actions are more difficult to rationalise within the framework, without doing violence to the idea of self-interest. Yet, Sen asserts, the social world in which we live is populated with such

commitment. It enables families and communities to function as such, not just as associations of people contracting with each other.

A rather different critique has been offered by [Jon Elster](#). His challenge is to the model of choice that underpins RCT: how can we explain autonomy, rationality and the ability to choose that the model requires? The form of the standard argument can be broken down into its components. The idea is that beliefs and cognitions about the set of options, plus desires or preferences, *cause* observed behaviour. But we have no access to the mental machinery to support the causal account: it is simply an inference from behaviour to a supposition that it must come from the interaction of beliefs about the options with the individual's preferences.

Moreover, for the choices and behaviour to be rational, the choice set must be well founded empirically: but how much evidence does the person need to make a rational choice? In fact, many choices are made, and have to be made, with inadequate evidence. For example, probabilities have to be attached to a range of possible outcomes of the choices to be made.

But these probabilities may not be known, at least with sufficient precision. The person may decide that he or she needs more information before making the choice, but that requires a prior decision about how much should be expended to improve the information set. That decision itself may be subject to imperfect information about the gains from undertaking further searches. For example, how many searches do I pursue on the internet to find the best deal on a new refrigerator if I have no prior knowledge about the likely distribution of retail prices?

Sen explores a helpful distinction between rational choice in general and **rational choice theory**. RCT, [he notes](#), requires that "people choose rationally if and only if they intelligently pursue their self-interest and nothing else," with altruism presumed to be self-interested. Sen prefers to define human rationality in choice more broadly: "Rationality of choice ... is primarily a matter of basing our choices on reasoning that we can reflectively *sustain* if we subject them to critical scrutiny." Reasons to choose must be examined carefully - not every time we have to choose, of course, since we can accumulate experience and develop habits that reflect those reasons.

The implication is that the rational choice framework can still be used, but with a wider remit than just maximising self-interest. Sen notes the oddity that economic theory has latched exclusively onto Adam Smith's "self-love," ignoring the other motivations that are described by Smith, such as sympathy, generosity and public spiritedness. Sen's point is that it is plausible for an agent to hold to a plurality of sustainable reasons for making choices. This undermines the simplicity and elegance of RCT, but opens the door for applications (such as ours) which free the researcher to describe actions in ways that are recognizable to the agents themselves.

2.4 Economic critiques of RCT

The relatively new discipline of experimental economics has challenged many of the assumptions of RCT. [Vernon Smith](#) reviewed compelling evidence that participants in experimental games played under carefully controlled conditions persist in behaving cooperatively, even if they fully understand that their "best" interests in interactive games would be served by non-cooperative behaviour. This evidence appears to contradict any simple notion of self-interested motivations.

Moreover, Smith explicitly recognized a kind of rationality deeply rooted in the past. What he calls *ecological rationality* consists of:

"emergent ... practices, norms, and evolved institutional rules governing actions by individuals that are part of our cultural and biological heritage and are created by human interactions, but not by conscious human design."

Nobel Laureate [Elinor Ostrom](#) complements this analysis by showing that many collective action problems, such as managing scarce fishing or grazing grounds have been solved, even though they appear intractable when analysed using RCT.

A rather different critique is implicit in the work of [Richard Layard](#) on happiness. His starting point is: "Happiness is feeling good, and misery is feeling bad" - which is close to Jeremy Bentham. He cites a wealth of empirical studies that show that happiness is correlated with the quality of family relationships, financial situation, being in work, relating to the community and friends, personal freedom and values, in that order. Unhappiness arises from the loss of a spouse, unemployment, poor health, loss of a job and loss of freedom.

Layard seeks to set all these empirical findings in a generalised Benthamite framework, because he wants to insert them into the formation of policies. For example, he strongly advocates the extension of cognitive and talking therapies to deal with the depression felt by so many of the population. The evidence, he claims, is that this would make a major contribution to the general "happiness" of society.

But this interpretation is not the only conclusion that might be drawn from the evidence. The overwhelming characteristic of the empirical studies he cites is that human flourishing is multidimensional, and often strongly related to the quality of human relationships enjoyed by the person. It may be possible to follow Layard and with sufficient ingenuity reduce all these to a single metric of "happiness," but that seems to miss the point. If people's preferences are complex and rich, any such reduction is at most a pale reflection of life as it is really lived.

This conclusion about the complexity and richness of human life, and what makes for human flourishing, underpins the work of Amartya Sen [on commodities and capabilities](#). Sen noted that human flourishing is multidimensional, not just fixated on material goods as economics sometimes appears to assert. He proposed that health, human relationships, education and life expectancy should be additional dimensions or "basic goods." He linked these to the concept of capabilities, by which he meant the capacity to live a life conducive to attaining the "basic goods," and consistent with cultural expectations.

This can be illustrated by considering *poverty*. Low income in a low-income community will not have the same effect on capabilities as the same income in a wealthy community. In the latter case, the person may feel themselves excluded from participation in the life of the community, because for example they don't have the right clothes or their own transport. The implication is that it will generally be right to measure poverty in relative rather than absolute terms, when developing policies for poverty alleviation.

Sen's approach underlies the work of [Sabina Alkire](#). She combines the capabilities approach of Sen with a longer list of natural law goods, based on the work of [John Finnis](#): life itself, knowledge and aesthetic experience, meaningful work and play, sociability and friendship, self-integration, authentic self-direction, and transcendence giving meaning and values. While this list is somewhat different from the "happiness" goods identified by Layard, being abstract rather than concrete, the two are evidently nonetheless consistent in the elements that they identify as contributing to human flourishing.

The main difference is that while Layard is optimistic that all can be reduced to a single metric of "happiness" (on a scale that includes "misery" at one end of the spectrum), Alkire,

following Finnis, notes that these basic goods are incommensurable. It is clear that a reasonable person would want *more* of any one element, but there is no objective means of trading off more of one element against less of another, at least in any quantitative sense.

However, the list does provide a framework for measuring *poverty* in a more comprehensive manner, and for the definition of goals in human and economic development that transcend the economist's fixation on income and material goods. Development in this framework needs to devise ways in which to develop the capabilities of people to improve their lives in all dimensions of basic goods.

