



HAL
open science

Sado-Masochism in Buchanan's Samaritan's Dilemma. A Constitutional Perspective

Alain Marciano

► **To cite this version:**

Alain Marciano. Sado-Masochism in Buchanan's Samaritan's Dilemma. A Constitutional Perspective. *Homo Oeconomicus: Journal of Behavioral and Institutional Economics*, Springer, In press, 10.1007/s41412-022-00126-7. hal-03683854

HAL Id: hal-03683854

<https://hal-cnrs.archives-ouvertes.fr/hal-03683854>

Submitted on 1 Jun 2022

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Sado-Masochism in Buchanan’s Samaritan’s Dilemma. A Constitutional Perspective[☆]

Alain Marciano¹

University of Montpellier and MRE

Abstract

In this paper, we study the impact of altruism on an interaction between a samaritan and a recipient/parasite in the frame of Buchanan’s samaritan’s dilemma (1975). We show that, as soon as altruism reaches a certain threshold, the equilibrium of the game corresponds to the situation Buchanan called a samaritan’s dilemma. We also show that the Nash equilibrium reached for these levels of altruism is a Pareto-efficient outcome. Thus, the situation Buchanan characterized as a samaritan’s dilemma is not a dilemma at all. Both players are satisfied with the situation as it is and need each other, up to the point of giving birth to a sado-masochistic equilibrium. We also show that this result holds if and only if the constitutional rules are given—either the ethical rules followed by the individuals, or the form of the game. This equilibrium could be avoided if the players adopted a constitutional perspective on the situation.

Keywords – Altruism, Samaritan’s dilemma, Buchanan, Exploitation, Sadism, Masochism, Co-operation

JEL codes – C72, D91

1. Introduction

Samaritanism, benevolence, helping people in need, trying to relieve their grief through aid and donations, may have negative rather than positive consequences. First, on the beneficiaries of such help. Indeed, as it has been put forward in a rather large literature, helping people may contribute to maintaining them in a state of poverty, dependent on aid and assistance. It reduces the recipient’s willingness to work—as Burns put this rather old concern, “aid may discourage self-reliance” (2009, p. 1)—as well as the incentives to invest in productive behaviors (Williamson, 2010). In addition, these negative effects tend to spread through strategic behavior and imitation—“[g]iving aid to those who make impoverishing choices will encourage others to do the same, thereby worsening

[☆]This article was presented in various workshops: GATE L-SE, Université de St-Étienne, 27 February 2014; Economics Department, Monash University, 22 August 2014; PHARE, Université Paris 1-Panthéon Sorbonne, 19 February 2015; PPE seminar, George Mason University, Mercatus Center, 9 March 2017. I thanks all the participants for their comments. I also want to express my greatest gratitude to Harmut Kliemt for his comments, encouragements and help on a previous version of this article.

¹University of Montpellier, Department of Economics, Rue Raymond Dugrand, CS 79606, F-34960 Montpellier, France

the problem” (Wagner, 2005), or “there is a strong incentive in these situations for an endogenous increase in the supply of those who will receive the benefits from our policy.” (Boettke and Martin, 2010) Helping creates a situation of “tragic commons” (Schmidtz, 2000, 686). Why? The reason seems straightforward. Help transforms the incentives the recipients face and creates a situation of “moral hazard”—also called a “charity hazard” (see Andor, Osberghaus and Simora, 2017; Raschky and Weck-Hannemann, 2007; Browne and Hoyt, 2000): because they feel insured against problems by the presence of samaritans, recipients for instance work or save less or increase risky behaviors. Even if the evidence is not always clear, the phenomenon seems frequent.

Part of this literature was influenced by James Buchanan’s essay “The samaritan’s dilemma” (1975)—that seems to be the first time the expression was used. In his work, Buchanan pointed to another problem: samaritans can be durably hurt as well. According, to Buchanan, samaritans are caught in a situation in which they help—via, for instance, some transfer of money—someone who takes the money but nonetheless does not “return the favor” by “cooperating” with the donor’s wishes. The recipient—to Buchanan, a “parasite” (1975)—“refuse[s] to work” (Buchanan, 1975, 76).² He “exploits”—still Buchanan’s term—the samaritan. The latter is dissatisfied with “the absence of work on the part of the recipient” (Buchanan, 1975, 76) because she precisely hoped and wished that her charity would have led the recipient to change his behavior and work. This asymmetrical situation—the samaritan helps, the beneficiary does not work—could be ended if the samaritan decided not to behave charitably³. Choosing this course of action would suppress the samaritan’s dissatisfaction with seeing her altruism not reciprocated and, in Buchanan’s eyes, would incite the recipients to change their behavior towards working. Yet, according to Buchanan, this process is costly: the samaritan would suffer from seeing the recipient suffer, and also from a loss of utility because of the impossibility of satisfying her altruistic preferences. Hence, the dilemma the samaritan faces: either she helps someone who by that help is induced to exploit the helper, or she does not help but suffers from the cost of not helping.

