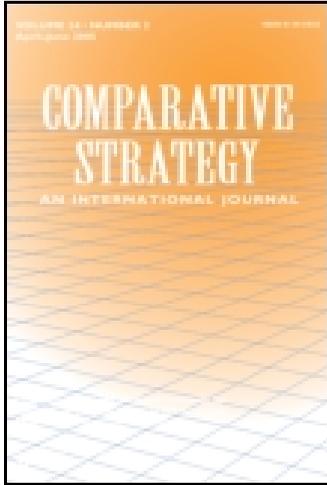


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### The Political Economy of The Art of War

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# The Political Economy of *The Art of War*

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*Sun Tzu's The Art of War deals with the economic aspects of military operations as well as some more general economic principles. This article studies several of its economic ideas in turn: on war and the state, the effect of war on economic affairs, and the role of incentives in promoting desired behavior within military organizations. It also discusses how the text treats ideal military strategy as a matter of opportunity discovery, analogous to entrepreneurship in the work of Israel Kirzner.*

## Introduction

For centuries, members of virtually every profession, especially businessmen, have carefully studied Sun Tzu's military classic *The Art of War* in hopes of discovering insight into competition and confrontation. But although the text is widely available, relatively little English-language scholarship has focused on its significance in China's intellectual development,<sup>1</sup> and some research recommends further study of the work from the perspective of the social sciences.<sup>2</sup> It may therefore be of interest to scholars to find new ways to examine this text. But why choose economics specifically as a lens through which to view *The Art of War*? Although it is not written as an economic work, *The Art of War* deals with the economic aspects of military operations, and discusses several ideas that can be interpreted from the perspective of modern economics. For Sun Tzu, economic affairs are among the most important in strategic operations,<sup>3</sup> and a similar economic viewpoint is found in a later work in the Sun family tradition as well. Portions of *The Art of War* may then be understood through or reconciled with contemporary economic thought. The purpose of this article is to examine several ways in which the texts of the Sun family, especially that of Sun Tzu, can be thought of in economic terms. I will not dwell on the economic history of the period, but instead focus on developing an economic understanding of the ancient texts. An interesting topic for future historical research would be to investigate if and to what extent the historical author(s) of *The Art of War* actually conceived of these problems in terms of economic reasoning. This article hopes to serve as a useful starting point for such research.

*The Art of War*—the *Sun Tzu Ping-fa*—is thought to have been written in the late sixth century B.C., in the middle of China's Spring and Autumn Period, and roughly coincides with the emergence of Greek, Confucian, and Taoist economic thought.<sup>4</sup> Although little is known of the man Sun Tzu (whose real name was Sun Wu)<sup>5</sup> or the exact circumstances of the writing of *The Art of War*, it is clear that he was intimately familiar with the military tactics and technological advances of his day, as well as with the political aspects of managing the state and waging war. *The Art of War* is an early attempt at a systematic presentation of the principles that should guide the conduct of military organizations. It is directed particularly

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at commanding generals, but also toward political rulers and other individuals and groups whose role in society is somehow connected to warfare. It is not surprising then that it sometimes reflects an economic way of thinking, given that economic considerations are vital in formulating strategy and planning military operations, especially extended ones.<sup>6</sup>

The economic insights in the text are somewhat scattered—it is not after all a treatise on economics. However, economic principles of a sort may be found throughout, especially as they relate to the administration and governance of the military by its generals, and the regularities in the relationships between various institutions of warfare. It is largely from these regularities that an economic point of view emerges. As one twentieth-century Chinese military theorist observed, “military operations, like other socio-economic phenomena, are governed by definite laws; Sun Tzu was the first strategist to perceive that, if one can control the laws governing war, one may then be certain of ultimate victory.”<sup>7</sup>

This article explores several of the concepts developed in his classic text.<sup>8</sup> Because *The Art of War* has been discussed in fields such as management strategy, small business operations, and education<sup>9</sup>—to say nothing of military applications—I shall attempt to focus only on its more economic aspects. I discuss in turn Sun Tzu’s writing on basic economic principles: war and the state, the effect of war on economic affairs, and his analysis of the role of incentives in promoting desired behavior. I then discuss how *The Art of War* treats ideal military strategy as a matter of entrepreneurial discovery, as exemplified in the writings of Israel Kirzner.<sup>10</sup>

## War, State, and Economy

The first words of *The Art of War* set the tone for much of what is to follow: “Warfare is the greatest affair of state, the basis of life and death, the Tao to survival or extinction. It must be thoroughly pondered and analyzed.”<sup>11</sup> With this portentous opening, Sun Tzu embarks on describing the ideal methods for attaining victory in military affairs. Given standard definitions of the state, the connection between the state and warfare is obvious, inasmuch as warfare is required to maintain the state against its enemies. This advice may, however, be taken metaphorically to apply to any sort of strategic or competitive situation, not just military affairs, and it is for this reason that many non-military readers have been interested in the text.

Although Sun Tzu argues that war is in some sense the health of the state, he does not hold that war is the health of the *economy*. Countries are only enriched by warfare to the extent that they can plunder the enemy. The chapter titled “Waging War” is, significantly, devoted not to battlefield tactics, but mostly to emphasizing the problems for both state and market of lengthy campaigns. As Sun Tzu observes, “No country has ever profited from protracted warfare.”<sup>12</sup> In this respect, Sun Tzu comments on the poverty of relying on captured enemy supplies for any but the most basic needs of the army.<sup>13</sup> In fact, prolonged warfare is one of the most important threats to a state’s existence, necessitating as it does the depletion of resources, both human and natural.