2.5 Social and ethical critiques of RCT

Deirdre McCloskey provides a [critique of standard economic theorising](#) based on an exposition of the seven classical virtues as the basis for the "good life." She distinguishes what she calls the three Christian virtues (hope, faith, love) and four older pagan virtues (justice, temperance, courage and prudence). Her claim is that Adam Smith's writings should be read in the context of the entire edifice of virtue ethics.

A second implicit critique of the concepts of economic analysis comes from [Catholic Social Teaching](#). A key principle is that of the *common good*, which indicates "the sum total of social conditions which allow people, either as groups or individuals, to reach their fulfilment more fully and easily." So it is emphatically not the sum of individual goods, as in standard economic measures such as national income. The common good includes, for example, a responsive and responsible government, a sound judicial system, the protection of the environment, access for all to basic goods such as food, housing, work, education, basic health care, freedom of expression and communication, and religious freedom.

A second principle of Catholic Social Teaching is the *universal destination* of goods: the theological basis is that the good of the created order is a gift for *all* humanity, and should be shared equitably. This is a natural right, which requires "a common effort to obtain for every person and for all peoples the conditions necessary for integral development, so that everyone can contribute to a more humane world." This principle undergirds the preferential option for the poor: the requirement to attend to the needs of the poor, the marginalised, and the disadvantaged, both in our own society and worldwide.

A third principle is that of *subsidiarity*, which is intended to support the flourishing of the institutions of civil society, beginning with the individual and the family, going up through intermediate organizations, to the structures of government at all levels. The principle is simply that a higher level institution should never take upon itself a role that is properly that of a lower level institution, but should help the latter to fulfil its functions more effectively. For instance, the state should not seek to control in any way the functioning of the family unit in the procreation and upbringing of children, but support the family in its responsibilities, for example, by ensuring that families have sufficient resources to meet their basic needs. Pluralism, with a wide variety of different institutions, is to be welcomed and supported.

A fourth principle is that of *solidarity*. This principle emphasises the social nature of human beings, with our interdependence expressed in relationships. We are not just individuals interacting by contracting, but a community that seeks the good of all its members: with increasing global interdependence it is right for us to seek to redress the inequalities that exist internationally. Solidarity counters individualism, with the problems of inequality that it brings with it, and instead engenders a commitment to pursuing the common good.

The key point to note from Catholic Social Teaching is that it is based on an understanding of human nature. Hence the common good focuses on enabling people to fulfil their *telos* - the purposes for which they were created by God. This has consequences not just for social ethics, but also for personal agency and behaviour. If you assume that human beings are no more than "rational choice" agents, you miss the fuller picture of human beings in relationship with others at various levels in society, which presumably affects their behaviour markedly.

A third critique has been offered by [Christian Smith](#) from within a sociological framework. In his account, actions are motivated by a normative duty to do what is right or good or just, rather than the desire to seek personal benefits. Specifically, he criticises RCT for ignoring the variability in people's preferences and values which are derived from larger systems of moral order. His contention is that the dominant narrative that motivates social sciences as practiced in the West is the "liberal progressive" narrative.

This narrative tells a story of progressive liberation from the inequality, exploitation and prejudices of traditional societies, arising from human aspirations for autonomy, equality and prosperity. The goal is to establish modern, liberal, democratic, capitalist and welfare societies "in which individuals are equal and free to pursue their self-defined happiness." This definition of the good society leads to a secondary narrative of "ubiquitous egoism." The contention is that:

"perceptive and honest thinkers have come to see the cold, hard, simple fact that, beneath all apparent expressions of love and altruism, all human motives and concerns are really self-interested."

Smith dismisses what he sees as the scientific pretensions of RCT which is "not so much a scientific modelling of human behaviour" but the "abstract academic expression and promotion of the pervasive moral order animating market capitalism and political liberalism."

3 Humanizing Economic Models of Persons

3.1 The need for a theological anthropology

As Christian theists, we believe that a correct understanding of human persons begins with a correct understanding of God and His interactions with the created order. So humanizing a particular theory, or building a Christian humanism more broadly, requires a theological anthropology. Our attempt to humanize RCT infuses it with some elements of our theological anthropology, and we then go on to say where we see the limits of our approach lying. We thus move through the stages of being [Humanizers of Science and Limiters of Science](#).⁴

We should be explicit that our felt need to articulate this anthropology is based on a rejection of [Friedman's](#) notion that the assumptions of a theory can never be held against it so long as it predicts well. Any Christian social scientist who shares our unease with Friedman on this point should likewise be explicit about the anthropology undergirding their methods, and their Christian warrant for them.⁵

⁴ Their secular counterparts are found in the work of [Daniel Hausman](#) who allows for a greater range of behaviours within RCT, and Amartya Sen whose account of the limits of RCT have already been reviewed. A middle position is outlined by [Bart Engelen](#) who agrees with Hausman's account of how economists think about preferences, but agrees with Sen that these conventions are inadequate to cover all behaviour.

⁵ We are grateful to Greg Forster for useful discussion on this. We do not rule out 'as if' anthropological assumptions for particular purposes. And we would be generous about criticism of economic assumptions

3.2 The content of a theological anthropology

The starting point is that we are created in the image of God, for the purpose of relationships with God and neighbour motivated by love, and to have responsibility for the created order. As indicated in the first chapters of *Genesis*, we are to have "dominion" over the biosphere; thus Adam is placed in the garden to till it and keep it, and he is enjoined to "name" the animals - that is, to understand their purpose within the natural order.

The traditional conception of the person is consistent with this mandate, as befits its Judeo-Christian roots. As outlined by [C Stephen Evans](#) key characteristics include: agency, the ability to make at least some choices, consciousness, holding values, having a measure of freedom, the ability to reason and to act with purpose, taking responsibility, and, possessing a stable identity through time which makes taking responsibility meaningful.

But the human race is also *fallen*; it is in rebellion against God, autonomous and self-serving. The consequence is that all our relationships are fractured, and marred by selfishness and self-seeking behaviour. How are these effects to be conceived economically?

One deceptively simple understanding of the fall is that human nature precisely conforms to the most pessimistic narratives available within RCT. We might say that fallen humankind is literally like John Stuart Mill's *homo economicus* - greedy for money, lazy and impatient - or perhaps we might say that fallen humankind is more like Becker's sophisticated construct - able to mimic ethical behaviour yet ultimately only motivated by self-interest.