Buchanan did not explain the origins of the game. He assumed its structure and payoffs, because his objective was to analyze the consequences of the situation and explain how to escape from it. He did not even make specific assumptions regarding the origins of the samaritan’s action. In particular, he did not assume that samaritans are altruists.⁴ Yet, altruism is most of the time, if not always, associated with Buchanan’s samaritan’s dilemma. This is why we also assume that samaritans are altruist. But, then, a question arises: does the samaritan’s dilemma still exist if it is assumed that the samaritan is an altruist? This is what we discuss in the present paper, in a more illustrative than demonstrative way.⁵ We show that the asymmetric situation that corresponds to Buchanan’s samaritan’s exists if—and as soon as—altruism reaches a certain level. However,

²In Buchanan 1975, The parasite has two strategies, ”work” and ”refuse to work”.

³Letho and Meadowcroft (2021) insist on how important were these off-diagonal outcomes, or asymmetrical equilibria, for Buchanan after a while. Marciano (2022) shows that the samaritan’s dilemma was present in Buchanan’s work since the late 1950s.

⁴Although “The samaritan’s dilemma” was published in a collective volume on altruism, Buchanan did not write it with altruism in mind. When he wrote his article, in the early 1970s, Buchanan was concerned with other issues that had not much to do with altruism (see Fleury and Marciano, 2018).

⁵For a more detailed analysis of how it is possible to make sense of Buchanan’s dilemma with altruist samaritans, see Dughera and Marciano, 2022.

we also show that the Nash equilibrium reached for these levels of altruism is a Pareto-efficient outcome. This means that the situation Buchanan characterized as a dilemma is not a dilemma at all. Indeed, neither the samaritan nor the recipient would want to play otherwise.

To be more precise, and to be consistent with in Buchanan’s distinction between within rule choices and choices of rules of a game, what we actually show is that there is no dilemma as long as, and because, the samaritan and the recipient play a (given) game by following their own (given) subjective preference terms. Our result holds, and the samaritan is satisfied with the situation in which she helps, and the recipient is satisfied with making no effort, because the two individuals choose within given rules—which technically comprise the subjective preferences of the actors. This was the situation Buchanan found problematic in the US in the early 1970s. Samaritans were (myopically) enjoying their altruism. We then suggest that the situation can be interpreted (rather provocatively) the situation as a sado-masochistic equilibrium: both the samaritan needs people to help and the beneficiary needs helpers. It is even worse (or less desirable) than what Buchanan diagnosed. But, precisely because we reason in terms of game-forms, of within rule choices and choices of rules, we can also suggest that instead of being trapped in this sado-masochistic equilibrium, the players could also envisage to change the rules. Put differently, the Samaritan and the parasite would have reason to wish that the rules of the game were different. They could try to find a constitutional solution to the situation. From this perspective, “The Samaritan’s Dilemma” must not (only) be interpreted as a message of despair but also as a plea for a change in the rules of the game.

2. Sympathy for strangers and the conditions of cooperation

To be as general as possible, we simply consider a large population of individuals, is and js , paired to interact in a one-shot prisoner’s dilemma game. Let us pause here to make two important remarks about this setting. First, we assume that individuals are non-embedded in an institutional structure. The reason is that we want to isolate the impact of altruism and separate it from the role institutions may play. Stated differently, our objective is to explain exploitation induced by individual preferences and not to link it to, or explain it by, a specific institutional structure (as done by Kaushik Basu, 2010). Second, we study only interactions that are not repeated.⁶ Changing from one-shot to repeated interactions would necessarily modify the dominance properties of the repeated game strategies and therefore the strategic nature of the interaction (backward induction being an additional assumption anyway). We want to focus on “interactions” such as the one taking place between an individual and, for instance, an unknown beggar or the unknown victim of a natural catastrophe.

Our starting point is the game depicted in TABLE 1. Here, the row- and the column-player both (privately) have two strategies. They can choose a generous, **G**, or a selfish, **S**, action. The numbers in each cell are the material payoffs the two players receive in their interaction. At this stage, TABLE 1 is the objective description of the interaction between the two individuals. It is

⁶For an analysis of the samaritan’s dilemma with repeated interactions, see for instance Schmidtchen, 1989.

assumed initially that their subjective perceptions of the game and their subjective preferences coincide with the objective payoffs in their ‘natural ranking’.⁷

TABLE 1. THE INITIAL GAME, A PRISONERS’ DILEMMA

Player i ’s options	Player j ’s options	
	\mathbf{G}_j	\mathbf{S}_j
\mathbf{G}_i	(3, 3)	(0, 5)
\mathbf{S}_i	(5, 0)	(1, 1)

As is familiar, in such a prisoner’s dilemma game mutual defection is the unique Nash equilibrium in strictly dominant strategies. This is the only pure strategy combination which is not Pareto-efficient and strictly payoff-dominated by mutual cooperation.⁸