This waste of natural and human resources is also the reason Sun Tzu constantly emphasizes the importance of achieving victory without destruction:

In general, the method for employing the military is this: Preserving the [enemy’s] state capital is best, destroying their state capital second-best. Preserving their army is best, destroying their army second-best . . . Subjugating the enemy’s army without fighting is the true pinnacle of excellence . . . Thus one who excels at employing the military subjugates other people’s armies

without engaging in battle, captures other people's fortified cities without attacking them, and destroys other people's states without prolonged fighting. *He must fight under Heaven with the paramount aim of "preservation."* Thus his weapons will not become dull, and the gains can be preserved.<sup>14</sup>

This is a typical example of Sun Tzu's emphasis on resource allocation as one of the most important problems of warfare (McNeilly 2001, p. 21).<sup>15</sup> Technical efficiency—maximum output from minimum input, in both physical and human terms—is therefore the guiding principle of the wise general.<sup>16</sup> Furthermore, using economic instead of martial means is a superior method of defeating one's enemies.<sup>17</sup> Commentary on *The Art of War* even discusses "the Sun family emphasis upon the economics of warfare . . . [as well as] the practice of materials management . . . ensuring adequate logistical means when required."<sup>18</sup> This stress on resource management and allocation—not directly involving combat—is typical of Sun Tzu's strategic theory. One of his lasting ideas is that it is always better to avoid the outright use of force if possible (Waldron 1994).<sup>19</sup>

This observation in turn requires investigating the problem of war finance. How should it be achieved without impoverishing the state? Sun Tzu counsels that to be sure of adequate supplies to an army in the field, military equipment should be produced domestically to avoid relying on good fortune in battle for essential supplies. However, it appears from his comments that he views most military expenditures simply as economic losses: he warns of the danger of expenditures on supplies and armaments, in one translation describing them as "the ruler's irrecoverable expenditures."<sup>20</sup> The implication is that military expenditures of this sort are not considered by Sun Tzu to be examples of increased productive activity, in the modern sense of increasing GDP. It appears then that while there may be non-economic gains from warfare, there are few opportunities for economic gains beyond any immediate spoils.

The costs of war remain among the most important considerations for the commander of the army, and Sun Tzu gives special attention to the financial dangers of long wars:

One who excels in employing the military does not conscript the people twice or transport provisions a third time . . . The state is impoverished by the army when it transports provisions far off. When provisions are transported far off, the hundred surnames are impoverished. Those in proximity to the army will sell their goods expensively. When goods are expensive, the hundred surnames' wealth will be exhausted. When their wealth is exhausted, they will be extremely hard-pressed to supply their village's military impositions . . . The expenses of the hundred surnames will be seven-tenths of whatever they have.<sup>21</sup>

In addition to placing the cost of prolonged warfare ahead of any considerations of benefit,<sup>22</sup> the idea of scarcity—whether in terms of physical resources or simply the goodwill of the people—is also visible in this passage, as evidenced by the stricture to avoid imposing too much sacrifice on the masses in support of the war effort. Repeated demands on the person and property of individuals result in a decline of productive capacity, as well as the morale and goodwill necessary for long campaigns. In discussing the economic history of ancient China, Spengler also mentions these passages as reflecting the economic difficulties, that could be imposed on the agricultural class by the state in times of war.<sup>23</sup>

There are also indications in this passage of the idea of transportation costs, which can outweigh the benefits gained by provisioning a distant army. And the notion of the higher prices for nearer supplies is a simple observation of the relationship between scarcity,

quantity demanded, and price in the context of location advantages. This theme is reinforced by one of the traditional Chinese commentaries on this chapter, by Chia Lin: “Where troops are gathered the price of every commodity goes up because everyone covets the extraordinary profits to be made.”<sup>24</sup>

Furthermore, the careful weighing of magnitudes in order to arrive at an optimal decision is the basis for sound military decisions. Sun Tzu takes special pains to point out that the factors that ultimately decide the outcome of warfare are most often not absolute but relative magnitudes. “Therefore,” he states, “structure it [war] . . . and evaluate it comparatively through estimations, and seek out its true nature.”<sup>25</sup> Sun Tzu mentions a series of factors that must be weighed relative to each force, such as the ability of generals and the quality of the officers’ and soldiers’ training. Absolute measurements are certainly important, but only because they are the foundation of comparative estimates. These comparative estimates are the key to determining victory.<sup>26</sup> Thus Sun Tzu counsels that “the wise must contemplate the intermixture of gain and loss,”<sup>27</sup> or in other words, commanders must understand that military policy, much like economic policy, revolves around the analysis of cost and benefit. These comments refer to a simpler type of military planning. A more complex (entrepreneurial) sort will be discussed below.

Although war is the most important affair of state, Sun Tzu is quite explicit that political forces must not be allowed to determine the conduct of the state’s generals, going so far as to specifically counsel that if the ruler’s orders run contrary to military wisdom, they can be simply ignored.<sup>28</sup> Sun Tzu’s distinction between political and military affairs makes it clear that interference by the former may cause disastrous results in the affairs of the latter:

Thus there are three ways by which an army is put into difficulty by a ruler: He does not know that the Three Armies should not advance but instructs them to advance or does not know that the Three Armies should not withdraw and orders a retreat. This is termed “entangling the army.”

He does not understand the Three Armies’ military affairs but [directs them] in the same way as his [civil] administration. Then the officers will become confused.

He does not understand the Three Armies’ tactical balance of power but undertakes responsibility for command. Then the officers will be doubtful.<sup>29</sup>

The unifying theme appears to be a criticism of the inability of politicians to think from the military perspective, or to take proper account of non-political motives and objectives. Economically speaking, Sun Tzu’s advice would be interpreted as saying that rulers and politicians perform a very different sort of function than generals and military strategists. Also, the above passage attempts to show the differences between bureaucratic management, structured according to largely arbitrary (or at the very least, politically driven) rules, and a more “natural” management style of military experts, who can weigh the relevant gains and losses of military action in proper perspective. One of the traditional commentaries on *The Art of War*, by Tu Mu, puts it this way: “As far as propriety, laws, and decrees are concerned, the army has its own code, which it ordinarily follows. If these are made identical with those used in governing a state, the officers will be bewildered.”<sup>30</sup> The ruler and his subordinates may give the initial order to begin a campaign, but the execution must ultimately be left to those more qualified. Thus, when Sun Tzu lists “five factors from which victory can be known,” the fifth posits, “One whose general is capable and not interfered with by the ruler will be victorious.”<sup>31</sup> This stricture is repeated throughout the text.

Part of the reason there is a divide between the administration of the army and the state may be because Sun Tzu perceives military commanders as more specialized and therefore competent in military affairs than politicians, whose goals and perceptions regarding warfare may be compromised by more metaphysical concerns, such as the results of divination. Sun Tzu attempts to move military strategizing away from the metaphysical and toward more rationalist methods of understanding warfare.<sup>32</sup> He claims that divination and similar methods cannot be used to acquire meaningful information about future events, holding that true knowledge is acquired from men.