To this, we could add another consequence of the fall, which is that humans, who retain the desire to worship, divert this capability to other less worthy things. One common "God substitute" of relevance to economic theory is money. When Jesus warned in *Matthew* 6:24 that "No one can serve two masters ... You cannot serve both God and money," he affirmed that money is a God-substitute that can be loved and served, that we can even treat as sacred. A similar warning sounds from the Apostle Paul in *1 Timothy* 6:10: "The love of money is the root of all kinds of evil."

This appears to be consistent with some studies that indicate money is more than what is suggested in the standard economic definition: namely, a way of exchanging things, a way of carrying wealth through time, and a common measuring stick for all marketable goods and services.

For example, the theory of "motivation crowding out" looks at money's power to "crowd out" other motivations - like ethical ones - when it is used as an incentive. A classic example is the [study of six day-care centres in Israel](#). The owners were concerned with parents regularly coming to pick their children up late, and so they did what any economist would recommend: they imposed a financial penalty for turning up late. The big surprise was that imposing the fine meant that more, not fewer, parents turned up late. Suddenly they saw it, not as an ethical issue - it's poor form to show up late - but as a *financial* transaction. When financial

which, while not strictly correct, are valid as a close approximations (nearly true in all instances) or generalizations (exactly true in many instances). Furthermore, the truth (as we take it) of the doctrines of redemption/common-grace versus the fall mean that many behaviours can be consistent with Christian theological understandings if people behave 'at their best' or 'at their worst'. What we do deny, however, is twofold: we deny the wisdom of unreflective social science pursued by Christians who fail to ask what pre-commitments are necessarily being affirmed by their analyses, and, we deny that assumptions are completely exempt from criticism for any system that predicts well, where Ptolemaic astronomy stands as a widely-used cautionary tale.

incentives were involved, late arrival went from being a violation of a principle to a question of cost-benefit analysis: I'm willing to pay for babysitting in order to stay longer at work.

However, although it is possible to use the fall to legitimate the most pessimistic narratives available within RCT, we are attracted to a *gentler* version of the doctrine of the fall: the image of God in humankind is marred and distorted, but not completely destroyed. The concept of common grace - God's kindness enabling a degree of good behaviour in anyone - reminds us that even fallen human beings still love their children, care about their neighbours, worry about the future of the planet and give money away.

So "self-seeking" and "money-loving" does not say it all about human behaviour, especially economic behaviour, and there is enough common grace to hope for some success in standing against these tragic human failings.

An additional perspective comes from the Apostle Paul. A key theme is the distinction between the "sinful nature" and the "spiritual" person. So, in *Galatians 5*, he exhorts his readers to "live by the Spirit and you will not gratify the desires of the sinful nature." They have experienced God's undeserved kindness to fallen people, expressed by Christ receiving the punishment for their evil and in the gift of his Spirit, and are now called to live to the standards of their new nature. Thus the distinction is made between the "acts of the sinful nature" and the "fruit of the Spirit."

The implication is that the fallen person has an inbuilt tendency, due to the sinful nature, to act in ways that are contrary to their true nature created in the image of God; whereas the fruit of the Spirit are qualities of character enabling the Christian to live a renewed life, not subject to the sinful nature. The relational terms used to describe these two states are "in Adam" - named after the anti-hero in the fall narrative - and "in Christ." Thus the Christian notion of identity is relational, and subverts the individualism required for an [economic identity](#).

In *Romans 8*, Paul notes that Christians are work in progress, and need to put "to death the sinful nature" so the Spirit can direct our lives. In traditional Protestant understanding, this is an aspect of what is called *sanctification*: restoring the image of God in each person so that a Christian will be motivated by love of neighbour and by care for the natural order. This strengthens the frail capacity to do these things that comes from common grace, but it is an ongoing struggle commonly associated with mixed motives.

An implication of sanctification is that one would expect a different set of economic behaviours from Christians, one of which will be a higher level of financial giving. The metaphor of Christians being *salt* and *light* appears to have this implication.

But while the Christian worldview claims that an individual is the better for their relationship with God, making comparisons between the church and the rest of society is complicated. If people who become Christians are over-represented by people from socially marginalized groups, the church may be over-represented with the struggles of those groups. One New Testament letter, *1 Corinthians*, is written to deal with multiple difficulties in a church which may have been like this. Furthermore, from the very beginning [the history of the church has been chequered](#), as the mixed motives of individuals have played out to tragic effect.

Coming back to how economic theorizing might be altered in the light of the fall, we find the narrative of the human person torn by an internal struggle, as poignantly described by Paul in *Romans 7*, compelling.⁶ This is so for Christians who seek to do God's will despite desires to

⁶ The struggle described therein is so extreme some theologians doubt Paul is describing a Christian. But even if it does not, it still makes our point – general models of human nature ought to allow for such a struggle.

do otherwise, but it is also the case for people who are not Christians, who recognize a moral domain, to a greater or lesser extent self-defined, and who grieve their own and others' lapses with respect to it. For example, [Richard Posner](#) records this dialogue of a divided self:

'Some people hate themselves. But if I say, "I hate myself," who is this "I" that stands apart from "myself"? And notice how in the expression "I am not myself today," the "I" and "myself" change places. Now it is "myself" who is the authentic, the authoritative, the judgmental "I," and it is "I" who is the self that is judged and found wanting. Some people talk to themselves; when they do, who is speaking and who is listening?'⁷

3.3 Our model of a divided self

The theological theme of internal struggle led us to reinterpret some of the analytic apparatus of RCT. We attempted to model economic behaviour differently in application to marriage and divorce, and giving money and time voluntarily to help others.

The key analytic move is to assert the self can divide over an action choice. Classic Benthamite theory assumed the self is a coherent enough whole that it is decisive to ask the question: what will make me most happy (least unhappy). One might imagine a well-balanced person deciding on various options, in a context with little likelihood that [system 1 thinking](#) will flare up. Perhaps the agent is considering the length of stay in various holiday destinations, or what sort of drink to have at a restaurant. They weigh alternatives in terms of the happiness question, and calmly compare and contrast the different combinations.

