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The prison in economics: private and public incarceration in Ancient Greece

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Abstract Recent histories of Ancient Greece describe a transition from customary law to public criminal justice between 800 and 400 B.C. This narrative contains three pieces of evidence against the presumption that prisons are a public good and government must provide incarcerations. First, before the rise of a formal government, Ancient Greece had a functioning system of criminal law enforcement. Second, the timeline surrounding the rise of government institutions in Ancient Greece originated with Solon's penal reforms. Lastly, the rise of a government system was more the result of private rather than public interest.

Keywords Public goods · Market failure · Prisons · Athens · Economic history

JEL Classification N4 · N0 · P5

> *I think we should try to develop generalisations which would give us guidance as to how various activities should best be organised and financed. But such generalisations are not likely to be helpful unless they are derived from studies of how such activities are actually carried out within different institutional frameworks. Such studies would enable us to discover which factors are important and which are not in determining the outcome and would lead to generalisations which have a solid base. They are also likely to serve another purpose, by showing us the richness of the social alternatives between which we can choose.*
>
> –R. Coase (1974: 375).

> *He who thus considers things in their first growth and origin. . . will obtain the clearest view of them.*
>
> –Aristotle (*Politics*: 24–25).

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1 Introduction

Economists typically treat prisons and their functions (retribution, incapacitation, rehabilitation, deterrence and the maintenance of law and order) as a public good—they presume that prison-services are both nonrivalrous and nonexcludable. This traditional analysis also tends to imply that government is required for society to produce prisons efficiently. On the other hand, the implied links between public goods, market failure and government intervention have been challenged significantly since their traditional presentations, perhaps most prominently by Ronald Coase's (1974) now famous article "The Lighthouse in Economics." By illustrating the functionality and efficiencies of private lighthouses within The British Lighthouse System, Coase seriously weakened the presumption that lighthouses are inherently a public good.[1] History exposed a dynamic quality of private enterprise. Profit-seeking entrepreneurs innovated techniques to overcome common-pool problems.

Since Coase, public-goods theory has been updated to imply a narrower application of government correctives (Cowen 1991; Schmidtz 1991; Holcombe 1997). Nonrivalrousness does not necessarily imply that a good will be under-provided. Similarly, public goods theory alone does not assign a specific type or quantity of government intervention nor does it imply the efficiency thereof. This paper assesses public goods theory and its application to the social provision of incarceration by examining the actual historical development of public prisons in Ancient Greece.

Several government services have been similarly investigated as lighthouses, in effect challenging the presumptions that they inherently suffer from public goods problems.[2] Criminal justice services also have evolutionary histories that include a wide range of alternative institutional arrangements.[3] Within this growing body of research, prisons and the social provision of incarceration have received less attention.[4] Where Friedman (1979, 1989) and Benson (1990a, 1994, 1998b) have applied a Coasian method to assess the various components of the criminal justice system, this paper pays specific attention to prison services.

[1] Van Zandt (1993) and Bertrand (2006) have taken issue with Coase's historical accuracy, while Barnett and Block (2007, 2009) maintain the case for the efficient private provision of lighthouses. Bertrand (2009) has replied.

[2] Such research includes but is obviously not limited to the following. On the provision of roads see: Klein (1990) and Benson (1994: 262–269, 2005). On the provision of social safety nets see: Beito (1999). And on the provision of education see: Tooley (2005).

[3] Most recently Ellickson (1991), Bernstein (1992), Clay (1997), Greif (1989, 1993), Kranton (1996) and Milgrom et al. (1990) have investigated the potential and limits of self-enforcing exchange without government law enforcement. Alternative institutional arrangements for the various components of the criminal justice system have been outlined in turn. On law, rights and ownership see: Benson (1998a, 1990a: 11–42), Demsetz (1967), Dixit (2004), Friedman (1989: 116–120), Hayek (1973: 72–143), Hume (1739: 484–501), Leeson (2009a, 2009b), Menger (1871: 96–97) and Rothbard (1970: 267, 1973: 227–234). On the provision of police see: Barnett (1986: 30–34), Benson (1990a: 211–213, 1994, 1998b: 280–281), Friedman (1989: 114–116), Rothbard (1973: 201–205, 215–222), Davies (2002) and Tinsley (1999). On courts and adjudication see: Barnett and Hagel (1977: 222–234), and Stringham (1999). On security see: Friedman (2006) and Molinari (1849).

[4] Friedman (1989: 171, 191) explains that the optimal social provision of punishment remains unresolved. Friedman (1989), Rothbard (1970, 1973, 1985), and Benson (1990a, 1998b) all describe the potential of private institutional arrangements for the provision of the criminal justice system as a whole. Prisons are surveyed briefly within such texts (Rothbard 1970: 223–227 and 1985: 85–96; Benson 1990a: 352–364, 1998b: 285–318; Barnett 1986).

Though significant exceptions do exist (Benson 1998b for one), economists generally assume that the production of criminal law and law enforcement (including criminal punishment and incarceration) all suffer from public goods problems. The topic of contemporary "private prisons,"—where private firms are contracted-out through state funding to build and manage prisons (Tabarrok 2003)—has received significant attention, but such studies often presume the relative efficiency of incarceration (Avio 2003). Current debates over prison contracting correctly identify competition as a source of technological efficiency, but they rarely identify causal mechanisms that may promote dynamic or systematic innovation comparable to that which Coase alludes—matters of economic efficiency (Benson 1993a, 2003).

There are two ways that prisons have been considered a public good by economists. The first presumes that the historical provision of criminal law enforcement by central government authorities arose in causal lock step with the origins of modern civilization (Spierenburg 1991; Friedman 1993; Morris and Rothman 1998; Perrin and Coleman 1998; Johnston 2000; Geltner 2008). Without governments as final arbiters in criminal cases, unbridled self-interests would be overly punitive.[5] Without state-sponsored law and law enforcement, advanced, complex and repeated exchange would be impossible (Glaeser et al. 2001). The second way economists conceptualize prisons as a public good: individuals are vulnerable in person and property to the effects of crime, theft, murder, rape, fraud, etc., thus they desire security as a good produced by the institutions of criminal justice (police, courts and prisons). Producing security creates imperfect incentives, incomplete or asymmetric information and thus sub-optimal provision (McKenzie and Tullock 1975; Landes and Posner 1975; Cowen 1992).