### Military Organization as an Incentive Problem

Another significant economic contribution of *The Art of War* is its analysis of incentives. Historically speaking, the themes of reward and punishment were receiving increased attention in the Spring and Autumn and Warring States periods.<sup>33</sup> The importance of proper incentives for military victory is a constant theme of *The Art of War*. This is consistent with more recent understandings of organizations and incentives: Marschak, for example, hinted at this problem in the early days of incentive theory, and military organization is often considered one of the most important and difficult types of incentive systems to arrange.<sup>34</sup>

Incentives in military strategy are first and foremost conceived in terms of rewards and punishments, especially for soldiers on the lower end of the military hierarchy. In his first chapter, for example, when Sun Tzu lists seven primary questions that must be used when comparing armies to determine which has the greatest advantage, one is a question of incentives for the soldiers: “Whose rewards and punishments are clearer?”<sup>35</sup> This is the most obvious application of incentives to warfare; incentives provided by commanders to encourage strong battlefield performance by personnel. For instance, material motivations are often found to be most significant: “Thus what [motivates men] to slay the enemy is anger; what [stimulates them] to seize profits from the enemy is material goods. Thus in chariot encounters, when ten or more chariots are captured, reward the first to get one.”<sup>36</sup> Or when conquering new territory, for instance, it is advised to divide the spoils among the army (2007, p. 170).<sup>37</sup> Or to take another example, when the army must forage for provisions, “whatever the lower ranks obtain in grain or cloth must all be forwarded to the top, and those that collect the most will be rewarded. The warriors will no longer think about returning home.”<sup>38</sup>

Generous incentives should be offered, as they stimulate the acquisition of vital information:

Armies remain locked in a standoff for years to fight for victory on a single day, yet [generals] begrudge bestowing ranks and emoluments of one hundred pieces of gold and therefore do not know the enemy’s situation. This is the ultimate inhumanity. Such a person is not a general for the people . . . ”<sup>39</sup>

Here again Sun Tzu emphasizes the importance of swift victory so as to minimize the expenditure of resources and the suffering of the masses, and to maximize the potential gains from victory. The above quote also indicates that the size of incentives should reflect the importance of the behavior in question. Spies, according to Sun Tzu, are one of—if not the most—important single element of the army, with the exception of the commander. This is due of course to the specialized knowledge spies attempt to obtain. Hence, Sun Tzu advises “no rewards are more generous than those given to spies.”<sup>40</sup> And likewise, the same principle applies to the enemy’s spies: “You must search for enemy agents who have come to spy on us. Tempt them with profits, instruct and retain them. Thus double agents can

be obtained and employed . . . knowledge inevitably depends on turned spies; therefore, you must be generous to double agents.”<sup>41</sup> Turned spies are in fact the most valuable kind according to Sun Tzu, because it is through them that all other kinds of spy can be recruited and utilized. The value “imputed” to them is therefore very large.

Nevertheless, rewards and punishments are not always sufficient to elicit desired behavior. Sun Tzu clearly understood that there are diminishing returns to both rewards and punishments. In fact, excessive rewards and punishments not only do not achieve their intended goals, but are often a sign of weakness in an army: “One who frequently grants rewards is in deep distress. One who frequently imposes punishments is in great difficulty.”<sup>42</sup> Whether the cause is too high a cost or too low a benefit, there are occasions when incentives cannot provide the impetus necessary to guide behavior.

Although the standard system of reward and punishment is the most obvious (perhaps *because* it is the most obvious) application of the incentive concept, Sun Tzu devotes far more attention to “unorthodox” sorts of incentives than he does to “orthodox” ones such as those just discussed. He especially emphasizes incentives for one’s opponents. Sun Tzu discusses providing incentives for the enemy, first, for captured enemy soldiers, so they may be incited to change their allegiance: “Treat the captured soldiers well in order to nurture them [for our use].”<sup>43</sup> The fact that Sun Tzu considers stimulated defection a real possibility might indicate that choosing sides was for the common soldier of the period more a matter of economic gain than of loyalty to a particular state or ideology. Second, and more importantly, incentives should be used against enemy commanders, so that they might be induced to enter a trap, become arrogant or foolish, or commit other tactical errors. Sun Tzu discusses this notion extensively, especially in a chapter titled “Vacuity and Substance,” wherein he develops the idea of compelling one’s opponent through the careful manipulation of incentives.

In one passage Sun Tzu suggests, “Display profits to entice them,” and one also finds strictures such as “In order to cause the enemy to come of their own volition, extend some apparent profit. In order to prevent the enemy from coming forth, show them the potential harm”<sup>44</sup> Similar advice appears prominently throughout the text.<sup>45</sup> Extending the possibility of profit also implies extending the threat of loss, which provides just as great an incentive with which to manipulate an opposing force. Sun Tzu points out, “Thus if I want to engage in combat, even though the enemy has high ramparts and deep moats, he cannot avoid doing battle because I attack objectives he must rescue.”<sup>46</sup> These incentives are a core component of Sun Tzu’s strategic principles. Manipulating the enemy, whether through deception (what might be called “fictitious incentives”) or simply through unexpected movements, is one of the most important principles in *The Art of War*. Thus, providing the enemy with the proper incentives (or disincentives) is a primary task of the skillful strategist.

