Social preference, system design and cooperation efficiency---both on the integration of the path of the Wealth of Nations and the Theory of Moral Sentiments

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Abstract
The economic hypothesis has been criticized since its birth. After realizing the many defects in the hypothesis of self-interested economic people, many scholars not only put forward various doubts, put forward the "Smith paradox", but also gave many reasonable explanations, believing that the "Smith paradox" does not exist. This paper tries to interpret the "Smith paradox" systematically from the perspective of "moral sentiment" through the concept of "situation", and tries to construct a new theoretical framework to integrate the different social preferences in different situations with the system design, so as to optimize the individual welfare and overall social welfare.

Keywords
Social preference; system design; cooperation efficiency; Context-center.

1. Introduction
Smith believes that, driven by interests, the market mechanism can achieve a large range of cooperation between strangers, and material incentives are very important. As long as the system is properly designed and the incentives are compatible, the cooperation efficiency can be significantly improved. And santafe school completely overturned its research, in some situations, material incentives not improve cooperation efficiency, but out the cooperation will and moral motivation, exposed the mainstream economics in the interpretation of cooperation and defects of system design principle: not considering the social preference, but the self-interest preference and gu his preference. Therefore, this brings our study on the issue of cooperation back from the Wealth of Nations paradigm to the Theory of Moral Sentiments paradigm, in order to improve the efficiency of cooperation through more effective institutional design.

2. The Wealth of Nations approach for cooperative efficiency
2.1. The-of-of-economic preference
"Economic man" is not a natural concept of economics, but appears in the process of economic development. Its rise is largely due to Bentham’s utilitarian philosophy and the marginal analysis method of marginal utility school. Under the influence of Hume, Bentham regarded the pursuit of his own happiness as the sole goal of his life, and developed a theory centered on hedonism. The marginal analysis method of the marginal utility school is actually the application of the calculus mathematical method, which provides a method for solving the extreme value of the function. Bentham argued that the purpose of life is to maximize his own happiness, and that marginal analysis provides the maximum analysis technique, so the two are finally perfectly combined in Marshall's Principles of Economics. The combination of hedonism and marginal analysis method leads economists to pay more attention to the logic and technology of analysis, thus raising people's self-interest motivation to a new height, while
greatly ignoring people's ethical motivation. John Stuart Muller was the initiator of "economic man", but he never used the term "economic man"; but he has first appeared in the literature. The term economic man (economic man) first appeared in Luxenbe’s critique of Mueller in the History of Political Economy. In my opinion, the people in Muller's political economy are imagined as simple money-making animals, just imaginary ones rather than real ones. Subsequently, John Neville Keynes did a lot of methodological expansion of economic people in the ories and Methods of Economics. Thus, self-interested economists have been criticized since their birth, and Muller, Marshall and many economists do not have enough confidence in "economic people". On the one hand, in the face of persistent internal and external criticism of the self-interest hypothesis of "economic man", economists are more willing to avoid arguments with hypotheses and expressions such as maximum behavior, optimal decision-making and rational choice. On the other hand, Samuelson's reexpression of utility using mathematical methods led to the redefine of reason and "rational man". Therefore, since the 1920s, the hypothesis of "rational man" has gradually replaced the hypothesis of "economic man", and finally established the position of "rational man" in modern mainstream economics. The self-interest of "rational man" is different from that of "economic man" in that the self-interest of "rational man" is to maximize their own preferences, but maximizing their own preferences does not sacrifice the interests of others, but takes into account the welfare of others. Therefore, the "rational man" hypothesis covers the characteristic of human sociality, while the "economic man" hypothesis obviously ignores human sociality. In other words, people are not only "economic people", but also "social people". In this sense, the meaning of self-interest is reasonably extended, and this extension provides the hypothetical basis on which the altruistic behavioral institute relies.

Although the "rational man" hypothesis makes up for the deficiency of the hypothesis of "economic man", the "rational man" hypothesis still faces some deep problems and challenges: first, why "rational man" cares about others, that is, why the benefits of others are taken into account; the second, the inconsistency of choice in the definition of "rational man", especially the behavior of people in the problem of time inconsistency and uncertainty decision, which is considered to violate the consistency of preference.

