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RESPONSE TO TULLOCK: WHY DO ENTREPRENEURS NOT STUDY THE AUSTRIAN BUSINESS CYCLE THEORY? A GAME THEORY APPROACH

TOMÁŠ FRÖMMEL¹

ABSTRACT

This paper reacts to Tullock's suggestion that entrepreneurs should study the Austrian business cycle theory to obtain the ability to predict the consequences of the central bank policy. Game theory is used to explain why entrepreneurs have no incentive to study Austrian economics. The equilibrium outcome of the non-repeated game, which is perfectly rational, is for no entrepreneur to study the Austrian theory since no entrepreneur himself may change the course of the cyclical fluctuations of the economy. The repeated game predicts that entrepreneurs may benefit from studying the Austrian theory only in a small economy with a sufficiently low interest rate.

KEYWORDS

Austrian business cycle theory, Rational expectations objection, Game theory, Prisoner's dilemma, Trigger strategy

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1. INTRODUCTION

The Austrian business cycle theory (Hayek 1933 and 1935, Mises 1953) is commonly criticized for its alleged incompatibility with the rational expectations hypothesis presented by Muth (1961) and Lucas (1972). Critics of the Austrian cycle theory (e.g. Tullock 1988, Cowen 1997 and Wagner 1999) claim that if entrepreneurs' expectations were rational, they could not be fooled systematically by the central bank lowering the market rate of interest below its natural level and would be able to predict the consequences of the central bank policy as well as learn systematically from their previous faults. Hence, critics claim that an artificial boom-bust cycle could not be initiated in the economy with entrepreneurs who form rational expectations.²

An additional argument against the Austrian business cycle theory is introduced by Tullock (1988, p. 73): *“One would think that business people might be misled in the first couple of runs of the (...) cycle and not anticipate that the low interest rate will later be raised. (...) At the very least, one would assume that a well-informed business person interested in important matters concerned with the business would read Mises and Rothbard and, hence, anticipate the government’s action.”* In other words, if the entrepreneurs were familiar with the Austrian theory, they would not react in any way on the expansive policy of the monetary authority, and no artificial boom-bust cycle would be initiated.

There have been some attempts (e.g. Garrison 1989, Carilli and Dempster 2001 or Murphy 2005) to disprove the rational expectations objection and to defend the Austrian theory against its critics. This paper aims to contribute to this debate by disproving Tullock’s suggestion and showing that entrepreneurs have no incentive to study the Austrian business cycle theory.

The paper follows the methodology of Carilli and Dempster (2001), who use game theory to model the profit-maximizing behavior of bankers and investors during the business cycle. Since there are many entrepreneurs in the economy and no single one of them can change the course of economic development, the interdependence of all entrepreneurs' decision-making must be considered, justifying the use of game theory methodology in this case. Unlike Carilli and Dempster (2001), this paper formulates the game not only as non-repeated but also as repeated with an infinite horizon, which may lead to different conclusions compared to the one-shot game. Furthermore, this paper answers different questions than Carilli and Dempster (2001) since they examine whether an entrepreneur increases or maintains his investments while we focus on whether he has any incentive to study the Austrian business cycle theory.

We conclude that each entrepreneur’s dominant strategy in the non-repeated game is to not study Austrian economics since no single entrepreneur may change the course of

2 The rational expectations hypothesis has gradually become one of key elements of modern macroeconomic theory. For this reason, the rational expectations objection must be taken seriously since otherwise the Austrian business cycle theory will not be accepted by current macroeconomic mainstream thought.

economic fluctuations, meaning that he has no incentive to obtain the ability to understand the central bank policy. Even if he did understand it, his behavior would be unaffected as he cannot influence the aggregate outcome. Thus, the socially optimal outcome is not achieved because of the prisoner's dilemma problem. In the repeated game, the possibility of the socially optimal outcome being achieved cannot be rejected; studying the Austrian business cycle theory may be the optimal action for an entrepreneur in a small economy with a sufficiently low interest rate. Therefore, the suggestion of Tullock (1988) is justifiable only in some specific cases, and the Austrian business cycle theory may be defended against this critique.

The structure of the paper is as follows. The first chapter presents the assumptions and methodology of the models. The next chapter formulates the non-repeated game and discusses its conclusions. The third chapter describes the game formulated as repeated with unknown termination and with players following the trigger strategy. The last chapter of this paper extends the repeated game by considering postponement of the trigger strategy launch.

2. ASSUMPTIONS AND COMMENTS ON METHODOLOGY

Let us, in this paper, assume that entrepreneurs³ form rational expectations.⁴ Let us also accept Tullock's (1988) idea that if entrepreneurs had knowledge of the Austrian business cycle theory, they would possess the ability to anticipate the consequences of the central bank policy.⁵ If the entrepreneurs used their knowledge of the Austrian theory to observe and understand the monetary policy, they could not be fooled by the lowering of the money interest rate below its natural level; no artificial boom-bust cycle could be launched in such economy. Furthermore, let us assume that each entrepreneur prefers a smooth course of the economic development since each entrepreneur prefers a smooth course of revenues and profits over time.

Nevertheless, it is not warranted that an entrepreneur, even if he possesses knowledge of Austrian economics, observes the central bank policy and aims to predict its consequences

3 The term "entrepreneur" is used instead of Tullock's "business person". This term does not refer to Kirzner's (1997) entrepreneur; we assume all profits are known and no uncertainty and no scope for entrepreneurial discovery exists.

4 There are numerous objections to the rational expectations hypothesis (e.g. Hoppe 1997, Boettke 1997, Block 1999, Basse 2006 and Frömmel 2017). The assumption of rational expectations is made since the aim of this paper is to show that even if entrepreneurs formed rational expectations, they would not study the Austrian theory.

5 This idea is criticized by Garrison (1986), who explains that even if entrepreneurs knew economic theory, they could not predict the consequences of the central bank policy. This may be another critical argument against Tullock's (1988) suggestion.

since this activity is costly. The opportunity cost of time spent on monitoring and predicting must be considered and compared with the benefits from correctly anticipating the consequences of the monetary policy. Hence, an entrepreneur has an incentive to study the Austrian theory only if he expects future use of the acquired knowledge; otherwise, he has no incentive to study.⁶

Thus, we ask whether an entrepreneur aims to predict the consequences of the central bank policy. If so, he has an incentive to study the Austrian business cycle theory first. Furthermore, let us assume that studying Austrian economics is a costless activity.⁷

Since there are many entrepreneurs in the economy, each of them possesses only very limited ability to influence the course of economic fluctuations. In such a case, it is not sufficient to focus on the decision-making of one individual entrepreneur. On the contrary, we need to consider the interdependence of the decision-making of all entrepreneurs in the economy. Using game theory is thereby justified.

For simplicity, let us make several additional assumptions. The whole economy consists of a substantial number of entrepreneurs who are all fairly small. Thus, no entrepreneur may influence the course of cyclical fluctuations of the economy on his own. Moreover, let us assume all these small entrepreneurs are homogeneous.

3. NON-REPEATED GAME

First, let us formulate and solve the simple non-repeated, simultaneous game. Two players (“Representative entrepreneur” and “Other entrepreneurs” treated as homogeneous) decide whether to use their knowledge of the Austrian business cycle theory to anticipate the consequences of the central bank policy.

Each player has two possible choices (“to use” and “not to use”). Hence, the set-up leads to four possible outcomes – both players use their knowledge (square 1 in Figure 1 below), representative entrepreneur uses his knowledge while the others do not (square 2), repre-

6 One might object that there exists a private incentive for an entrepreneur to study the Austrian business cycle theory. Even if the cyclical fluctuations of the whole economy occur, an entrepreneur knowing Austrian economics might be able to help himself by recognizing the fact that interest rates were lowered artificially by the central bank. This recognition might reduce his misallocations of capital and thereby reduce his harm even if the economy goes through boom-bust cycle. For simplicity, we assume that for the majority of entrepreneurs, profit is highly sensitive to changes in the aggregate demand while relatively less sensitive to the entrepreneur’s allocation of capital. This assumption eliminates the private incentive to study the Austrian business cycle theory. Further, we assume that an entrepreneur does not study the Austrian theory for any other reason than using it to predict the consequences of the central bank policy; no entrepreneurs gains utility directly from his knowledge of Austrian economics.

7 Studying economic theory is certainly not costless. If non-zero costs of studying were assumed, the probability of studying would be lower compared to our conclusions.

sentative entrepreneur does not use his knowledge while the others do (square 3) and both players do not use their knowledge (square 4).

All possible outcomes of the game bear some benefits and costs for the representative entrepreneur. His pay-offs are summarized in the pay-off matrix in Figure 1 below, where “B” stands for his benefits and “C” denotes his costs.

To use		Other entrepreneurs	
		To use	Not to use
Representative entrepreneur	To use	Square 1 $B > 0$ $C > 0$	Square 2 $B = 0$ $C > 0$
	Not to use	Square 3 $B > 0$ $C = 0$	Square 4 $B = 0$ $C = 0$

FIGURE 1 PAY-OFF MATRIX OF THE REPRESENTATIVE ENTREPRENEUR

The costs of using one’s knowledge of Austrian economics are positive in squares 1 and 2, where an entrepreneur aims to anticipate the consequences of the monetary policy. These costs are mostly opportunity costs of time and effort which could be devoted to other activities. We may, however, imagine explicit costs as well; for the purposes of our model, distinguishing between implicit and explicit costs is not necessary. In squares 3 and 4, the representative entrepreneur does not use his knowledge of the Austrian theory, and therefore his costs are equal to zero.⁸

Since the representative entrepreneur prefers a smooth course of the economic development, his benefits⁹ are positive in cases where a moderate course of cyclical fluctuations of the economy occurs and equal to zero where the business cycle occurs. Since no single entrepreneur may, by predicting correctly the consequences of the central bank policy, influence the course of the business cycle on his own, these benefits depend on the action chosen by the other entrepreneurs. Thus, in squares 1 and 3, where the other entrepreneurs decide to use their knowledge, cyclical fluctuations are smoothed, and the representative

8 One could object that an entrepreneur could hire experts with knowledge of Austrian economics instead of predicting himself the economic policy. Nonetheless, this is costly as well. It is not necessary to distinguish between whether an entrepreneur learns Austrian economics and aims to understand the central bank policy himself and whether he hires someone to do that for him. We assume that the costs of hiring forecasters should be the same as the costs of forecasting himself; otherwise, some profit opportunity would exist.

9 In this game, the benefits are benefits for the representative entrepreneur only, not benefits for the whole economy. Predicting the consequences of the monetary policy based on knowledge of the Austrian theory and the subsequent smoothing of the business cycle is the source of a positive externality; nevertheless, social benefits are not considered in the pay-off matrix since the representative entrepreneur cares only about his private benefits and does not take social benefits into account.

entrepreneur's benefits are positive, regardless whether the action he chooses. In square 2, where the others do not use their knowledge while the representative one does, his benefits are positive but close to zero since he possesses only a very limited ability to change the course of the business cycle, which is smoothed only a little. Finally, in the square 4, where no entrepreneur uses his knowledge of Austrian economics, cyclical fluctuations of the economy occur regularly, which bears zero benefits for the representative entrepreneur.

Let us now set up the preferences of the representative entrepreneur. We assume that he aims to maximize the difference between his benefits and costs. Hence, square 3 is strictly preferred to all other squares since benefits are positive while costs are equal to zero in this square, which gives the highest difference. Contrarily, squares 1, 3 and 4 are strictly preferred to square 2 since benefits are only slightly above zero while costs are positive in this square, which gives the lowest difference. The question is whether the entrepreneur prefers the square 1 to the square 4, or *vice versa*. This cannot be determined theoretically since the answer depends on the exact values of benefits and costs in square 1. Nonetheless, the answer is not crucial for subsequent analysis.

We may finally proceed to solve the whole game. If other entrepreneurs used their knowledge of Austrian economics, the representative entrepreneurs' optimal action would be "not to use" since square 3 is strictly preferred to square 1. If the others did not use their knowledge, the representative entrepreneur should not use it as well since he strictly prefers square 4 to square 2. Not to use knowledge of the Austrian theory is therefore a dominant strategy for the representative entrepreneur in this game.

Since we assumed that all entrepreneurs in the economy are the same, the same decision-making problem is solved by all of them. Hence, not to use the Austrian theory to understand the consequences of the central bank policy is the dominant strategy for all entrepreneurs in the economy. The Nash equilibrium of the game is in square 4; no entrepreneur has an incentive to use his knowledge of Austrian economics and aim to predict the consequences of the monetary policy since no entrepreneur can unilaterally increase his pay-off. Since no entrepreneur has an incentive to observe the central bank policy and to predict its consequences, knowledge of Austrian economics is useless for every entrepreneurs. Hence, entrepreneurs have no incentive to study the Austrian business cycle theory in this one-round set-up. Tullock's (1988) suggestion may thereby be disproved.

Nonetheless, such an outcome is not socially optimal. A socially optimal outcome might be in square 1, where all entrepreneurs in the economy use their knowledge of Austrian economics to understand the central bank's policy.¹⁰ No cyclical fluctuations would occur in such outcome. Nevertheless, each entrepreneur has an incentive to deviate from this action by moving to square, 3, which he strictly prefers to square 1. A socially optimal outcome

10 It is not a given that the socially optimal outcome lies in square 1. We assume that square 1 is preferred to square 4 since in square 4, both benefits and costs are equal to zero while in square 1, both benefits and costs are positive, and benefits are assumed to be higher than costs. If benefits were lower than costs in square 1, this square would not represent a socially optimal outcome of the game.

is not achievable and sustainable because of coordination failure, just as in the “prisoner’s dilemma” game. The outcome of this game is, however, perfectly rational.

4. REPEATED GAME

The previously mentioned prisoner’s dilemma problem might be simply overcome by formulating the game as the dynamic one, consisting of more than one round (Potužák 2007). Furthermore, such a set-up would be more realistic than the previously described one-round game since entrepreneurs usually stay in their businesses for many years and their interactions have a multiple-round nature. Thus, let us extend the model presented in the previous chapter by considering the game repeated several times. For simplicity, the number of rounds is assumed to be infinite.¹¹

The methodology remains the same as in the previous game: the game is played by one representative entrepreneur, whose decision-making is examined, and the other entrepreneurs, treated as one homogeneous player. Each player may choose between two possible actions, “to use” and “not to use” their knowledge of the Austrian theory. The question to be answered is whether the representative entrepreneur has an incentive to use his knowledge of the Austrian business cycle theory to predict the consequences of the central bank policy if the game is formulated as a repeated one with an infinite horizon.

In the subsequent text, net benefit, denoted π_i in each of the squares 1 to 4, stands for the difference between the entrepreneur’s benefits and costs:

$$\pi_i = B_i - C_i \quad (1)$$

Similar to the non-repeated game, an entrepreneur maximizes his net benefits; he chooses to use his knowledge only if the net benefits in the case of using it exceed his net benefits in the case of not using it. Costs and benefits in later rounds of the game must be discounted to their present value.¹²

Both players choose whether to use their knowledge of Austrian economics, which will be referred to as cooperative action, or not to use it, which will be called non-cooperative action. We assume that both players follow the trigger strategy; an entrepreneur punishes the

11 An infinite round game is an equivalent to finitely repeated game with a probabilistic continuation each round. Assuming an infinite round game instead of finitely repeated game with a probabilistic continuation makes computations easier. A finitely repeated game with a known termination round is not considered since it may be simply transformed to a non-repeated game by backward induction (Osborne 2004).

12 Present value is given by discounting future values by the discount factor, where r denotes real rate of interest, which is, for simplicity, assumed to be constant over time.

others through his non-cooperative action if they do not cooperate.¹³ The other entrepreneurs are expected to choose the cooperative action until the representative one cooperates as well. If the representative entrepreneur stops cooperation, he is punished by the others who do not cooperate in the subsequent rounds.

Cooperative action of the other entrepreneurs is supposed in the first round of the game while the representative entrepreneur may decide whether to cooperate or not. Hence, two outcomes may arise. Let us analyze them successively and express the present value of the representative entrepreneur's net benefits for both possible strategies.