Manipulation of an opponents’ perception of available choices—and thus of the perceived costs and benefits of behavior—is fundamental. For instance, if one’s enemies are cornered, one should not attempt to destroy them completely, but should leave an escape route open. Sun Tzu argues that without the possibility of survival, soldiers will fight with the most energy, believing combat to be the only chance of survival. But having the additional choice of flight radically changes behavior by making escape an option, thus diminishing the willingness to fight fiercely before withdrawing (Sun Tzu [Sawyer] 1996, p. 131).<sup>47</sup>

One of the most original applications of incentives in *The Art of War* is to the all-important strategic principle of deception. This adds an additional wrinkle to a familiar theme. In ordinary discussions of incentives, for example, economists might speak of a specific sort of wage contract designed to elicit a specific sort of behavior from the

wage earner. But the underlying assumption is usually that the contract is valid and that the incentive (that is, the enticement for the wage earner) actually exists. In *The Art of War*, this kind of incentive is captured by the notion of rewards for successful soldiers. However, Sun Tzu also discusses the implementation of incentives that are ultimately fictitious: for instance, feigning weakness to entice an aggressive opponent. This introduces a different element into the incentive problem, because an opponent cannot be sure that the apparent incentive (in this case, a military objective) actually exists. Each commander must incur an additional cost to determine whether or not a perceived profit is an existing one. Victory will to a large extent be the reward of the commander who is most skillful at manipulating the network of incentives on which decisions are based. Sun Tzu sums this up by declaring, "Thus one who excels at warfare compels men and is not compelled by other men."<sup>48</sup>

Because a significant portion of *The Art of War* is devoted to matters of incentives in a rigidly hierarchical organization, it is no surprise that the theme of the diverging interests of principal and agent also appears in the text. Sun Tzu understood that principals (such as generals) could have extreme difficulty in promoting action in their agents (such as lower-ranked soldiers) in accord with long-term objectives. As he observes, "One whose upper and lower ranks have the same desires will be victorious."<sup>49</sup> Furthermore, conflicting incentives in the opponent's organization are an opportunity that can be exploited. The use of double agents, for instance, creates conflicting incentives within an opponent's hierarchy, destabilizing organizations and institutions. These potential conflicts between soldier and commander are a major reason Sun Tzu constantly promotes the careful arrangement of incentives.

However, incentives for common soldiers are far easier to organize than incentives for more valuable military assets. As mentioned above, greatly rewarding spies is also important, so as to eliminate the incentive for double agency and deception. Spies enjoy a significant advantage as agents, possessing as they do information (or disinformation) that can be used to great advantage by either side. In addition, the cost of monitoring an agent can be exorbitantly high in many spheres, let alone one where the agent's business is deception itself, and more often than not the deception of a rival principal. Thus, one who retains a spy has a higher cost of supervision relative to other professions, and this cost is driven up even further when one adds the cost of monitoring one's own spies to determine if they are double agents.<sup>50</sup>

Sun Tzu envisions warfare as an elaborate system of incentives, which must be successfully manipulated in order to achieve victory. Ultimately, incentives in the form of profits and losses (whether monetary or psychic) are the glue which holds together the army, and which allows for the smooth functioning of military affairs. This is true both within an army, where proper incentives encourage appropriate battlefield behavior and minimize principal-agent problems (especially with strategically powerful agents such as spies), and for interactions between hostile armies, where incentives are used to cause error. In this sense, *The Art of War* is distinctly economic in its focus.

### **Military Strategy as an Entrepreneurial Activity**

From the above discussions regarding information and its importance to the commanding general, it should be obvious that the gathering and use of knowledge (including its intentional distortion) are at the heart of Sun Tzu's vision of ideal military strategy. This idea leads in turn to another economic interpretation of Sun Tzu, namely, the similarities between strategic insight and entrepreneurship. The connection between entrepreneurs and

military endeavors should not come as a surprise: military contractors and other martial decision makers were among the first individuals to be called entrepreneurs,<sup>51</sup> and continue to receive attention in the historical and theoretical literature on entrepreneurship.<sup>52</sup> Entrepreneurial themes are prevalent enough in *The Art of War* that it has even been required reading in courses on entrepreneurship at Columbia University.<sup>53</sup> The claim of this article is that Sun Tzu outlines the essence of command behavior in terms very similar to Israel Kirzner's theory of the entrepreneur, which envisions entrepreneurial alertness and discovery as the vital forces in economic change.<sup>54</sup>

Kirzner has argued extensively that market activity is driven by the process of entrepreneurial alertness and discovery.<sup>55</sup> In this regard he follows Hayek, who also viewed economic affairs as a matter of the coordination of knowledge between individuals.<sup>56</sup> It makes sense that this point of view would be applicable to the formation of strategy. Jacobson even lays out the core ideas of what he terms "The Austrian School of Strategy," an approach to strategic decision making based on the familiar themes of the Austrian school of economic thought, such as change, uncertainty, and disequilibrium in the marketplace.<sup>57</sup> This view contrasts sharply to the view of strategy common to industrial organization studies, which lack these entrepreneurial elements. In examining the similarities between Sun Tzu's general and Kirzner's entrepreneur, I look especially at the ideas of alertness and discovery.

To begin, we must briefly summarize Kirzner's views. Kirzner's work emphasizes an entrepreneurial element in all human behavior. This element consists in human beings constantly striving to discover courses of action that will make them better off. Human beings are alert in various degrees to pure profit opportunities, which offer the potential to improve individuals' respective situations. In the context of the market economy this occurs largely through recognizing arbitrage possibilities. In general, however, entrepreneurial alertness is characterized by

the decision maker's belief that he has discovered possibilities that both he and his actual or potential competitors had hitherto not seen. Such discoveries may reflect alertness to changed conditions or to overlooked possibilities . . . The crucial element in behavior expressing entrepreneurial alertness is that it expresses the decision maker's ability to spontaneously transcend an existing framework of perceived opportunities.<sup>58</sup>

Success in this endeavor can be elusive, and depends upon the prescience of the individual:

A correct decision calls for reading the situation correctly; it calls for recognizing the true possibilities and for refusing to be deluded into seeing possibilities where none exist; it requires that true possibilities should not be overlooked, but that true limitations should not be overlooked either.<sup>59</sup>

Throughout these passages and elsewhere in his work, Kirzner frequently emphasizes the importance not merely of acquiring information and of choosing between courses of action, but of perceiving the *opportunities* for acquiring information regarding *the very existence* of previously unforeseen courses of action. It is not enough to choose between possible opportunities; one must know (that is, discover) that these opportunities exist.<sup>60</sup>

A person who possesses knowledge is not by that criterion alone an entrepreneur. Even though an employer hires an expert for his knowledge, it is the employer rather than the employee who is the entrepreneur. The employer may not have all the information the hired expert possesses, yet the employer is better informed than anyone else—he knows where knowledge is to be obtained and how it can be usefully employed . . . The hired expert does not perceive the opportunity presented by the possession of his information. The employer does perceive it. Entrepreneurial knowledge is a rarified, abstract type of knowledge—the knowledge of where to obtain information (or other resources) and how to deploy it.<sup>61</sup>