In response to the question of why "rational man" cares about others, Santfee economists proposed his social preference. Reason does not mean selfishness. Caring for others, believing in justice, and sacrificing them for social ideals are not opposed to decision-making rationality. In view of the inconsistent behavior of choice, economists of Santafschool believe that as long as the situational dependence of preference is taken into account, many irrational phenomena of nonconsistent preference can be solved, rather than violating the consistency of preference. And santafe economists argue that individual preferences should be consistent, because nonconsistent preferences have survival defects, and they will be eliminated in the market competition. And from the perspective of biological evolution, living organisms that can make consistent choices in daily situations are more resilient than those that cannot make consistent choices in preference order, and decision theory suggests that their choices will surely improve their welfare. Many actions that violate decision rationality may be simply ignorant or misled, rather than violate the consistency of preferences. Since evolution is a long historical process, and the change of the environment is rapid, the slowness of the evolution, so the preferences and psychological mechanisms may not adapt to the current environment; but many seemingly "irrational" behaviors in the evolution history are rational to the adaptability of the environment.
2.2. Applicable situation and system design based on the assumption of self-interest and economic preference

Man is a collection of many preferences. People not only have self-interested preferences, but also favor their preferences and fair preferences. The self-interested economic hypothesis is criticized partly because it ignores the characteristics of multiple preferences, and partly because of our one-sided understanding of self-interested preferences. Zhang Guoqing and Pan Kun (2020) pointed out that human beings have both the characteristics of self-interest and social characteristics. Self-interest does not exclude other human characteristics, and self-interest and altruism can balance the development. And self-interest is not equal to selfishness, self-interest has moral attributes, conducive to the existence of other elements. Selfishness is pure self-interest, and there is no altruism in selfishness. Part of the reason is that different preferences have different application scenarios. In the context of commercial exchange, the purpose of improving cooperation efficiency can be achieved by material incentive and division of labor. The failure of altruistic preference in larger scale cooperation scenarios shows that there is altruistic preference with certain boundaries, rather than applicable to any situation.

Incentives and limiting factors are essential to any kind of management system, but many behavioral experiments fully show that many incentives based on the "human reality" is equivalent to the "economic man" hypothesis are counterproductive. Therefore, the "economic man" is not an accurate description of the "actual human situation", otherwise there would be no crowding out problem. The results of setting fines indicate a specific negative synergistic effect between economic incentives and ethical behavior. In some scenarios, economic incentives inhibit and crowd out altruistic social preferences, so the economic incentives and self-interest preference hypothesis do not maximize cooperative efficiency in any scenario. The confusion of policymakers fully illustrates the dilemma we face in understanding the assumptions of self-interest economists.

The real basis of a society ruled by law is that no one can claim to better judge their own interests than the person concerned. In order to ensure the equal treatment of the social system under the society ruled by law, the design system inevitably assumes that everyone may become an economic person who only calculates the cost and benefit of pure individualism, and lacks sufficient rationality. The main value of the social system inferred from the principle of this economic person concept lies in that it is a system that minimizes the social harm caused by the bad people. This system design, based on the economic man hypothesis, aims to enhance the efficiency of the system by using obvious mutually beneficial relations. Only by assuming that all people are economic people and analyzing the behavior interaction between economic people can appropriate legal restrictions be stipulated, so that the behavior of maximizing selfish interests can be brought into the boundary of mutual benefit.

3. The Theory of Moral Sentiments for cooperative efficiency

3.1. An altruistic preferences based on compassion and empathy

"There is always something in human nature that seems incredible but is deeply rooted. A simple example is that no matter how selfish and mean people think, he may be very concerned about the experiences of others, very enthusiastic about those things that are completely unrelated to him, and he is sincerely happy with the happiness of others even if he does nothing from it. When we see or just put ourselves in the shoes of others, we often feel compassion in our hearts."In Smith's view, sympathy is one of the innate human emotions, and they are not unique to others, and even those who ignore all social norms will not completely lose them. Sympathy is often produced in the process of putting yourself in the shoes and imagining the pain of others. Compassion for the existence of this emotion lays an important psychological basis for our altruistic preferences.
3.2. The applicable situation and its institutional design based on the altruistic preference assumption of compassion and empathy