Ancient Greece is a useful case study for assessing these treatments of prisons as a public good. The most recent social histories of Ancient Greece describe a transition from a legal system consisting of private torts enforced by private means towards a system of state-defined criminal law enforced by public prison institutions between 800 and 400 B.C.[6] This historical narrative contains three pieces of related evidence that stand against the presumption that prisons are necessarily a public good or that government authority must provide incarceration. First, before the rise of formal governmental criminal law enforcement, Ancient Greece had a functioning civil society. To the extent that private property rights were enforced, criminal punishment was provided functionally and effectively by the private sector. Second, the historical timeline surrounding the rise of government institutions in Ancient Greece originated with Solon's penal reforms. Prison construction and penal policy arose before other portions of the government-controlled criminal justice system, rather than the other way around. Lastly, the rise of a government run criminal justice system was more the result of private rather than public interest.

The remainder of this paper is organized as follows. Section 2 surveys traditional perspectives of economists on prisons as public goods. Section 3 presents source material from classical literature and summarizes written opinion by contemporary historians of Ancient Greece. Section 4 offers concluding remarks.

[5] Social scientists of various fields such as Jung (1990), DiIulio (1991), Christie (1993), Sparks (1994) and Ryan (1996) all argue that punishment is purely the right of governments—there is no appropriate or efficient role of private markets.

[6] Similar transitions have been observed in other primitive legal contexts, especially the Anglo-Saxon system (Benson 1988, 1989a, 1989b, 1990a, 1992, 1994). It is important to note that in such transitions the "criminal law" as an entity of formal legislation typically emerges as a separate body of legislation in conjunction with the rise of the state, but that is not to say that the functional aspects of the criminal law (as a social norm) were absent before the rise of the state. Calhoun (1927) and Cohen (1995) explain this for the case of Ancient Greece.

2 How do economists treat prisons?

Though classical economists were concerned about a lack of social order without government, several were willing to allow the role of the state in criminal law enforcement to remain ambiguous.[7] Adam Smith (1763) argued that the public will was an insufficient incentive to maintain the operations of punishment; instead "[t]he revenge of the injured which prompts him to retaliate the injury on the offender is the real source of the punishment of crimes (104)". John Stuart Mill (1848) though concerned about protection against force and fraud, did not conclude an absolute role of government authority, "people might be required to protect themselves by their skill and courage even against force, or to beg or buy protection against it, as they actually do where the government is not capable of protecting them (800)". Perhaps Mill's assessment of prisons—like his of lighthouses—resulted from his own observations. "Nothing is done to make the prisoner better; and when there is nothing doing to make him better, it is pretty certain, that there is enough doing to make him worse (Mill 1826: 105)". Prisons sound more like public "bads" than public goods. Economist Edwin Chadwick (1829), viewed criminal justice services "as [an] evolved publicly provided good with open-access common pool characteristics (Ekelund and Dorton 2003: 271)"; for Chadwick, it was the institutional context that those services existed within and the changes thereof that exaggerated such common pool problems.

Most post-classical social scientists begin from the assumption that prisons are the appropriate domain of the state. Paradoxically, it was not a consequence of *under* but *over* provision that led theorists to reserve criminal punishments to government authority. Legal scholar Randy Barnett (1986) summarizes this opinion,[8] "[w]hen one seriously compares the potential responsiveness of each system [government v. market-based criminal punishments]... Competing jurisdictions would most likely be too responsive to their customers... creating serious social disruption (40)". Criminal punishments are presumed to be a necessary function of the state if private markets are incapable of producing punishments amidst constraint and proportionality.

By the 1950s through the mid 1980s prison provision was the sole responsibility of government authority and presumed as such because of traditional public goods arguments. Take Samuelson (1964) who Coase (1974) summarized directly, "[h]e gives as 'obvious examples'... [which by their nature cannot appropriately be left to private enterprise] the maintenance of national defense, *of internal law and order, and the administration of justice and of contracts* (358, italics are mine)". McKenzie and Tullock (1975) explain how producing crime protection and punishment confronts incentive problems. Deterrence and incapacitation produce positive externalities thus free riding, under-provision and potential market unraveling. Though payments and benefits could be individuated and privatized, such institutional changes are presumed to be too costly to implement (66). Recently, Avio (2003) had to assume "the relative efficiency of incarceration as a criminal sanction (11)" as given in order to survey the past literature.

[7] Classical economists were so vocal on the topics of crime and punishment that their selected writings essentially form the classical school of criminology (Bentham 1787, 1830; Beccaria 1764; Montesquieu 1752).

[8] The same position was held by Hobbes (1651), Locke (1690) and recently Nozick (1974), "[m]en who judge in their own case will always give themselves the benefit of the doubt and assume that they are in the right. They will overestimate the amount of harm or damage they have suffered... punish others more than proportionately and to exact excessive compensation (11)".

With the rise of the "private" prison[9] movement in the late 1980s (Logan 1990; Bowman et al. 1993; Bidinotto 1994), traditional debates concerning the balance between governments and markets in providing criminal punishments became more focused on matters of technological efficiency. Some were concerned that contracted prisons would be a *race to the bottom* (Hart et al. 1997). Levitt (1996) discovered that after release, inmates were inclined to commit more crime if incarcerated in an overcrowded facility. On the other hand, some investigations have favored contracted prisons (Hatry et al. 1993; Lanza-Kaduce et al. 1999; Cabral et al. 2009). Avio (2003) summarizes that contracted prisons appear no worse and sometimes marginally superior. Or as Tabarrok (2003) phrases "you get what you contract for (1)". But such empirical comparisons and their marginal results have yet to persuade social commentators who argue that there is no role for markets in the provision of criminal punishment (Reiman 1979: 217–220; Christie 1993).