Consider the similarities between this entrepreneur and a commander at the head of a hierarchical military organization. Because uncertainty is a universal condition of human behavior, all individuals are to some extent entrepreneurial. Baumol (1990) argues that entrepreneurship is pervasive across societies, but also points out that institutional arrangements and the incentives they provide play a key role in directing the flow of entrepreneurial ability.<sup>62</sup> The military commander represents one possible realm in which entrepreneurial discovery might take place. Sun Tzu envisions military competition not unlike Kirzner describes market competition, as a process wherein rivals strive to discover and exploit profit opportunities. Kirzner of course refers to monetary profit opportunities deriving from arbitrage, but both writers emphasize the importance of perceiving opportunities as the key means for solving problems of coordination. One translation of *The Art of War* even includes the dictum “Unhappy is the fate of one who tries to win his battles and succeed in his attacks without cultivating the spirit of enterprise.”<sup>63</sup>

The notions of knowledge and coordination, and their vital functions in warfare, bring us to the entrepreneurial element in military affairs. From the consistent focus on knowledge and its uses in warfare, it is clear that warfare is conceived of as a network of knowledge and opportunity that must be properly exploited in order to achieve victory. *The Art of War* is filled with passages belaboring the importance and hazards of correctly perceiving relevant knowledge. Take for instance the most famous passage in the text, which strongly points to knowledge as the primary concept in military command: “Thus it is said that one who knows the enemy and knows himself will not be endangered in a hundred engagements.”<sup>64</sup> Commanders specialize in acquiring and exploiting military knowledge and it is their skill in doing so which ultimately determines success or failure. This goes beyond simply gathering data. “Instead of mere ‘knowing’ [Sun Tzu] addresses the necessity to correctly grasp and evaluate the intentions, traits, and thought patterns of the enemy’s decision maker as well as the mental condition of his troops.”<sup>65</sup>

The general’s main task is to discover the many hidden opportunities available to him that have not yet been discovered by opposing forces. While the general is not a price arbitrageur, he is an individual specializing in alertness, perception, and discovery, and his actions are quite similar to those of the Kirznerian entrepreneur.

The idea of perceiving a potential advantage (discovering it) when others fail to perceive it, is in fact at the core of Sun Tzu’s teaching. As one commentator on *The Art of War* points out, “The [ancient Chinese] military writings . . . consistently stress the need to recognize and exploit the fleeting moment for initiating action.”<sup>66</sup> It is of the utmost importance then that commanders perceive, discover, and exploit the possibilities for successful behavior. “Success” in this context could mean the frustration of an enemy’s strategy, the capture of key military objectives, or the achievement of an important goal. While in the economy the

perception of hitherto unnoticed opportunities leads to arbitrage and pure profit, in warfare it leads to an increase in strategic advantage and the completion of certain objectives.

The entrepreneurial analogy between military and market is taken yet a step further in *The Art of War*. In particular, Sun Tzu explains at length that matters of military strategy are not problems to be solved with behaviors conditioned entirely by objective factors (such as factor endowments and technological knowledge). This is clear in chapters such as “Vacuity and Substance,” wherein Sun Tzu explains that strategy is not a matter simply of determining a course of action based on given resource allocations (of supplies, soldiers, fortifications, etc.). Instead, it is the conceptual organization or coordination that results when one properly applies oneself to the process of discovering opportunities to exploit events in a previously unforeseen way. It is clear then that Sun Tzu did not view war as a game in the modern economic sense, with certain rational strategies that can be elucidated and applied wherever certain objective conditions influence play. Rather, war, like an advanced economy, is a complex, constantly changing phenomenon, with no constant factors that can be invariantly relied upon to achieve victory.<sup>67</sup> In order to succeed, one must become capable of constantly changing one’s tactics and disposition toward the enemy; one must become “formless.”<sup>68</sup> The concepts of infinite adaptability and formlessness are critical in *The Art of War*. Historically, the notion of formlessness is especially prevalent in Taoist philosophy, and Sun Tzu—and also his descendent Sun Pin—absorbed and applied this idea to his own writings.<sup>69</sup>

In the above sense it might be said that Sun Tzu employs a “dynamic” rather than a “static” theory of military action, wherein strategy must remain flexible and always capable of conforming to new conditions and innovations.<sup>70</sup> There is also a clear application to behavior in the market. As in matters of warfare, the ability of firms to efficiently allocate resources often functions best when firms can adjust their conduct to changing conditions, and when incentives for innovation exist.

Let us examine the process of discovery more closely. In a prominent chapter of *The Art of War*, Sun Tzu proposes two concepts to capture the essence of strategy; the “unorthodox” and “orthodox”:

What enable the masses of the Three Armies to invariably withstand the enemy without being defeated are the unorthodox and orthodox . . . In general, in battle one engages with the orthodox and gains victory through the unorthodox . . . In warfare the strategic configurations of power do not exceed the unorthodox and orthodox, but the changes of the unorthodox and orthodox can never be completely exhausted. The unorthodox and orthodox mutually produce each other, just like an endless cycle. Who can exhaust them?<sup>71</sup>

“Orthodox” tactics generally represent the conventional wisdom, especially tactics that are expected given the circumstances. These actions require no special quality of creativity, but rather are performed as a matter of course. “Unorthodox” tactics on the other hand encompass many different sorts of behavior, although all are united by common threads: creativity and unconventionality. Unorthodox tactics include, but are not limited to, unexpected behavior designed to surprise one’s opponent.<sup>72</sup> Thus, like the ever-changing conditions of the market, the unorthodox and orthodox constantly change too, as the conditions of action render a tactic unorthodox one moment and orthodox the next, and vice versa. As Sun Tzu recognized, the subjective expectations of oneself and one’s opponent will to a large extent determine the orthodoxy of a particular behavior.<sup>73</sup>

