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Social Choice, Social Sustainability, and Why the Neoclassical Approach Fails to See the Difference

Abstract

Objectives: The neoclassical economic framework is a dominant approach in both theoretical and applied fields, such as public policy design. Despite the substantial amount of criticism towards the neoclassical assumptions of rational choice and obstacles related to preference aggregation, there is a minor concern regarding the underlying philosophy of the mainstream public policy design, namely static social utility maximisation under exogenously given social preferences.This paper analyses the inherent biases of the public policy based on the neoclassical background, attempting to prove that although such an approach can theoretically lead to the socially optimal outcome, it is hardly in line with the long-run social survival and development objectives. Other than this, the paper attempts to explore how incorporating alternative approaches towards individual and collective rationality into the theory of social choice can allow for designing a more sustainable public policy.

Research Design & Methods: The paper presents the review of the relevant literature alongside the theoretical inquiry into the underlying logic and philosophy of the neoclassical approach towards the public policy design as well as the most relevant non-mainstream theories.

Findings: It is demonstrated that the assumptions behind the neoclassical framework are inconsistent with the notions of social evolution and social sustainability.

Implications / Recommendation: The persistent idea that public policymakers should attempt to maximise social utility implies artificial limitations for public policy as well as ill-designed goals and objectives. There is a strong need to reconsider the appropriateness of using the neoclassical analytical framework in public policy design.

Contribution / Value added: The framework discussed in this article serves as the ground for more sustainable public policy design principles.

Keywords: public policy, social norms, social preferences, social sustainability

Article classification: research article

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Introduction

It would be a mistake to state that the reason of economics always governs public policy design. Nevertheless, one can observe some links between economic policy and popular ideas in economic theory (see e.g. Williamson, 1990). When designing public policy, policymakers and, primarily, professional economics advisors, are governed by the ideas inhabited in the dominating school of economic thought even if this pattern of behaviour is sometimes sustained unconsciously. Public policymakers demonstrate resistance to the limitations of economic methodology, commonly applying ready-to-use solutions, even though they are based on extremely questionable theoretical grounds. During the last decades, economic science has evolved radically. Therefore, it is worth discussing how the developments in this field might affect the process of public policy design in the future.

Having been developed at the end of the 19th century, the neoclassical school of economic thought is still dominating in all the fields of economics, including the area of individual and social choice. The normative and positive principles of neoclassical public policy were best summarised by Arrow (1963): i) the task of the public policy involves the maximisation of static social welfare; ii) being aggregate of the rational agents' preferences, social preferences are characterised by all the attributes of rational choice, namely completeness, reflexiveness, transitivity, and, subsequently, path-independence (Plott, 1973). The former idea (although it might not be expressed explicitly) seems to persist in the modern studies devoted to the public economic policy (see e.g. Bauer & Knill, 2012; Friedman, 2002).

The substantial amount of criticism towards the principles discussed above arises from the inconsistency of rational choice theory with human behaviour (Camerer et al., 2004; Kahneman, 2003; Tversky & Kahneman, 1974). Besides, one would have to mention numerous studies discussing the obstacles related to defining aggregate social utility function under the ordinal utility preferences assumption (see: Arrow, 1963, 1983; Buchanan & Tullock, 1965; Congleton, 2002; Geanakoplos, 2005; Hammond, 1976; Mueller, 1979; Parks, 1976; Vickrey, 1960). Nevertheless, it seems that the underlying principle of neoclassical public policy as the goal of social utility optimisation is hardly challenged in the literature of the subject.