First, both the representative and the other entrepreneurs may choose cooperative action in the first round. A socially optimal outcome is achieved, and none of the players has an incentive to deviate from his action; cooperation of all entrepreneurs persists in all subsequent rounds of the game. Such situation corresponds to the square 1 in the Figure 1 above. For the present value of the representative entrepreneur's net benefits in case of cooperative strategy (NB_C) we obtain the following formula:

$$NB_C = \pi_1 + \frac{\pi_1}{(1+r)} + \frac{\pi_1}{(1+r)^2} + \dots = \pi_1 \cdot \frac{(1+r)}{r} \quad (2)$$

Second, the representative entrepreneur may decide not to cooperate in the first round of the game while the others are assumed to choose cooperative action. In the first round of the game, the outcome is represented by square 3 in Figure 1. Nevertheless, since the representative entrepreneur does not cooperate, the others following the trigger strategy have an incentive not to cooperate as well in the subsequent rounds of the game. Hence, the outcome in all subsequent rounds of the game will be expressed by square 4 in Figure 1 above. The present value of the representative entrepreneur's net benefits for his non-cooperative strategy (NB_N) is given by the following formula:

$$NB_N = \pi_3 + \frac{\pi_4}{(1+r)} + \frac{\pi_4}{(1+r)^2} + \dots = \pi_3 + \pi_4 \cdot \frac{1}{r} \quad (3)$$

Since both benefits and costs are equal to zero in square 4, net benefit is equal to zero as well ($\pi_4 = 0$); hence, the present value of net benefits is given just by

$$NB_N = \pi_3 \quad (4)$$

Using one's knowledge of the Austrian business cycle theory may be rational action for the representative entrepreneur only if his net benefits of the cooperative strategy (NB_C) exceed his net benefits of the non-cooperative strategy (NB_N); hence, if

$$NB_C > NB_N \quad (5)$$

13 Trigger strategy is explained in detail in Osborne (2004).

Substituting equations (2) and (4) into equation (5) leads to the following condition for the cooperative strategy sustainability:

$$\pi_1 \cdot \frac{1+r}{r} > \pi_3, \quad (6)$$

which may be rewritten as

$$r < \frac{\pi_1}{\pi_3 - \pi_1} \quad (7)$$

The real interest rate on the left side of equation (7) is assumed to always be positive because of the positive rate of consumers' time preference (Böhm-Bawerk 1891).¹⁴ The expression $\pi_3 - \pi_1$ in the denominator on the right side of this equation is positive as well since $\pi_3 > \pi_1$.¹⁵ Hence, no cooperation of entrepreneurs is sustainable in the case of a negative π_1 . The suggested inequality condition for the cooperation sustainability in equation (7) might be satisfied in the case of a positive π_1 ; nonetheless, such outcome is not warranted.

Cooperative action is likely to occur only in the case of a sufficiently low real interest rate; otherwise, entrepreneurs do not cooperate.¹⁶ Whether or not the cooperation of entrepreneurs is likely to be achieved depends mostly on the parameters π_1 and π_3 ; the probability of cooperation increases with an increase in π_1 and decreases with an increase in π_3 .

The repeated game implies that Tullock's (1988) suggestion might be justified in some cases. If the interest rate were sufficiently low, entrepreneurs would have an incentive to use their knowledge of the Austrian theory to understand the consequences of the monetary policy. Hence, unlike in the non-repeated game, Tullock's (1988) proposal may be only partially disproved if the repeated game with an infinite number of rounds is considered.

5. REPEATED GAME: AN EXTENSION

When solving the infinite-round game, we assumed that entrepreneurs follow the trigger strategy, and as the representative entrepreneur chooses the uncooperative strategy, the

14 Potužák (2016) concludes that the natural rate of interest might be even negative in some particular cases. We do not consider such a possibility since if the interest rate were negative, equation (2) would not converge to a finite sum, and our model could not be solved.

15 The representative entrepreneur's benefits are almost the same in squares 1 and 3, but his costs differ significantly, which explains the difference between his net profits in squares 1 and 3.

16 Even the recent period of a zero lower bound on nominal interest rates does not necessarily mean that interest rates were low enough to satisfy the condition in the equation (7). The whole model works with the real rate of interest, while the zero bound is on nominal rates. Thus, it could happen that the real rate of interest was positive and higher than the rate implied by the equation (7) while nominal interest rates were zero because of negative inflation expectations.

others have an incentive not to cooperate in the subsequent rounds as well. Nevertheless, such assumption seems to be feasible only in an economy with a sufficiently low number of entrepreneurs who have the capacity to observe the behavior of the others and thereby enforce their cooperation. In reality, this might not be the case. Entrepreneurs cannot observe one another perfectly, and therefore their reaction to the non-cooperation strategy of the other entrepreneurs might be postponed by several rounds of the game.

Let us, then, extend the previous model by considering the possibility of a delay in the trigger strategy launch. This would raise the present value of net benefits in the case of the non-cooperative strategy, which would decrease the probability of cooperation between entrepreneurs. The probability of studying and using the Austrian theory would be lower compared to the simple repeated game solved in the previous chapter.

We expect that after the decision of the representative entrepreneur not to cooperate with the others, the trigger strategy is launched progressively, not immediately. Some entrepreneurs may react immediately; some in the subsequent rounds, depending on their ability and willingness to observe the one who stopped his cooperation. Let us use the letter m ($m \geq 1$) to denote the average number of rounds that the representative entrepreneur does not cooperate while the others do.

We may generalize the previously expressed equation (4) for the present value of the representative entrepreneur's net benefits in the case of his non-cooperative strategy. The generalized equation takes the following form, expressing the fact that net benefits are higher than in the case of an immediate trigger strategy launch:

$$NB_N = m \cdot \pi_3, \quad (8)$$

The delay in the trigger strategy launch does not change equation (2) for the present value of net benefits in the case of the cooperative strategy. Thus, equation (6), expressing the condition for the cooperative strategy sustainability, takes the following form:

$$\pi_1 \cdot \frac{1+r}{r} > m \cdot \pi_3, \quad (9)$$

where all variables have been described previously. The generalized condition may be rewritten as

$$r < \frac{\pi_1}{m \cdot \pi_3 - \pi_1}. \quad (10)$$

The presented generalized version of the model predicts that the cooperation of entrepreneurs is achievable only in the case of a sufficiently low interest rate, which is even lower than the interest rate expressed in the previous chapter in equation (7). Thus, if the trigger strategy launch is not immediate, the probability of using the Austrian theory to predict the course of the business cycle decreases. The higher the delay in reaction (expressed by the parameter m) is, the lower the interest rate necessary to achieve the sustainability of

cooperation of entrepreneurs is. The probability of using knowledge of Austrian economics decreases with an increase in the parameter m .

The parameter m might also not be an exogenous parameter. It might increase with an increase in the number of entrepreneurs in the economy since if there are many entrepreneurs, they possess only a limited ability to observe one another. Thus, the probability of using the Austrian business cycle theory decreases with an increase in number of entrepreneurs in the economy. One might expect that m gradually approaches infinity if the number of entrepreneurs rises. Then, the expression on the right side of equation (10) approaches zero if the number of entrepreneurs rises to infinity, which implies that a cooperative strategy could not be achievable for any positive real rate of interest if there many entrepreneurs in the economy.¹⁷

Studying and using the Austrian business cycle theory is likely only in an economy consisting of a few entrepreneurs who may easily observe the behavior of each other. On the contrary, modern economies consist of high number of entrepreneurs, where a lower interest rate is necessary to maintain the cooperative strategy.

This implies that even if a repeated game is considered, Tullock's (1988) critique might be disproved. Entrepreneurs might study the Austrian business cycle theory only in the economy with sufficiently low rate of interest and sufficiently low number of entrepreneurs.

6. CONCLUDING REMARKS

This paper reacted to Tullock's (1988) suggestion that entrepreneurs should study the Austrian business cycle theory to understand the consequences of the central bank policy. We aimed to reject this suggestion and thereby partially disprove the rational expectations objection against the Austrian business cycle theory.

Game theory was used to explain that entrepreneurs might have no incentive to study Austrian economics. Since each entrepreneur is too small to have the capacity to change the course of the business cycle, his dominant strategy in the non-repeated game is to not study the Austrian theory. The repeated game suggests that entrepreneurs might have an incentive to study Austrian economics in some cases, but such outcome is more likely to occur in an economy with low interest rates and with a low number of entrepreneurs having the capacity to observe one another. We have, therefore, concluded that Tullock's proposal may be disproved.

17 The question is what number of entrepreneurs in the economy is low enough for the condition in equation (10) to be satisfied. Our hypothesis is that all capitalist countries consist of a high number of entrepreneurs, implying that the condition for cooperation sustainability is not satisfied. This condition might be satisfied in some small and closed community.

The whole model was based on the assumption of homogeneous entrepreneurs. Potential extension of our work could model entrepreneurs as heterogeneous since there are some entrepreneurs with lower costs of studying and using the Austrian business cycle theory. Hence, one could model the economy where some entrepreneurs study Austrian economics while the others do not.

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ROTHBARD'S WELFARE THEORY: SOME SUPPORT

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ABSTRACT

Kvasnička (2008) presented a thorough critique of Rothbard (1956): “1) His approach is inconsistent with Pareto’s rule (while claiming the opposite), 2) it is inconsistent with common sense, 3) it is incoherent (its two welfare theorems cannot be defended at the same time), and 4) it is inconsistent with Rothbard’s own claims made elsewhere.” The present paper is an attempt to refute the former author and support the latter one. We do so on all four counts.

KEYWORDS

Austrian economics, Welfare theory, Praxeology, Utility

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1. INTRODUCTION

Kvasnička (2008) is a critic of Rothbard (1956). This paper is an attempt to defend the latter vis-à-vis the former. Kvasnička starts off on a strong note. He maintains that Rothbard's essay is "invalid and should be rejected because it is incoherent (its two welfare theorems cannot be defended at the same time), and inconsistent with Rothbard's own claims made elsewhere."

Our paper is organized along the lines that Kvasnička establishes and consists of briefly quoting from that paper and then critically commenting upon it. To wit, we shall follow the organization that Kvasnička sets out: "The structure of the paper is the following: section 2 deals with Rothbard's methodology, especially with the limits and implications of his concept of demonstrated preference. Section 3 shows that Rothbard's welfare theory is incoherent because each of its two theorems is derived under a different and mutually exclusive set of assumptions, i.e. they cannot hold true at the same time. Section 4 analyzes one of potentially many inconsistencies between Rothbard's welfare theory and the rest of his own analysis. Our arguments are summarized in section 5." Kvasnička's organization is eminently reasonable, and we fully adhere to it.

2. KVASNIČKA'S CRITICISM OF ROTHBARD'S METHODOLOGY: DEMONSTRATED PREFERENCE

The first point made by Kvasnička is this:

"Rothbard proposes to ignore all changes of a person's utility except those the person demonstrates through his actions. Rothbard rejects from analysis everything which is not demonstrated in an actual action, i.e. what goes beyond the scope of the demonstrated preference, as a vain psychology (pp. 13–14). We can read this in two ways: 1) we can know nothing that was not demonstrated in an action, or 2) there is nothing more than what was demonstrated in an action. While Rothbard might have the first in mind, he spoke as if he believed the second. This can be seen from his assertion that a man cannot be indifferent."

Kvasnička, however, ignores a third option. Here, 3) Rothbard *as a praxeologist* indeed cannot know anything not demonstrated in action (or there is nothing more *for a praxeologist* than what is demonstrated in an action); however, *as a historian*, he can have far more information than that. The problem with Kvasnička's analysis at this point seems to be that it fails to take both theory and history into account. Yet this distinction is commonly accepted, not only by Mises (1957) himself but also by an author closer to Kvasnička's home, that is, by Engliš (1930). Of course Rothbard appears, superficially, to be contradicting himself. But this is due only to the fact that praxeological theory and economic history are

two very different universes of discourse—never the twain shall meet—and Rothbard is a pre-eminent practitioner of both. Works as distant from one another as *Man, Economy and State* (Rothbard, 2004 [1962]) and *America's Great Depression* (Rothbard, 2000) constitute a vivid testimony to the above assertion. The notion of history as dealing with real-life contingencies (be they social or political ones), the understanding of which calls for the exercise of sound judgement, was very clearly pinpointed by Mises (1957 [2007], p. 159):

“History deals with human action, that is, the actions performed by individuals and groups of individuals. It describes the conditions under which people lived and the way they reacted to these conditions. Its subject are human judgments of value and the ends men aimed at guided by these judgments, the means men resorted to in order to attain the ends sought, and the outcome of their actions. History deals with man's conscious reaction to the state of his environment, both the natural environment and the social environment as determined by the actions of preceding generations as well as by those of his contemporaries.”

Needless to say, an economic theory does not deal with *the substance* of an actor's ends or with *how* those ends depend on or guide one's actions under any given socio-political conditions; rather, it takes them as given. An economic theory applies whatever an actor's ends are and under whatever socio-political circumstances he acts.

Kvasnička continues his critique:

“This assertion is a corollary of the concept of demonstrated preference. Rothbard argues thus: since each action is unique, a person can choose only one choice, i.e. there is no way to demonstrate indifference; hence there can be no indifference at all (p. 15). There must always be some preference even if it is established by chance (p. 16). Rothbard then rejects the indifference curves approach on these grounds. However, Rothbard is clearly wrong. The inability to demonstrate indifference is no proof there is no indifference but only that an outside observer cannot observe it, which is quite a different thing. So there is not a fundamental difference between the indifference curves approach and Rothbard's own utility theory as long as the former one yields a unique solution. The indifference curves just describe the agent's inner world, in which Rothbard takes no interest, or rather denies its existence altogether.”

Now, we should at least concede this point to Kvasnička since his linguistic intuition is flawless. For certainly there is such a thing as “indifference.” It is a perfectly good word in the English language. Kvasnička, Rothbard, the present authors, and everyone else know exactly how to use it. But praxeology is forbidden to have any truck with it. Consider the following example. In physics, work is a function of force and distance. Thus, an athlete holding steady at arm's length two dumbbells weighing as little as 10 pounds is doing no “work.”

And yet, after a very short period of time, rivers of sweat will break out on his brow, and, even if he is as strong as Mike Tyson, he will not be able to hold this pose longer than a few minutes. Thus, in ordinary language, he is working mightily,¹ but in the technical parlance of physics, he is doing no work since the dumbbell is not moving at all.

Austrians believe that it is much the same with indifference. No human action can demonstrate this concept since all human actions consist of preferring and setting aside. Therefore, once we subscribe to the Austrian conceptual framework, there can be no such thing as indifference. Austrians posit that if a given actor is genuinely indifferent between a number of alternatives, he will not choose between them; conversely, if an actor does make a choice between a set of alternatives, he was not indifferent between them in the first place. This stipulation was brilliantly illuminated by Hoppe (2005). Whereas in neo-classical economics a given actor can choose any point (technically speaking, any n-tuple within the hyperspace specified by n number of goods) lying on the continuous indifference curve (the higher, the better), in Austrian economics, the actual choice would involve choosing between *different* indifference curves rather than choosing between the points lying on *the same* indifference curve. It is little wonder, then, that the Austrian notion of indifference is incompatible with the neo-classical one. When it comes to the former, indifference is simply assumed out of the realm of action since an opportunity set for an actual choice rules out (by definition) any alternatives that a given actor is genuinely indifferent between.²

Now, let us consider the following point formulated by Kvasnička: “It is really strange that Rothbard limits knowledge an economist can have to what was demonstrated in an action, but does not limit other social sciences in this way. Rothbard (1976, pp. 88–89) says that ‘we may know as historians from interpretative understanding of the hearts and minds’ more than we can know as ‘scientific economists.’ ‘Scientific economists’ should ‘confine the concept to its strict scientific compass in demonstrated preferences.’ However, he does not say why a ‘scientific historian’ should know more than a ‘scientific economist.’”