Had debates surrounding lighthouses undergone a similar history, Coase's major insights may have never been realized. If before Coase had written on the topic, lighthouses had been assumed to be public goods, then governments contracted with private companies to build and manage lighthouses, and then governments retained the decision rights as to where lighthouses would be placed and how often they would be used. Finally, then empirical investigations measured the productive output levels of private versus public lighthouses (costs of operation, brightness of light, number of shipwrecks, etc.). In such a situation, the findings would give insight as to the technological efficiencies of contracted versus public lighthouses but only within a static institutional surrounding. Coase's historical work was necessary to bring institutions into the fold. Such studies of technological efficiency would not have uncovered the dynamically adaptive aspects of private sector lighthouses. Does the private sector possess a similar capacity to provide criminal punishments and prison services?

3 Incarceration in Ancient Greece

3.1 From private to public incarceration

The rise of government sponsored criminal law and criminal law enforcement in Ancient Greece is a useful case study for assessing the role of government in providing criminal punishment. Calhoun (1927) writes, "[f]or the first time in the history of the Western world, a political government has by its enactments defined crime somewhat as it is defined today, and has provided machinery for the punishment of crimes by the body politic (7)". There is a general time-line of criminal law in Ancient Greece agreed to by historians. Between 800 and 400 B.C., Athens was the birthplace of the *polis*—the city state (Ehrenberg 1937; Austin and Vidal-Naquet 1972: 49–52). In the earliest times, Greece was a land of small cities and towns connected by geography rather than politics (Finley 1953a: 3–23). During and after the reign of the Archons, Athens in particular, became a formal political state. Draco established some of the first written codes of law (approximately the seventh century B.C.), followed by Solon whose quantity and influence on formal legislation was unprecedented. After Solon's reign, the political and legal climate of Greece was never the same.

By viewing two of the most commented on legal sources from Ancient Greece, one sees a clear description of this change. The first is the description of Achilles' shield in

[9] The term "contracted-out" is a better description of contemporary "private" prisons as explained by Tabarrok (2003).

The Iliad—representative of oral tradition, culture and ideological opinion pre and circa 800 B.C. (Kirk 1964; Combellack 1965).

> In the assembly place were people gathered. There a dispute had arisen: two men were disputing about the recompense for a dead man. The one was claiming to have paid it in full, making his statement to the people, but the other was refusing to receive anything; both wished to obtain trial at the hands of a judge. The people were cheering them both on, supporting both sides; and heralds quieted the people. The elders sat on polished stones in a sacred circle, and held in their hands sceptres from the loud-voiced heralds; with these they were then hurrying forward and giving their judgments in turn. And in the middle lay two talents of gold, to give to the one who delivered judgment most rightly among them (*Iliad:* 18. 497–508).[10]

The passage describes a privately motivated Greek justice system. Individuals voluntarily chose third party arbitration over violent conflict. For-profit-judges competitively drafted rulings to reach mutually agreeable terms and the general population served as a reputational check upon judges, plaintiffs and defendants. Compare the criminal justice system of Achilles' shield to Socrates' trial (approximately 399 B.C.),

> Shall I choose instead of [Meletus' proposal for a penalty] something from those things which I know well are bad, penalizing myself with such a thing? First of all, how about with imprisonment? And why is it necessary for me to live my life in prison, enslaved to every successively appointed magistrate? Maybe I should be imprisoned for a financial penalty until I pay? (Socrates in Plato's *Apology*: 37b-c).

Socrates has committed a crime against the state and is thus accused by the state rather than an individual person. His punishment is defined as a period of time to be spent in prison rather than a debt to be paid to a defendant. Socrates even refers to the traditions of the past as more reasonable compared to the penalties that the government is about to levy against him. Socrates' trial is just a partial description of an entire justice system more controlled by government than what existed in earlier times.

3.2 The private sphere produced functional criminal law enforcement

To explain the change in Athenian law, it is important to have a clear understanding of how justice in Greece operated before Solon (approximately 800–600 B.C.) (Milne 1943; Rihll 1989).[11] There are only four source materials available to describe Greek justice before the archaic[12] period: *The Odyssey* and *The Iliad* by Homer, and *The Theogony*, and *Works and Days* by Hesiod. None are explicitly concerned with describing law nor law enforcement, but historians have reconstructed a general vision of Greek society and its legal institutions

[10] This passage has been interpreted as Homer presenting a dichotomy between the peaceful imagery of the justice process represented on the shield in contrast to the bloody war going on around it (Scully 2003). Despite particular debates concerning the passage's interpretation, it is generally inferred that the individuals described on the shield prefer peace to violence (Sidgwick 1894).

[11] Cohen (2005: 3) has noted that Gagarin (2005) agrees with Finley's (1953a) thesis, "[t]here was no 'Greek law' in terms of common underlying legal ideas and basic principles of substantive law…" apart from coexisting norms of separate cities. Such norms across cities interacted and influenced the content of one another.

[12] *Archaic* literally refers to the time period of the ruling Archons (early 600s–late 400s B.C.), including Solon (638–558 B.C.). More commonly archaic refers to the eight through sixth centuries B.C. *The Hellenistic* period refers to the late 300s till mid 100s B.C. (Howard 1981; Jeffrey 1976).

nonetheless (Finley 1953a, 1994: 213–245; Kirk 1964; Combellack 1965; Austin and Vidal-Naquet 1972: 37–47).

Interpreted through these sources, Homeric Greece looks akin to a spontaneous legal order. Until Solon's administration, Greek justice functioned without public police, public courts, and without publicly operated prisons. Ancient Greeks privately met their needs for law enforcement (Allen 1997, 2000; Long 1996, 1998; Hunter 1994; Finley 1994; Freeman 1963; Cohen 1992). Rather than private justice devolving into disorder and violent conflict, the Ancient Greek legal system was both functional and effective at enforcing personal and private property rights.

In primitive societies (Hume 1739: 484–501; Menger 1871; Demsetz 1967; Posner 1980, 1981; Johnsen 1986; Baden and Thurman 1981; Benson 1988, 1989a), private property rights typically emerge as a commonly accepted social norm, specifically because they avoid conflict and in turn facilitate trade (Boettke and Coyne 2007). Over time societies that adopt private property rights displace those that do not. Thus economic historian Bruce Benson (1989b, 1990b, 1991, 1993) has characterized such systems as contractarian, voluntary, functionally efficient and robust at serving the various intentions of their community members. Private property rights and contract arbitration were similarly the foundation for criminal laws in Ancient Greece (Calhoun 1927; Cohen 1995).