Remaining with an interaction characterized by this game-form, we move to a different game if we introduce other-regardingness and assume that individual i is characterized by an altruism parameter that represents her concern for the welfare of the other person, j , with whom she interacts. This parameter is α_{ij} and is ≥ 0 .⁹ The degree of sympathy, altruism or other-regarding concern is represented as the weight with which i values the objective payoffs earned by j relative to her own in her subjective ranking of results. In the emerging game, it is no longer assumed that the self-regarding objective or substantive payoffs alone represent the preference ranking. If Π_i and Π_j denote the material and objective payoffs received by i and j , then the induced subjective payoff of i is given by:

$$\tilde{\Pi}_i = [1 - \alpha_{ij}].\Pi_i + \alpha_{ij}.\Pi_j.^{10} \quad (1)$$

This means that, although the game-form—in our case a prisoner’s dilemma game-form—does not change, the game individuals play is different because they play it as they *perceive* it. The game is depicted in TABLE 2, where α_{ij} corresponds to the degree of altruism i feels towards j and α_{ji} is the degree of altruism j feels towards i . It is the game altruistic individuals play when

⁷Using different numerical values would not change the logic of the results. And, since we are only concerned with players’ ordinal preferences over outcomes, the value of an individual’s degree of altruism is allowing us to generate alternative outcome rankings in a comprehensive way.

⁸As Buchanan suggested many times, in a standard prisoner’s dilemma game-form, a purely subjective re-ranking of the moves that renders the co-operative choices subjectively dominant would yield also the result that makes both actors objectively better off in terms of the game-form.

⁹Edgeworth was the first to explicitly consider sympathetic utility functions through the use of an “effective coefficient of sympathy”. He wrote that “between the frozen pole of egoism and the tropical expanse of utilitarianism [there is] the position of one for whom in a calm moment his neighbour’s utility compared with his own neither counts for nothing, nor ‘counts for one’, but counts for a fraction” (1881, p.102). See Collard (1975) for a detailed account of Edgeworth’s treatment of altruism. The use of such linear forms of altruistic utility functions is frequent: see Becker (1974), Bernheim and Stark (1988), Bruce and Waldman (1990), Montgomery (1994), and Mulligan (1993, 1997), Rescher (1975), Rotemberg (1994). Levine (1998) or Sally (2001) use a different form of altruistic utility function.

¹⁰Sally (2001, pp. 7-8), criticizes this “usual linear form” because “an altruistic person is subject to the samaritan’s dilemma in a multi-period setting, as demonstrated by Bruce and Waldman”. Our point is precisely that there is no need to envisage a “multi-period setting” to end up with a samaritan’s dilemma. This is why we adopt this form.

the game is the one given in TABLE 1.

TABLE 2

Player i 's options	Player j 's options	
	\mathbf{G}_i	\mathbf{S}_i
\mathbf{G}_j	(3; 3)	$(5\alpha_{ij}; 5[1 - \alpha_{ji}])$
\mathbf{S}_j	$(5[1 - \alpha_{ij}]; 5\alpha_{ji})$	(1; 1)

The outcome of the game obviously depends on the values of α .¹¹

Let us start by assuming that the society is perfectly homogenous, at least in terms of altruism and concern towards others. This can be viewed as a benchmark situation in which $\alpha_{ij} = \alpha_{ji} = \alpha$. Then according to equation (??), this leads to the symmetric “psychological game” depicted in TABLE 2-BIS.¹²

TABLE 2-BIS

Player i 's options	Player j 's options	
	\mathbf{G}_i	\mathbf{S}_i
\mathbf{G}_j	(3; 3)	$(5\alpha; 5[1 - \alpha])$
\mathbf{S}_j	$(5[1 - \alpha]; 5\alpha)$	(1; 1)

One immediately sees that the outcome of the game depends on two threshold values, $1/5$ and $2/5$, that determine three possible situations.¹³ This is straightforward but useful for the discussion we propose in the next sections. First, if $\alpha < 1/5$, the game remains a prisoner’s dilemma. Defection is a strictly dominant strategy. Individuals with a degree of altruism towards others $\alpha < 1/5$ are *unconditional defectors*, even though they feel a certain concern for others. Their degree of altruism is too low or insufficient for the ‘psychological’ game to be of a different strategic nature than the ‘material’ game. Second, at the other end of the spectrum, if $\alpha > 2/5$, then cooperation is strictly-dominant; individuals are *unconditional cooperators*. Third, for intermediary values of α —between $1/5$ and $2/5$, individuals are *conditional cooperators*: cooperation is the unique best response to cooperation and defection is the unique best response to defection. In addition, such

¹¹The degree of moral concern plays no role when the two individuals gain the same payoffs. When payoffs differ, then altruism affects the objective function and, hence, the behavior of the moral individual.

¹²On “psychological game theory” see Geanakoplos, Pearce and Stacchetti (1989), and Battigalli and Dufwenberg (2009, 2019). An important difference must be noted here between these works, as well as with what we do in this article. Battigalli and Dufwenberg assume that “players’ utility depends on endogenous beliefs” (2019, 4). As they note, Geanakoplos, Pearce, and Stacchetti’s analysis “only encompasses utilities that depend on player’s *initial* hierarchical beliefs.” (2019, 7; italics in original). Indeed, Geanakoplos, Pearce, and Stacchetti noted: “The principal distinguishing characteristic of what we call a *psychological game* is that the players’ payoffs depend not only on what everybody does but also on what everybody thinks.” (1989, 61; italics in original) Our approach differs and is less sophisticated than the one adopted by these authors. We assume that neither the Samaritan nor the recipients modify their beliefs, when they play the game. As we will see it, this is precisely what is problematic.