For our model of the divided self, this question need not be decisive. Consider the tragedy of a person deciding whether to stay in a difficult-but-not-abusive marriage, or a person in a position of power struggling with a choice to help someone financially whom they hate passionately. The happiness question, while not without relevance, no longer seems adequate as a total description. In the former case, there is a commitment to consider, and in the latter case the exercise of their hatred may provide for them [a kind of pleasure unattainable in ordinary life](#), and yet result in harm to others, self-loathing or disobedience to God.

We proceed by postulating a mixed motive valuation function for the individual. The function has at least two qualitatively different dimensions. One dimension reflects the fallen/sinful nature preferences, along the lines of RCT. The other dimension reflects the "image of God" - marred but not destroyed by the fall - and progress in the Christian life. This opens up the possibility that the person is motivated to some extent by love for God and others.

In [our paper on marriage and divorce](#) the dimension which reflects the fallen/sinful nature preferences, along the lines of RCT, is construed following the analysis of Becker and his successors. The key variable is the effort expended in sustaining the marriage, which affects the probability of continuation of the relationship in the presence of an "outside" option

⁷ Posner, R. (1997). Are We One Self or Multiple Selves?: Implications for Law and Public Policy. *Legal Theory*, 3(1), 23-35. doi:10.1017/S1352325200000628. Additionally, philosopher [Harry Frankfurt](#) takes a divided self as the normal state of affairs in his discussion of personhood. He defines first-order desires as wanting to do or not do various things, and, he defines second-order desires as the wish to desire (and act upon) particular first order desires. Thus, to use his example, one might as a first-order matter desire both to be diligent at work, and to be lazy. The second order desire is the wish to want to be diligent enough that it will overpower the proclivity to laziness in the realm of action. He defines a 'wanton' as someone who does not possess such second-order desires and goes so far as to claim that any so-called person in this position, such as someone unable to display second-order desires due to incurable mental illness, is not actually a person at all. As Christian theists we believe that personhood is bestowed by virtue of God's creational declaration rather than the fulfilment of any entry criterion, but that is beside our point here, which is just that the scriptural possibility of deep internal conflict is recognized outside the community of explicit Christian theorists.

(divorce and "re-contracting" with another person). The standard cost benefit analysis applies: the lower the perceived gains from marriage, and the higher the prospective gains from the outside option, the less effort will be forthcoming, and the higher the probability that the marriage will break down.

The dimension reflecting the "image of God" is commitment to a covenant marriage - "for better, for worse; for richer, for poorer; in sickness, and in health; till death do us part" - which constitutes a motivation to sustain the marriage for its own sake (or rather for the sake of the marriage as a relational entity - more than the sum of the parts). The stronger this motivation is, the greater the effort that the partners will make to keep the marriage together. Evidently the outcome will depend on the relative strengths of the two motivational dimensions.

We use this model to interpret the evidence on the incidence of marriage and divorce in the West. Part of the argument is that the increased opportunities for employment for women has raised the opportunity cost of the "traditional" marriage with the woman staying at home to raise the family, so there is less willingness (within the Becker-type models) to specialise in household production or even to have children. This was a key insight of Becker's analysis.

But we add to that the decline of the Judeo-Christian covenant view of marriage which has changed the "framing" within which the idea of marriage is discussed. Marriage has come more and more to be regarded as contractual arrangement which can be terminated by divorce, which no longer has a stigma attached to it. In terms of our model, the strength of the covenant view has weakened, and the weight attached to it in the mixed motive valuation function is diminished.

Turning now to [our model of giving time and money](#) equation (1) describes the analytic core of the paper. MMV stands for mixed motive valuation function: s stands for money used by the self, n for money given to neighbors, α for the degree of neighborliness, θ is the extent to which an agent values having a generous disposition (a high α) regardless of whether that disposition can be fulfilled.⁸

$$\max MMV = \theta^\alpha n^\alpha s^{1-\alpha}, \text{ using income } m \text{ plus gifts from neighbours} \quad (1)$$

An implication of the divided self is that we are prepared to combine qualitatively and quantitatively different things in the aggregate on the LHS. We call the maximand 'fulfillment' rather than happiness, but since the self is divided this has to be understood as the fulfillment of a Dr Jekyll and Mr Hyde figure who values, on the one and the same day, qualitatively different acts of neighbourliness and selfishness. In response to the claim that this is untidy, we can only regretfully say: welcome to real human experience.

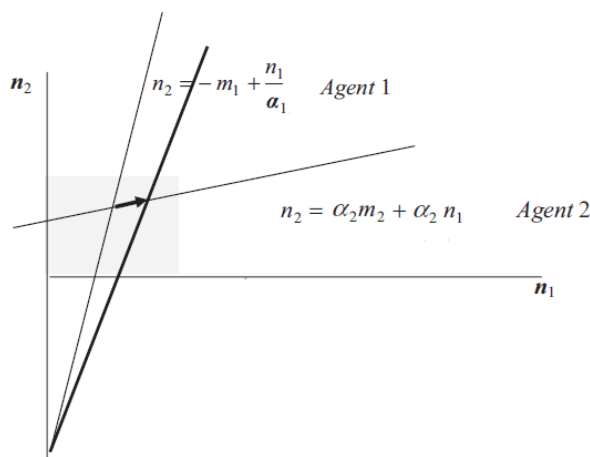
Note that we are going further than combining incommensurable units along the lines of Hicks, Allen and Samuelson. We instead claim a subset of actions are counter-preferential, in the sense of being alien to the agents welfare. Indeed, given a fixed income, they must necessarily detract from welfare since giving to others diverts resources available for preference satisfaction. It is one thing to combine quantitatively incommensurable units of satisfaction, such as those arising from the consumption of apples and leisure, but we argue it is quite another to sneak qualitatively different motivations of neighbourliness and selfishness under the covers of the maximand and retain the title 'preference satisfaction'.

⁸ In the paper n and s are goods with corresponding prices, but we are simplifying things here by just dividing a pie of money which is the same as having unit prices for all goods. The resources available are income (m) plus any money originating as a gift from others, There is not space here to cover θ^n but it is discussed in the paper.