MacDowell (1978: 10) explains that according to the epics, cases concerning property rights were the most common origin of legal disputes in Ancient Greece.

> In one passage in *The Odyssey* it is regarded as normal and acceptable for a man to get hit while fighting to keep possession of his cattle. 'Indeed, there is no sorrow or grief in a man's heart when he is hit while fighting for his own possessions, for cattle or white sheep; whereas… (*Odyssey:* 17. 470–3)' And in *The Iliad*… 'Just as two men contend about boundaries, with measuring-rods in their hands, in a common field, and fight about equal shares in a small piece of ground, so… (*Iliad:* 12. 421–4)' (MacDowell 1978: 11–12).

Austin and Vidal-Naquet (1972) similarly point out that social identities, social conflict and the key social changes of Ancient Greece were all dominantly defined by land-ownership and changes thereof (25).

Just as private property rights emerge as a consequence of self-interest, so do other facets of criminal legal procedure (Benson 1992). Foremost, the usage of third party arbitration as a means to avoid violence is a significant stage in developing functional criminal law. Though not a criminal trial, when determining the winner of a bet between Idomeneus and Aias, Homer writes: "[c]ome on, let us wager a tripod or a cauldron, and let us both make Agamemnon son of Atreus the judge of which mares are leading, so that you may learn and pay up (*Iliad:* 23. 485-7)". And Hesiod, explains that kings and elders were chosen as judges because they had reputations for being fair and their decisions mutually agreeable to those involved.

> All the people look to him as he decides rights by straight judgments. Speaking surely, he skillfully ends at once even a grave dispute. This is the function of prudent kings: for people who are harmed in their dealings, they bring about restitution easily, talking men over with soft words. (*Theogony:* 81–90).

MacDowell (1978: 13–18) agrees, that third-party adjudication in Ancient Greece had spontaneous origins. As the participants in a dispute weigh their subjective losses higher than others they each recognize that tendency in the other. By outsourcing judgment, both sides

avoid violence because the arbiter has no such motive. As mentioned in the description of Achilles' shield, reputation and competition help guide good outcomes. Profit-making judges succeed, while others are either compelled to change their rulings or be outcompeted. Judges wish to decide cases that are mutually agreeable to those involved and appease the observing public to maximize present and future profits.

In such a context where property disputes are continuously taken to third party arbiters, there develops common values (prices) for resolving "non-criminal" conflicts (accidental damages, contractual interpretations, and contract defaults). The liability for slaughtering someone else's livestock is differentiated in severity by estimating the value of the livestock—oxen are likely more valuable than goats (Parisi 2001). What in modern terms would be considered "criminal" violations such as murder, rape, kidnapping, etc. can then benchmark the process of ordinary contract disputes. Thus punishments for primitive criminal offenses take the form of financial restitutions to be paid by losers of trials to winning victims (Barnett 1977, 1980; Benson 1996).

Restitution is yet another aspect of criminal law with spontaneous origins. In Ancient Greece under the reign of Draco, the death penalty was awarded for almost all criminal offenses (MacDowell 1978: 41–43; Plommer 1969). Given a reliable expectation of being sentenced to death, a guilty criminal is motivated to bargain any amount of wealth that he values less than the sum of his life (presumably high). Victims are simultaneously motivated to accept tangible returns that they perceive to be more valuable than administering the death penalty. If the personal gains of restitution outweigh the intangible losses to the victim from bucking the social pressure to enforce a death penalty—or if social perceptions instead recognize a value to human life and productivity—then restitution systematically displaces physical punishments and death penalties.

Amidst restitution-based criminal justice systems, there have emerged accepted prices for wide ranges of offenses, from menial to severe—theft, murder, rape, kidnapping, etc. MacDowell (1978) surveys a variety of crimes in Ancient Greece and their specific financial restitutions. In the Anglo Saxon legal context the *wergeld*, literally translates to "blood price" or "man price." It represented the value owed by a criminal to a deceased victim's heirs. The amount represented his status and economic productivity in society (Benson 1990a, 1994).[13] Just as oxen are more valuable than goats, so too are brothers over servants and or distant cousins. Restitution operated with comparable efficacy and quantifiability in Ancient Greece. Again referring to the scene depicted on Achilles Shield, Calhoun (1927) writes, "[t]he homicide itself is not in issue; the question before the 'court' has to do solely with the payment of the blood-price, and has been voluntarily submitted to arbitration exactly as any other private and personal difference might have been submitted (18)". And the following passage often referred to as the motivation behind the war and central plot of *The Iliad*, "[a] man accepts recompense from the killer for his brother or his son who is dead and so the one remains in his own country after paying a great amount, and the other's spirit and price are appeased when he has received recompense (*Iliad*: 9. 632–636)" (see also MacDowell 1978: 12–13).

Classicists have identified Homer's intent to portray Achilles suffering *hubris*. His stubborn refusal to accept restitution in effect launches the war. The prominence of *hubris* as a significant term in Greek culture and law speaks to both the established and functional nature of customary law as a mechanism for criminal law enforcement, and the degree of specificity that restitution must have taken. How can the judgment be made that someone is

[13] Friedman (1979) offers an actual menu of prices attributed to criminal acts in Iceland sometime before the thirteenth century and also cites Seebohm (1911) as a survey of the Anglo-Saxon *wergeld* system.

stubbornly bucking the norm unless first there is common understanding that the norm exists and second a common understanding as to the importance that the norm holds (Cohen 1991; MacDowell 1976; Fisher 1976, 1979; Cairnes 1996)?

Even though restitution had spontaneous origins and was commonly accepted in Greek society, individuals "self served" their needs for practical law enforcement including the extraction of restitution via criminal punishments.

> As far as we can tell, public penal institutions in Athens, up until the time of Draco made no provision for imprisonment, leaving that in private hands. That power was mostly employed through debt slavery. When Solon became Archon in 594/3, great numbers of Athenians were in bondage to their fellows or had been sold abroad. Thus, the concept of the utility of imprisonment was wholly wrapped up in its capacity to provide an efficient return of the creditors losses. And this sense of utility was wholly private (Allen 1997: 127).