The neoclassical public policy is biased by the questionable objectives as well as a complete lack of a dynamic perspective. Even if one forgets about the debatable assumption of preferences rationality, the neoclassical framework still fails to address the problem of social sustainability. The notion of social sustainability has been introduced for the purpose of the current discussion due to the lack of appropriate terminology. Social sustainability can be understood as the principle supporting survival of the society in the long-run perspective. Although there is no inherent conflict between the aforementioned idea and the objective of social utility maximisation, the policy implications dictated by them might be radically different. For instance, a high degree of income inequality might be precisely a social choice if, among other assumptions, all the agents are characterised by a high degree of inequality tolerance, which does not repeal the devastating consequences of social polarisation (Piketty & Goldhammer, 2014). Besides, the assumption of the exogenous and stable social preferences creates an artificial trade-off between maximising social welfare and promoting social sustainability; the famous equity-efficiency trade-off can be treated as a specific case of the general problem mentioned above. Unable to analyse public policy design as a dynamic process, neoclassical economics pursues the idea about the existence of some ideal equilibrium point, which contradicts the evidence about social norms development and transformation (Smith, 2009). Strongly influenced by A. Smith's (1761) works on the importance of moral reasoning in the process of social exchange, there is currently a re-emerging trend towards incorporating human values and social norms into economics (Smith

& Wilson, 2019). Accepting the idea that social norms ensure a sustainable social outcome, at the same time – at least to some extent – being shaped by the external regulatory environment provides new opportunities for the policymakers. This paper, therefore, attempts to demonstrate that there is no place for the notion of social sustainability under the neoclassical framework, while simultaneously indicating possible areas for public policy development based on the non-mainstream economic theories.

The structure of the paper is as follows. The first section demonstrates a gradual evolution of the concept of rationality in economics, from neoclassical-hyper rationality to the ecological rationality paradigm. The second section discusses how the process of development and transformation of social norms can be incorporated into the formal economic analysis as well as the problems arising from neglecting this issue in the public policy design. The third section discusses the notions of optimal and sustainable public policy, and the final section draws conclusions and examines implications.

Decision-making from the constructivist and ecological perspective – optimisation versus survival

Under the normative neoclassical theory, public policy should be implemented in a way that maximises social utility function (Arrow, 1963; Plott, 1973). Being an aggregate of the rational agents' preferences, social preferences are characterised by all the attributes of rational choice, namely completeness, reflexiveness, transitivity (Arrow, 1963), and, subsequently, path-independence (Plott, 1973). At least to some extent, neoclassical public policy theory incorporates neoclassical principles of the rational choice. Therefore, the entire discussion should be initiated by the analysis of rational choice principles both from the perspective of neoclassical and non-mainstream approaches.

Simon (1996) distinguishes between two types of rationality, namely a substantive one and a procedural one. The former form of rationality describes the process of adjustment to the external environment conditions or, in simple words, optimisation. Simon (1996) identified optimisation methods as a particular domain of the entire scope of design practices, describing the logic behind any optimisation process as the interaction between the "inner" and "outer" environment of the design problem. The "inner environment" is composed of the finite set of alternatives, which are commonly specified as a range of "command variables." The "outer environment" consists of a set of parameters "which are known with certainty or only in terms of a probability distribution" (Simon, 1996, p. 116). The goal of optimisation lies in adapting the "inner environment" to the constraints imposed by the "outer environment" or finding the optimal values of command parameters subject to the external constraints. According to Smith's (2003) terminology, this kind of rationality is also referred to as constructivist rationality, being identified as a product of pure reason. It is crucial to mention that Simon (1996) discusses optimisation as a particular domain of design, which is supposed to explain the world of artificial objects. With a reasonable degree of simplification, one can describe the neoclassical notion of rationality as a constructivist rationality artefact applied as the positive principle. Under the neoclassical assumptions, the process of adaptation is not required owing to the assumptions of perfect information (i.e. the absence of uncertainty) and the perfect computational abilities of decision-makers. Relying solely on the substantive rationality allows for predicting the system's behaviour without any further insight into the decision-making process, as Simon (1996) underlines. Agents, rational in the constructivist sense, are utterly predictable (Lawson, 2003), which makes it possible to analyse economic choices by applying rigorous logic, analogously to the natural sciences. Perhaps this can explain the widespread popularity of the neoclassical setting (Heise, 2012).