Altruistic cooperation is more prevalent in the animal kingdom, especially in populations with complex social structures. Edwards first proposed the theory of group selection. The theory of population selection argues that genetic evolution can not only occur at the level of individual organisms, but also at the level of biological population. When the altruistic behavior of individual organisms is beneficial to the population benefits, such behavioral characteristics may be preserved and evolve with the maximization of population benefits. In the early days, cooperation was regarded as the result of altruism and virtue, and thus the interpretation of cooperation between selfish individuals needed to seek virtues beyond selfishness. Smith's explanation of cooperation is by seeking the term "compassion". However, altruistic preferences based on compassion and empathy do not both promote cooperation in economic activities, but may also promote cooperation in non-economic activities, while different types of cooperation often occur in different contexts. Therefore, clarifying the mechanism of this altruistic preference in different situations has important guiding significance in institutional design.

4. The integration of the path of the Wealth of Nations and the Theory of Moral Sentiments

4.1. The coexistence of egoistic preferences and altruistic preferences

In the real world, there is no absolute selfishness and absolute benefit to others. According to the logic of Smith, "economic" if the maximization of personal interests based on destruction by countless "moral people" formed on the basis of social norms, so he will lose social approval, abandoned for the whole social order, it violates the principle of "economic" benefit maximization, because each "economic" only in the orderly market to realize the maximization of individual interests. The reason why many economists regard self-interest and altruistic preferences as a contradiction is probably just a purely literal misunderstanding.

After the 1920s, the rational man hypothesis gradually replaced the economic man hypothesis; in the 1930s and 1950s, Samuelson proposed the concept of utility due to the need of economic mathematics, and the reexpression of utility led to the redefinition of rational man and rational man and established its position in modern economics. According to the interpretation of modern economics, utility is a function of preference. Defining rationality with utility only meets the two assumptions of completeness and transitivity. The rational person is the person who maximizes his preferences under constraints. The new definition provides a possibility of "deethics" for economics. While most economists still use the term in the scope of self-interest, the economic definition of preference does not actually depend on the ethical orientation of preference. In other words, the so-called preference in economics can include both self-interest preferences and altruistic preferences. Since Adam Smith established the pursuit of personal profit maximization as the starting point of economic analysis, it is proposed in the context of producing products. Combined with the current market economy, the pursuit of personal profit maximization inevitably requires the pursuit of production efficiency, and low production efficiency will not only hinder the realization of personal profit maximization, but also cause the waste of social resources; on the contrary, high production efficiency organically unifies personal profit maximization and social wealth maximization, integrating personal welfare and social welfare together, rather than opposition. The preference of self-interest in the context of product production is consistent with the increase in the total wealth of the society. This self-interest does not cause losses to others, but also improves the welfare of others.
If ethical factors are added to the self-interest and altruistic preferences, the time dimension should be taken into account, because ethics always exists with the development of human society, not individual behavior at a certain moment. Therefore, current altruism can be transformed into long-term selfish behavior to gain evolutionary advantage; otherwise, it will be eliminated in the long term because it is difficult to achieve evolutionary advantage. In reciprocal altruism this altruistic behavior pattern, biological individual even at the cost of reducing their survival competitiveness, to help unrelated individuals with oneself, because they look forward to get rewarded in the future, and the return can make oneself in the face of the same survival dilemma due to the help of other individuals to survive. Because there is a certain time difference between benefit and return, reciprocity and altruism must exist in a relatively long-term repeated game relationship, and also requires the formation of some identification mechanism, in order to curb the possible moral hazard and opportunistic tendency. The core content of the reciprocity and altruism theory is that the actors can communicate with the long-term benefits, so they can obtain long-term benefits by "sacrificing" the long-term interests. The existence of this mutually beneficial and altruistic model also needs to meet certain conditions, one of the conditions is the long-term communication of the actor, and we believe that the other party of the cooperation will not deceive themselves, and another important condition is that the price paid by the cooperator will not be too big. This reciprocal and altruistic model will also help the whole group to gain a survival advantage. Therefore, from the perspective of the group to obtain survival advantage, self-interest preference and altruistic preference exist simultaneously. Since the acquisition of self-interest comes from the consideration of the group to obtain survival advantage, the altruistic preference at this time adds ethical factors to prevent pure self-interested individuals from destroying the survival advantage of the group.