Of course “Rothbard limits knowledge an economist can have to what was demonstrated in an action, but does not limit other social sciences in this way.” One of the major premises of Austrian economics is that praxeology is different not only from the physical sciences but also from the other social sciences. Austrian economics qua Austrian economics is necessarily limited to looking at human action (Mises, 1998) and deducing principles from that, and that alone. Nor is it true that “a ‘scientific historian’ should know more than a ‘scientific economist’”; rather, they know different things. The latter is limited to the logical

1 During the short period of time he is able to follow this regimen

2 For support of Kvasnička’s view, see Caplan, undated, 1999, 2001, 2003, 2008; Nozick, 1977; O’Neill, 2010. For the Austrian critique of indifference, see Barnett, 2003; Block, 1980, 1999, 2003, 2007, 2009A, 2009B; Block and Barnett, 2010; Callahan, 2003; Collingwood, 1945; Hoppe, 2005; Hulsmann, 1999; Machaj, 2007; Rothbard, 2004, pp. 265, 267; Wysocki, 2016; Wysocki and Block, Forthcoming

implications of human action; the former knows no such bounds. The scientific historian may properly delve into human emotions, even up to and including indifference.³

Kvasnička charges that “Rothbard denies any relevance (or perhaps existence) of the inner states of man.” This is not true and does not apply to Rothbard the praxeologist, let alone to Rothbard the economic historian, sociologist, psychologist, etc. As a praxeologist, he admits the existence of inner states and their relevance by identifying introspection as the ultimate source of our knowledge that man acts. As he says: “each human being knows universally from introspection that he chooses” (2011, p. 4). And in another place: “Most praxeologists, however, hold that the axiom [of action] is based squarely in empirical reality.... But this is not the sort of empiricism welcomed by the positivists, for it is based on universal reflective or inner experience, as well as on external physical experience. Thus, the knowledge that human beings have goals and act purposively to attain them rests not simply on observing that human beings exist, but also on the introspective knowledge” (2011, p. 34).

Next, Kvasnička maintains that

“I cannot demonstrate that I am better or worse off when I am given a gift. It is a situation that happens to me—I am passive in it. The gift may considerably change my utility; however, there is no action that could demonstrate this. It may seem that my acceptance of the gift is proof that the gift has increased my utility (otherwise I would have rejected it), but it is not so. Rejecting a gift is something quite different from not being given it, as everyone knows who was given an ugly present by someone whose feelings he does not want (or dare) to hurt.”

But there most certainly is a way to reveal that an agent is better off if he receives a gift: if he accepts it. If he does, he demonstrates that he prefers a situation where he is given a gift and accepts it, to one in which he is given a gift and rejects it. It matters not one whit, at least to the praxeologists, whether an agent accepts this gift because he likes it or because he wishes not to hurt the feelings of the donor; his reasoning in this scenario does not matter. As praxeologists, we are not interested in whether he accepts this gift due to fright or enjoyment;⁴ we only look at his human action, which is either the acceptance or the rejection of the gift.

Kvasnička continues: “In other words, every subject chooses the most preferred action in any given situation; but there is no way he could demonstrate how much he

3 We could safely say that a scientific historian knows more than a scientific economist only in the case in which what the latter knows is a proper subset of what the former knows. Otherwise, we cannot establish which one knows more.

4 As historians or psychologists, this is of great importance

prefers the situation that happened as such.”⁵ This does not seem entirely correct. Every subject chooses *voluntarily* the most preferred action in any given situation. Yet, if a traveler is presented by the highwayman with the choice of “your money or your life” and he chooses his life, he does not choose *voluntarily* and so does not choose what he most prefers. He is acting, choosing, but under duress.⁶ This aside, demonstrated preference has its methodological limits. The actual voluntary choice demonstrates a relation of strict preference of that very choice over all other options available (including non-action). We can only conclude from the fact of a given voluntary choice that it is precisely this choice that increased the actor’s welfare compared to its opportunity cost, at least in his own mind at the moment of decision. There is no room for considering other possible worlds that might be preferable to the actual one. Nor do we bother with meta-preferences; that is, preferences about what sort of lower-order preferences we would like to have. Actions point to our first-order preferences, even if we prefer not to have them in the first place.

A similar analysis applies to Kvasnička’s statement: “Non-resistance to a robber [...] does not prove I enjoy being robbed—I simply may not be bold enough to resist, i.e. I prefer no action to resistance. Nor does resistance to the robber prove I do not like being robbed—I may like fighting, and could have come to a dangerous place to challenge it. In other words, every subject chooses the most preferred action in any given situation; but there is no way he could demonstrate how much he prefers the situation that happened as such.”

But the victim does not prefer to be robbed.⁷ If he did, it would not be theft; it would constitute charity, or gift-giving. If the target of the mugging chooses to fight back, we, at least as Austrian economists, cannot determine whether he enjoys a good battle or values

5 Simply stated, as far as the interpretation of the above gift-acceptance scenario goes, we part with Kvasnička when we claim that accepting a gift counts as *purposeful behavior (action)* and not a mere happening. That is why there is a way to demonstrate our preference—after all, we did accept the gift rather than reject it. Certainly, Kvasnička’s point would be valid when it comes to outcomes that are not of our choosing. Consider the following: an actor proposes to a lady hoping that she agrees to marry him. An Austrian’s take on this scenario is this: by proposing, the actor demonstrates that he prefers proposing to not doing so. Yet, he cannot *demonstrate* (although we, qua historians or sociologists, can reasonably conclude it) that he prefers the lady’s acceptance to rejection since it is now the lady’s turn to do the choosing (and this is the moment where the analogy diverges from the gift-acceptance scenario considered by Kvasnička). By the same token, by no means can we demonstrate that we prefer sunny weather tomorrow to rainy one. Our adversary may object that the very act of proposing demonstrates that the actor prefers to be accepted rather than rejected. However, this preference is, strictly speaking, not demonstrated but rather historically (or sociologically or psychologically) reconstructed. The educated guess about the preference in question is not apodictically true. After all, the actor may be masochistic and may have proposed *with the intention* of being rejected.

6 On the Austro-libertarian idea of voluntariness, see e.g. Dominiak (2018, p. 7–17).

7 At this point the doctrine of demonstrated preference comes in handy, showing its non-tautological merits. Since the actor in question has not given up the money so far, how can he prefer it now? After all, it was possible for him to discard the money earlier, but he did not do so.

his possessions more than the risk of combat. We must be agnostic about the specific motivations driving our actor. Again, as ordinary people, especially if we know the person involved, or as psychologists or historians we can make educated guesses about these matters, but not as praxeologists.

Kvasnička finally concludes his passage:

“This means that the concept of demonstrated preference is not compatible with the usual meaning of Pareto’s rule, because it allows us to look at only those utility changes that can be demonstrated with an action, while Pareto’s rule looks at all of them. The usual meaning of Pareto’s rule is God-like—the analyst pretends to know everything that is happening and how it affects all agents. Obviously, such an approach is scientifically valid (even though it could easily be abused by someone who pretends he really is omniscient, as governments sometimes do). Rothbard goes to the opposite extreme. He says we can know (even in principle) nothing that cannot be demonstrated by an action. This is extreme behaviorism [...]”

We must part company from Kvasnička on the matter of the Pareto rule. Austrians predicate increases or decreases in utility only on the basis of actions. What we know apodictically is that an action *ex ante* increases our welfare relative to all other available actions that were foregone (including non-actions). In this tradition, utility is not predicated on outcomes as it is in a field like game theory. It is not the business of praxeology to determine whether an actor benefits through his actions *ex post*; whether he does or not is a mere contingency. *A fortiori*, we might as well abstain from acting. In this case, our welfare would seemingly depend on either 1) other people’s actions or 2) natural events. Yet these apparently welfare-affecting situations are of no interest to Austrian economics. The Rothbardian “envious person” instantiates category 1. It is true that he believes his wellbeing was diminished as a function of the mutually beneficial trade between two other parties, yet he is not acting, so he is beyond the realm of praxeology. Category 2 can be exemplified by some mere physical occurrence—for example, perhaps you break out in a rash one day. According to Austrians, utility analysis is inapplicable at this point in time; no human action has yet occurred. Later, you take a pill. Austrians can only then conclude that taking a pill was preferable to not taking one (as well as to any other options available at that time).

Furthermore, the Pareto rule is purely formal. It does not at all specify what counts as making someone better off. An interpretation of this concept must be provided, and it cannot be taken for granted that Rothbard is changing the meaning of the Pareto rule by placing the concept of changes in welfare within the framework of demonstrated preferences.⁸ It is by no means the case that “Pareto’s rule looks at” alterations that cannot be objectively

8 We owe this point to our colleague David Gordon.

demonstrated. Some analysts may pretend to be “God-like,” but Austrian economists cannot properly be accused of so unscientific an outlook.

Let us consider a man who purchases a shirt for \$5.⁹ It is apodictically certain that he valued that piece of apparel more than the money he paid for it at the time of the transaction. He thereby gained welfare *ex ante*.¹⁰ However, while a God-like observer may know precisely why this individual made the purchase, Rothbard the praxeologist has no clue. He does not know whether the actual shirt was his target or, perhaps, whether it was the seller of the shirt.¹¹ If Kvasnička has this information, it is not on the basis of mere human action.

Nor can Rothbard in any way be described as an extreme behaviorist. While it is true that he puts his blinders on and does not engage in motive-mongering, his focus is on examining goal-oriented actions, not physical behaviors. To bolster our point, let us look directly at a quote from Rothbard (1956, p.8). He believes that what is to be avoided is the “error of behaviorism. The behaviorist wishes to expunge ‘subjectivism,’ that is, motivated action, completely from economics, since he believes that any trace of subjectivism is unscientific. His ideal is the method of physics in treating observed movements of unmotivated, inorganic matter. In adopting this method, he throws away the subjective knowledge of action upon which economic science is founded; indeed, he is making any scientific investigation of human beings impossible.” Given this passage, we simply cannot make our way towards understanding Kvasnička’s charge. The first axiom of Austrian economics is that man acts, with action being defined as purposeful behavior. Though Austrian economics might in that sense be labeled behaviorist, it cannot be reduced to mere behaviorism as it only deals with a specific subclass of behaviors, that is, actions.

3. KVASNIČKA’S CRITICISM OF ROTHBARD’S WELFARE THEORY: ANALYSIS OF TWO THEOREMS

Kvasnička has the following view of (negative) externalities: he believes they are “caused by ill-specified property rights.” Let us take the liberty of demurring and stating that they are rather an embodiment of trespass. B cures leather to sell to A and releases noxious fumes onto the property and into the lungs of C. This, of course, cannot be squared with the Pareto rule since there is at least one person who is objectively worse off, C in this case. Even a “behaviorist” can see this clearly. Why is this important Kvasnička criticizes Rothbard’s claim that in the free market, Pareto optimality is assured because the free market consists

9 An anonymous reviewer directed our attention to the fact that Rothbardian demand theory was criticized by Hudik (2011). This, we believe, was adequately addressed by Block, Wysocki (2018). We claim that so far, Rothbardian demand theory remains unscathed.

10 The same applies to the seller, who placed \$5 higher on her scale of values than the article of clothing.

11 He wanted a date with her and thought the purchase would be a good means of ingratiation.

of nothing but voluntary exchange, and both parties to the deal necessarily gain, at least in the *ex ante* sense.

This is undermined, claims Kvasnička, by the fact that Rothbard reckons without external diseconomies such as pollution. As Kvasnička states, “To claim that the exchange increases social utility according to Pareto’s rule, one has to prove that there is no losing subject. But this does not hold true in general. A voluntary exchange between two or more partners (as any unilateral or multilateral action in general) may have various impacts on a non-involved third party. It may affect it as 1) common physical externalities.”

Where Kvasnička seems to go astray in this matter is that the Pareto rule has nothing whatsoever to do with the relationship of B and C; rather, Rothbard is discussing the commercial interaction between A and B only. The relationship between A and B is entirely unproblematic insofar as Pareto is concerned. Both gain *ex ante*, and neither one loses. Now, B turns around and violates the rights of C, and Kvasnička interprets this as a violation of the Pareto rule. Of course, it is no such thing. Kvasnička’s concerns about mis- or unspecified property rights, and the costs of defending them, solely concern B and C, meaning they are irrelevant. It cannot be stressed enough that Rothbard is only discussing the relationship between A and B, not B and C, as Kvasnička would have it.

Kvasnička then turns his attention to the problem of redistribution: “Rothbard also has an (invalid) answer to the problem of redistribution of wealth and income (pp. 29–30). He rightly says that distribution is not independent from production and exchange in a free market economy, and that a change in the distribution is caused by voluntarily-made exchanges. However, this is not a sufficient reason to ignore the impact of a change of the income and wealth distribution on individual’s utilities under Pareto’s rule. Pareto’s rule looks for *all* subjects’ utility increases or decreases in comparison to the status quo, despite their cause.”

The answer from the Rothbardian perspective would be to reiterate that there is no separate problem of wealth distribution apart from production. Under free enterprise, this distribution comes about as a result of acts of production and voluntary exchange; there is nothing in distribution apart from production and exchange. But now, how do we know that a change in wealth distribution counts as a loss to any individual? Neither individuals nor envious men can demonstrate that “loss.” Our position is, instead, that the Pareto Rule is purely formal (nobody loses and at least one person gains, with gain and loss lacking substance so far), and it is demonstrated preferences that provide the substance thereto. What counts as a gain or loss must be demonstrable; it must be based on human action, not mere physical behavior. As for gain, it is straightforward: by taking a voluntary action, an actor demonstrates that he benefits *ex ante* compared to its opportunity cost. As for loss, where there is a threat of property right violation (e.g., “Give me your money or I will kill you”), one also demonstrates that he loses giving up his property simply because he has not already given this property up voluntarily. If he indeed has not, the inference can be made that he did prefer keeping his property to departing from it.

Next, Kvasnička resorts to a *reductio ad absurdum*: “Under such logic, any action, even a murder, increases social utility since the active agent proves by his action he benefits while

the potential suffering party cannot prove it loses.” But this objection was already anticipated by Rothbard (1956, p. 29) in the following famous passage:

“But what about Reder’s bogey: the envious man who hates the benefits of others? To the extent that he himself has participated in the market, to that extent he reveals that he likes and benefits from the market. And we are not interested in his opinions about the exchanges made by others, since his preferences are not demonstrated through action and are therefore irrelevant. How do we know that this hypothetical envious one loses in utility because of the exchanges of others? Consulting his verbal opinions does not suffice, for his proclaimed envy might be a joke or a literary game or a deliberate lie.”

As an aside, note that this stems from the same principle which allowed us to derive the conclusion that we cannot demonstrate we prefer sunny weather tomorrow to rainy one.¹² The envious man complaining of a “capitalist act between consenting adults” (Nozick, 1974, p. 163) does not exemplify any action just yet. If, on the other hand, the envious man tries to prevent these two individuals from engaging in a voluntary trade any further, a praxeologist can conclude the man is at least *ex ante* rendered better off compared to not trying to forestall the transaction between the two.

Hence, it seems, derives Kvasnička’s argument: even the murder victim cannot demonstrate harm. However, Kvasnička’s attempt at rebutting Rothbard fails. Being murdered is simply not an act on the part of the victim; it is a behavior that occurs to him, like contracting a rash or a disease, or sneezing. It would be impossible for him to demonstrate anything after he is dead. Furthermore, whatever the victim does or chooses in this scenario would not be his voluntary choice demonstrating his preferences. This consideration thus constitutes a disanalogy. In sharp contrast, the would-be envy complainer could conceivably demonstrate something since he is still alive, but he cannot do so for reasons Rothbard makes clear.

But what about the pickpocket victim, who loses his money? He is still amongst the living. Can he demonstrate loss? Yes, certainly, but not because he regrets this loss. Praxeologists can infer he suffers since he never discarded his money before the theft. We can assume, then, that he does suffer from this theft. In contrast, not everyone is envious when X and Y consummate a deal. Some do not care, and some even revel in the good fortune of others.¹³

Suppose the previous arguments do not suffice. Still, even if the murder victim (or the person relieved of his property) cannot demonstrate loss, there is nothing wrong with stating that the envious person cannot do so either. X and Y necessarily benefit, and Z, even if he bursts a gut, still cannot demonstrate envy.

12 The idea is that A demonstrates his or her preferences via A’s actions (and actions alone).

13 These statements are made in our role as economic historians, not praxeologists.

Let us try again from a different tack. There are two possible tacks to take in defense of Rothbard. First, there is the idea that it is impossible to demonstrate a negative. Neither the envious man nor the murder victim can demonstrate to the praxeologist his loss whereas X and Y can do so, meaning that Rothbard's principle remains inviolate. But there is a second way to look at the matter: the victims of murder and theft can indeed demonstrate their loss, and the envious person cannot. If the murder victim wanted to die, after all, he could have hired someone to do away with him or committed suicide. The fact that he did neither, though, demonstrates that he preferred to go on living rather than to die. If the person who loses money to the pickpocket did not want his money, he would not have had it in his wallet. However, the fact that he had not previously discarded his money demonstrates, even to the fussiest praxeologist, that he preferred the situation where his wealth remained with him to the one in which he gives it up to the thief.