The inconsistency between the neoclassical assumptions about perfect information and

perfect computational abilities on the one hand, and the reality on the other has motivated the development of two rival theories: heuristics and biases approach as well as the ecological rationality paradigm. The former concept arose mainly owing to the seminal paper of Tversky and Kahneman (1974), and further attempts to describe and analyse systemic biases of human behaviour (Camerer et al., 2004; Kahneman, 2003). From such a perspective, an inclination to follow the 'rule of thumb' arises from the lower cognitive cost of heuristics in comparison to the optimisation approach. At the same time, heuristics strategy is not supposed to lead to the optimal outcome, implying a cost-efficiency trade-off of heuristics. Berg (2014) refers to this approach as the consistency school of bounded rationality, justifying the suggested terminology by the fact that empirically observed patterns of decision-making are juxtaposed with the criterion of logical consistency (or constructivist rationality). In other words, the principles of logic and optimisation are recognised as the only normative concepts of rationality, although they are being rejected as the positive theory of the system's behaviour.

The consistency school of bounded rationality leaves no room for Simon's procedural rationality; in contrast, the idea of ecological rationality is the direct descendant of this notion. Unable to access and assess the entire scope of relevant information, human beings must rely both on the conscious analysis and the feedback obtained from the external environment (Simon, 1990). The procedural rationality is revealed in the process of identifying the appropriate path of adaptive behaviour (Simon, 1996), while the reinforcement of effective behavioural patterns and the rejection of ineffective ones ensures the process of the natural selection of heuristics (Simon, 1978). Under the constructivist framework, the necessary condition for the rational choice is to outperform all the available options in terms of the expected outcome. In contrast, a procedurally rational choice has to be the result of the intelligently selected decision-making strategy, while superiority of the chosen option is neither a necessary nor a sufficient condition. Strongly inspired by the ideas described above, the ecological rationality paradigm implies that:

(i) the external environment is too complex (see also Arrow, 1986) and uncertain for any kind of optimisation strategy (Gigerenzer, 2000, 2007, 2008a, 2015).

(ii) survival in this complex environment is ensured by communication and interaction rather than means of formal logic (Gigerenzer, 2008b; Katsikopoulos et al., 2010; Smith, 2003; Smith, 2009); to put it more simply, even if efficient optimisation were possible, it would still be unsustainable in the long-run perspective.

Perhaps the crucial point is that ecological rationality proclaims long-term survival as the main objective of individuals and societies, which is in contrast to the neoclassical approach proclaiming the maximisation of the social utility as the only possible public policy goal. Social interaction, feedback process, and social ties are all crucial to the survival of social groups and individuals within these groups. Therefore, social norms play a vital role in achieving a sustainable outcome from the evolutionary perspective, which is developed and adjusted by means of collective intelligence.

Social norms and institutions from the perspective of the neoclassical and the ecological approaches

Social norms can be understood as uncodified rules, principles, and values governing the process of social exchange and social interaction (Smith, 2009). Treating social norms in line with the aforementioned definition would require a holistic view of society and admitting that any social group is a much more complex structure than the sum of individual agents. This idea goes beyond the strictly atomistic neoclassical approach implying that the system cannot possess any characteristics that are not attributed to one of its elements. Therefore, explaining the nature of social

norms under the neoclassical framework would be an extremely complicated task.