With regards to the interpretation of n in (1), we take it to be gift from one person to ‘society’ (which is another identical agent in our two-person society). This is given without an expectation of payback of any kind, since neoclassical mathematics in this context has no room for strategy. In a society of Agent 1 and Agent 2, the former’s income is m_1+n_2 . That is, Agent 1’s own income plus gifts from Agent 2. It is true that if Agent 1 receives more, then they give more to Agent 2, but this is far from exchange. It is merely an income effect, where part of their MMV motivation is to give to society without expectation of reward.

Lest we be misunderstood, and as this example makes clear, our critique of RCT is *constructive* rather than uniformly negative: in this example the *mechanical* nature of agent play helps us to model a deontological obligation which is by definition non-strategic. The solution to MMV maximization is $n_i = \alpha_i(m_i + n_{-i})$ where $i=1, 2$, which is written and graphed as two reaction functions in n_1 and n_2 in figure 1. The mutual exercise of deontological obligations gives rise to a series of gifts being exchanged when Agent 1 receives more income. Agent 1 gives a share α_1 to agent 2, who in turn gives a share α_2 of this increment back to Agent 1, and so on. Another way to put this is that what could have reasonably been made an object of maximization (giving to others) is exogenized as a model of deontology.

FIGURE 1
Generosity without Reciprocity



3.4 Redeeming motives: implications for modelling and money

We have made our point strongly, but what justification can be given for believing in gifts? For a Christian, the giving of gifts is fundamental to the Christian narrative, with an emblematic Bible verse describing the foundation of all Christian financial generosity by the Apostle Paul.⁹ This presupposes both divine and human gifts are a valid phenomenon and therefore should be a valid thought category for any social scientist interested in truth. But what of an imaginary interlocutor unpersuaded by Christian theology – is there an evidential basis for this Christian claim?

As outlined in our paper, Putnam and Campbell show in their book about the US [American Grace](#) that evidence of love for neighbours, indicated by charitable giving and volunteering in the community, is correlated with religious commitment. The parameter α in a standard Cobb-Douglas function, such as (1), gives the share of income ‘spent’ on neighbours. Putnam and Campbell’s evidence supports a nontrivial α if we interpret a substantial amount of this

⁹ Perhaps the most quoted bible verse is John 3:16, and God’s gift is used as a basis for motivating financial generosity by Paul in [2 Corinthians 8:9](#) ‘For you know the grace of our Lord Jesus Christ, that though he was rich, yet for your sake he became poor, so that you through his poverty might become rich.’

giving as a gift. If α is quantitatively non-trivial, it ought to find its way into generalizations about human behaviour, such as (1).

The key issue is of course how to interpret the money being given. If gifts appear to benefit the giver substantially, then doubt is cast on the motivation of the giver. At least with respect to religious people, an interesting feature of Putnam and Campbell's data is the contribution of the most religious people (which, in the American context, has a very strong representation of Christians) to non-religious causes, such as twice the extent of civic engagement. There is also the issue of cross fertilization of behaviours across the two groups historically. Research by [Robert Woodberry](#) suggests that missionary activity has been instrumental in encouraging high levels of civic engagement in the countries which received missionaries, even when their conversion rates were low.

Charitable giving to organizations that are not under the control of the Christian church, and missionary social impact in the face of a failure (in many instances) to gain converts suggests that these undertakings are not merely [instrumental acts of benefit to oneself or one's religious club](#), or gain credit for success as a missionary. Without being too judgmental about people's ultimate motives, a strong case can be made that a sizable portion of this counts as generosity rather than a mutually advantageous trade.

If this is correct, an immediate and important alteration to economic theory follows, which could command support among both Christians and Non-Christians. Furthermore, our analysis offers a refreshing corrective to some uncreative (though faithful-to-scripture) understandings of money by some Christians.

1. If gift-giving can be validly distinguished from exchange and if (as seems uncontroversial) many gifts are facilitated by money, we would suggest that the role of money in mainstream economics include 'a medium of gift-giving' as distinct from 'a medium of exchange'.
2. For Christians, we accept the idea that money can act as a kind of God-substitute – an idol. But what is being affirmed here is that money is one important means of gift giving. Such a perspective has been and should continue to be balanced by money as the root of all kinds of evil (1 Timothy 6:10).

3.5 Redeeming RCT maximizing methods?

For those cognizant of the importance of methodology, it is crucial to clarify what exactly is being borrowed from RCT whenever its analytic language of maximization is being spoken. We take Becker to be a classic expositor of RCT though, as we have outlined above, Economic Man spent his adolescence with Bentham and Mill. We focus on: the mathematics used; the object being maximized; the account of motivation; the implicit picture of the self; and the implicit picture of society.

Our Mixed Motive model uses constrained maximization in keeping with all mainstream economic models of choice. However, we see the potential for thoughtful Christians to use these maximization methods in spite of their apparently inhospitable environment for recognizing ethics, relationships, society or the activity of God.

In some circumstances 'freezing' choice variables is a way of imposing deontology, or perhaps divine action, on a setup which invokes constrained optimization. We gave an example of the former in our model of giving where we credited agents with a proclivity to be generous irrespective of the actions of others by imposing a parameter α to reflect this. In a fascinating passage from a debate with Sen, the validity of such an approach is reluctantly

conceded by [Hausman](#) who otherwise would be a trenchant opponent of everything we have written above. He notes that the standard modelling practice of exogenous budget constraints rule out the option to steal, no matter how low the agent's utility. The significance of this cannot be overstated – as someone who believes any moral disposition should find its way into a notion of preferences, he is embarrassed to find ethical norms buried in an undergraduate problem.

Table 1: A Comparison of Anthropologies

(U='utility', x = set of choices, s&n = self and neighbours, MMV=mixed motive valuation)

	Bentham	Mill	Becker	Sen (commitment)	Mixed Motives
maths	Constrained optimization	Constrained optimization	Constrained optimization	various	Constrained optimization with deontology constraints
Maximand	$U(x) = \text{Happiness} = \text{Pleasure} - \text{Pain}$	Financial Wealth	$U(x) = \text{Preference satisfaction}$	$U(x) \neq \text{Preference satisfaction}$	MMV= MMV(s, n)
Account of motivation	Happiness	Financial Wealth	x in U(x)	Satisfaction of higher principle or norm	s or n
self	serene planner	serene planner	unspecified	unspecified	conflicted
society	Individuals in markets or bargains	Individuals in markets or bargains	Individuals in markets or bargains	Access to loving relationships	Individuals in relationship

Sen's notion of commitment could be taken to assert that un-modelled factors override maximization, or that there is some kind of qualitatively different entity in the maximand. He discusses this in a number of places but without converging on a standardized formalization. However, if psychologists are correct that there are two modes of thought: fast, instinctive and emotional (System 1) and slower, more deliberative, and logical (System 2), then the over-riding of a maximization problem has some attraction as a modelling device. System 1 thinking is averse to calculation, by definition, so it seems unreasonable to model it as constrained optimization. We shall return to this point later.