In the above passages, the orthodox is meant to apply to simple tasks requiring no special ability. They involve a choice between easily perceived alternatives, and are analogous to the simple maximization behavior that is the foil to Kirzner's entrepreneurial discovery.<sup>74</sup> Kirznerian discovery, on the other hand, is unorthodox because it recognizes possibilities that have not as yet been perceived by others. The unorthodox are those behaviors that "provide the disadvantaged . . . with a perspective for envisioning alternative approaches and a method for converting their situations to advantage."<sup>75</sup> The parallels to Kirzner's entrepreneur are fairly clear. The unorthodox is an expression of Kirznerian discovery in the sense that the astute commander perceives an opportunity to exploit his environment to his advantage, thus capturing a profit opportunity. Discovery is unorthodox precisely because others did not perceive it—the same reason it creates an opportunity for gain. The commanding general accomplishes the unorthodox through superior alertness and the discovery of past errors, whether his own or his opponent's. The general acts in the face of uncertainty: the correctness of his judgments is determined in the future, and it is only through realized profit (in this case, victory) that he can know truly if his estimations were correct. Just as a market entrepreneur copes with uncertainty in the data of the market, "Sun Tzu . . . considers overcoming or managing uncertainty to be the primary concern in coping with the complexities of war."<sup>76</sup>

This economic understanding of Sun Tzu is also consistent with advice given by Lao-tzu in verse 57 of the *Tao Te Ching*: "With the orthodox govern the state, with the unorthodox employ the army."<sup>77</sup> This statement underscores the calculative nature of bureaucratic management and the perceptive, innovative, and creative character of entrepreneurship. Thus, the unorthodox and orthodox are two sides to military strategy that have their analogues in Kirzner's system, in entrepreneurial behavior and economizing, respectively.

Also worthy of attention is the mutually determined nature of unorthodox and orthodox. The existence of the one implies the existence of the other. Likewise, profit opportunities exist due to past errors and the failure of entrepreneurs to identify them. Without error, there can be no profit, and profit indicates the existence of past errors. Error in this sense is orthodox; it is ordinary, a part of the normal run of things. It is the unorthodox that can be identified with entrepreneurial discovery; seeing what remains hidden to others.

We can see too that in addition to the enlightened commander, spies and other specialists in discovering information may be entrepreneurial as well. It is certainly possible for Kirznerian entrepreneurs (commanding generals) to hire other alert individuals (spies). In this case the general may partly surrender his entrepreneurial role to the spy who possesses superior perceptive abilities. Ultimately, the number and extent of entrepreneurial relationships in a complex hierarchical organization such as a firm or army will ultimately depend on the extent which each individual is alert to any relevant opportunities.<sup>78</sup> Many entrepreneurial individuals can exist within a military organization.

Is there anything useful to be discovered by applying Sun Tzu's earlier insights to Kirzner's later ones? If there is anything that Sun Tzu can teach Kirzner's entrepreneur, it might be that deception is a useful weapon to employ in the discovery process. As McCormick points out, war is a redistributive (and destructive), as opposed to productive enterprise, and thus deception is often a rational strategy in the face of a win-or-lose outcome.<sup>79</sup> As entrepreneurs compete in alertness and discovery, a shrewd entrepreneur might attempt to discover ways of spreading disinformation about profit opportunities to his competitors. This could take the form of creating false incentives (nonexistent profit opportunities), or it could mean spreading disinformation regarding available opportunities, to discourage entrepreneurial discovery by one's competitors.<sup>80</sup>

We can therefore make an analogy between the behavior of Sun Tzu's enlightened commander and Kirzner's entrepreneur. The form of expression is naturally different between Sun Tzu and Kirzner, but Sun Tzu appears to have envisaged successful warfare in a manner similar to the entrepreneurial discovery approach. It is important to emphasize though that care must be taken not to argue that there is equivalence between war and economic affairs.<sup>81</sup> War is after all destructive activity on a large scale, while the market economy concerns peaceful cooperation under the division of labor. Moreover, market competition is mutually beneficial, while warfare is typically thought of as a zero-sum game.<sup>82</sup> All I wish to argue is that there are similarities between the writings of Sun Tzu and certain ideas of Hayek (on the importance of knowledge) and Kirzner (on entrepreneurial alertness and discovery).

Beyond these differences, we must also remember that Sun Tzu consistently advises against unnecessary and wasteful war, counseling an economically efficient approach to conflict. In this way, Sun Tzu would actually claim that properly executed warfare is similar in *some* of its effects to a properly functioning economy, in the sense that resources are used efficiently, and conflict and welfare losses are minimized. If one considers military competition in this way, as a largely mental process leading to the minimization of actual conflict and destruction, a thesis regarding the similarities between ancient China and modern Vienna appears far more reasonable. Additionally, given Sun Tzu's emphasis on fluidity, change, and constant adaptation to unfolding events, it is not surprising that there should be similarities between his ideas and those of the Austrian school, which emphasizes the importance of these aspects of entrepreneurial behavior in the market process.

When discussing an entrepreneurial element in the formulation of strategy though, we must be careful to stress that this analogy carries serious imperfections. Especially, Kirzner's entrepreneur uses the lure of profit to discover opportunities in the market, whereas Sun Tzu's general uses the unorthodox to discover strategic opportunities outside the market setting. Pointing out this difference helps highlight important distinctions between market and non-market entrepreneurs, and this in turn adds to our understanding of the workings of non-market organizations.<sup>83</sup>

Kirzner, along with others writing in the Austrian tradition, stresses that the market entrepreneur acts within the framework of meaningful market prices.<sup>84</sup> These prices guide the entrepreneur's calculations of the opportunity cost of different production plans, and thus allow for the rational allocation of resources in society. However, in the absence of market prices, entrepreneurs lose the vital framework of the price system. Production must then be guided by some other means, such as bureaucratic, rule-based systems.<sup>85</sup> It is within these systems—which cannot be guided by profit and loss calculations—where the arrangement of incentives takes on even greater significance than it does in a market setting.

One significant implication is that, unlike entrepreneurial behavior in the market, we cannot make strong claims about the ability of strategists to allocate resources efficiently or improve welfare. Although they might strive toward these goals, they lack the necessary tools to achieve them. So even though it is reasonable for Sun Tzu to counsel efficiency and the avoidance of waste, the enlightened commander has no means of determining which plans represent the best use of resources, because it is the profit and loss mechanism that communicates this knowledge. A commander lacks the ability to compare his decision with others via a common tool of measurement, i.e. market prices. This is one important way in which more modern analysis complements and enriches ideas found in *The Art of War*.