Nevertheless, the inability of the neoclassical school to address social norms does not imply posing an economic human being as the utterly selfish human being, which is in contrast to the common misconception (Carey, 1865; Caporael et al., 1989; Elster, 1989; Etzioni, 1990; Thompson, 1875). Under the neoclassical framework, the notion of social norms is replaced by the concept of exogenously given social preferences (alternatively, other-regarding preferences), which allows for assessing the phenomenon of pro-social behaviour using conventional optimisation tools (Bénabou & Ok, 2001; Brennan et al., 2008; Dawes et al., 2007; Heffetz & Frank, 2011; Kroll & Davidovitz, 2003; Morawetz et al., 1977; Andreoni & Varian, 1999; Bowles & Gintis, 2000; Lind & Tyler, 1988; List & Cherry, 2000). The early altruism-rationalising approaches assumed an intrinsic reward for altruistic behaviour, which is in line with the principles of teleological behaviourism (Rachlin, 2002) whereby the future discounted benefits of a selfless act offset the costs (Axelrod, 1984; Becker, 1974; Guttman, 1996; Hirshleifer & Rasmusen, 1989; Stark, 1995). More recent theorists emphasise the internal reward for altruistic behaviour (i.e. "warm glow" of giving – Andreoni, 1990; Andreoni & Miller, 2002). Nevertheless, neglecting the process of social preferences formation is a common trait for all the aforementioned models (Berg & Gigerenzer, 2010): people act for the good of others because they derive some utility from acts of altruism, while the nature of this phenomenon remains beyond the agenda.

In contrast to neoclassical agents, human beings with limited knowledge and analytical capacity cannot rely on the cost/benefits analysis when interacting with others. Then, the principle 'make good for others whenever you benefit from that' is not sustainable or even applicable. Real people usually follow the principle of social heuristics, i.e. 'make good for others whenever you find it appropriate', where a judgment about appropriateness is unconsciously made based on the context. One can justify the human inclination not to cooperate with strangers by the lack of relevant information and an impotence to predict the future path of interaction (Marsh, 2002), while it is pretty doubtful that such reluctance is the product of the constructivist analysis. This common feature of human behaviour is an example of social norms or adaptive mechanisms developed in the process of social evolution. As individuals, we rely on social norms because of the uncertain nature of the environment surrounding us and our inability to analyse it in its entire complexity; if certain social norms turn out to be inefficient, we reject them and develop new adaptive tools, as Gigerenzer's approach suggests. Simultaneously with this notion, Smith attempts to take a closer look at the process of developing and adjusting implicit rules of behaviour by the entire society. In line with Simon's (1996) notion of complex behaviour arising from the complexity of external environment surrounding agents, Smith (2009) discusses how changes in the institutional environment trigger the process of social norms' evolutionary development.

Social norms are commonly treated as a mechanism facilitating the occurrence of Pareto-efficient outcomes (Boersen et al., 2008). Nevertheless, it would be wrong to automatically equate social norms with the mechanism leading to long-term sustainability. As discussed earlier, social norms, as a particular type of heuristics, pass the process of evolutionary selection (Simon, 1978), ensuring that functional social norms prevail. Nevertheless, norms, effective under a particular institutional setting, are not by default the most sustainable pattern of social interaction. The efficient institutions hypothesis (North & Thomas, 1973) is not utterly uniform once the neoclassical system of values is abandoned. By transforming social norms, agents might adapt to the existing institutional environment in an effective way, which, however, does not imply that the resulting social outcome is sustainable. In other words, the fact that society self-regulates its functioning by developing and adjusting social norms does not

imply the lack of necessity of public planning, as discussed in the next section.