Coming to the maximands, they differ across Bentham, Mill and Becker in interesting ways. Bentham's cardinal utility was conceived as a common measuring stick of a unified self, which could be used to compare across alternatives. Mill equates this with financial wealth in his formulation of economic man, though not elsewhere in his philosophical writings on human flourishing. Mill seems to have conceived of economic man not as a full anthropology, but as an interesting thought experiment. Becker uses the mathematics and language of utility, but he stands in the tradition of ordinal utility, where the function to be maximized is a summary of behaviour and not something about which one has to measure, or be too conceptually specific. Its mathematical properties are crucial for the analysis, but what the aggregate itself means is left hanging. As described above, our Mixed Motive model values qualitatively different actions (ethically good or poor ones) and combines them into an aggregate to be maximized.

Turning to the account of motivation, a Benthamite will explain behaviour by the pursuit of happiness, and a follower of Mill by a desire for cash, but Becker does not seek a global account of what motivates people. However, we feel sure that his justification for including items in a preference function must be given by some kind of account of motivation. Thus, a follower of Becker does not feel the need to give an account of U(x) in terms of human

psychology – in fact he [explicitly says](#) that he is not interested in what really motivates people – but the follower will instead give an account of x in terms of human psychology.

The model of the self in utility maximization (both for Bentham and Mill) could be characterized by what we might call a serene planner. The serenity refers to the weighing of all options dispassionately, and the planner refers to the consideration of the future as well as the present. The self is harmonious and capable to make such an optimal decision. This is probably true of Becker too, but his work using economic analysis in describing extreme behaviour ([like crime](#)) give us pause. By way of contrast, our model takes the self to be internally divided and in conflict over Romans 7 territory.

Finally the conception of society in all the variants of RCT in the table are essentially individualistic. Society, [if such a thing exists](#), is mainly thought of as individuals striking bargains with each other, in markets if there are too many of them for individual bargains to be feasible. This is what lies behind all the Game theory representations of group action in economics. Our model, by way of contrast, regards society as consisting of individuals in relationship. Part of the demand of relationships can be met by ‘freezing’ choice parameters to account for deontology.

Summing up, our attempts to model mixed motives with the RCT apparatus of constrained optimization is distinguished from the latter by having a relational model of society, and in putting a conception of the self on the table which is divided rather than serene. Both of the latter two features come from Christian theology and are part of the ‘nature of things’ rather than generated within the model. In this section we have given an example of a divided-self modelling practice which incorporates deontological ethics by the judicious imposition of constraints, and which construes relationships and social interactions in such a way as to allow the emergence of gifts. Accepting such an outlook necessitates a change in the mainstream definition of money, and would affirm money’s instrumental role in gift giving within the Christian community.

4 Directions for future research

4.1 The role of loves and desires in choice

The search for truth is a restless affair, and we are aware that RCT and mathematical maximization in the social sciences have come up for a good deal of criticism. As Christian scholars our commitment to truth overrides the need for a neat answer, or a tidied up framework, so we welcome these criticisms.

As a way of engaging the issues, we ask what it would look like to loosen our ties to the analytic apparatus of RCT, namely constrained maximization. This section is exploratory, and our aim is to lay out some conceptual ground to explore. Detailed modelling awaits further research.

Our first reason for investigation has already been hinted at – in some psychological accounts of different modes of thought, choice is not always reflective. Our second reason is that there seem to be other insights of the contemporary social sciences, apart from system 1 and system 2 thinking, that should be given some role in a model of human nature.

In particular, there are a number of ‘desires’ recognized by philosophers and psychologists which do not have an obvious home in economics. The desire for comfort ([Maslow](#) and Bentham) and material provision seems to be well-catered for, but the same cannot be said about the desire for power ([Nietzsche](#)), sex ([Freud](#)), community ([Berne](#)), meaning ([Frankl](#)),

and worship of God or Idols ('The Sacred' in [Durkheim](#)).¹⁰ These kinds of considerations seem more at home with the 'loves' in the theology of St [Augustine](#), or perhaps with virtue ethics.

It seems to us that some credence has to be given to the explanatory power of psychology as developed over the twentieth century (though [the evidence is underwhelming](#) in some respects). Too often Christian endeavors in the social sciences either uncritically adopt the findings and perspectives of contemporary scholarship, or give an exclusively theological critique (or use other pre-modern sources and treat them as a theologian would treat scripture). In our view any social science undertaken by a Christian must listen carefully to both sources. This is another expression of our conviction that science and theology are possible of integration because they (imperfectly) understand their targets of study – nature and scripture – are the latter two are fundamentally unified.

It is hardly a unique Christian insight that economics should incorporate good scholarship coming from psychology or moral philosophy, but perhaps a Christian scholar sufficiently animated by the search for truth is more willing to disregard parts of their academic culture that appear false or limited. Sadly, for economics generally, the shift away from Benthamite utility to preference satisfaction does not appear to have led to a better-informed discipline of economics. Although experimental and behavioural economics has attempted to stretch the boundaries, Economists often over-cite themselves as they try to understand human nature. [Engelen believes](#) that the desire to make preference satisfaction cover too many motivations has led to an unwillingness to actually take into account what we do know of motivation from other disciplines.

[Preference satisfaction methodology means that] 'Whatever factor motivates a specific behaviour ... it can be incorporated into a broad notion of preferences. In theory, because preference-based models no longer suffer from the narrow-minded tunnel vision of assuming self-interest maximization, they should be more open to insights from other behavioral sciences such as psychology, sociology, or biology ... In practice, however, they allow economists to further isolate themselves from these disciplines and largely ignore the task of building empirically informed preference and utility functions. This evolution needs to be reversed if economic models are to causally explain individual action and thus 'describe the causal mechanism responsible for it' (Reiss, 2012, p. 43).