## Discussion and Conclusion

A further word might be said about how Austrian economics more generally applies to the economics of military conflict. Austrian economists view economic theory as a branch of “praxeology,” a general science of action, which in turn is defined as purposeful behavior. The essence of praxeology is the deductive study of the implications of action, as well as cognate concepts such as choice. Within this broader framework, economics concerns the social aspects of action such as production and exchange. However, praxeology also describes “non-social” action as well, such as violence and conflict. Importantly, pioneers in the tradition have often noted the possibility of applying praxeological reasoning to warfare.<sup>86</sup>

Although not yet systematic, some important efforts have been made in this direction. In a trilogy of articles, contemporary economists have explored the history of Austrian writing on the economics of war.<sup>87</sup> These articles highlight how traditional Austrian themes—such as scarcity, time, uncertainty, opportunity cost, entrepreneurship, time preference, capital, and monetary policy—relate to various aspects of military conflict. Such historical Austrian writings have also been used as a basis for more recent work in this tradition. Salerno lays out a praxeological basis for analyzing war, arguing that states, because they utilize non-market methods of resource appropriation and allocation, are characterized by consistent involvement in conflict over resources.<sup>88</sup> Lacking a price system to resolve these disputes, states instead resort to war as a means of dispute resolution. The scope of this article prevents a complete comparison of the Austrian tradition and Sun Tzu, examining only one of the most important ideas they have in common, namely, entrepreneurship. However, a minor objective of this article is to at least establish the relevance of Sun Tzu’s classic for Austrian thinking on strategy and war-making, so that future research can more fully compare, and possibly integrate, the two traditions.

The ideas discussed in this article are only a few of many topics in *The Art of War* with the potential for economic interpretation. Another line of thought which might be developed regards the relevance of Sun Tzu’s style of reasoning for contemporary research on strategic behavior in an economic context. In particular, the idea of extending the analogies between Sun Tzu’s military strategy and entrepreneurship is particularly promising, given the conventional focus on strategy as a problem of already-perceived alternatives and well-defined informational limitations (for example, as are often found in the prisoner’s dilemma). Greater attention to entrepreneurial behavior might serve to expand this narrow view by incorporating a broader view of human valuation and choice. To this end, further analysis of Sun Tzu’s classic may complement the action-based and process-oriented framework of the Austrian school of economics.

I have argued that the writings attributed to Sun Tzu show early but definite hints of economic reasoning. Although the context is mainly military and not oriented toward pure economics, nevertheless, it is clear that Sun Tzu’s military masterpiece possesses an early acquaintance with what we might call “the economic point of view.” Regarding strategy as a matter of scarce resources, proper incentives, and entrepreneurial discovery makes *The Art of War* an interesting mention in the early chapters of the history of economic thought, and is certainly significant for historical and contemporary studies of the political economy of warfare.

## Notes

1. R. D. S. Yates, “New Light on Ancient Chinese Military Texts: Notes on Their Nature and Evolution, and the Development of Military Specialization in Warring States China,” *T’oung Pao*, vol. 74, nos. 4 & 5 (1988): 211–248.

2. S. A. Boorman and H. L. Boorman, "Mao Tse-tung and *The Art of War*," *Journal of Asian Studies*, vol. 24, no. 1 (1964): 129–137.

3. M. I. Handel, *Masters of War: Classical Strategic Thought*, 2nd ed. (Portland, OR: Frank Cass, 1996), 19, 37.

4. For overviews of Chinese economic thought contemporary to Sun Tzu, see R. B. Ekelund, Jr. and Robert F. Hébert, *A History of Economic Theory and Method*, 5th ed. (Long Grove, IL: Waveland Press, 2007), 22–24; and J. L. Y. Chang, "History of Chinese Economic Thought: Overview and Recent Works," *History of Political Economy*, vol. 19, no. 3 (1987): 481–502. For more extensive studies, see Hu Jichuang, *A Concise History of Chinese Economic Thought* (Beijing: Foreign Languages Press, 1988); and Chen Huan-Chang, *The Economic Principles of Confucius and His School* (New York: Columbia University Press, 1911).

5. For the sake of simplicity, I refer to Sun Wu by his conventional title in English, "Sun Tzu" ("Master Sun"). The original title of the text, *Sun Tzu Ping-fa*, is translated as "Master Sun's Art of War" or "Master Sun's Military Methods." There are many controversies regarding the historical aspects of the texts, especially when and where they were first compiled, and by whom. There is even debate about whether Sun Tzu himself was simply a legend. For detailed overviews, see J. Ø. Petersen, "What's in a Name? On the Sources Concerning Sun Wu," *Asia Major*, vol. 5, no. 1 (1992): 1–31; and the introduction and commentary of R. D. Sawyer, *The Seven Military Classics of Ancient China* (New York: Basic Books, 2007). However, these problems fall outside the scope of this article. For biographical and other historical information relating to the text and explaining its place in the history of Chinese military thought, see Sawyer, *The Seven Military Classics of Ancient China*; Sawyer, *The Tao of Deception: Unorthodox Warfare in Ancient and Modern China* (New York: Basic Books, 2007); and the other commentaries cited in the text.

6. W. Murray and M. Grimsley, "On Strategy," in W. Murray, M. Knox, and A. Bernstein, eds., *The Making of Strategy: Rulers, States, and War*, 1–23 (Cambridge: Cambridge University Press, 1994).

7. Boorman and Boorman, "Mao Tse-tung."

8. There are many English translations of the *Art of War*. I have chosen Sawyer's because it incorporates as much as possible a wide and deep selection of secondary material, as well as extant discussions on translation methods. Sun Tzu, "Art of War," in *The Seven Military Classics of Ancient China*, translated and edited by Ralph D. Sawyer, with Mei-chün Lee Sawyer (New York: Basic Books, 2007). Translations for popular audiences, such as those in the management literature, often incorporate explicitly economic terminology, and would thus be easier to use, but the scholarly translations are better for bringing out the original style and tone of the text. All quotations are taken from this edition, except where noted. The ideas presented throughout this text appear across translations, and can be seen by comparing Sawyer with Sun Tzu, *The Art of War*, translated by L. Giles and edited by J. Clavell (New York: Delacorte Press, 1983); and with Sun Tzu, "The Art of War," in *Sun Tzu and the Modern Art of Warfare*, translated by S. B. Griffith (Oxford: Oxford University Press, 2001). Any footnote references from the translations are omitted in the quotations, and terms in brackets within the quotations are from the translators, except where noted. I have also attempted to standardize the Romanization of names and bibliographic citations wherever possible.