It is now time to consider the section of the Kvasnička paper that seemingly delivers a critical blow to Rothbard's second theorem that "no act of government can ever increase social utility" (p.31). Rothbard's point was that this theorem must hold for every single governmental action because every government action is financed by tax collection, which always harms at least one individual.

How does Kvasnička reply? Let us quote him at length: "Rothbard's argument seems to be correct, but it is inconsistent with his own methodology because he uses Pareto's rule in its usual meaning now, not the concept of demonstrated preference. This is so because under demonstrated preference the losing party *cannot prove* it loses because it suffers the loss passively. (...) In other words, Rothbard abandoned the concept of demonstrated preference here, and he used Pareto's rule in its usual 'psychologizing' meaning instead. This is the incoherence of the theory."

We demur yet again. Rothbard did not abandon the concept of demonstrated preference at all here. He was equipped with the Pareto rule (formally) and with the concept of demonstrated preference (substantively), relying on both throughout his excellent paper. Let us review the negative side of the demonstrated preference doctrine as posited earlier in this paper: it is indeed possible to demonstrate a loss when we are coerced to give up our property that we have not given up thus far since it clearly shows that in the absence of coercion, we would not have given up our property at all. Therefore, it is not the case that Rothbard, in order to prove his second welfare theorem, shifted from the demonstrated preference criterion into the usual "psychologizing" meaning of the Pareto rule.

Kvasnička concludes his Section 3 with a putative punchline by in which he adduces the example of a cartel in order to put Rothbardian theory to the test: "He [Rothbard] first argued that a cartel which came to existence on a voluntary basis increases social utility (the first welfare theorem). This is so because the members of the cartel benefit (they can charge a higher price), and they demonstrate it by an action – the formation of the cartel. The consumers have to pay the higher price, but they *cannot demonstrate* they lose by any *action*, and hence Rothbard ignores them, and calls the change Pareto-improving."

Obviously, the consumers lose in comparison to the situation in which competitive prices are charged. But these prices, by stipulation, are no longer being offered to them,

and the customers benefit as compared to not buying the products supplied by the cartel. The positive side of our demonstrated preference doctrine applies here: the customers buy products; therefore, they demonstrate their preference for buying over non-buying. Wishfully thinking that prices should be competitive does not matter a whit here. By the same token, saying that the customers “have to” pay higher prices is to fiddle with the meaning of the phrase “have to,” for the cartel’s customers are certainly not coerced to deal with it; they pay the higher prices voluntarily. According to their own demonstrated, voluntary choices, they benefit.

Then, more critically, Kvasnička continues:

“Then he [Rothbard] argued that government prohibition of the cartel does not increase social utility (the second welfare theorem). This is so because someone benefits from the destruction of the cartel. Surprisingly those who benefit are not the customers because they cannot demonstrate they benefit with any action since they are passive, but the government which acts, and its action demonstrates it benefits. But in the same time the producers lose. They can charge only competitive prices again. Rothbard says the prohibition of the cartel ‘demonstrably injures them’. But this is not so. There is no action by which the producers could *demonstrate* they lose – in precisely the same way as the consumers could not demonstrate they lose from the cartel formation. Thus Rothbard used the concept of demonstrated preference to prove the first statement, and Pareto’s rule to prove the later one – but these two concepts are incompatible and inconsistent.”

We disagree with Kvasnička on this point as well. Of course the cartel is “demonstrably injured” by the government’s coercive dissolution; if it were not worse off, it would have dissolved itself voluntarily before, or at least at the time that government coercively dissolved it. Because the cartel had not done any such thing, it demonstrated that it had been benefiting from the continuation of its operations and lost from the discontinuation thereof. We can easily find another reason why any act of government is Pareto-inferior, however, and this very reason is provided by Rothbard himself in the passage quoted above. Because any governmental intervention is financed by tax collecting, at least one person must have given up his money involuntarily, thereby demonstrating that he is rendered worse off. After all, if an individual really preferred to give up his money, he would have already done so.¹⁴ The above statement is sufficient to show that any governmental intervention cannot meet the Pareto-superiority criterion, for it demonstrably harms at least one person.

14 The same can be expressed in neo-classical parlance. It was *possible* for this actor to give up his property, but he did not. This reveals that giving up this money would have placed him on the lower indifference curve than the one he occupies while keeping his property intact. That is why he is rendered demonstrably worse off when forced to be separated from his money.

4. KVASNIČKA ON THE ALLEGED CONTRADICTION BETWEEN ROTHBARD'S WELFARE AND ECONOMIC THEORIES

Here Kvasnička is very parsimonious with his criticism. Essentially, he identifies only one putative inconsistency—the other two he identifies can be respectively categorized an aspect of his main point and a repetition of his position on the Pareto rule, which we dealt with earlier. Referring to Barnett and Block (2004), who commented on Rothbard's theory, Kvasnička says:

“They distinguish between the fiat money produced by the government on a coercive basis, and the gold standard money produced by free entrepreneurs on a voluntary basis. In Rothbard's monetary economics, all types of money (in this context) are treated in the same way: the increase of the stock of money of whatever type does not increase social utility. But according to Rothbard's Welfare Theory, Barnett and Block quite rightly argue, the impact of the two types of money must be absolutely different. The extra fiat money is produced on a non-voluntary basis, i.e. the second welfare theorem applies, and social utility is not increased. The extra gold money is produced on a voluntary basis, i.e. the first welfare theorem applies, and social utility must increase.”

So, the alleged contradiction is between the view that the increase of money supply does not boost social utility (Rothbard's monetary theory) and the view that the rise of the gold money supply enhances social utility (Rothbard's welfare theory).

This argument is problematic. It is trivially true of all money – both gold and fiat considered as media of exchange – that an increase in its supply does not increase social utility but only dilutes purchasing power. As Rothbard says: “Our law—that an increase in money does not confer a social benefit—stems from its unique use as a medium of exchange” (2010, p.25). Yet gold money, contrary to the fiat money, is not exclusively a medium of exchange but also an economic good, a commodity, and in this respect, an increase in its supply increases social utility. Commenting on an objection analogous to Kvasnička's criticism, Rothbard points out that “the objection overlooks an important point: that gold is not only money, but is also, inevitably, a commodity. An increased supply of gold may not confer any monetary benefit, but it does confer a non-monetary benefit—i.e., it does increase the supply of gold used in consumption (ornaments, dental work, and the like) and in production (industrial work)” (2010, p. 26). While an increase in the money supply does not promote social utility, in sharp contrast, a rise in commodity supply does exactly this. Fiat money is only money. Gold money is also commodity.

5. CONCLUSION

We are very grateful to Kvasnička for his criticism of Rothbard. The former's reasoning is erudite, well-reasoned, and comes close to hitting its target. This critic also does Rothbard the honor of actually quoting him, citing him, and interacting with what he actually wrote. All too often in academia, critics create and attack straw men, leaving an author's actual views untouched. Kvasnička is not at all guilty of any such impropriety.

There is a world of difference between the criminal who holds you up at gunpoint and demands your money, on the one hand, and the person who "threatens" to compete against you for your customers on the other. There are some similarities between the situations, of course. You wish both had never come upon the scene, and now that they are confronting you, you wish both would simply disappear. But the former cannot possibly improve your welfare; if he could, he would not have to demand that you give him money at gunpoint since you would give it to him voluntarily. However, the latter can possibly benefit you, for you will be better off, economically, in a society that allows competition than in one that does not. But consider the case where the general benefits of competition are less than the losses you receive from the specific "threat" of the competitor; that is, you gain less as a consumer than you lose as an out-competed producer. There is still a wide gap, a gigantic chasm, between the two cases, and the major problem with Kvasnička's analysis seems to be that it does not fully appreciate the difference. What is the difference? You have a right to your money; it is a part of your property rights. You would prefer to give up these funds of yours rather than be shot, but you still lose something you own when the government, or the highwayman, takes from you something that is properly yours. In contrast, you have no right at all to your customers. In a just society, they are perfectly free to seek other suppliers. Thus, when your competitor threatens to take them away from you, he is not stealing something you own.

But are we not confusing the matter by bringing rights and normative concerns into the analysis? Are we not limited to positive, non-value-laden considerations? Not one bit, for the starting point of each scenario is crucially important. In the case of the robber, we start with the victim as the proper owner of his wealth. In the threatening competitor example, we start off in the very opposite manner: the target simply has no private property rights under threat since he does not own his customers. In one case, the target loses something he owns; in the other, he does not.

Thus, we are making an implicit normative point, but only an implicit one; namely, that robbery is wrong while competition is legally acceptable, even though both always target someone. At the same time, we are also explicitly making a positive point: for the analysis of welfare, the starting point is not irrelevant. In the case of robbery, the victim¹⁵ loses welfare. He had money, and the thief relieved him of what he had. In the case of threatened

15 He is both a victim and the more neutral "target."

competition, however, the target¹⁶ does not lose welfare since he never owned the customer in the first place. We know that he benefitted from each day he had the customer since he voluntarily interacted with him. At the dawn of a new day, though, he no longer “had” the customer; – he only ever had him on sufferance. On the day that the competitor succeeded in alienating the customer from him, the target of competition did not lose anything he already had, as in the case of the robbery; rather, he failed to gain.

Who offers us a reciprocal analysis? Who states that the failure to gain is not only akin to suffering a loss but economically identical to it? It is Coase (1960), who would certainly reject what we say immediately above. For him, the scenario with the robber and the scenario with the threat of competition are identical. We content ourselves at this point with merely stating that in terms of welfare economics, there is all the world of difference between losing something you already possess and failing to gain something you do not possess.

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¹⁶ We refuse to characterize him, also, as a victim. He is not. A victim requires a victimizer, someone who violates rights, and the person who threatens mere competition, is not guilty of any such crime

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CHALLENGING THE ROADS TO ANARCHY

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ABSTRACT

Anarchists state that a sufficient justification for political authority and the state does not exist. Furthermore, some of them seem to suggest that arriving at the idea of a stateless society is the inevitable outcome of acknowledging undeniable truths, making anarchism an exceptionally pure political theory. In this paper, I accept the anarchist claim that existing attempts at the justification of the state are insufficient. Though this constitutes a necessary condition for demands to abolish the state, I will show that for two reasons it does not automatically constitute a sufficient condition as well.

First, the critiqued position does not take into account the paradoxical setting in which the decision regarding the political organization of a group of human beings takes place. Second, unless one attempts at justifying (philosophical) anarchism on purely utilitarian grounds, the refutation of a state's authority is based on some principle or value. It is most likely that in its practical unfolding an anarchist society will violate the very principle which warranted its implementation in the first place. It thus remains perfectly possible to endorse anarchism, but this endorsement must be based on different arguments.

KEYWORDS

Philosophical anarchism, Anarcho-capitalism, Unrestrained liberty

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1. INTRODUCTION

Reasoning about government, coercion, and authority has been a recurring issue in political philosophy since the time of the ancient philosophers. But while the existence of political authority remained unquestioned for most of human history, the wide acceptance of the postulate of a free and self-determined individual now demands a justification of authority. The stronger the conviction that human beings are (or should be) free and that their freedom is not to be violated without justification, the greater the requirements for such a justification.

Nowadays, we are presented with a highly differentiated literature taking up the task of justifying authority and resulting social orders from different angles (Wendt 2018). Theories address the establishment of orders by social contract or invisible hand processes, they explain hypothetical or de facto developments and they suggest focusing on different aspects of authority such as institutions, processes, or governance. Despite these efforts, though, none of these theories have yet provided a generally accepted justification of political authority. While this might be of limited practical significance where the existence of the state is concerned, it clearly presents a challenge for political philosophy.

According to some theorists, no widely accepted theory has been developed because any attempt at justifying the state is bound to fail. This claim is motivated in part by consequential reasons. Admittedly, the oppressive and bloody record of states, including wars, genocides and the politically motivated mass murder of millions, is appalling. And regardless of the favorable images one might have of a state, this kind of political association is in all likelihood not more peaceful or less violent and war-prone than the average individual living in it – quite the opposite, as depressing death counts show (White 2014, Courtois et al. 1999). Gerard Casey reminds us of the state's typical role in a war: "In 1914, the following conversation did *not* take place in a pub in Birmingham, United Kingdom: 'Oh my God, it's deadly boring around here. We need some excitement. I tell you what, lads, let's go to Belgium, live in cold, wet and totally insanitary trenches and shoot at some Germans'" (Casey 2012, 33, emphasis original).

Another line of criticism holds that any justification of a state is doomed to fail on theoretical grounds. Unless one employs a very limited concept of freedom not even worthy of the name of freedom, so the argument goes, there simply is no coherent way of legitimizing the coercion necessary for upholding social organizations against the will of a (then obviously involuntary) member. This applies not only to the local chicken farmers' committee or to an association of medical professionals but also to municipalities, states and other political entities in general. In the absence of a justification of these coercive institutions, one must do without them and subsequently develop theories that rely exclusively on voluntary cooperation and association. From this perspective, anarchism is not a radical idea but rather a simple inevitability. To put it bluntly: If the state cannot be justified, then we are compelled to do without it.

In this paper I want to dispute the anarchist conclusion that the state should be abolished due to its lack of justification. I am certainly not the first to put anarchism into ques-

tion. The history of anarchism is at the same time the history of its firm, and sometimes furious, opposition. Most of these critical arguments concern the supposedly chaotic and violent outcome or the feasibility of anarchism. Who will build the roads? Who will adjudicate disputes? And who will defend the country?

If a government-run military is not an option, it appears that an anarchist entity would hardly be able to defend itself against outside aggression, for example. Though most anarchist theorists would accept the existence of a voluntary defense force and participation in it, a military is not likely to evolve. In the absence of coercive means such as taxation for financing and a draft for staffing it, any defense force would have to rely on voluntary contributions exclusively. Due to the problem of free riding, this is—according to the counterargument—highly unlikely to happen; the anarchist entity is thus left defenseless and would be an easy target for neighboring states.

The problem of free riding does not only apply to supporting a military. More generally, without a binding framework it is difficult to establish a general rule concerning the internalization of external effects, regardless of whether the effects are positive or negative. Providing public goods in an anarchist society is especially hard to conceive of. Private firms providing the anarchist equivalent of a legal system or the police could become monopolists (Nozick 1974), which raises the question of whether this free society is bound to deteriorate into tyranny (Bökenkamp 2014). Critics thus expect an anarchist society to sooner or later turn into a Hobbesian world—whether it would be a pre- or post-leviathan one is not an important question here (Cowen 1992, Rutten 1999).

Anarchists provide creative and insightful solutions to these challenges (Stringham 1997, Huemer 2013). Yet, for two reasons I do not wish to include those discussions here. First, they are ultimately speculative. Even the strongest examples of successful private solutions replacing modern governmental functions occur in a setting heavily shaped by the mere existence of the state.¹⁸ This is true not only in the case of positive regulation. States also shape the availability and costs of courses of action by declaring something to be illegal or by not acting in a certain area at all. The second and more important reason for not engaging in these discussions is that I want to address a different point. My goal is to show that while it is very possible to argue in favor of the abolition of the state, anarchy is not the necessary consequence of a lack of justification of political authority and the state, even if everyone were to agree that this lack existed.

In order to demonstrate this claim, I will first give an account of my understanding of anarchism and what I take to be its defining features. Based on this understanding, I then describe in more detail which kind of theorizing I seek to address in this text. Given the tremendous variety of anarchist theories, my arguments are not compatible with every single

18 The reason for this might simply be that there are very few societies without government in the modern world that can be expected to continue existing without government. While there may be some hellish parts of the world that are indeed better off stateless (Coyne 2006, Leeson 2007), that is a consolation on a low level only with limited applicability for other societies.

theory, and even if they are compatible, they might apply to different degrees. I explain why and how this is the case.

In the next sections I present my arguments against the supposed inevitability of the anarchist conclusion. First, I hold that any liberal theory of social organization is confronted with the paradox of protecting freedom. As it is not possible to protect an individual's freedom (or autonomy, or right to self-determination) without at the same time harming it, any known solution must violate an essential condition. But when such a violation is a ubiquitous feature, it cannot be held against just one theory while it is disregarded in other cases.

Second, anarchist philosophy usually has a normative foundation. Most anarchists believe that rule or political authority is incompatible with human nature, freedom, solidarity or a similar value. It is on this ground that they reject the state. In this paper, I focus on negative freedom as a foundational value. I argue that it is very likely that the existence of an anarchist society would violate the very principle which warranted its implementation in the first place.