In support of Benson's (1989b, 1990b, 1991, 1993b) contractarian and voluntarist characterizations of primitive societies, indentured servitude in Greece was used as a commitment bond for terms of service. Poorer Athenians borrowed against their future labor hours because they often lacked other forms of collateral.[14]

Restitution as a criminal punishment was constrained and limited in Ancient Greece. Plaintiffs and defendants strategically drafted their settlements to be most likely to win the case. For example, "sentencing by the process of *timeoi* required that the jury vote between the penalty proposed by the litigant and the penalty proposed by the prosecutor, some scholars have argued that it was not possible for the jury to come up with a third option (Allen 1997: 125)".[15] Philosopher Roderick Long (1996) remarks that this arrangement had profound effects in avoiding inefficiencies typical of modern systems. "Prosecutors were prevented from proposing excessively harsh penalties by the fear that this would make the jury more likely to choose the defendant's milder proposal; defendants were likewise prevented from proposing excessively mild penalties by the fear that this would make the jury more likely to choose the prosecutor's harsher proposal (8)". Other creative constraints on interpersonal conflicts developed to restrict the frequency and level of criminal accusations. For theft, the typical penalty was double the stolen amount. Such a reward could provide a moral hazard for false accusations and evidence, but instead, accusers could only search the house of the accused while naked.[16]

Restitution in turn prompted the most leveling check on the severity of criminal sentences—an engaged citizenry. Similar to the effect pointed out by Benson (1990a, 1994), Barnett (1977, 1980) and others—restitution provided an explicit incentive for individual victims and community members to be engaged and active participants within the criminal legal process. With the expectation that one would recover his losses and be compensated by his aggressor through money or labor, victims in Greece had a tangible motivation to invest

[14] Two conditions prompted Greeks to use indentured service as a contractual bond. First, there was a population surge that has been dated as early as 800–700 B.C. (Millet 1991; Austen and Vidal-Naquet 1972; Finley 1953b; Starr 1977). Greece's heightened population was then followed by adverse weather conditions and subsequently famine. Unable to produce sufficient food for both sustenance and trade, peasant classes borrowed against their land and persons (French 1956; Garnsey 1988; Sallares 1991).

[15] See also Saunders (1990: 76). In cases that were "*timeoi*, 'needing an estimate' ... the prosecutor and defendant each mad an estimate (*timesis*) of the penalty to be awarded in case of conviction, and the court had to adopt one or the other".

[16] David Friedman brought this example to my attention.

time, energy and resources in detecting criminals, bringing them to trial, enforcing contracts and continuously participating in the legal process. Thus civic engagement checked both individual vengeance and government power. Todd and Millet (1990) explain that "[i]n everyday political life the *demos* (people) exercised the *kratos* (sovereign power) in all three spheres of legislation, executive action and jurisdiction." Back to Achilles' shield: notice that the case is heard in the town square and Homer implies that the ruling was subject to acceptance or denial by the observing public (Rhodes 1972: 147; Sinclair 1988: 82–83). While any individual judge could perhaps gain a lump sum reward by corrupting his decision in exchange for a bribe, the judge's reputation stood as a significant cost.

Before state sponsored justice there was most likely a reciprocal relationship between spontaneous legal institutions and their functional results on the one hand and the general levels of social and economic freedom in Ancient Greece on the other.[17] Allen (2000) writes, "[t]hose private and public actors who participate in a society's system of public punishment are forced to enter into, to use, and to shape its discourse of justice, desert, and fairness. Modern citizens are no longer obliged to participate in these sorts of discourses (5)". Long (1998) quotes Hunter (1994):

> Private initiative and self-help were fundamental to policing Athens. This means that Athenian citizens participated to an unprecedented degree in the social control of their own society. Such a system of policing has much to tell us about the way in which that society functioned. For it indicates yet another sphere in which Athenians were bound to each other by ties of reciprocal dependency. In order to carry out the tasks of policing and law enforcement, they required a dependable network of kin and friends... This helps to explain why Athenians tried at all costs to avoid quarrels with their fellow *demesmen*, who were generally synonymous with their neighbors. It was in their interest to sustain good relations with their neighbors... (149).

The historical evidence would suggest that incarceration like the rest of the justice system before Solon's reforms was privately instigated. The functionality of the early justice system has caused some scholars to dismiss the usage of prisons all together.[18] Formal *prisons*[19] were probably unlikely before Solon but there is evidence to suggest the usage of *incarceration* through indentured servitude and small holding jails. Hunter (1997: 316) argues that these were likely small because criminals could pay their fines and go free. Post-trial criminals were left in the hands of their victims. Allen (1997), explains:

[17] On the liberal nature of Athens in general, Long (1998) writes, "[d]emocratic Athens in particular allowed considerable scope for private action free from governmental interference, both in market transactions (Athens was on of the chief commercial centers of the Mediterranean) and in expression of opinion (Athens was likewise a magnet for philosophers and poets from all over the Greek world)" and goes on to quote Pericles' funeral oration in *Thucydides* (II. 37–43), "...[w]e are free and tolerant in our private lives; but in public affairs we keep to the law... [E]ach single one of our citizens, in all the manifold aspects of life, is able to show himself the rightful lord and owner of his own person..." On private banking in Athens, Long quotes heavily from Cohen (1992) in reference to the "*trapezai*... unincorporated businesses operated by individual proprietors or partners, almost entirely free of governmental regulation; [unlike modern banks] (9)".

[18] MacDowell (1978: 257) claims imprisonment was a "normal" punishment (the obvious recourse in criminal trials). Barkan (1936a: 341) says imprisonment was "indisputable" at least as an "additional" penalty (added to restitution payments to victims). Harrison (1968: 177) also accepts the use of imprisonment as a penalty. On the other side of the debate, Todd (1993: 141) thinks imprisonment to have been "unlikely". Hunter (1994) believes the issue is still open, but later Hunter (1997) blames the remaining debate on the lack of investigation on the purposes of imprisonment.

[19] There is a subtle distinction between *incarcerations*, where any individual or group holds an individual under arrest, versus *imprisonment* where a formal building is used to hold larger quantities of people for long periods of time.