¹³Threshold values can easily be calculated: for i , G is preferred to S if $3 > 5[1 - \alpha]$ and $5\alpha > 1$. This gives $1/5$ and $2/5$.

individuals cooperate if they expect their opponent to cooperate with probability greater than $\frac{3-5\alpha}{1+\alpha}$. The prisoner’s dilemma is turned into a chicken game in which there are two asymmetric strict Nash equilibria— $(\mathbf{G}_i, \mathbf{S}_j)$ and $(\mathbf{S}_i, \mathbf{G}_j)$ —and one symmetric mixed equilibrium—where both individuals choose \mathbf{G} with probability $5\alpha - 1$.

3. The paradox of non-reciprocal altruism: from cooperation to exploitation

Let us now turn to the situation that we want to analyze more specifically, namely when an interaction takes place between a moral—or altruist or benevolent—and a non-moral—or egoist and selfish—individual randomly paired with each other.¹⁴ The latter, j , cares for his own payoffs only—that is, $\alpha_{ji} = 0, \forall i$ —and thus $\widetilde{\Pi}_j = \Pi_j$. By contrast, the moral individual, the samaritan, i , is such that $\alpha_{ij} > 0$. She is affected by j ’s welfare and takes his payoffs into account. Therefore, $\widetilde{\Pi}_i = [1 - \alpha_{ij}]\cdot\Pi_i + \alpha_{ij}\cdot\Pi_j$. She will not base her choice on the material payoffs she will receive but on her subjective rankings of results of outcomes of play.

To simplify the presentation and, since $\alpha_{ji} = 0$, we denote $\alpha_{ij} = \alpha$.

TABLE 3. *Non-RECIPROCAL ALTRUISM*

Player i ’s options	Player j ’s options	
	\mathbf{G}_j	\mathbf{S}_j
\mathbf{G}_i	(3; 3)	(5α ; 5)
\mathbf{S}_i	($5[1 - \alpha]$; 0)	(1; 1)

In this situation, the non-moral individual j still has a dominant strategy to defect whatever the moral individual i does. The strategy the latter is going to choose depends on how much she cares about the other player, i.e. depends on the value of α . The threshold values are the same as above, $1/5$ and $2/5$. When $\alpha < 1/5$, the game remains a prisoner’s dilemma with a strictly dominant defection strategy for both players. The second—when $1/5 < \alpha < 2/5$ —and third situations—in which $\alpha > 2/5$ —represent particularly interesting and problematic outcomes that result from an interaction between a moral and a non-moral individual. When $1/5 < \alpha < 2/5$, a moral player not anticipating that the non-moral co-player has a dominant strategy of defecting could in principle choose either to cooperate or to defect. Anticipating the behavior of the co-player the moral player will, however, for $1/5 < \alpha < 2/5$ choose to cooperate. When $\alpha > 2/5$ cooperation is a strictly dominant strategy for the moral actor who then need only know her own payoffs.¹⁵

¹⁴We analyze situations in which an individual characterized by a degree of altruism, α , different from 0, face another individual characterized by an α equal to 0. This is a simplification used to analyze situations in which individuals are characterized by positive but different α . It does not change the nature of the reasoning.

¹⁵As a corollary, one may note that cooperation does not require to go as far as to follow the Biblical teaching “love your neighbor as yourself” (Leviticus, 19:18). “[E]nlighented self-interest” (Simon, 1983) or “imperfect altruism” (Stark, 1989) are sufficient to lead individuals to cooperate with others.

Whenever $\alpha > 1/5$, there is only one asymmetric strict Nash equilibrium— $(\mathbf{G}_i, \mathbf{S}_j)$. It corresponds to a situation in which the moral individual cooperates while the non-moral individual defects and the game is no longer a standard prisoner’s dilemma but rather corresponds to a samaritan’s dilemma. Or, to be more precise, the equilibrium of the game corresponds to the asymmetrical situation in which the samaritan cooperates and the parasitic recipient defects. Thus, this equilibrium is reached whenever a sufficiently altruistic samaritan interacts with an egoist. Indeed, the exploitation equilibrium is the consequence of an altruistic preference of the samaritan.

Does this equilibrium correspond to Buchanan’s samaritan’s dilemma? To answer the question, one must recall that, to Buchanan, the dilemma did not result from the existence of this asymmetric situation but from the impossibility to escape from it. In the next section, we show that indeed the situation is stable. Neither the samaritan nor the recipient want it to change.