4.2. **The system design that takes into account both self-interest preference and altruistic preference is more efficient**

Economists in the 18th and 19th century limit the economy to market participants, to robbery and fraud against social norms, will be subject to legal sanctions, also not recognized by economists, economists emphasize self-interest is a kind of enlightened self-interest, economic money should be through fair and reasonable market exchange, based on the basis of follow social norms. The development level of market economy to some extent depends on the system arrangement of individual own interests and match the degree of reciprocity, constructive system reform should be committed to develop a set of incentive economic reciprocity of social system, give full play to the self-interested nature in the process of promoting the development of market economy, is not committed to change the self-interested nature. The goal of institutional reform is to order the individual's pursuit of utility maximization, but without a significant change in the individual utility function itself. Our continuous improvement of the system design is to limit people's self-interest to a certain scope to prevent the damage of self-interest to cooperation and social welfare.

5. **Conclusion**

Because people are a collection of multiple preferences, and self-interested preference and altruistic preference have different applicable situations, so self-interested preference and altruistic preference are not contradictory and incompatible. Self-interest may not be altruistic, the opposite of altruism should not be self-interest, but selfish. If we do not narrowly understand self-interest and self-interest as selfishness, then "Smith's paradox" does not exist, and "Smith's paradox" is only caused by the deviation in our understanding. Therefore, the system design should fully consider the diversity of human preferences and the multiplicity of situations.
In the Theory of Moral Sentiments, Smith regards happiness as the purpose of people’s life. To become a happy person, it is necessary to obtain people’s moral respect, affirmation and approval in the social life. Due to the development and transformation of the society, the traditional hierarchy, family and privilege lost their former glory; the moral evaluation of wealth and economic status became the increasingly prominent means to win approval and respect in moral emotion, so people began to pursue material wealth. People’s pursuit of material wealth and economic status is ultimately only to gain emotional respect, recognition and approval, so the pursuit of material wealth and economic status has become a means for people to realize ethical value. It is not difficult to understand that the moral and emotional needs to get people’s affirmation, approval and admiration are higher than the needs of material life, because the ultimate destination of people’s profit is only to obtain emotional satisfaction. This shows that Smith tries to make people’s selfish or selfish part controlled by moral emotion, and the social moral evaluation and the moral emotion formed by people in social life are the fundamental measures to restrain individual behavior. It can be seen that Smith regards ethics as the purpose and value of the economy. In the Wealth of Nations, Smith maximized the interests of commodity production and the interests of factory owners, which was obviously influenced by the market economy and commodity economy. Under the role of the market economy, the spontaneous self-interest activities bring the improvement and improvement of the overall welfare of others and the society, and the improvement of the overall welfare of the society comes from the accumulation of the improvement of personal welfare level brought by the exchange of both sides in the market relationship. Therefore, the harmonious order formed by the internal operation of the market economy itself has a strong ethical nature and ethical superiority, and is the embedded and endogenous new ethics of the new economic movement. Guided by the “invisible hand”, people’s pursuit of self-interest in economic activities objectively promotes the improvement of the overall social welfare. The role of "night watchman" played by the government indicates that economic people pursuing self-interest can only be carried out on the premise of complying with social norms, must conform to the principle of social fairness and justice, and must abide by the social morality, legal constraints and basic ethics. The role of the "night watchman" of the government is to play a role of supervision and restraint.

The self-interest of economic people in Smith’s works is based on morality, law and social justice. However, the contemporary mainstream economics abandoned Smith’s ethical tradition and completely regarded economic people as "selfish people" who pursue the maximization of their own interests, and regarded the maximization of self-interests as the only rationality of economic people. And the "economic" rational thought in fact became the theoretical basis of maintaining capitalist system, whitewash the capitalist system of employed labor exploitation, hire labor as a transaction between workers and capitalists, to dirty deals covered with legal coat, and humanistic care completely abandoned by modern mainstream economics. However, the concept and behavior of pursuing the maximization of personal interests do not bring about the maximization of social benefits, and the chaos and efficiency loss caused by resource waste, environmental pollution and disorderly competition always exist. Because, the rationality of this pure economic individual does not rise to the rationality of the economic system. Only when the rationality of economic individual does not impact or destroy the rationality of the whole economic system can individual welfare and social welfare be optimal; under the premise of following the social norms, the rationality of economic individual and the rationality of economic system can coexist harmoniously and promote each other; the rationality of the whole economic system can promote the more rational choice of economic individuals.
References