This concern appears well founded. [Citation research](#) shows that fully 81% of economists' citations are drawn from within their field, as against 52% for sociology, 53% for anthropology, and 59% for political science.¹¹

In the light of the apparent insulation of economics from relevant disciplines, one path of integration is to take the above six desires for comfort, power, sex, community, meaning and worship more seriously.

This might be done by trying to understand them using the organizing theological themes of Creation and Redemption. Human flourishing might consist of the six desires/loves being correctly ordered according to the *telos* of human life as revealed in the scriptures (to the extent that these are correctly interpreted). The language of 'desire' or 'love' implies a

¹⁰ An early collection of desires is Maslow's famous [hierarchy of needs](#), namely (and in order of urgency) physiological, safety, love, esteem and self-actualization. His account is reductionistic, and cannot account for self-sacrifice or martyrdom. But to his credit his summary acknowledges a '...problem of values in any definitive motivation theory'.

¹¹ It would be interesting to see how much economists cite behavioural psychology, given its influence over behavioural economics.

somewhat less important role for calculated rationality, and so the terminology affirms a valid role for choices driven by moral gut reactions too, like being ‘moved with compassion’. In their good form, these gut reactions could form an enabling pair with some deontological morality¹² since so called [system 1 thinking](#) (gut reactions) fittingly spurs people to action without the need of system 2 thinking (a cost benefit analysis). In taking relatively non-considered choices seriously, even as *desirable* conduct, we are raising questions about the limits of *Rational Choice Theory*.

4.2 Limits of RCT

We have already explored notions of how the fall might alter our anthropology, but now suppose we allow for *both* RCT and less reflective accounts of action. Both accounts can describe sin, the former because the goals and the means to attain them can be evil and the latter because gut reactions can arise from a poorly educated conscience or other features of a fallen world, such as mental illness. This raises a number of questions, some of which may be amenable to testing.

Is RCT’s use of ‘optimal’ sub-optimal?

In a fallen world, RCT describes the process of ordering loves, but by sinful people who ‘do what is right in their own eyes’. As a result, could human ordering become disordering? It certainly seems possible that ‘optimal’ choices, in the sense of maximizing preference satisfaction in a RCT model, exhibit evil means, evil ends, or both. It is important to probe this issue because, in the absence of an external standard for good and evil, it has been our experience of talking with some secular colleagues that, while they would not use the words ‘good’ and ‘evil’, there is a tendency to equate optimality with ‘good’.

Is RCT too narrow?

If people’s rationality depends on their ‘loves’ RCT as a descriptive device should arguably not assume a narrow range of goals and desires. It is regrettably realistic to recognize ill-will in motives in order to understand the fallen world. But (contra *Homo Economicus*) humans can also do good because the image of God is tarnished but not lost. The whole thrust of behavioural economics as a discipline is to attempt to correct such a limited view of human motivation (as well as attempting to correct an overblown account of human rationality). We recall Sen’s conviction that human rationality is broader than RCT: “Rationality of choice ... is primarily a matter of basing our choices on reasoning that we can reflectively *sustain* if we subject them to critical scrutiny.” But this criticism may go further than Sen, or our last section, would allow. Sen also said that “Rationality of choice ... is primarily a matter of basing our choices on reasoning that we can reflectively *sustain* if we subject them to critical scrutiny.” Perhaps there are choices which are warranted, but which do not pass even this threshold?

Are ‘guts’ necessarily bad

On that note, might ‘gut reactions’ be good as well as evil? Many scholars implicitly associate gut reactions, or system 1 thinking (these need not be exactly the same, though there is overlap), with evil or ‘animal’ (in the sense of brutish) thinking. As asserted above, RCT can describe a process involving evil means or ends, so it may be a mistake to associate rationality, which psychologists call system 2 thinking, with goodness or ‘higher’ (in a moral sense) thinking.

¹² We speak in terms of some, rather than all, deontological morality because some forms of deontological morality, such as Kantian morality, are highly complex and require much more, rather than less, thought.

As it happens, the status of intuitions is unresolved in [contemporary psychology](#). Some affirm their and their clients' 'inner wisdom' but for a consistent materialist, they are, at best, evolutionary programming attained in the [Pleistocene era](#) which allow humans to mate, reproduce and survive in environments like those that prevailed during that time of evolutionary development. To the extent that that era and ours are similar, they are useful. At worst, they are the [chaotic irresolution of complexes](#) responsible for embarrassments like [Freudian slips](#).

There have been some embarrassments for Christian thinkers who have interpreted features of creation in a particular way, only to struggle under a weight of contrary evidence at a later point when they are either forced to recant, or to be marginalized.¹³ As a result, many Christians are reluctant to propose any theories, but instead wait for secular frameworks to deliver the detailed tools of analysis they require to make sense of the world.

We sympathize with this to some extent, since we hold to the view that the scriptures are most directly concerned with matters pertaining to salvation and for leading a godly life. It is not surprising, to us at least, that molecular biology is not a fertile field for distinctively Christian scholarship. However, in matters that relate to the personal dimension of life, what Emil Brunner called the 'centre of existence' [German: *Personkern*], we are drawn to thinkers, like Kuyper and [Skillen](#), who see the potential for theology impacting the social sciences.

With that caveat made, we note an intriguing correspondence between the realities of System 1 thinking, which is quick and less analytic than System 2 thinking, with the demands of principles based moral theory. The latter conceives of the existence of moral principles which ought to be followed without taking circumstances into account (or, in softer forms, where circumstances need to be very extreme before they register as relevant). An example might be the principle 'you shouldn't lie' which, in the ordinary course of life, is defensible as an ethical precept, but which becomes more problematic when Nazi guards ask you if you are hiding Jews.¹⁴

The conceptual ground to explore here is whether notions of God-given 'conscience' can give rise to strong 'gut reactions' which are in the providence of God precisely what is required in some moral situations. That interpretation is a unique contribution of theology which, while it recognizes that gut reactions can be evil or perhaps driven by survival dictates in our deep past, they can on other occasions be a God-given prompt to action.

4.3 The Love of Money

In addition to locating any limits of RCT, a properly formulated economics, with the 'love of money' as a centerpiece does claim scriptural warrant to an insight psychology doesn't have – that money is a spiritual power and God substitute that has more power than an instrumental interpretation of it (a means of exchange, a store of value and a unit of account) would allow. We theorize two separate implications of this.