Public policy – the optimal design versus the sustainable design

Simon (1996) establishes the scientific status for design, treating it as a field of science dealing with artefacts (artificial objects and social structures). The science of design, therefore, can be treated as a unified system of knowledge from different scientific disciplines "with problem solving at the glue" (Huppatz, 2015, p. 29). In other words, the science of design "is concerned with how things ought to be" (Simon, 1996, p. 114). Thus, it goes beyond the positive logic by default. Therefore, although the neoclassical approach towards decision-making is inappropriate as a descriptive principle, one might still argue for its suitability for the public policy design, since 'optimal social policy' is something on the normative side of economics. For a moment, one can leave aside the potential biases of the neoclassical public policy resulting from the poor empirical fit of its underlying principles. Let us assume that information is indeed perfect and one has sufficient computational resources to define and evaluate all the possible alternatives to determine the optimal one. In such case, the process of public policy design takes the form of a two-stage sequential game. At the first stage of the game, public policymakers choose the policy, while at the second stage agents adjust their internal environment to the external constraints, following Simon's optimisation algorithm. Being aware of the social choice at each of the hypothetical public policy paths on the one hand and the corresponding ordinal utility level assigned to this outcome on the other, public policymakers choose the appropriate social policy design at the first stage. Assuming the stable and exogenously given preferences, the resulting system is an equilibrium: none of the variables is going to change unless changes occur in the external environment.

Under Smith's ecological rationality framework, institutions (or regulatory frameworks) serve as the canvas for the process of social norms development and transformation. Following Simon's (1996) notion about two components of the evolutionary mechanism (i.e. generator and test), Smith (2003) argues that both forms of rationality co-exist organically whereby constructivist rationality serves as the generator, ensuring the sufficient variety and appropriate institutions, and sustainable behavioural patterns are selected through the trial and error process. Although Smith does not present this idea explicitly, particular social norms can be developed through the transformation of the external regulatory environment. The constraints imposed by the external environment (institutions) trigger the process of the evolutionary adjustment of the internal social environment, changing the rules of the game and requiring further steps from central authorities. The resulting infinitely repeating process perfectly illustrates Simon's (1996) ideas about public policy with no final goal in transforming the environment instantly. The straightforward implications are that: i) any appropriate public policy is subject to the instant and never-ending process of adjustment and transformation; ii) maximising social utility should not be the primary objective of public policy. Numerous historical examples suggest that major institutional transformations are often painful for the society (alternatively, inefficient from the neoclassical optimising perspective). Abandoning racial segregation in the US schools in 1954 triggered widespread protests, since social norms of that time were elitist to a great extent. Even though racial segregation at schools still exists contemporarily (Rothstein, 2014), the initial change in the formal regulatory framework has triggered positive changes in the social values (Wells & Crain, 1994) despite initial social dissatisfaction.

However, as mentioned earlier, there is no inherent contradiction between the attempts to raise the level of social utility and pursuing the sustainable path of social development. As Smith (2009) states, social norms and values

tend to adjust to the formal institutional setting. In simpler words, initial social disutility triggered by the changes in the regulatory framework tends to disappear in the long-term perspective. Even though the sustainable public policy design might diminish social utility in the short-run perspective, the flexibility of the institutional environment ensures the eventual adjustment to the new reality. It should be mentioned, nevertheless, that accepting the idea of procedural rationality in public policy should not be biased by the neoclassical inclination to anticipate the long-run policy implications, treating the proposed social policy design mechanism as a sequential game. All in all, admitting that we live in the world of uncertainty and that the mechanism of social norms selection hardly follows the optimisation principle, we should also agree on our impotency to accurately forecast the results of our actions in the long-run perspective.

Conclusion

Although the neoclassical approach towards decision-making has been proved to be invalid as the positive principle of decision-making, it still dominates in the area of public policy design. The optimisation approach towards public policy implies that the primary objective of a policymaker is to define an equilibrium point maximising the social welfare, while any deviation from this pattern is inefficient. The neoclassical approach neglects the fact that the character of social choice might be inconsistent with the long-run social goals, at the same time assuming exogenous and stable preferences. This line of thinking implies the artificial trade-off between social utility maximisation and social sustainability. There is strong evidence in favour of the idea that social norms are subject to transformation and adjustment to changes in the regulatory environment. Numerous historical examples suggest that although major institutional changes are rather painful and diminish social utility (thus being inefficient from the neoclassical perspective), society still gains in the long-run perspective. Therefore, there is a paramount need to reconsider the appropriateness of the neoclassical principles for public policy design.

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