4. Exploitation as mutual advantage, and the end of the samaritan’s dilemma

Let us start by noting that, as soon as $\alpha > 1/5$ then $\tilde{\Pi}_i(G, S) > \tilde{\Pi}_i(S, S)$, and the samaritan’s utility is greater than it would be if she chose to behave selfishly. Moreover, the game depicted in TABLE 3 shows that, when $\alpha > 3/5$, then i ’s gains if j plays \mathbf{S} are greater than her gains if j plays \mathbf{G} . This means that the samaritan prefers $(\mathbf{G}_i, \mathbf{S}_j)$ to $(\mathbf{G}_i, \mathbf{G}_j)$. And this can, also, be easily be explained. If obliged to cooperate, the recipient would get 3 instead of 5. But he would not be the only one to be affected. The samaritan would be too: $(\mathbf{G}_i, \mathbf{G}_j)$ corresponds to a situation in which the samaritan also suffers from the loss of utility of the recipient. This means that samaritans with a relatively high degree of altruism— $\alpha > 3/5$ —prefer to interact with a selfish recipient who behaves selfishly than with a selfish beneficiary who would react to her altruism and behave generously as it would be the case if Becker’s Rotten Kid theorem applied. One may note that the more altruistic the samaritan is—the purer her altruism—the less she is interested in any form of cooperation or reciprocation from the recipient. Again, the stability that was required by Buchanan to characterize a samaritan’s dilemma exists.

More broadly, when $\alpha > 3/5$, the outcome $(\mathbf{G}_i, \mathbf{S}_j)$ appears to be preferred by **both** the moral and the non-moral individual, the samaritan and the recipient. Exploitation is thus the samaritan’s and the parasite’s preferred outcome. Therefore, exploitation is Pareto-efficient. Both the samaritan and the recipient would be made worse off by any attempt to oblige the recipient to choose strategy \mathbf{G} , that is to behave non-selfishly. The same stability of the asymmetrical equilibrium is verified.

But, a particularly important corollary has to be added: here, with an altruist samaritan, the stability of the off-diagonal outcome has not the same origin as in Buchanan’s model. To Buchanan, exploitation implied a dissatisfaction for the samaritan. This is not what we have obtained. When α reaches a certain threshold, the samaritan does not want to change her behavior and does not want the recipient to behave differently within the rules of the given game. The samaritan has no desire to end a situation that she perceives as favorable. In other words, by contrast with what Buchanan wrote, there is no dilemma.

This arises from the fact that the samaritan receives some subjective, symbolic benefits from

being benevolent and these gains can be really important for people with a high degree of concern for others. This is the warm glow effect, already emphasized in the literature on altruism (see Andreoni, 1990, for a seminal work on this issue). This means that altruism cannot be viewed only for its incentive dimension (to some extent, this is a problem that comes from the first economic studies, in particular Becker’s about altruism that envisage altruism as conditional). Benevolence has also a consumption value. The samaritan is perfectly satisfied with the asymmetric situation in which she finds herself. Indeed, there is no dilemma. Or, rather, what Buchanan interpreted as a dilemma is just a stable equilibrium that satisfies both players. This does not however mean that they *should* be satisfied. Although the exploitation equilibrium is not a dilemma, it is nonetheless problematic.

5. Masochism and sadism in the samaritan’s dilemma

If we assume that both individuals follow their own subjective preferences—do not try to be a different person—in a set of given rules, it appears that exploitation in *objective* terms is needed to increase both player’s *subjective* satisfaction. More precisely, samaritans need parasites as much as parasites need samaritans to realize mutual advantage. That reciprocal and mutual need creates a very specific sado-masochistic relationship. Indeed, it can obviously be said that the samaritan is willing to, and even ‘enjoy’, reducing her objective game form payoff to allow an increase in the objective payoff and utility of the recipient. Such a behavior could be said to reveal a form of masochistic preferences. This echoes a point emphasized by Elias Khalil about Becker’s altruism and its ‘unavoidable’ masochistic dimension (2001, 2004a; see also Nida-Rümelin, 1991). Khalil argued that “Becker cannot analytically distinguish between the actions of altruists and masochists. Both actions involve the reduction of one’s welfare for the purpose of enjoying vicariously the welfare of others.” (2004b, 143) As he explained more precisely,

“Becker’s theory is properly a good theory to explain why the masochist (the altruist) is ready to suffer some loss or some pain so that the sadist (the beneficiary) can have some enjoyment: as the sadist is having some enjoyment, the masochist feels pleasure via mirroring or reflexivity. If we think that this mechanism is what takes place in the sadist-masochist relation, Becker’s theory is saying that the altruist-beneficiary relation is no different.” (Khalil, 2004a, 102)

Viewed this way the samaritan cares sufficiently for the recipient to sacrifice her objective payoff. The utility (‘pleasure’) she derives from sacrificing her payoff is compensated by the pleasure obtained by the parasite.¹⁶

This masochism turns into or is complemented by a form of sadism. And this is the second result of the game—illustrated in TABLE 3. Since the samaritan needs parasites to exploit her to reach

¹⁶Let us note that this contrasts what Buchanan and what the literature on the subject after him argued, namely that, even if it leads to exploitation, asymmetrical or unilateral altruism is beneficial to **both** parties (see also Singh, 1995). This is also different from Nicholas Resher’s approach, in which altruism is distinguished from self-sacrifice (1975, p. 11).