If these objections are correct, how does this affect anarchism? In a closing section I argue that while it is still perfectly possible to argue in favor of the abolition of the state in a sound way, the structure of the discourse is altered. Anarchism can no longer be portrayed as a logical necessity, either because it is the only flawless application of negative freedom or because of the successful falsification of competing theories. Still, it is not necessarily absurd to continue pursuing anarchy as a political project.

2. ANARCHISM

2.1 OVERVIEW

Any political theory that assumes that human beings are free to determine the course of their own lives is confronted with the problem of justifying political authority. "If states are to have the moral right to do what they are doing, then they need the moral power to impose duties. They need the moral power to impose duties upon citizens because this is what states do when they enact and enforce laws" (Wendt 2018, 101). The theory has to answer the question of how is it possible to demand that the individual obey certain rules, persons or institutions and yet maintain that the individual is the ultimate ruler of her own life. Generally, this is not seen as an impossible task. Moreover, in the form of a liberal democracy this is—regardless of widely recognized gaps and the absence of the one compelling theory—not only considered sufficiently accomplished but also, despite abundant variations, the normative standard of political organization.

Yet no theory of political authority has been able to advance its cause beyond doubt, leading some political theorists to doubt that any justification of the state can ever hold water. But though the anarchist theorists tend to agree on this conclusion, they differ with respect to the origin, motivation and focus of their respective arguments. To modify Benja-

min Tucker's book title *Instead of a Book, by a Man Too Busy to Write One* (Tucker 1893), this section's title could well be "Definition of a Movement Too Diverse to Be Defined." The variation within this family of theories is great, and someone following the tradition of propagande par le fait probably would even argue that action rather than theory is its defining feature. But even if one focuses exclusively on the theoretical field, the variety of anarchisms as well as of political opinions and religious or moral beliefs held by anarchists is stunning. While the unifying factor of anarchist theories is their skepticism towards the justification of authority, especially political authority (Fiala 2018), this certainly has not led to a unified view. Over time, anarchism has been associated with socialism, libertarianism and feminism, to name a few. It has been defended on religious as well as ecological grounds, and the economic convictions of anarchists are just as diverse. It is even doubtful that all anarchists are happy with their role – in the case of Robert Paul Wolff, it appears that he dreads the anarchist consequence to which his own reasoning has led him (Wolff 1970).

Given this variety, it is no surprise that the innumerable attempts at systematizing the different strands of anarchism are just as diverse as the field itself. In addition, the very terms that are supposed to help shed light on matters, such as individual anarchism, are often used in different ways, causing more confusion than clarity.

By 1894 Rudolf Stammler had already differentiated between collectivist and individualist strands of anarchism by contrasting Pierre Joseph Proudhon and Max Stirner (Stammler 1894). But while Stirner was very skeptical of socialism, this is certainly not true for all anarchists who considered themselves individualist anarchists. Benedict Lachmann, for one, considered himself to be an individualist anarchist and thought of the realization of his utopia as socialism (Lachmann 1914 and 1919). To a lesser extent, this is also true for the term libertarian. Von Borries/Weber-Brandies (2007) use the phrase "libertarian tradition" in order to characterize anarchism as a whole. Ironically, they focus on syndicalist and socialist anarchists – strands of thought that are traditionally perceived to be more on the left and therefore quite different from libertarianism.

Later attempts at systematization tried to reduce terminological problems by suggesting more categories. Navigating between the Scylla of overly broad categories and the Charybdis of a too fine-grained and almost enumerative account of anarchism, though, appears to be a difficult task.¹ Neumann (1989) devised an overview in which he distinguishes between broadly defined schools of thought in anarchism. To him, the list of schools consists of individualist anarchism (making the individual the benchmark, such as William Godwin or Max Stirner), social anarchism (moved by the "social question," as pioneered by Pierre-Joseph Proudhon or Gustav Landauer), collectivist anarchism (following Michail Bakunin in distinguishing between collective ownership of means of production and individual consumption), communist anarchism (where all individual property is abolished), anarcho-syndicalism (action-focused and union-based anarchist movement with communist

1 In his history of anarchism Nettlau (1925) spends 25 chapters alone on anarchist history until 1864.

leaning) and the “new” anarchism of the 1960s and 1970s. However, some strands of anarchism remain unaccounted for,² such as religiously motivated anarchism and libertarianism or anarcho-capitalism.

Fiala (2018) employs a different perspective. He distinguishes between

- Political anarchism
- Religious anarchism
- Theoretical anarchism
- Applied anarchism.

These can be interpreted as two pairs of categories and therefore are not necessarily mutually exclusive. The first two categories address the origin of anarchist convictions. For political anarchists, this is the oppressive and probably criminal nature of the state. The driving force of religious anarchism is a religious command that demands (at least) skepticism towards authority. The distinction between theoretical and applied anarchism concerns the focus of anarchism. Is it primarily seen as a philosophical endeavor or a political movement?

Already this brief sketch makes it clear that anarchism is a heterogeneous family of thoughts and convictions. And while a categorical overview certainly leads to some insights, even the best systematization of anarchism’s various strands can hardly convey the multitude and diversity of positions that historically have been or currently are held by anarchists. Most notably, such a view also ignores the sometimes bitter fights between anarchists that on the whole held similar positions. Examples of such disputes include the question of whether the use of violence as a means of political fight is acceptable (McElroy 2003, 31ff) or whether free market anarchism (or libertarian anarchism, or anarcho-capitalism) can be considered a member of the anarchist family. Some anarchists considered private property not as part or prerequisite of freedom but a limitation to it (Bibliothek der Freien 2007) while others generally opposed individualism because they suspected it to interfere with the recognition of overall interests (Unknown 1983, 75).

One of the biggest difficulties that further confuses the anarchist landscape is the lack of a non-contested definition of anarchism (Lösche 1974, 54f). Nevertheless, most anarchist theories share two core convictions, although they might be stated in slightly different terms.³

2 While the author acknowledges limitations (Neumann 1989, 223), it can be doubted that he was aware of their extent. For example, American anarchism is not touched upon at all. Given that the publication aims at providing a brief introductory overview, selection is inevitable. It nevertheless remains an open question, whether anarcho-feminism, ecological anarchism or anarcho-capitalism should have been included or not.

3 It appears that this is not a unique problem. Similar difficulties arise, for example, in attempting to define liberalism (Kahan, forthcoming, introduction) and probably all other political -isms (Ryan 2012, 21).

The first conviction holds that political authority in the traditional sense¹ is not justified. Instead of legitimate authority, anarchists might speak of the state, government, command authority or rule of human beings over human beings. In any case, they reject the idea that for some contingent reason a few people are entitled to impose duties on others. As states clearly impose duties on their citizens and employ violence if necessary to ensure these duties are obeyed, states are unjustified institutions in the eyes of anarchists. Most, but not all, therefore demand the abolition of the state.²

The second conviction concerns the grounds on which the authority claim is rejected. Usually some ultimate value, religion or human nature is the source or motivation for anarchist convictions. Though the precise connection between the “root value” and its anarchist consequences is theory-specific, the pattern of grounding anarchism in this way is a common thread of most anarchist theories.

In any case, anarchists find it morally problematic when the state or a similar institution interferes with the root value. To them, it is morally objectionable to force someone to obey someone else’s commands. Notably, this would remain true even if every member of a social organization were granted command authority, for example, in the form of a rule of all over all—a subject that has been discussed already by Constant (1819). Thus, it becomes clear that the problem at hand is not a formal one or a question of the unequal distribution of authority but a troublesome feature of authority itself. Not even the best theory of democracy could provide a solution to it. Authority is a moral problem, similar to violence, and as is the case with violence, the problem of authority for an anarchist is not solved by its multiplication and dissemination.

2.2 ADDRESSED APPROACHES

Given the diversity of anarchist positions, it is impossible to adequately address all forms of anarchism with only one argument. Even when I might be making two points, they certainly do not apply to all anarchist theories, and even in cases where they do, they do so to different extents. In the following sections I will describe the subset of anarchism that I address in this paper. It will become clear that the uniting feature of these positions is the role that negative freedom plays in them, which I will draw upon in the subsequent sections. Structurally, two different groups of theories have to be taken into account.

1 I speak of political authority in the traditional sense in order to make clear that anarchism does not necessarily oppose any kind of political authority. Many, if not most anarchists would probably agree that an actual contract by which something closely resembling a political institution is erected is morally acceptable. However, a state to which an individual did not actually consent – and this is what the term political authority traditionally refers to – is not acceptable.

2 To do justice to philosophical anarchists, who consider themselves anarchist precisely as they cannot justify the existence of the state, the sentence above should be phrased in a softer way. These anarchists do not necessarily demand in a practical, political way the abolition of the state but rather theoretically endorse it or concede it as philosophically warranted. (See chapter 2.2.1 of this paper)

2.2.1 Philosophical Anarchism

Philosophical anarchists, like all other anarchists, doubt the legitimacy of the state. In contrast to those who are sometimes called anarchists proper, philosophical anarchists first and foremost consider anarchism a stance in moral or political philosophy rather than a position in the political arena. Dagger and Lefkowitz (2014) distinguish between a priori philosophical anarchism (the rejection of government due to its principled unjustifiability) and a posteriori philosophical anarchism (the rejection of government because all attempts at justification failed).

A priori philosophical anarchism is exemplified by Robert Paul Wolff. Wolff suspects that states constitute a moral problem insofar they interfere with the autonomous decision-making of the individual. And as autonomous decision-making is not only the right of an individual but also the prerequisite of any morally significant behavior – those who act while unconscious or are physically forced cannot be held responsible – it becomes a moral obligation as well. But this obligation is in principle, though not in every single case, precluded by prior government actions. To Wolff, any institution standing in the way of the performance of a moral duty cannot be justified (Wolff 1970).

Michael Huemer comes to an analogous conclusion, though he employs the a posteriori approach. Huemer focuses on a state's capacity to coerce, or more precisely, to make violence-backed threats. He rephrases actions considered common or even desirable for states with protagonists on the individual level, chiefly concerning policing activities and the criminal justice system. He describes, among other things, a situation in which criminals are plaguing a village, destroying and stealing property, but no actions are undertaken to prevent this from happening. One day, though, “[y]ou take your guns and go looking for vandals. Periodically, you catch one, take him back to your house at gunpoint, and lock him in the basement. You provide the prisoners with food so they don't starve, but you plan to keep them locked in the basement for a few years to teach them a lesson” (Huemer 2013,3).

Huemer compares such private activities, which most people would intuitively judge to be unjustified, to respective state activities, which many would commend. He finds that it is impossible to uphold an asymmetric pattern of justification for these two spheres. As states are not based on the actual consent of their members—on the contrary, the ability to coerce their “members” is one of their defining features—he concludes that they are not justified. Thus, stateless societies appear to be the ethically acceptable alternative to states.

Other theorists start at this point and think about different ways of delivering the services currently organized by states. As early as 1849, the economist Gustave de Molinari problematized the monopoly position of governments. To escape the negative consequences of a monopoly, he sketched the idea of private security agencies as state substitutes. Due to the force of competition they would provide a higher quality of their respective services than monopolists such as governments ever will (de Molinari 1998/1849). Ironically, de Molinari did not consider the possibility that one provider might itself become a monopolist – a turn of events Robert Nozick (1974) would later use as a hypothetical for state emergence.

Most philosophical anarchists use a concept of freedom for theoretically defeating the state. There are exceptions, however, and whether or not my argument is applicable to

them depends on whether one judges the position in question to be ultimately based on the importance of negative freedom and the claim that certain liberties are simply not to be violated. In the case of de Molinari, who puts forth a utilitarian reasoning, such a base can be doubted. The same is true where concerns regarding impermissible interference with moral agents are the reason for rejecting the state. However, even in matters of purely ideal theory the impermissibility of one option does not automatically entail the permissibility of a scenario where this option is absent. Therefore, a variation of the “paradox of protection freedom problem” might very well still apply.

While some cases demand careful discussion, others do not. For any position that concludes that a state is illegitimate because it violates an individual’s liberties, the crucial role of negative freedom is obvious. Functionally, in this respect philosophical anarchism and political anarchism do not differ.

2.2.2 Political Anarchism

Historically, most anarchists have been proponents of political anarchism, also referred to as anarchism or anarchism proper (Graf 1990)³. These are “those persons who insist that states and governments are wickedly coercive institutions that ought to be abolished” (Dagger and Lefkowitz 2014). Even if most of them probably understood their convictions to be not primarily a contribution to philosophy but rather a political position, they produced a wide range of literature, ranging from political pamphlets to philosophical scholarship. The positions advanced in this literature cover the whole of the aforementioned wide spectrum, yet they all claim to defend human freedom against the indefensible practice of a state.

However, there is great variation in what anarchists find consistent with freedom, indicating that they must have very different views of it. That becomes very clear if one contrasts collectivist and communist positions (believing that collective ownership will bring about true freedom, which includes being free from the limitations that private property imposes on humans) with syndicalism (where freedom is achieved through workers’ self-organization) or libertarian anarchism – (in which the entire structure of a society conforms to the ideal of negative individual liberty).

As these differences appear to constitute a continuum rather than to fall into neatly defined categories, explicit choices to exclude some positions in my analysis while including others seem artificial, if not arbitrary. It also seems unnecessary given that my critique employs conceptual analysis and does not focus on a particular writer or theory. As my arguments rely on the concept of negative freedom as understood in the classical liberal tradition,⁴ my critique is applicable to all positions that rely on this concept as well. Wheth-

3 Besides the lack of a definition of anarchism or at least a set of criteria which are a prerequisite for any informed headcount, Graf’s numbers should be taken with a grain of salt. Nevertheless, the numerical predominance of political anarchism is hard to doubt.

4 One might sense an inherent contradiction here because concepts of freedom in classical liberal thought often entail much more than simply a right to be left alone. Nevertheless, this is the core of both civil and

er it is also applicable to other anarchist positions, and where, exactly, one would have to draw the line, is an open question that cannot be dealt with here.

Despite the difficulties involved in naming specific theories that are included or excluded in this analysis, I have no intention to omit my inspirations. These include mostly libertarian anarchist or anarcho-capitalist theories⁵ (Stringham 1997 for an overview), though they are not limited to them (consider Emma Goldman's fight for sexual and reproductive self-determination, individualist anarchism in the 19th/20th century in the USA or Lachmann 1914 and 1919) But a reader would be mistaken to assume that by drawing on these particular writers and others I am addressing anything more than the most basic fact that these positions rely on a foundational value as described above.

Up to this point, I have not dealt with utilitarian defenses of anarchism as they are irrelevant to this paper. Nevertheless, utilitarian reasoning can be based on a surprisingly normative foundation. The most prominent voice in this tradition is probably David Friedman. While Friedman indeed points out numerous welfare advantages of anarchy (Friedman 1973) and is commonly perceived as employing utilitarian reasoning (Buchanan 1974), in the very first chapter of *The Machinery of Freedom* he makes it very clear that property rights are an essential part of human rights. It might be possible to abstain from such a normative element. But then the question resurfaces how gains in utility are measured and perceived. Whenever a normative element such as human rights or the value of freedom serves as the foundation of a theory, it is also worth considering whether the arguments presented in this paper might apply.

Before turning to the actual argument, I must first insert a technical note. For reasons of brevity and personal taste in this paper, I will exclusively consider liberal democracies as an alternative to anarchism. Furthermore, just as much as I do not refer to any specific anarchist theory, I do not have a specific theory, school or real-world example of democracy in mind. Instead, the liberal democratic counterpart in this paper is painted with a very broad brush, entailing the well-known features such as the separation of powers, the rule of law and extensive civil and economic liberties.

I am very well aware of the fact that this approach is coarse, schematic and incapable of dealing with the many brilliant creative arguments associated with this debate. However, it is not my goal to do justice to the undoubtedly important nuances of a large number of theories. Instead, for both anarchism and liberal democracy I am addressing features inherent in many different theories of various natures and "families." Abstractly focusing on these similarities is therefore functionally preferable.

economic liberties (if one wishes to make this distinction) and is what I am drawing upon in this text.

5 The terminology varies. Common expressions are anarcho-capitalism or private-property anarchism (Friedman 1973, Rothbard 1973), anarchist libertarianism (Stringham 1997), and private law society (Hoppe 2012).