Money has a derived demand

In economics, derived demand, say for labour, refers to demand for some item which is a means to an end. In the case of labour, the derived demand exists because workers are

¹³ An example might be [flood geology](#).

¹⁴ Immanuel Kant was famous for saying one should never lie. The situation with hiding Jews was discussed by Corrie Ten Boom, based on her experience in World War Two.

required to produce marketable goods, so the demand for labour is derived from the value of final goods they produce.

In a similar way, scriptural warnings about money can be understood partly by our desire-based model. Money is so strongly believed to have instrumental power to attain comfort, power, sex, community, meaning and The Sacred that there is a powerful derived demand for it, making it a seventh 'desire' alongside comfort, power, sex, community, meaning and The Sacred. Furthermore, money's fungibility means it has an option value until it is spent.

The Christian insight is that money is deceitful, and its inability to really deliver its promised satisfaction explains the well-attested material dissatisfaction that many people in affluent countries experience. Also, to the extent that the other desires are disordered and evil, money pursued as an instrument to meet inappropriate desires also becomes an evil desire, by virtue of its derived demand property.

Money can be loved and served

Second, in the scriptural account money is also an alternative God (an idol) to be loved and served. This use of money, where present, makes it a perverse fulfillment of the 'worship' desire. As an idol it should exert psychological power over people, and there should be signs of devotion to money.

One sign of devotion is that when money is involved in a situation as an incentive it removes all other considerations. A number of well-attested studies about motivation crowding out provide an evidential basis for what appears to be an overpowering of other motivations by a desire for money.

More controversially, some have claimed this power for money when it is not an incentive. At present, many such studies have been discredited in [the replication crisis](#). The final outcome of this is not clear, because there are many claimed effects of money, and it is not clear which, if any, will survive.

The notion of a spiritual power of money is unrecognized in mainstream economics, which confines its role to a means of exchange, a store of value and unity of account. Yet if this was accepted it would grant some descriptive legitimacy to the inroads RCT is making into areas far beyond traditional economic concerns. If monetary incentives or money 'primes' alter behaviour, then even the 'scent' of money, experienced by being involved in something that feels like a market, might be enough to invoke a cost benefit analysis mindset. Our theological account might also explain the importance ascribed to money by sociologists since Durkheim, and to some of Marx's negative attitudes to money.

These considerations concerning money, together with many of the suggestions of this section, await further research.

5 Economic (Christian) humanism

The earlier critique of Christian Smith's critique provides a helpful taxonomy of the diverse criticisms of RCT. According to Smith, its emphasis on individual choice and autonomy makes it a contemporary liberal progressive narrative, the telling of which is being "interrupted" by narratives some of which draw from the past. Specifically, the failure of RCT to account properly for marriage reflects the latter's status as a pre-modern institution which has never seen autonomy as fundamental to human flourishing.

Similarly, we see in the critique of Deirdre McCloskey a harking back to pre-modern virtue ethics; the same is true, to a degree, for Sabina Alkire and John Finnis. Catholic Social Teaching, likewise, draws on pre modern ideas (biblical concepts, virtue ethics and church tradition). Finally, Vernon Smith's notion of ecological rationality is deeply rooted in our collective past and in our ahistorical biology.

Among those who give less weight to the past, Layard's desire to reduce flourishing to a single measure is modern, and Sen's main arguments do not draw extensively from the past. However, the latter's assertion that ethical principles lying outside of economic analysis - his "commitments" - should override utility maximization is a rejection of what Christian Smith calls "ubiquitous egoism." If Smith is right that the liberal progressive narrative necessarily points in the direction of *egoism*, then those who follow Sen because they want to reject the liberal progressive narrative may, as a result, be more open to the insights of the past.

Interrupting the telling of the liberal progressive narrative with insights from the past seems reasonable if one believes that there is such a thing as constructive conservatism - namely, holding onto what is worthwhile during change. Human beings did not appear yesterday, with unlimited flexibility to flourish within the fulfilled dreams of any and every social visionary. We have interacted with our natural environment and our social networks for millennia upon millennia and this has affected us. For atheists, this is the "whole story" for humanity, and it should be unthinkable to ignore this, just as it would be to ignore the insights and discoveries of the modern world.

As Christian theists, the authors of this article agree that the shared history of natural and social conditioning is a potential window into human flourishing, and can affirm many of the insights of constructive conservatives like Sabina Alkire, John Finnis, Deirdre McCloskey and Vernon Smith.

However, Christian theists also relate to the past in an additional way through the belief in revelation through the text of the Bible. Different Christian groups differ in the approach or weight that they give this, but it is hard to imagine how an approach which gives no weight to the past in this manner could validly be described as 'Christian'.

The application of biblical principles requires interpretation of ancient texts which, as we are well aware, can be challenging. But if God has in fact revealed himself in an interpretable way, it opens the door to *radical conservatism*: being conservative in the good sense of seeing what good ought to be preserved, yet radical in the sense of challenging current social arrangements that are antithetical to human flourishing.

Radical conservatism is distinct from constructive conservatism in that the latter might be described as 'giving the past a fair hearing' whereas the former, most strongly associated with but not confined to evangelical Christians, asserts that there is a 'timeless word' from God which deserves a hearing above all others. This is not to assert that any and every biblical interpretation is a timeless word – still less does it claim infallibility for the many ideas we have drawn from the Christian scriptures in this paper – but in principle it makes biblical exegesis and theologizing a valuable exercise for Economics. This is the basis on which we have proceeded in this paper as we constructed a theological anthropology.

The methodology of radical conservatism could, we think, be applied by a Christian working in any social science, but if we were looking for a name for it specifically in economics, we would choose **Economic (Christian) Humanism**. The emphasis on human nature - in particular, what is creational and what is flawed - justifies "humanism." At various points in

our theological narrative, we have drawn on this idea of ‘filling out’ the rather narrow picture of persons in RCT.

We also see a common ground with anyone who accepts that defining human nature is a prerequisite for good theory and policy. It is this conviction, based on our reading of the Christian scriptures, which has driven us to reinterpret the techniques of maximization, and also probe their limits in the social sciences.