a subjectively preferred situation, this means that the samaritan prefers that recipients remain in the situation of being helped. Her masochism, that leads her to sacrifice objective payoff to see others enjoying more utility (respectively higher objective payoffs), also leads her to be a sadist—in the sense that she may well “welcome tragedies” (Khalil, 2004a, 102). The failure to distinguish between objective and subjective payoffs – respectively, the within rule and the choice of rules constitutional perspective – leads Khalil to diagnose the emergence of “absurd results”: “[t]he altruist qua masochist may not abhor natural disasters befalling others. While such an altruist may refrain from expediting disasters, he would celebrate the opportunities such disasters afford him.” (2004, 102) Or, in other words, “Becker’s model entails that altruists should feel joyful over the prospect of the miseries of others because such miseries occasion for them the opportunity to be aroused.” (Khalil, 2001, 431)

That is not all. There is sadism from the parasite too. Since exploitation can be said to be “mutually advantageous”—preferred by *both* the samaritan and the parasite—, this then means that the parasite wants the samaritan to be exploited in terms of a loss of objective payoffs she receives. This obviously makes the parasite a sadist too.

6. The sado-masochist equilibrium in a constitutional perspective

Buchanan made two points of importance in his essay that complement each other, and can be seen in constitutional terms. First, he insisted on the importance of strategic courage, of the need to assume one’s responsibilities as a Samaritan—and this includes not being an altruist in the short term to secure long term benefits. Now, ethical rules are constitutional rules, at least if one follows Buchanan. Then, one way to avoid or prevent the samaritan’s dilemma or rather the sado-masochistic equilibrium is that individuals adopt new ethical rules. That they become “better” individuals (see Buchanan, 1979, 100). Or, as Buchanan wrote it: “the argument suggests the appropriateness of adopting rules for personal choice behavior as opposed to retaining individual flexibility of action.” (1975, 75)

That was the problem Buchanan wanted to address. It was because individuals were no longer able to refrain from these short-term satisfactions that the dilemma existed—which is what we have demonstrated. To Buchanan, in the Western societies of the early 1970s, there no longer existed the individual ethic of responsibility, very similar to the “Puritan ethic” that consists “of inhibiting personal behavior that was aimed solely at gratification of instant desires, whether these be charitable or selfish.” (1975, 80) Or, in the less positive terms Buchanan used, the “modern man has ‘gone soft.’” (1975, 75) Much to the contrary. Buchanan wrote:

“The quasi-revolutionary shift in modern behavioral standards that widespread adherence to the responsibility ethic would represent does not seem likely to occur. Indeed all signs point in the opposing direction, and we shall probably witness a continuing erosion in strategic courage at all levels of decision.” (1975, 82)¹⁷.

¹⁷On the importance of strategic courage in Buchanan’s samaritan’s dilemma, see Skarbek (2016); Goodman and Hertzberg (2020); Dughera and Marciano (2022)

Individuals, in particular samaritans, are not ready to assume the responsibility that necessarily goes with being a samaritan. To paraphrase what Buchanan would write later (2005), they are afraid to be responsible.¹⁸

This fits with Buchanan's perhaps rather irritating diagnosis that refusing to spank a child out of a myopic interest in avoiding the displeasure of that act may not be in the best interest of the child. Independently of the precarious empirical assumption that spanking is an effective educational instrument of punishment, there is the very general problem that punishing may be an altruistic act of overcoming the short run subjective resistance of the punisher against such acts. This indicates a subjective dimension of altruism in so-called 'altruistic punishment' that has recently become popular in behavioral and experimental economics as a term referring exclusively to objective game-form payoffs.

Second, he also claimed that, lacking such a courage, that is assuming that they could not choose the subjective preferences that would become operative in within rule choices directly, the samaritan and the parasite would have reasons to alter the game in a constitutional choice of different rules of the game-form. He thus wrote that "There may be no escape from the generalized samaritan's dilemma, in its public form, except through the collective adoption and enforcement of rules that will govern individual situational responses." (1975, 81) Although "such rules must be coercive", individuals

"may... freely agree to their adoption at some prechoice, or constitutional stage of deliberation. Indeed, if the public form of the dilemma is a genuine one, it will be in the potential interest of most members of the community to adopt some such rules."
(1975, 81-82)

This is precisely the point we put forward in this article. If 'rules of the game' are understood this way, two classes of rules of games can be distinguished. On the one hand, there are those belonging to the objective game-form and on the other, there are the subjective rules (basically the given 'beliefs and desires') or subjective preferences as represented in the subjective utility functions. The game arises from 'combining' these two separate aspects of what can *not* be changed by *within* rule choices in plays of the game. From a constitutional perspective in which players imagine that they can make choices of the rules of the games they play this raises evaluative issues in which Buchanan is mainly interested.