3. THE PARADOX OF PROTECTING FREEDOM

The anarchist theories considered here follow one of two patterns: they either argue that states cannot be justified and that therefore the stateless society must be the correct alternative, or they believe in a foundational value (or set of values) that is incompatible with coercive institutions such as states. But what if a stateless society also has problems of its own (Rutten 1999, 583)? This objection is not new, but thus far it appears to have been used in an empirical context only. However, acknowledging problems with a stateless society does not simply constitute a counterargument against anarchism; more importantly, it changes the structure of the decision situation between anarchism and its alternative.

In my view, the structure of the decision situation is characterized by the paradox of protecting freedom. With this somewhat unpleasant term I am referring to the problem that protecting (or guaranteeing) freedom without at the same time limiting it by exactly those same protective efforts is impossible. The only available options are therefore unlimited and unbacked freedom or institutionally protected freedom, which is in some respects limited. Both options presuppose that freedom is of utmost importance. That does not, however, automatically prescribe a single practical method for how to best realize this ideal.

In libertarian anarchism, the emphasis is put on the inadmissibility of limiting freedom. In such a world, there are no states, no government institutions, no mandatory systems for whatever purpose, including the provision of a certain protection of freedom. In that case, the highest-ranking good is supported only by moral or theoretical constraints, not backed by any institution or agency.

This is also the case for philosophical anarchism, if the inevitable limitations every rule imposes on the individual are the reason to conclude that the state cannot be justified. As rules entail this consequence independently of their content, this verdict applies even to those rules that are supposed to protect freedom. Thus, the philosophical anarchist and her political counterpart both adopt positions where they abstain from any measures to secure freedom.

In liberal democracies, on the other hand, as far as ideal theory and philosophical justifications of the state are concerned, the focus is on the protection of freedom. Unless one is to rely on the unrealistic case of unanimous decision, the protection of freedom requires coercive measures. However basic these may be, however reluctantly they might have been implemented, they automatically limit the freedom of the individuals subjected to the measures.

An additional reduction of individual freedom also arises from the necessity of paying taxes or a similar contribution in order to finance freedom-protecting measures. Even if we somewhat counterfactually disregard the vicious circle of public sector growth and one intervention leading to another, one core fact remains: even the most minimalistic state inevitably violates the very principle it is supposed to protect.

Ninov (2016) suggests a middle road between these two options, sketching a privatized yet regulated legal and police system. While this system is mostly self-regulated and very well might be able to yield far better results than its state-run cousins, it does not escape

the binary logic of the paradox of protecting freedom. Ninov appears to build on a pool of laws and regulation, at least when it comes to system design. Though it is not clear whether these rules are pre-existing or how they might have been conceived of, the very existence of universally binding rules puts Ninov's system into a camp with the active protectors of freedom, even if his system could work outside of formal state structures.⁶

The paradox of protecting freedom cannot be avoided, either in theory or in reality, which means that one must accept one of the (potential) threats to freedom: leaving freedom vulnerable and without institutional protection, or violating it to some extent in the hope of preventing greater harm. Therefore, the opportunity to decide in favor of one of the presented alternatives is, from a liberty perspective, the best possible outcome. (These two are certainly not the only possible ways in which a society can be organized, but systems such as tyranny, party dictatorship, absolute monarchy etc. are generally seen as granting less freedom and therefore are not considered here.) If we get to pick our poison, we might be able to choose the less venomous one. Still, it is not at all clear which solution to the paradox should be preferred. In fact, as this to some extent is a matter of preferences (how much risk am I willing to take?) and individual projections and expectations (how do I expect the respective theory to turn out in the future?), there is in fact no right option.

It is also important to notice that while both options, anarchy and democracy, may appear structurally similar in terms of their disadvantages, they nevertheless are completely different in content. Therefore, it would be misleading to describe one as X and the other one as non-X. Instead, they are more accurately referred to as two elements X and Y, independent of each other, of a large pool of theories that continues to be explored and expanded.

Contrasting these two alternatives of representing the decision situation highlights how it would be erroneous to endorse anarchism simply because liberal democracies have been found to be insufficient. (The same would be true for the opposite position, namely endorsing liberal democracies because anarchism has been found to be insufficient.) From the perspective of logic, one of the theories could be wrong, they could both be acceptable solutions to a given problem or they both could fail. It is not possible to come to a sound conclusion by employing formal reasoning only.

To phrase it differently, it does not follow from the fact that states have been found incompatible with a fundamental assumption (such as freedom or autonomy) that a situation where states are absent is compatible with the fundamental assumption. This is true even if the very existence of the state is where the incompatibility lies. Such a conclusion ignores the probability of anarchism being incompatible with the very same fundamental assumption. Given the complexity of both individual and large groups of human beings, it is not

6 If I am misreading Ninov and he does not presuppose universally binding rules, the question remains how and why the necessary institutions come into being and how and why compliance with these institutions is achieved, especially as Ninov has made it clear that he does not understand his approach as a hypothetical for the emergence of an order nor sees his work as part of the libertarian anarchist body of theory.

only possible but outright likely that there is no single cause of all misery, nor is there just one type of institution responsible for violating human freedom or any other fundamental value. Concerning their physical being, humans can suffer from many diseases. I do not see why we would not assume that the social organization of humans can also be plagued by a number of things.

The assumption that anarchism for reasons of logic or its more consequent application of freedom is the “correct” theory disregards the nature of the paradox of protecting freedom. Assuming that anarchism is correct because democracy fails presupposes a non-existent relation between anarchy and democracy. The decision as to which, if any, of these theories should be preferred is not one of logic; it is possible to disagree in good faith about whether anarchy or democracy is preferable. Both positions present appealing arguments, but neither one presents a perfect solution to the difficulties faced by associations of humans, meaning that neither can from the outset be considered superior or correct.

4. SOME CHALLENGES TO LIBERTARIAN ANARCHISM

On the level of the principled decision about the basic political theory of a society both libertarian anarchism and liberal democracy each attempt to provide their own solution to the paradox of protecting freedom. Preference of one ideology over the other therefore cannot be based on formal reasoning but must deal with the content of the theories. One point posited in favor of libertarian anarchism is that it does not harm liberty because the social order entirely conforms to it.

An obvious argument against this assessment, however, states that not only the most direct but also the more remote consequences of decisions, actions or institutions should be taken into account when their balance sheets of liberty are compared (Klein and Clark, 2010). This approach comes with its own problems. It is difficult to distinguish between direct and overall effects and next to impossible to adequately calculate their magnitude. More importantly, though, this approach entails a shift from a deontological to a consequentialist reasoning. Though I certainly do not think that the results of actions have no moral significance, here I focus solely on deontological arguments.

The reason for this choice is not so much the fact that consequentialist reasoning usually entails a good deal of speculation when it comes to anarchy, as was just discussed, as it is the fact that many proponents consider anarchism to be flawless from a deontological perspective. It is the deontological qualities of anarchist theories that adherents consider superior to theories of democracy. In addition, some appear to be quite attracted by the corresponding tough image of anarchism, although they prefer to express this in conversation rather than in writing.

Against this optimistic picture of anarchism I argue that the practical application of libertarian anarchist theories to social reality will in certain situations lead to theoretical problems. This suggests that libertarian anarchism is not the inevitable result of unfolding

the implications of its basic value, freedom. It certainly might still be considered favorable from a consequentialist point of view; however, in terms of deontological purity it does not appear to outperform liberal democracies. The theoretical problems are twofold.

First, the fact that libertarian anarchism is based on a great respect for freedom does not automatically mean that situations or decisions with an ethical dimension that take place in a libertarian anarchist society will reflect this respect for freedom. This leads to the question whether a certain level of disregard or “unimportance” of freedom is still in accordance with libertarian anarchist theory.

Second, it is possible to construct situations in which actions that seem permissible directly contradict the theoretical foundation of libertarian anarchism. While this may be a common feature of all social, political or legal systems, it poses a double challenge to libertarian anarchism. Not only do these circumstances prove the existence of a self-contradictory element in libertarian anarchism (which is the first challenge) but they also threaten the idea that libertarian anarchism is a theory of a perfect and straightforward nature.

4.1 THE POSITION OF FREEDOM IN AN ANARCHIST WORLD

The abolition of the state and of any other institutional backing of rights or liberties as proposed by anarchists has a surprising effect on all actions related to them. Despite unlimited freedom being the uncontested foundational value of a libertarian anarchist society, the nature and position of actions concerning freedom in such a society are no different from the nature and position of any other action. Their normative superiority in the foundational theory is not reflected in their practical application.

The situation in a liberal democracy, which relies on institutions and the rule of law, is different. Freedom, though an important value, is neither unlimited nor the only normative guideline. The institutions designed to protect freedom at the same time limit it, if only to the extent that they must be financed by a mandatory system. These limits can be visualized as an “airbag” that prevents freedom from being both at the top and at the bottom of a normative order. In a liberal democracy it neither is the one authority that always prevails nor does it sink to the level of everyday decisions and actions. A visual representation of the different structures described here can be found in Figure 1.

In order to evaluate the relevance of this structure consider the following situation:

In an anarcho-capitalist society, a burglary took place in the home of A. A announces the burglary to her security provider, which starts an investigation. After a fair evaluation of the facts, it is found that in all likelihood B committed the burglary. Therefore, the security provider of A contacts the security provider of B and informs them of their findings. In a plausible course of action, B’s security provider will now search B’s house. As this action is permitted according to the contract between B and her security provider, by libertarian anarchist standards no harm has been done, and no right or liberty has been violated.

However, an intrusion into a home is not a negligible event. Even though the intrusion in the situation described above cannot be called a wrongful violation of B’s rights because B consented to the search, it is still very different from, say, inviting guests. The severity of the action depends on a number of factors. Among them are more obvious ones, such

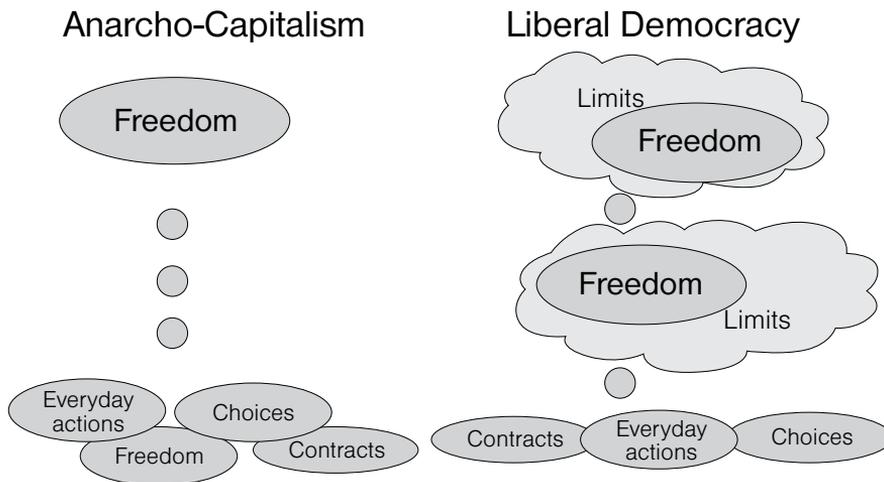


FIGURE 1: TWO SOLUTIONS TO THE PARADOX OF PROTECTING FREEDOM (SCHEMATIC ILLUSTRATION)

as the physical damage caused to the home during the search, and less obvious ones, such as the psychological effect of the intrusion and the importance of a protected sphere for the individual. In sum, most people would consider the search of their home, regardless of whether they consented to it or consider it justified, to be a very grave act.

Aligning such an action with freedom, therefore, is challenging, regardless of prior consent. Even without endorsing a positive concept of liberty or entering into a discussion about the distinction between coercion, manipulation and truly free actions, it must be acknowledged that in an anarcho-capitalist society there are no (and cannot be any) institutions in place that would mirror the comparatively high severity of the search action.¹ Libertarian anarchists might assure us that reputation and market forces will cause security agencies to use their powers very carefully, and certainly not in excess as many current states do.² However, that does not change the fact that on a structural level, the decision of whether to search B's house in this setting is equivalent to the decision of whether to pack an umbrella or not: the inconvenience of carrying it around all day in vain is weighed against the likelihood and intensity of rain and the unfavorable consequences of becoming wet.

This is not to say that house searches in democracies which highly respect the rule of law are less likely to happen or will be conducted with more respect for their implications on

1 I do not deny that consent is of crucial importance. However, I do not wish to discuss whether this search was justified or not but rather to address the quality of the decision-making process.

2 In my view, despite being a likely outcome, this reasoning entails two problems. First, it has an optimistic speculation challenging the admittedly poor record of the state. Second, the argument can easily be countered by introducing hypothetical states with ever more sophisticated institutions, which would create a sort of an intellectual arms race. But as the debate employs merely hypotheticals, it ultimately yields little insight.

the meta-level. But in order to be legal in democracies, they can only take place after certain preconditions have been met and procedures have been followed properly. This framework, besides being intended to guarantee that only justified searches take place, is also of a high symbolic significance that signals how extraordinary this event is, despite deviations in social and legal reality.

4.2 ACCEPTABLE VIOLATIONS OF LIFE, LIBERTY AND PROPERTY

While the first point can be dismissed as purely symbolical or emotional—and I agree, the moral significance of symbolic actions or emotions is debatable—I consider the second one to be more severe. This kind of justification problem for anarchism arises from the fact that in the absence of institutionalized safeguards for the highest value of a belief system, situations can arise that contradict the belief system without contradicting its institutional unfolding.

Consider the following situation: A owes B money. Despite the fact that A acknowledges her debt, she has no intention of paying back the money. B could certainly announce the problem to her security provider and let them take care of it, which is probably the most likely outcome. After all, B and her fellow customers signed contracts with their security providers so that the providers could take care of situations like this. But what if, nevertheless, B acts differently?

She is fed up, angry and hurt by A's nonchalant disregard for her property and, more importantly, for the principles that enable peaceful, voluntary and productive social entities to thrive. In this mood, B walks to A's house where she finds the money A owes her. Without asking permission, she takes what is hers. As B is acting in defense of her property rights that A had violated, it is hard to think of reasons why in an anarchist society she should not be allowed to act like this. Given that B is reacting to an injury, taking the money cannot be considered an act of aggression. Even if a narrow concept of self-defense is applied that restricts permissible self-defense to a certain time and scope,³ in the given example the violation of B's property rights is happening in the present, which means B is entitled to stop it.

Let us assume an alternative setting. Now B is in an even worse mood. Again, she walks to A's house, but instead of trying to fetch her money, she seeks to get even with A in a different way. After all, A is not only treating B unfairly; she is also attacking B's most dearly held belief. B not only seeks to get even with A but also hopes to make A feel the importance of the absolute respect for liberty and property in a very direct way: by bringing her crowbar and taking out her anger on A's car. Supposing that the value of the car equals the amount of A's debt, A and B are even now. Again, B did not start any aggression. It is hard to ground any objections to B's actions in the logic of the libertarian anarchist belief system.

3 Such a restriction would require further justification. Whether this can be done successfully without violating the fundamental principle is not discussed here.

There are two different ways to argue that B's action must be accepted by A in an anarcho-capitalist world. One option is to assume that B seized A's car as a retribution for her lost money. In this case, B is well within her rights when she takes the equivalent of what A took from her. Now that the car that formerly belonged to A rightfully belongs to B, she can proceed with it as she sees fit. If she wishes to destroy the car, she has every right to do so. (Side problems such as whether the car is parked on A's driveway or whether a clause in the street-use contract signed by all the locals prohibits such an action are disregarded here.)

An alternative way of interpreting the situation is necessary if one disagrees with the assessment that B can defend herself against A's refusal to pay using whatever proportionate means are at her disposal. In that case, B would not have the right to seize A's car. If she nevertheless destroys it, she was not justified in doing so and consequently would owe A compensation. The compensation would roughly equal the car's worth⁴ (again, side problems such as the modalities and payment for the removal of the destroyed car are disregarded). Now the situation is as follows: A owes B the money she borrowed from her. B owes A damages, a sum roughly the same amount of A's debt. A simple mutual cancellation of debt nullifies the dispute.

B might also decide to follow a different course of action. As a firm believer in property rights, their moral status and beneficial effects, she considers the rights violation that A committed to be far graver than the loss of her money. She is very concerned about the future of the free world if the only consequences that rogue individuals such as A face are fewer friends and higher premiums for their security providers.

For the sake of anarchy, B has to stand up for what she believes in. She thinks hard about what an effective course of action might be and comes up with the following solution. In order to teach A a lesson, hoping that nobody else will have to face such an unfavorable situation with A in the future, she approaches A and physically harms A to an extent equivalent in terms of damages to the amount of A's debt. Technically, the same mechanism as sketched above would apply: both owe each other roughly the same amount of money, and a mutual cancellation of debt wipes the slate clean.