> Before state involvement in punishment, large-scale imprisonment simply would not have been feasible. Unless a private punisher is capable of working the punished as a slave or ransoming the captive, the punisher is not likely to hold a prisoner indefinitely, since keeping a wrong-doer in captivity requires effort and expense. Thus, a prison must be to a certain extent, an artificial construct of a community rather than a natural outgrowth of the processes of private retribution (126).

Given that dispute resolution centered on the repayment of debts, formal prison facilities were both costly to organize (who would pay for them?), and as Friedman (1979) points out, ineffective at prompting restitution (how can inmates produce value?). Thus there was a natural restraint on the length of punitive sentences and the number of people incarcerated at any given time. This put a lighter burden on public services and finances compared to legal policies in later years.

The existence of functional criminal justice services, especially incarceration via indentured servitude in the earliest times of Ancient Greece without government oversight, weakens the strongest links between public goods theory and the social provision of prison services. But, what caused the later changes in Greek criminal justice? Why did Athens eventually construct a formal prison building (Vanderpool 1980) and time-based criminal punishments—prison sentences?

3.3 Solon's penal reforms

Private efforts sufficed to produce criminal law enforcements in Homeric Greece and judges were limited in power and authority by competition and the watchful eye of the citizenry. After Solon there was an unprecedented expansion in the power and scope of government in the criminal justice system. Thus private incentives and the subsequent functionality of the customary criminal justice system were crowded out.[20] The Athenian case is unique with regard to the central role that prisons and penal policies played in ushering in the centralized criminal legal system. At the time, the prison was a unique institution; a unique source of public attention and thus it invoked unique political interests. Aristotle gives an essentialist accounting of Solon's policies:

> First and most important the prohibition on loaning money against personal security; second the possibility for the man who so desired to secure punishment on behalf of the injured party; third (and they say that this was the most important in strengthening the people) appeal to the court. (*Ath. Pol.*: 9.1).

Solon's penal reforms were neither singular nor instantaneous (Case 1888; Milne 1943; Rhodes 1970). First, Solon implemented the *Seisachtheia*, (the relief of burdens) (Lloyd 1890; Harding 1974; Hammond 1940, 1961; Billheimer 1938) in which he redefined citizenship so that no Athenian could be subject to the bodily force of another Athenian. If a man was incarcerated, he was a slave—slaves were not citizens by definition. Thus private incarceration was no longer an available enforcement technique to ensure contracts, enforce case-rulings, return lost property or extract debts. That single piece of legislation

[20] Allen (1997, 2000) refers to Solon's policies as an "overhaul" of the previous Draconian system. Similarly, Rhodes (1970) describes how the role of victim changed from the individual to the community under Solon's rule, and Vlastos (1946) refers to Solon's reign as advancing "the naturalization of justice," where crime is viewed as a "source of *public* danger, [and] creates a *public* interest which requires the compulsory intervention of central authority (67, italics are mine)".

monopolized the role of law enforcement as the sole responsibility of the state (Aristotle's *Constitution of Athens*; Allen 1997: 127; Davies 1977). In effect, by prohibiting private incarceration/indentured servitude Solon revoked restitution as the effective paradigm of criminal punishment and thus removed the essential incentive for individuals to participate in the criminal justice process. Benson (1994: 548) summarizes the Anglo Saxon case, "by taking the private right to restitution and increasing the private cost of cooperation, the only primary benefits of policing that remained for general citizens were common-access benefits". The government first assumed itself as the primary claimant of compensations, eventually the sole claimant, and all the while it crowded out private initiatives of criminal law enforcement.

With the state prison, Athenian law enforcement suffered particular common pool problems as its enforcement resources were deployed to meet competing interests. The *Seisachtheia* is often referred to as a response to wealth inequality in the urban territories. Fisher (1990) argues that poorer victims were ill equipped to self-serve for criminal law enforcement. Plutarch identifies Solon's rhetoric as appealing to similar special interests, "[w]hen asked which seemed to him to be the best managed cities, he said it was that city in which those who had not been wronged were no less ready to prosecute and punish the wrong-doers than those who had been wronged (18)". Osborne (1985) also translates *Demosthenes*, "[Solon] knew that the inhabitants of the *polis* could not all be equally clever, or bold or moderate, and that if he made the laws in such a way as to enable the moderate to exact justice then there would be many bad people about… (xxii)". But it seems that such interests were invoked by the original entrance of government into law enforcement, rather than by the inherent nature of the customary legal system. After the *Seisachtheia*, without an effective means of enforcement, judges' rulings were in name only. Thus, as civic engagement waned on the margins, wealthier citizens gained a leg up in protecting their property rights. Thus there was a new special interest for the state to subsidize the application of violence as a means to enforce contracts once such rights were prohibited for private citizens (Ruschenbusch 1968; Glotz 1928; Rhodes 1970; Fisher 1990).

Solon's penal reforms had a filtering effect upon the rich and poor. With state subsidized imprisonment and without private indentured servitude, the state prison became an intense expression of Athen's unequal wealth structure. A wealthy loser of a criminal case could pay his debt and serve no jail time. Thus only the poorer classes wound up in the state prison. While in jail, it was nearly impossible to raise the funds necessary to repay their debts.

> [P]oor Athenians probably had no way of meeting their penal requirements and therefore found themselves facing de facto sentences in prison of indefinite length… [and noted] I. Barkan (1936b: 339) agrees; mentions of lengthy terms in prison are found at *Dem*. 24.125 ['Does not imprisonment run in Androtion's family? Why, you know yourselves that his father often went to jail for five years at a stretch'], 135 ['and he stayed in that building for many years, until he had repaid the money in his possession which was adjudged to be public property'], 25.61 ['But the Tanagan, a fresh-caught fish, was getting the better of the defendant, who was thoroughly pickled, having been long in jail']; *Din.* 2.2 ['It will be no new alarming experience for the defendant if he is convicted, for he has committed in the past many other crimes meriting the death penalty and has spent more time in prison than out of it. While he has been in debt to the state he has prosecuted men with citizen rights…'] (Allen 1997: 128).

The poor likely went to jail more often than the rich and for longer periods of time after Solon than before. Furthermore, the prison was a tangible and focal institution thus gaining attention in ways the previous system avoided.