Concretely, the samaritan is "exploited" in terms of the objective payoffs of the game-form but in terms of the game she plays with her given subjective preferences and the given game-form she is also subjectively better off than if she would choose against her subjective preferences within the constraints of the given game-form. Assuming that she cannot choose her own utility function (Frank 1987), the samaritan has reason to wish that the game-form be altered in a Buchanan

¹⁸In "Afraid to Be Free: Dependency as Desideratum" (2005), Buchanan referred to the individuals' incapacity to assume the responsibility for their actions or choices that necessarily goes with freedom. The similarity with the incapacity to assume the responsibility that goes with benevolence, or with samaritanism, is striking. I thank John Meadowcroft for pointing this out to me.

type constitutional choice. Adopting Buchanan's constitutional point of view, she can understand that she has reasons to wish that the situation ends once she understands the logic of the model Buchanan lays out in his samaritan's dilemma.

Indeed, the intuitions Buchanan expressed in his discussion of what he called the samaritan's dilemma were guided by his fundamental distinction between a constitutional choice of the rules of a game and choices within the rules of a game.

7. Conclusion

In this paper we have studied the consequence of altruism on an interaction between a samaritan and a recipient/parasite in the frame of Buchanan's samaritan's dilemma (1975). It appears that, as soon as altruism reaches a certain threshold, the equilibrium of the game corresponds to the equilibrium of what Buchanan called a samaritan's dilemma. It is the situation in which the samaritan cooperates and the recipient defects in objective game-form terms. For Buchanan, the dilemma arises from the inability of the samaritan to stop being a samaritan as long as she is playing a pd game-form according to her own other-regarding subjective preferences. This is the consequence of the 'psychological' benefits the samaritan derives from being an altruist. Without the tensions between those subjective benefits which guide within rule choices and the objective payoffs that accrue according to the game-form and could be realized only by a constitutional choice of changing the rules of the game, there would be no dilemma: both players prefer exploitation to any other situation; they need each other, which gives birth to a sado-masochistic relationship.

This confrontation between a myopic perspective of within rule choices in a game and the constitutional perspective of choosing the rules of a game was what Buchanan clearly had in mind. In this sense we confirm Buchanan's results. It seems also clear that there is a fundamental difficulty as long as we assume that preferences on the level of within rule choices and the level of the choice of rules are the same. An easy constitutional solution to the dilemma only emerges if the samaritan's subjective preferences and interests on the constitutional level diverge from the direct interests that guide the samaritan in her within rule choices (a topic Buchanan sought to address later in indirect ways jointly with Geoffrey Brennan and Viktor Vanberg respectively). Once we distinguish between subjective rankings of outcomes in a game and outcomes in a game-form and assume that on the constitutional level objective interests matter the samaritan's form of altruism can be diagnosed as encouraging 'unhealthy' tendencies in the giver as Buchanan clearly hinted.

This is, again, perfectly consistent with how Buchanan analyzed the concept of Pareto optimality. In "The Relevance of Pareto Optimality" (1962), Buchanan explained that economists used the concept of Pareto optimality independently from the "'constitutional' limits" (1962, 343) that should be placed on the region in which optima were located, as if all Pareto optima were acceptable or, put differently, as if the concept could be used as absolute criterion. He disagreed with that view, wondering if it made sense to use the criterion to qualify a situation in which "one man could make all his fellow citizens his slaves?" (1962, 343) Obviously, it could be optimal, but this did not mean that it was acceptable. In his view, a "[m]eaningful use of the Pareto criterion, for

classifying positions or states, must, therefore, be limited to ‘regions’ that allow for some but not any and all changes in an existing set of social rules.” (1962, 343). This is exactly the point we make here. The sado-masochistic equilibrium makes sense if one accepts this kind of equilibria.