As in the example with the car, it would be hard to argue that B initiated the aggression. But even if one does argue this, given the peculiar situation of A and B, it appears that A simply has to accept the painful course of events. It might be argued that self-defense cannot violate rights other than those that were violated in the first place. In the example, this would allow B to go after A's property, but not to harm or kill her or limit her ability to live her life freely.⁵ The theoretical problem these limitations pose is their contradiction of the

4 Obviously, this is a speculation. I do not consider it likely that in a system of private security providers a system of punitive damages would evolve. If it does, both A and B would owe each other compensation for their unjustified actions. B could then take the estimated amount of the respective punitive damages into account when planning her actions.

5 Besides being hard to justify, this idea would also mean that physical aggression could not be used against a mugger in the street who must not be pushed away if all she wanted was the victim's purse and had not yet acted violently.

fundamental libertarian anarchist belief that freedom must not be limited. (This also calls into question the often echoed principle of proportionality, or at least requires additional justification.) In fact, if one would adopt limitations to the right to self-defense as sketched above, one has already made it halfway to the state, funnily without even benefiting from the advantages its institutions hopefully yield.

This is probably even more obvious in another hypothetical situation. Admittedly, this is an extreme example, and hopefully too absurd a hypothetical to ever become reality. The implications are nevertheless worth thinking through. Suppose C and D have a history of conflict. One day, C murders D. D, however, had suspected that one day such a thing would happen, and as a measure of deterrence she had obtained a self-defense assistance contract that included a re-kill guarantee.

This service provides protection of all sorts, from patrol services to armed bodyguards. The goal is to protect the customer or at least reduce harm in the event of an assault. As even the best-trained bodyguards can only do so much, the company also uses deterrence to protect their customers. In the unfortunate case the customer is violently brought to death, the insurance company promises to have the person responsible for the death killed. D signs over the necessary rights to her insurer, pays the fee, and immediately feels that a heavy burden has been lifted from her shoulders. She is happy and can enjoy her life anew. But somehow the message about her insurance did not get through to C (or C does not care about the re-kill threat). After a while, C succeeds in killing D. The next day, C is shot by a contractor of the insurance company.

In the libertarian anarchist framework, D's action is perfectly legitimate. D has every right to buy the goods and services she wants. She can obtain a service to protect her and assist her in exercising the right to self-defense. Also, killing C (or, precisely: having C killed) is perfectly proportionate in this case. One might argue that with D dying, a right to self-defense ceases to exist. But that would be an arbitrary limit to freedom and the right to live one's life according to one's own beliefs, including buying and selling a right and having another person acting on one's behalf.

In other words, in an anarchist society it is legitimate to hire a killer and have someone murdered under certain circumstances. Structurally, the same problem is present when anarchists argue in favor of the death penalty for murder. Usually, this is justified by an appeal to proportionality. Even if we accept this claim, though, it still begs the question of how a third party can be legitimized to kill someone (Kinsella 1992). Interestingly, arguments regarding this question greatly resemble justifications of the state but with tribal elements, as the families of the victims appear to play a decisive role. Nevertheless, unless provided for in the contracts between security providers and their customers, justifying the death penalty in a truly privately organized law system presupposes that the murder victim enjoys the right to sign over her right to self-defense to someone else.

Regardless of the specific justification and the specific circumstances, one fact remains. In a libertarian anarchist society it is, in certain cases, possible to legitimately kill another human being. I consider this to be a gross violation of the right to life and thus inconsistent with the foundational value of libertarian anarchism. In turn, this outcome could only be

prevented if one were to limit the unlimited nature of freedom, which would mean to leave the framework of libertarian anarchism.

As a result, libertarian anarchism either has to accept the inherent possibility of violating its ruling principle or has to violate its ruling principle in order to protect it in reality. In both cases the presumed philosophical purity of libertarian anarchism does not hold. This does not make libertarian anarchism necessarily inferior to a democracy that respects the rule of law, but it does mean that libertarian anarchism certainly cannot be regarded as *per se* superior to one.

5. CONCLUSION

Anarchism is a bold theory. In promoting a stateless society it presents a challenge for political philosophy that is of great avail. But it is neither, as I have argued, *per se* superior to a liberal democracy nor the necessary fallback after the justification of liberal democracies has failed.

To be clear, this is not to say that anarchism is wrong and has been refuted. Proving this claim was never my goal. Rather, my aim was to make clear that libertarian anarchism and liberal democracy are on a par with each other regarding their basic suggestion of how to address the paradox of protecting freedom. As both approaches are imperfect in the sense that neither would actually solve the paradox but would simply give their respective preference priority, they structurally operate on the same level. Therefore, the decision of whether to endorse anarchism or liberal democracy is not one that in principle has already been made and simply must be acknowledged; it is one that still remains open.

Both philosophical and political anarchists often succumb to the fallacy that the state is the only threat to some fundamental value (Dagger and Lefkowitz 2014). Though that might be the case, this claim is not true by virtue of logical necessity. Realizing that there might be threats to the fundamental value in a stateless society as well as in a state prevents one from turning to anarchy as some sort of automatic recourse and thus alters the structure of the discourse. Anarchy cannot be defended by simply showing that the alternatives are not legitimate; rather, it must be justified on its own grounds.

Another possible reason for hesitation in endorsing libertarian anarchism are its inevitable self-contradictions. As long as preferences, opinions or perceptions among humans differ, conflict stemming therefrom will not cease to be a characteristic feature of human societies, regardless of whether their organization is anarchic or democratic. Neither the best intentions nor the most peaceful ethical convictions carry a guarantee for conflict resolution without physical violence or the violation of rights. As discussed above, even if additional safeguards such as a principle of non-aggression or proportionality are observed, situations may arise where the basic principle of libertarian anarchism—the absolute respect for life, liberty and property—can be rightfully violated. This possibility counters

any potential claim that libertarian anarchism is a theory that, among other advantages, is without deontological flaws.

Taking these implications into account, it appears that any talk of libertarian anarchism being morally superior or the result of logical necessity is not based on facts. Instead, it is based on either false assumptions or an image that portrays it as a bolder and purer theory than any other could possibly be. However appealing this image and feeling of avant-gardism might be does not change the fact that while, libertarian anarchism might be convincing, it is not compelling, with respect to either its theory or its feasibility, from a logical perspective.

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SYMBIOSIS AND CAPITALISM⁶

AIDAN COOPER⁷ AND WALTER E. BLOCK⁸

ABSTRACT

Interdisciplinarity is endlessly fascinating. In the present paper we explore one instance of this phenomenon, the overlap between economics and biology. The two are analogous when it comes to cooperation and competition. The benefits of such an exploration include the fact that when scholars come to a dead end in their thinking about one of these disciplines, they can sometimes garner insights from a consideration of how a given issue is studied in the other.

KEYWORDS

Symbiosis, Capitalism, Sociobiology, Bio-economics

6 We thank two very thorough referees for their helpful comments which greatly improved an earlier version of this paper. If we were to acknowledge these referees for each and every beneficial suggestion they made, the paper would become unduly large, so we content ourselves with this one mention, see below. We authors are of course responsible for any errors either of omission or commission that still remain.

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1. INTRODUCTION

“Capitalism doesn’t exist in nature” is a fairly noncontroversial claim, as one is not likely to see voles calculating interest or sparrows watching stock prices. However, the forces that exist in free enterprise are more natural than anything else in nature. Organized systems come into being from constituent parts (organizing effects), organisms coexist and benefit from each other (cooperation), and survival of the fittest occurs (competition) in both realms. One need not look far to see that the natural world has many of the same trends as the market. Capitalism might not explicitly exist in nature, but the market always has and, until all life dies out, always will.

This paper is an attempt to contribute to the discipline of bio-economics, or the synthesis of economics and biology.⁹ We see strong similarities between the two disciplines in terms of cooperation and competition. In one arena, there are business firms; in the other, there are species. They both cooperate and compete with other firms and species, in one case earning profits, in the other surviving. This occurs at both the micro and macro level in both cases. Of course, there are differences; otherwise, we would not have two separate disciplines. These divergences pertain to the desiderata that agents in both worlds try to maximize. In economics, it is the maximization of utility. In biology, organisms act as if they are attempting to maximize fitness, i.e. transfer their genetic codes to the next generation.¹⁰

The emerging discipline by the name of biology-economics (or bio-economics) has existed for a number of years, tasked with synthesizing biology and economics (Mohammadian, 2003). Its purpose has mainly been as an alternative means to prove correlations and causations and thereby inform structural change.¹¹ However, our goal is twofold: 1) to expose unfamiliar readers to this new field, and 2) to expand the field and show that there is perhaps more to this field than originally thought, that the roots of capitalism run far deeper than humanity.

In section II we discuss the parallels between economics and biology insofar as cooperation is concerned. Section III analyzes the similarities between the two fields of study with regard to competition. Objections to the foregoing are considered in section IV, and we make our concluding remarks in section V.

9 The journal *Economics & Human Biology* is a case in point.

10 It might be claimed that there is yet another similarity between the two disciplines. In economics, “money” is the unit of selection, and it needs people and capitalism to thrive. Some might think this constitutes a parallel, or an analogy, with the parasitic relationship in biology. The parasite “money” is trying to exploit its host. But there is not a strong relationship here. If there is a parallel, it is a weak one, or a loose analogy. This is because in economics, money is a means of facilitating mutually beneficial trade; it does not prey upon anyone, except, of course, when the government engages in inflation. But then, the “parasite” is not money; it is the state’s central bank.

11 An example of research into this field can be found in the journal *Economics and Human Biology*

2. COOPERATION

Symbiosis is defined¹² as “any of several living arrangements between members of two different species”. This covers a variety of different relationships (parasitism, mutualism, etc.) and can be observed in every corner of the world, including any place where there are people or animals. Don’t think so? Consider what probiotics are: bacteria ingested to help bodily functions. Humans gain the benefit of preventing or curing illnesses (or symptoms thereof), and the bacteria are able to spread and sustain themselves (Harbolic, 2018). Humans and other animals have an enormous quantity of “good” bacteria in their bodies which help them function. Every human being constitutes an incalculable number of symbiotic relationships with microorganisms as long as he is alive. By considering organisms on a larger scale, such as animals domesticated for agriculture or as house pets, it is easy to see that humanity would very likely not have come so far so quickly without this type of partnership. A widely accepted aspect of evolution is the “Red Queen Hypothesis”¹³, which states that for an organism to survive and compete within an environment, it must adapt and develop to outcompete others (Heylighen, 1993). Symbiosis is a common way in which many organisms have accomplished this over the years. Why spend copious amounts of energy to change entirely when one can take advantage of another organism within the ecosystem? And why would they choose¹⁴ not to do so when there is something to gain for them as well for their own competitive advantage?

Some scholars would describe symbiosis in one word as “exploitation”. This word has an overwhelmingly negative connotation in general conversation, so it should be clarified. The act of exploitation is defined¹⁵ primarily as “to make use of: utilize”. All symbiosis involves this sort of utilization, and how it does this is dependent on the type of symbiosis in play. When the relationship is parasitic, one organism is utilizing the other at the others’ expense. When the relationship is mutualistic, both organisms utilize each other to the benefit of both.¹⁶

Let us now apply some of these concepts to the world of economics. Think of a standard marketplace. There are vendors, there are buyers, and there is typically an exchange of something between the two. This might involve barter or money; it might include borrowing or lending or even renting; it matters not. The important feature is that there is symbiosis here as in the animal kingdom. In very sharp contrast, however, it always necessarily func-

12 As defined by Encyclopedia Britannica, as last updated September 20, 2017

13 First proposed by L. Van Valen in 1973. See Heylighen, 1993

14 We are not anthropomorphocists; animals do not actually purposefully “choose” any such thing. But, they act *as if* they do.

15 Defined according to the Merriam-Webster dictionary, as updated April 2, 2018

16 Under laissez-faire capitalism, only the latter occurs, for all commercial interaction is mutually agreed upon; otherwise, it would not take place. Only the Marxists maintain that “capitalist acts between consenting adults” (Nozick, 1974, p. 163) can be exploitative in the parasitic sense.

tions among members of our species within this institution on which we are focusing. There are no exceptions to this rule whatsoever in the marketplace.¹⁷ The market system encourages competition as a three-party interaction: a company attempts to negotiate a sale to a third party before their competitor can (Hirshleifer, 1978).¹⁸ The result is a sort of race to the bottom: who can offer the best deal? If one company cannot, another surely will do so.

Both parties¹⁹ value what they have less than what they receive in exchange. Were it any other way, why would they ever willingly engage in this transaction? Everyone wants to go into every deal with the belief that they are on the “winning end”. It cannot be denied that this only applies in the *ex ante* sense of anticipations. Each trading partner, at the time of the deal, values more what he receives than what he cedes to the other. In the *ex post* sense, after the purchase or sale is consummated, this is typically true but may not always occur. For example, a man purchases a car for \$5,000. At the time of the sale, he values the automobile at or more than that amount. But, after he drives it off the lot, he may regret his decision, i.e., buyer’s remorse. This is analogous to symbiotic relationships amongst animals. Both species (act as if they) want to survive, and they each value the benefits from their association over whatever it costs.

Harmful parasitic relationships are a different matter. Here, the host species does not go into the relationship willingly²⁰; it is a victim, an aggrieved partner. In nature, when a relationship shifts from mutualistic to harmfully²¹ parasitic, over many years evolution takes its course, and the host species adapts to combat and/or remove the parasite. Applying this to economics, can an exchange that is not agreed upon by both partners still be called an exchange at all? Yes, it can, but only in the sense that the benefit the victim receives is at least in part due to duress or to the imposed conditions. Assume there are business owners in a city. A criminal syndicate has a strong presence there and demands that all firms pay them “protection money”, or else they will vandalize their premises and physically harm them. The business owners are not really going into the exchange willingly, but they still pay the mob because they value their businesses (or even their lives) more than some of their profits. As time goes on, more money is demanded, and the companies can no longer earn profits or even stay in operation. This is akin to the parasitic relationship in biology when the host is unable to cope with the parasite’s consumption: it goes into decline and sometimes dies out, either at the individual level or, eventually, at the level of the entire species.

17 This marketplace “rule” is predicated upon the non-aggression principle and private property rights. In other words, fraud, stealing, the initiation of violence, are ruled out of order in the free enterprise system.

18 This article is only the tip of the iceberg. There are now numerous economic theories and models (endogenous growth theories, evolutionary models, complexity science etc.) also dealing with such issues.

19 Or more, if it is a triangular commercial arrangement. For example, A gives a bicycle to B, B proffers four steak dinners to C, whereupon C completes the deal by handing over to A a keg of beer.

20 Please excuse our anthropomorphism. We only speak poetically here.

21 There do exist ‘beneficial’ parasitic relationships in biology, but for the sake of simplicity we omit them here.

This is not how every negative parasitic relationship ends, though. The alternative is that the organism adapts to the parasite either by removing it, adapting to its presence, or simply going elsewhere. We shall examine the first of these with another example from economics. Suppose there is a large, international company which sells office supplies. Now, suppose that the same company has a deal with a well-known office supply retailer, which has recently been demanding a higher cut. The supply company wishes to stay competitive, and to allow the retailer to charge more would mean its profits would plummet. *Ceteris paribus*, does the supplier continue to do business with the retailer when other options are available? Of course not. They would sever the deal as soon as possible. To continue would be to reduce their competitive edge, which would spell either the decline or the death of the company. Exactly the same considerations apply as in biology.

Thankfully, the more prevalent type of symbiosis paralleled in economics is mutualistic. When two organisms both benefit from their cooperation, they tend to stay connected as long as possible, adapting specifically to each other. If the goal is fitness, the capability of competing and reproducing in an ecosystem, and it can be more easily and efficiently accomplished together, why would either party cease to cooperate? The same occurs in every sector of the market system. Trade is an extraordinary example. Suppose California can produce 10 units of oranges and 2 units of syrup in one year, and Vermont can produce 10 units of syrup and 2 units of oranges in one year (using smaller numbers for simplicity). Each state has in this case a total of 12 units in circulation, but each would have an extreme shortage of one of them. However, suppose too that California could at maximum produce 15 units of oranges and Vermont could at maximum produce 15 units of syrup if they chose not to produce their other respective good. The two states could either keep their production as it currently is or could optimize the production of their strongest good and trade: California would trade 7 units of oranges to Vermont in exchange for 7 units of syrup. Each state now has 15 units in circulation and no longer has a shortage of either good. Both have gained significantly from the exchange and do so just by cooperating and relying on their comparative advantage. Cooperation of this type yields efficiency and thus prosperity.