Benson (1990a, 1994) explained that the initial involvement of government in the Anglo Saxon legal process provided incentive and opportunity for further capture and expansion of government in law and law enforcement. In Athens, the financial basis of criminal law combined with the new governmental costs of running a prison probably led to similar monopolization. By the time of the Attic orators, in 353 B.C. *Demosthenes* (24.143,151) writes, "[i]t is the courts that decide all questions brought to trial and it is possible for them to pass of imprisonment or whatever else they want". Eventually fines to the state took priority over fines to individual plaintiffs.[21]

Finally, the state abandoned debt-based settlements entirely and put in place a system where crimes, offenses, and contract violations were converted into time-based sentences to be served in the state prison by the rich and the poor alike (Allen 1997). This drove a distinction between the civil and the criminal law, similar to what we observe today.[22] Because victims of contract breaches received almost no compensation when their debtors were incarcerated, it was in their interests to creatively draft explicit self-enforcing contracts. Offering bonds as collateral made contracts more reliable without having to depend on the public justice system—hence the growth of a separate civil legal system. By default, criminal laws became explicit matters of violence, murder, and violations against state ordinances (Cohen 1995).

As an essential technology of institutionalized force and violence the Athenian prison lowered the costs to government of acting against the majority. With a prison system in hand, a government can more easily levy taxes, redistribute wealth, control the money supply, impose new social policies, and launch wars. Thus during and after Solon's penal codes, there developed a governmental criminal justice system, and subsequently more interventionist government policies throughout the once traditionally private civil society of Athens (Kyriazis 2009). "[B]efore introducing his laws, he carries out the cancellation of debts, and after that the increase of the measures, weights and coinage. For it was under Solon that the measures were made larger than the Pheidonian standard... (*Aristotle Pol*: X)". Milne (1938, 1943) argued that Solon's justice reforms were conditional to his later increase in the money supply and his "opportunity of cutting down debts by manipulating the exchanges,

[21] See also *Andocides* [4].3-5, that reads:

> "Under the terms of that oath you swear to exile no one, to imprison no one, to put no one to death, without trial... for wrongs done to individuals. I consider such redress as this excessive; for wrongs done to the state I regard it as an insufficient and useless penalty... if you unwittingly banish your best citizen, Athens will derive no benefit from him for ten years..."

And more in 27, "seeing that he does not treat his own fellow Athenians as his equals, but robs them, strikes them, throws them into prison, and extorts money from them, yes, shows the democracy to be nothing better than a sham..." Also 2.16, "[h]owever, disheartening though my reception had been, I was no sooner a free man than my every thought was again directed to the service of this city". And also *Demosthenes* 24.12, "[h]e reminded you of the statutes by which in such circumstances the property belongs to the State".

[22] MacDowell (1978: 57) writes,

> Athenian cases are generally classified according to the procedure by which they were initiated and brought to the stage of trial. The word for a case is dike, and the broadest distinction is between a private case (*dike idia*) and a public case (*dike demosia*)... the most ordinary type of public case was *graphe* (meaning 'writing'), so called presumably because it had originally been the only type of case in which the charge had to be put in writing.

Thomas (2005) argues that, rather than reflecting the true content of customary traditions and opinions about law, the first written codes were amongst the most disputed. By putting a law in writing the drafter had an opportunity to secure his own interpretation.

since the terms of a contract expressed in drachmas could equally well be satisfied by payment in either currency (2)." Chrimes (1932) disagrees that Solon's weights and measures legislation should be thought of as a monetary policy, but maintains it was precursory to a system of progressive taxation.[23]

3.4 Incarceration for private interests

During and after Solon's reign, the Athenian government was the owner and operator of the prison system, which gave it a greater power and authority over the content, interpretation and enforcement of criminal law. The system of customary criminal law enforcement utilized the incentives of profit and competition to guide outcomes functionally provided conflict resolution. The new legal system had no similar epistemic process as existed throughout civil society Athens (Ober 2008) to determine societal preferences for acceptable punishment magnitudes. The new allocation of capital and labor (police, court time, prison cells, etc.) reflected the interests of controlling decision makers rather than the inter-individual preferences expressed through restitutive prices (Hayek 1945).[24]

Two characteristics of Solon's penal reforms help to describe it as instigated by and for private rather than public interests. The first requires a subtle understanding of economic growth. Modern economists argue that there are minimal institutions necessary to create and promote economic prosperity—private property rights, a rule of law, fair courts, etc. Once such institutions are in place they allow (but do not necessarily guarantee) for exponential returns from increases in the division of labor (North 1990, 2005; De Soto 2000, 1989). To the extent that state-sponsored criminal law enforcement contributes to these foundational institutions it suffers from public goods problems. Private individuals would arguably not invest payments in the full sum of value that they attribute to the output of these institutions.

Second, one may argue that governments provide technologically superior criminal law enforcement. This second argument is similar to the first because if one observes exponential economic growth as a result of the rise of government criminal justice then it would imply that the government provided those services at technologically superior levels compared to earlier institutional arrangements. The historical evidence stands against the application of these two arguments because there does not appear to be a link between the new state sponsored criminal justice system and a subsequent increase in economic prosperity. Finally, the rise of governmental criminal law enforcement in Ancient Greece was motivated and at times manipulated by private rather than public interests.

Did the invention of government criminal law enforcement in Ancient Athens cause positive externalities in the form of economic development? Some scholars have described Greece as early as 800 B.C. as remarkably modern—specialized occupations, voluntary interpersonal exchange and significant departures from mere subsistence (Bucher 1893; von Pohlmann 1925). Prosperity may have been underway hundreds of years before state criminal justice institutions.

Increased wealth (in real terms) was achieved in later periods of Ancient Greece not because of increases to the division of labor or through voluntary exchange. Instead they

[23] Such state involvement in the production of money at such early time periods has caused some historians such as Schaps (2004), Seaford (2004), Von Reden (2003) and Peacock (2006) to doubt Menger's (1871) spontaneous explanation for the origins of money.