References

- [1] Andor, M., Osberghaus, D., & Simora, M. (2017). Natural Disasters and Governmental Aid: Is There a Charity Hazard? Centre for European Economic Research Discussion Paper No. 17-065, Available at SSRN: <https://ssrn.com/abstract=3087900> or <http://dx.doi.org/10.2139/ssrn.3087900>
- [2] Andreoni, J. (1990). Impure Altruism and Donations to Public Goods: A Theory of Warm-Glow Giving. *Economic Journal*, 100, 464-477.
- [3] Basu, K. (2010). The moral basis of prosperity and oppression: altruism, other-regarding behaviour and identity. *Economics and Philosophy*, 26(2), 189-216.
- [4] Battigalli, P., & MDufwenberg, M. (2009). Dynamic Psychological Games. *Journal of Economic Theory*, 144(1), 1-35.
- [5] Battigalli, P., & MDufwenberg, M. (2019). Psychological Game Theory, WP.
- [6] Becker, G. S. (1974). A theory of social interactions. *Journal of Political Economy* 82(6),1063-1093.
- [7] Becker, G. S. (1976). Altruism, Egoism, and Genetic Fitness: Economics and Sociobiology. *Journal of Economic Literature*, 14(3), 817-826.
- [8] Becker, G.S. (1981). *A Treatise on the Family*. Cambridge, MA: Harvard University Press.
- [9] Bergstrom, T. (1989). A fresh look at the rotten kid theorem—and other household mysteries. *Journal of Political Economy*, 97(5), 1138–1159.
- [10] Buchanan, J. M. (1962). The Relevance of Pareto Optimality. *Journal of Conflict Resolution*, 6(4), 341-354.
- [11] Buchanan, J. M. (1975). The samaritan’s dilemma”, in E.S. Phelps (ed.), *Altruism, morality and economic theory*, New-York, Sage Foundation, pp. 71-85.
- [12] Buchanan, J. M. (1979). Natural and Artfactual Man, in J. M. Buchanan (ed), *What Should Economists Do?*, Indianapolis, Liberty Fund, pp. 93-112.
- [13] Boettke, P. & Martin, A. (2010). Exchange, production, and samaritan dilemmas, mimeo, <http://mpa.ub.uni-muenchen.de/33199/>
- [14] Brennan, H. G., & Buchanan, J. M. (1982). Voter Choice and the Evaluation of Political Alternatives”. Mimeo (published later under the same title in *American Behavioral Scientist*, 28(2), 185-201, November 1, 1984).
- [15] Burns, B. R. (2009). Solving samaritan’s dilemmas in Irrigation Investment, mimeo.
- [16] Browne, M. J., & Hoyt, R. E. (2000). The Demand for Flood Insurance: Empirical Evidence. *Journal of Risk and Uncertainty*, 20(3), 291–306.
- [17] Bruce, N., & Waldman, M. (1990). The Rotten-Kid Theorem Meets the samaritan’s dilemma. *Quarterly Journal of Economics*, 105(1), 155-165.
- [18] Bruce, N., & Waldman, M. (1991). Transfers in Kind: Why They Can Be Efficient and Nonpaternalistic,. *American Economic Review*, 81(5), 1345-1351.
- [19] Dughera, S., & Marciano, A. (2022). Altruism and Strategic Courage. Inside Buchanan’s samaritan’s dilemma”, mimeo.
- [20] Edgeworth, F. Y. (1881). *Mathematical Psychics. An Essay on the Application of Mathematics to the Moral Science*, London, Kegan Paul.
- [21] Fleury, J.-B. & Marciano, A. (2018). The Making of a Constitutionalist: James Buchanan on Education. *History of Political Economy*, 50(3), 511-548.
- [22] Frank, R. (1987). If Homo Economicus Could Choose His Own Utility Function, Would He Want One with a Conscience?” *American Economic Review*, 77(4), 593-604.
- [23] Geanakoplos, J., Pearce, D., & Stacchetti, E.. (1989). Psychological Games and Sequential Rationality. *Games and Economic Behavior*, 1(1), 60-80.
- [24] Goodman, N. P. & Herzberg, R. Q. (2020). Gifts as governance: Church Welfare and the Samaritan’s dilemma. *Journal of Institutional Economics*, 16, 703–714

- [25] Khalil, E. (2001). Adam Smith and Three Theories of Altruism. *Recherches Economiques de Louvain*, 67 (4), 421-435.
- [26] Khalil, E. (2004a). What is altruism?. *Journal of Economic Psychology*, 25 (1), 97-123.
- [27] Khalil, E. (2004b). What is altruism? A reply to critics. *Journal of Economic Psychology*, 25 (1), 141-143.
- [28] Lee, D. R. (1987). The Tradeoff between Equality and Efficiency: Short-Run Politics and Long-Run Realities”, *Public Choice*, 53 (2), 149-165.
- [29] Lehto, O. & Meadowcroft, J. (2021). Welfare without rent seeking? Buchanan’s demogrant proposal and the possibility of a constitutional welfare state. *Constitutional Political Economy*, 32 (2), 145–164.
- [30] Marciano, A. (2022). The Political Economy of Buchanan’s Samaritan’s dilemma, mimeo.
- [31] Nida-Rümelin, J. (1991). Practical reason or metapreferences? An undogmatic defense of Kantian morality. *Theory and Decision*, 30, 133–162.
- [32] Raschky, P. A. & Weck-Hannemann, H. (2007). Charity Hazard - A Real Hazard to Natural Disaster Insurance?. *Environmental Hazards* 7(4), 321–329.
- [33] Schmidtz, D. (2000). Islands in a Sea of Obligation: Limits of the Duty to Rescue. *Law and Philosophy*, 19: 683-705.
- [34] Singh, N. (1995). Unilateral altruism may be beneficial: A game-theoretic illustration”, *Economics Letters*, 47 (3-4), 275-281.
- [35] Skarbek, E. C. (2016). Aid, ethics, and the Samaritan’s dilemma: strategic courage in constitutional entrepreneurship. *Journal of Institutional Economics*, 12(2), 371-393.
- [36] Stark, O. (1989). Altruism and the quality of life”, *American Economic Review*, 79(2), 86-90.
- [37] Vanberg, V., & Buchanan, J. M. (1988). Rational Choice and Moral Order. *Analyse und Kritik*; 10(2), 138-160.
- [38] Wagner, R. E. (2005). Redistribution, Poor Relief, and the Welfare State”, in J. Backhaus and R.E. Wagner (eds), *Handbook of Public Finance*, Springer, pp 385-405.
- [39] Williamson, C. (2010). Exploring the failure of foreign aid: The role of incentives and information. *Review of Austrian Economics*, 23, 17-33.