One of the most famous examples of a symbiotic relationship is that between a shark and a remora (Leisure Pro, 2013). A remora is a small fish that clings to a shark and eats the discarded pieces of prey a shark consumes. The remora is protected from predators by its association with the shark and is always fed so long as the shark is alive. However, the shark is not tolerating this hanger-on out of some principle of kindness or even out of ignorance.²² The remora's other function is to consume parasites harmful to its host, and both species have evolved accordingly: these predators accept remoras attaching to them,

22 There is some debate, however, over whether the relationship between remoras and sharks is defined by mutualism or commensalism, with some sources like the following suggesting the latter: <https://www.nationalgeographic.org/activity/ecological-relationships/>; <https://coralreefs.blogs.rice.edu/2017/03/23/remoras-galore-commensalism-on-coral-reefs/>. If the relationship is defined by commensalism, then that would show that the shark might be willing to tolerate the remora even if it derives no benefit from it.

sometimes even going out of their way to in effect “court” them (Leisure Pro, 2013). The remoras, for their part, have evolved in such a manner so as to act in a complementary way with the shark. If the latter were to stop eating and leaving bits behind for the former, the remora would disassociate itself from this mutually beneficial arrangement; if the remora was not consuming the parasites and helping the shark’s body be free of detrimental organisms, then almost certainly the remora would be the shark’s next meal.

There are complications here, though. There are two types of hosts—temporary and final ones. Parasites might “travel” through many temporary hosts to arrive at their final host by getting the temporary hosts killed and eaten by the final host. However, once they reach their final host, they usually do not kill it (that would mean they die as well).

3. COMPETITION

Not only cooperation, but competition, too, is a term pervasive in both biology and economics. At its core there is a strong parallel between the two sciences. It is relevant in addressing the problem of scarcity, or the problem that there is more desire for resources than there is availability. Matter is not infinite, even in the entire universe; there is only so much matter, and things capable of being valued in an economy are also limited. As long as living organisms exist, there will be a need for competition to determine who, or which entity, gets what, and the economy is no exception to this general rule.

In nature, there is always a limiting factor. Carnivores can only eat as many herbivores (or other carnivores) as are available, and herbivores are limited by the amount of flora. Were there no limiting factors, then growth would always be exponential with no stopping point; the purpose of a living organism’s existence is propagation of its own genetic code, after all.²³ However, there is always a limit to the number of entities in an ecosystem which can survive, and the ones that do must be those which are best adapted to survive. Evolution is defined²⁴ as “the process by which new species or populations of living things develop from preexisting forms through successive generations.” It is the process of each organism’s genes changing to stay competitive in their environment and the evaluation of those changes’ benefits is carried out by natural selection. It is a process which takes place through generations and generations of organisms, and while this may seem slow by human standards, the process is blindingly fast in the cosmic sense. The “Red Queen Hypothesis” is an allusion to *Through the Looking Glass* by Lewis Carroll, and it is the principle that “in

23 We again apologize for engaging in anthropomorphism, but surely our point is clear. If an organism of whatever kind or variety does not do this, it along with the entire species, eventually tends to die out.

24 As defined by Merriam-Webster dictionary, as updated March 30, 2018

this place it takes all the running you can do, to keep in the same place” (Heylighen, 1993). It is a process of constantly changing in order to reserve the right to exist.

Competition in an economy works in a similar way. The limiting resource is the money (or interest) of the consumers. There is only ever so much wealth available at any given time, and thus consumers can only allocate so much of it for goods and services. Consumers wish to gain as much value *ex ante* for their money as possible (the most “bang for your buck”) and so will choose to purchase the products for which the ‘cost to benefit ratio’ is as much in favor of benefit as possible. This means only buying only products which meet this condition and ignoring those which cannot. We include here psychological benefits, monetary considerations, etc. The producers must keep their prices and products/services as appealing as possible, satisfying criteria that the consumer in the market would value most. This is the process of keeping a competitive advantage. As in the case of biology, the market is constantly changing according to the new purchasing patterns of the consumers and the societal landscape, so the producer must always adapt.

We must also distinguish between Darwinian evolution (“survival of the fittest”... not the strongest), on the one hand, and Dawkinsian evolution (genocentrism, “evolution as the process whereby replicators out-propagate each other”) on the other. The implications differ dramatically—while in the first case the aim of each organism is to have as many offspring as possible, in the second the aim is to maximize their quality (with some cutting-edge phenotype).

Having mentioned several similarities between the biological and the economic worlds, we must now consider one divergence between them: in the marketplace, economic freedom is unquestionably the best system to promote prosperity.²⁵ Laissez-faire capitalism consists solely of voluntary trades, all of which necessarily benefit both parties in the *ex ante* sense, and typically also in the *ex post* sense. However, there is no parallel to this finding in the realm of the animal kingdom, where nature is “red in tooth and claw”. When the lion kills and eats the antelope, the former does not violate the rights of the latter. This is erroneous. However, when one man robs another in a holdup, this is contrary to the tenets of capitalism, which is limited to voluntary commercial interactions.

This distinction is the cornerstone of any analysis of this type – a definition of rationality. Being rational in the economic sense might be in direct conflict with being rational in the biological sense. Consider, for example, eating in a restaurant – it might not be economically rational to choose the first restaurant seen, but biologically, it makes perfect sense if the person is starving to death. This discrepancy is in part connected with the timeframe of each concept—while in economics the timeframe is that of each person’s life (and not even that, as we know from behavioral science), in biology the timeframe is significantly longer (hundreds of thousands of years).

25 See on this Gwartney, et al. 1996; Smith, 1776

4. OBJECTIONS

One common objection to capitalism as a system is that it is in direct opposition to the natural world and that its existence is similar to an infection on the planet (Johnson, 2018). Proponents of this view claim that capitalism is causing environmental degradation and that catastrophes and disasters are used by corporations as an opportunity to make money rather than to actually solve a problem. They also hold the belief that pharmaceutical companies are not trying to find new ways to cure diseases but rather to simply treat them in a way to cause consumer dependence (Balboa, 2017). Here, we have the theory that capitalism is incentivizing the destruction of the planet and human health for the sake of profit.

This argument is not only flawed in its approach but also missing key points about how the marketplace, production, and even life in general work. At the outset we can address one massive misconception: that it is more profitable for companies to be environmentally irresponsible. Studies have been conducted for the last decade showing that consumers are willing to pay more for environmentally friendly product options (from “green” companies or just at the product level) (Keating, 2017). Clearly, societal attitudes favor eco-friendly production, and consumers are willing to pay the difference in price. Firms are not only increasing profits by being eco-friendly but also increasing goodwill, reputation, which can be capitalized.²⁶

The second part of the criticism of capitalism involves its approach to problems such as health issues and disasters and the belief is that capitalists’ desire to make a profit is incompatible with their ability to solve such problems. To undermine this contention we need only look to Adam Smith’s (1776) “invisible hand”. The author states as follows:

“But the annual revenue of every society is always precisely equal to the exchangeable value of the whole annual produce of its industry, or rather is precisely the same thing with that exchangeable value. As every individual, therefore, endeavours as much as he can both to employ his capital in the support of domestic industry, and so to direct that industry that its produce may be of the greatest value; every individual necessarily labours to render the annual revenue of the society as great as he can. He generally, indeed, neither intends to promote the public interest, nor knows how much he is promoting it. By preferring the support of domestic to that of foreign industry, he intends only his own security; and by directing that industry in such a manner as its produce may be of the greatest value, he intends only his own gain, and he is in this, as in many other cases, led by an invisible hand to promote an end which was no part of his intention. Nor is it always the worse for the society that it was no part of it. By pursuing his own interest he frequently promotes that of the society more effectually than when he really intends to promote it. I have never known much good done by those who affected to trade for the public good. It is an affectation,

26 For the case in behalf of free market environmentalism, see Anderson and Leal, 1991

indeed, not very common among merchants, and very few words need be employed in dissuading them from it.”²⁷

The difficulty with this objection is that it entirely discounts the possibility that a person may aim at one goal (earning profits) and yet still produce an entirely different one: rendering consumers better off by solving their problems. Indeed, under *laissez-faire* capitalism, the *only* way to earn profits is by satisfying consumers. If they want better health care, then the road to riches for entrepreneurs is precisely to satisfy these desires at the lowest cost.

The issue at hand is not a normative one, wherein we need to force people to solve the problems of our species. Rather, to a great degree, it is a one of incentives. Again, if we think of the nature of symbiosis as “exploitation” (in a mutual manner as illustrated above), we realize that for every innovation there needs to be some incentive to innovate. This is not only in the sense of profit-making in exchange for the energy and resources required for a goal, but also as a sustainability measure. A company cannot develop a product to combat a problem if it does not have the funds to do so; thus, capital must be present and then invested.

The belief that companies see a catastrophe or disaster as an opportunity is therefore not out of the realm of possibility. In fact, logic would dictate that it would always be this way. But an opportunity for what? There are two options: to help people, or to make money. However, these are by no means mutually exclusive; in fact, the *only* way²⁸ to attain the latter is by means of the former. Hurricanes have always existed in nature, yet while one might have spelled doom for an entire civilization at one point in history, they are relatively minor setbacks for society nowadays. The United States has been hit by many tornadoes over the past century, and our capability to respond and rebuild quickly is effectively due to one key reason: the free enterprise system. Building materials are stronger, technology is better, and supplies are cheaper (Boudreaux, 2006). This is because there has been competition to create the better product in the relevant industries, increase profits, and make consumers happier with superior products at lower costs. When a disaster strikes, there is profit to be gained from it. But this is not in a sense of vultures fighting over a kill; rather, it is based on cooperation.

It is time, then, to push this idea further. Why is there the widespread assumption that the goal of a pharmaceutical company would be to be *unsuccessful*? This is yet again founded on a key misunderstanding. Why is the polio virus nonexistent²⁹ in the United States? Because vaccines have existed for decades. The push to stop this dreaded disease was an ambitious initiative that took enormous capital in order to be achieved, and eventually it was. In 1952,

27 Smith, Adam. [1776] 1979. *An Inquiry into the Nature and Causes of the Wealth of Nations*, Indianapolis, IN: Liberty Fund; B.IV, Ch.2, Of Restraints upon the Importation from Foreign Countries in paragraph IV.2.9. see also on this: Childs, 1977; Diamond, 1987; Flew, 1987; Garrison, 1985

28 That is, under *laissez-faire* capitalism with no government intervention into economic matters, not via crony capitalism, where bailouts, subsidies, artificial advantages vis-a-vis competitors occur all too often.

29 The United States was officially declared polio-free in 1979 (Ochmann & Roser, 2017)

just a couple years before the vaccine was developed, there were well over fifty-thousand cases of polio in the United States (Ochmann & Roser, 2017). And how many since then? The number has continued to decrease until in 2010 it officially hit zero (Ochmann & Roser, 2017). To be clear: a cure was not developed out of sheer moral goodness (though some amount of this was surely present); a cure was *sold*. Those who developed the cure were responsible for saving an untold number of lives and could have gained a fortune from it.³⁰ Is that not ethically just? Do we not want to be able to reward those who can do this amount of good for our society on such a grand scale? Perpetual treatment of polio symptoms could have made money as well, and it did, but not nearly as much as did the cure. To believe that it is more profitable to produce treatments for symptoms or medications which keep the patient dependent forever³¹ is clearly not historically justified³². And to maintain that these sorts of cures will come out of absolutely nowhere without any incentives is also optimistic to the point of delusional madness.

Why do we not have cures for everything then? Seemingly, that is the rebuttal, as though instant gratification is a justification. The reason is that science is simply not at that point yet (Shaywitz, 2013).³³ We are further along than ever before in history³⁴ but not nearly done. Scientific growth has exploded since the turn of the millennium, and there is no evidence of any slowdown³⁵. Necessity breeds innovation, and the need to stay competitive is a strong impetus thereto in every industry. To say that capitalism would leave all of humanity as slaves to pills forever is now even more implausible.

There is a further complication to all of this: the problem of intervention. A common environmental concern³⁶ is that human involvement risks destroying species or driving them from their natural location into ones where they become invasive, leading to that ecosystem's collapse. What is at play here often is known as a "confounding variable", used in psychology to describe some extra factor or implication which affects outcomes and is often unseen in the original design (Spunt, 2011). As science develops, it becomes more adept at finding and addressing these confounds, either by redesigning studies or by examining why the outcomes did not turn out as expected. It can be considered one part ignorance, one part oversight, and both can be cured. And although in an extreme sense human interaction with the environment can have destructive consequences, at the marginal level it need not be this way, especially as "being green" becomes more viable and socially valued.

30 Actually, Jonas Salk, the inventor, purposefully achieved far fewer riches from his great contribution to society than he otherwise could have. See Quora, 2012

31 This profit-making technique will always be subject to potential defeat as long as competition is allowed.

32 See Kim, 2018.

33 We live not only in a "vale of tears" but also in great ignorance, relative to our desires for knowledge.

34 Knowledge is cumulative.

35 See MacDonald, 2017

36 Free market environmentalism is not a contradiction in terms. See fn. 14, *supra*.

A biological example is the wolf restoration project in Yellowstone National Park³⁷. In the 1990s, a massive initiative was undertaken to reintroduce wolves to the park, the population of which had drastically decreased to near extinction in the region when they had been hunted and killed in order to protect domesticated livestock. However, what this meant was that the previous prey of the wolves was no longer being controlled sufficiently, and the biodiversity decreased, causing major problems in the region. Intervention in the natural system was nearly the cause of an extinction. The takeaway from this is not that protecting livestock is a bad thing, nor is human involvement in the environment. The takeaway, rather, is that the wolves should not have been artificially introduced into the area in the first place and later protected.³⁸ If it is desired to preserve wolves, a dangerous predator, this should be done on the property of those who wish to do so. Allowing them to “run free” is a very serious violation of the non aggression principle; it constitutes an invasion, akin to pollution (Rothbard, 1982). The old phrase “If it ain’t broke, don’t fix it” comes to mind in this context.

How could this be applied to the market system? Governmental intervention into the market typically has a deleterious effect. In the Yellowstone example, the removal of wolves was beneficial to some species (at least in the short term), but was detrimental to the entire ecosystem. A similar argument can then be made for government influence on the economy: there are sometimes beneficiaries in the short term, but it is detrimental overall long-term. This is either due to it setting a negative precedent, being unjust in some way, or upsetting the natural market forces.³⁹

5. CONCLUSION

Now that the parallels between economics and biology have been drawn and at least briefly examined, it is pertinent and reasonable to ask the most important question: What can we do with this knowledge? Does it simply represent a correlation between the two fields, or does this say something more about us? It has been pointed to *ad nauseam* that the thing which separates humans from other mammals is the capacity for reason, yet it has also been shown that many mechanisms and experiments which work with animals also do so with regard to humans (conditioning in psychology, for example)⁴⁰. This is entirely speculative,

37 Project detailed by the National Park Service, link found in references

38 See critique of Baden, who advocates this policy, in Block (2010)

39 For the claim that there are no “market failures,” see Anderson, 1998; Barnett, et. al, 2005; Block, 2002; Callahan, 2000; Cowen, 1988; DiLorenzo, 2011; Guillory, 2005; Higgs, 1995; Hoppe, 2003; MacKenzie, 2002; Rothbard, 1985; Simpson, 2005; Tucker, 1989; Westley, 2002; Woods, 2009A, 2009B

40 See on this Mcleod, 2014

but if the present analysis is correct, it seems as though the blueprints for the free market system may have been hardcoded into not just humanity but all living things. Were we predestined to arrive at the capitalistic model from the beginning? These claims appear to be a bit romantic in their current state, and there would need to be more study into the field, but there definitely seems to be some implications that in a way, capitalism does exist in nature. And it very well may be the key to our future.

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LIST OF ARTICLES

Tomáš Frömmel: Response to Tullock: Why Do Entrepreneurs Not Study the Austrian Business Cycle Theory? A Game Theory Approach	5
Igor Wysocki, Walter E. Block and Łukasz Dominiak: Rothbard's Welfare Theory: Some Support	18
Dagmar Schulze Heuling: Challenging the Roads to Anarchy.....	36
Aidan Cooper and Walter E. Block: Symbiosis and Capitalism	58