[24] Such a thesis seems compatible with writers who emphasize the dilemmas of incarceration in limiting the power of the state to violate the rights of individuals (Foucault 1977; Reiman 1979; Logan 1990; Christie 1993; Shichor 1995; Herivel and Wright 2003, 2007).

were the direct result of pillage and conquest. Yes the average Athenian seems wealthier in 400 B.C. than in 800 B.C. (marginally but not exponentially), but only because he was the benefactor of wealth taken from outside territories through foreign conquests. This was the character of wealth in Ancient Greece most emphasized by sociologist Max Weber (1956, 1976). "The Greek city was an aristocracy of warriors—or even of sailors—and a city of consumers, whereas the medieval city was a city of producers (Austin and Vidal-Naquet 1972: 6)".

Though many historians have presumed the development of state-based criminal justice in Athens as progressive (MacDowell 1978; Harrison 1968: 201 n2) (similar to how post classical social scientists and economists regard prisons in general), this analysis agrees more with Todd and Millet (1990) who recognize the tendency of modern thinkers to impute public interest motives to classical legal history as a by-product of "Roman-centricism".

Lastly, much of the greater wealth that did accumulate was eventually absconded by tyrants after Solon as they drained the state coffers, launched more wars of larger scale than earlier times, and eventually allowed for the defeat and collapse of the Athenian empire. All arguably was set in motion by exploitable opportunities created by Solon's initial reforms (Thomsan 2006; Cahill 2004; Stone 1989).

Once the state had a legislated monopoly on criminal law enforcement and relied upon prisons as a tangible resource of law enforcement, criminal justice suffered capture by private interests because of scarcity constraints and rationing.[25] Ruling elites controlled the later state-based criminal justice system. "In this regard, it is indeed significant that the oligarchs were associated with frequent use of the prison (Allen 1997: 134)". *Lysias* 13:45 reads: "[y]ou remember those led to prison then because of private enmities... and forced to perish by the most shamed and most infamous destruction", and later *Lysias* 13.54:

> And Hippias of Thasos, and Xenophon of Curium, who were summoned by the Council on the same charge as this man, were put to death,—the one, Xenophon, after suffering on the rack, the other Hippieas, in the manner; because in the eyes of the Thirty they did not deserve to be saved,—they had not destroyed one Athenian! But Agrotus was let off, because in their eyes he had done what was most agreeable to them.[26]

The sequential qualities of the political history surrounding Athenian criminal law enforcement stand against characterizing the process as motivated for or by the public will. More appropriately, the development of criminal justice was the result of competing, private interests. As initial legislations took hold, relative price changes in institutional decision-making prompted later institutional changes to follow in stride.

[25] Regarding this dilemma in modern times Avio (2003) surveys Nardulli (1984), Giertz and Nardulli (1985), Benson and Wollan (1989) and Benson (1990a, 1994) who explain,

> a senior level of government may in part shift the costs of providing prison services from one sentencing jurisdiction onto another via prison financing. Thus, the cost of delivery does not fully constrain the local demand for confinement. The tendency to prison overcrowding in the federal part of the system and to underbuilding in the local part follows directly (Avio 2003: 16).

[26] Allen (1997) also references *Dem.* 24.165, "[a] poor man, or, for the matter of that, a rich man, who had spent a great deal and was, perhaps, in a certain sense short of money, was not only afraid to show himself in the market-place, but found it unsafe even to stay at home". *Lys.* 12.17 writes, "Polemarchus received from the Thirty their accustomed order to drink hemlock, with no statement made as to the reason for his execution: still less was he allowed to be tried and defend himself". And 13.56, "the Thirty, of course, let him off as they did Agoratus here, accepting his report as true: but you long afterwards had him before you in court as an actual murderer", and 13.66, "[t]he third was arrested here by Phaenippides as a clothes stealer, and you tried him in your court: you condemned him to death".

4 Conclusions

After Landes and Posner (1975) argued that the deterrent and incapacitative effects of criminal punishment could not be internalized and would thus lead to inefficient outcomes, David Friedman (1979: 402) accused them of "insufficient ingenuity in constructing hypothetical institutions". A portion of Coase's opening quotation is worth repeating here: "[these studies] are also likely to serve another purpose, by showing us the richness of the social alternatives between which we can choose". The variety and contextual functionality of historical prison experiences speaks against over-simplifying their production into the constraints of public goods theory. If prisons are assumed rather than reasoned to be a necessary and appropriate role of the government then prisons become a hydraulic device in the static production of criminal justice services. Spend more or spend less, build more or build less, imprison more or imprison fewer criminals—discoveries and innovations for new and perhaps more technologically superior law enforcement devices do not get investigated nor experimented with.

The case of Ancient Greece does not completely refute the traditional perspective of economists in treating prisons as a public good. It has merely weakened the case for treating such a position as a beginning assumption from which to build more elaborate theories of crime and punishment. This paper has not demonstrated that governments should not be involved in the provision of criminal punishments nor that the optimal role of government is less than current levels.

When the case of Ancient Greece is put together alongside the wide array of historical punishment techniques and practices one begins to recognize Coase's insight as to the wide variety of social institutions available to mankind's disposal. Medieval Icelanders used similar restitution prices to resolve criminal disputes (Friedman 1979). Pirate societies maintained civil order with explicit social contracts (Leeson 2009b). Polish inmates as recently as the mid 1980s constructed elaborate rule and punishment methods to enforce social order in conditions plagued by extreme resource scarcity (Kaminski 2004). Street gangs and drug dealers have been noted to rely upon rules, enforcements and reputations to enforce subtle and specified contracts (Venkatesh 2006; Skarbek 2008). At first it is important to notice that these punishment and law enforcement strategies exist in conditions of relative statelessness—again, a strike against the traditional treatment of prisons and punishments as public goods. In contrast one could argue that these gangs operate as state surrogates (Sobel and Osoba 2009), but such a complaint would have to explain the wide and subtle variety of techniques and mechanisms implemented in each scenario. If each enforcer is no different from a state why is there such homogeneity of law enforcement strategies used by traditional states and such heterogeneity and contextual specificity observed in quasi-state or stateless contexts? Though further and more intensive research and investigations are needed into these case studies and others like them, I would argue and conclude that the driving forces of competition, discovery and innovation prompts functionality and effectiveness for these techniques to reach their subjectively determined ends. Furthermore it appears that it is specifically the qualities of formal states to forcefully monopolize the tasks of criminal punishment that keep them from innovating in similarly functional methods.

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