9. For examples regarding management strategy, see C. Wee, "Managing Change: Perspectives from Sun Tzu's *Art of War*," *Strategic Change*, vol. 3, no. 4 (1994): 189–199; C. Wee, K. S. Lee, and B. W. Hidajat, *Sun Tzu: War and Management* (Singapore: Addison-Wesley, 1991); D. G. Krause, *The Art of War for Executives* (New York: Berkeley, 1995); and G.A. Michaelson, *Sun Tzu: The Art of War for Managers* (Alcoa, TN: Pressmark International, 1998). Regarding small business operations, see G. Gagliardi, *The Business Warrior: Sun Tzu's The Art of War for Entrepreneurs* (Seattle, WA: Clearbridge Publishing, 2012); and regarding education see O. K. Wong, *Pivotal Strategies for the Educational Leader* (Lanham, MD: Rowman & Littlefield, 2008). For a dissenting view on the analogy between military affairs and business strategy, see B. McCormick, "Make Money, Not War: A Brief Critique of Sun Tzu's *The Art of War*," *Journal of Business Ethics*, vol. 29, no. 3 (2001): 285–286. The limitations to the analogy are also mentioned in Wee, Managing Change.

10. I.M. Kirzner, *Discovery and the Capitalist Process* (Chicago: University of Chicago Press, 1985); *Perception, Opportunity, and Profit* (Chicago: University of Chicago Press, 1979); and *Competition and Entrepreneurship* (Chicago: University of Chicago Press, 1973).

11. Sun Tzu, Sawyer, trans. 157.

12. *Ibid.*, 159.

13. *Ibid.*, 159–160.

14. *Ibid.*, 160–161, emphasis added. There is dispute over the translation of the opening lines of this quotation. The Sawyer and Griffith translations argue that the passage refers to preserving and destroying the enemy, while Lau holds that the passage should be understood as first, referring to preserving one's own state as best, and second, to destroying the enemy's state as next-best; see D.C. Lau, "Some Notes on the Sun Tzu 孫子," *Bulletin of the School of Oriental and African Studies*, vol. 28, no. 2 (1965): 319–335. Whatever the case however, as Sawyer points out (2007, *The Seven Military Classics of Ancient China*), the general principle—and the traditional Chinese one—is that preservation is best and the destruction of resources only ever second-best.

15. M. McNeilly, *Sun Tzu and the Modern Art of Warfare* (Oxford: Oxford University Press, 2001), 21.

16. As one summary puts it, "One should seek to exert the most influence with the smallest investment" (McNeilly Sun Tzu, 23, 35).

17. Handle, *Masters of War*, 47, 75.

18. R. D. Sawyer, *The Complete Art of War* (Boulder, CO: Westview Press, 1996).

19. A. Waldron, "Chinese Strategy from the Fourteenth to the Seventeenth Centuries," in W. Murray, M. Knox, and A. Bernstein, eds., *The Making of Strategy: Rulers, States, and War* (Cambridge: Cambridge University Press, 1994).

20. S. B. Griffith, "Notes and Commentary on *The Art of War*." In *Sun Tzu and Art of Modern Warfare* (Oxford: Oxford University Press, 2001), 159–160.

21. *Ibid.*

22. The benefits of warfare, other than the survival of the state, are rarely discussed in *The Art of War*. Although this is largely speculative, this may be because Sun Tzu regarded the gains from war to be largely political and not of significance to the military or the people as such. This reading is supported by Sun Tzu's opening remark that warfare is a tool of the state.

23. J. J. Spengler, "Ssu-Ma Ch'ien, Unsuccessful Exponent of Laissez Faire," *Southern Economic Journal*, vol. 30, no. 3 (1964): 223–243.

24. Quoted in Sun Tzu ([Griffith] 2001, p. 223).

25. Sun Tzu, Griffith, trans., 157.

26. *Ibid.*, 164.

27. *Ibid.*, 171.

28. Sun Wu, Sawyer, trans., 171, 177. The conflict between generals and rulers was often noted in the ancient military writings. See, for example, Petersen, What's in a Name?; Sawyer (2007, p. 257); and the traditional commentaries quoted in Sun Tzu, Griffith], trans., 259. Also, certain versions of the text incorporate "lost" passages among these comments, which further emphasize the need for military autonomy from the ruler once the initial orders have been given (Sawyer, *The Seven Military Classics of Ancient China*).

29. Sun Tzu, Sawyer, trans., 162. The term "Three Armies" is used to refer to the army in general, and not to any specific quantity or disposition of troops (Sawyer, Commentary, 354).

30. Quoted in Sun Tzu ([Griffith] 2001, p. 230).

31. Sun Tzu, Sawyer, trans., 162. Chia Lin goes so far as to say "No evil is greater than commands of the sovereign from the court" (quoted in Sun Tzu [Griffith] 2001, p. 230).

32. Sun Tzu, Griffith, trans., 220, n1; Sun Tzu, Sawyer, trans., 176, 185. Sun Pin, however, appears more open to the possibility that astrological influences play a role in determining the outcome of military actions; see Sun Pin, *Military Methods*. However, the version of his text which survives has been largely corrupted, making his exact position on this problem unclear.

33. The Legalist School of philosophy, which emerged during the Warring States period and with which Sun Pin was contemporary, also extensively discussed rewards and punishments as tools of motivation; see Y. B. Choi, "The Political Economy of Han Feitzu," *History of Political Economy*, vol. 21, no. 2 (1989): 367-390. In their political writings, the Legalists sought methods of securing and augmenting the stability and power of the state.

34. J. Marschak, "Elements for a Theory of Teams," *Management Science*, vol. 1, no. 2 (1955): 127-137; S. Kerr, "On the Folly of Rewarding A, While Hoping for B," *Academy of Management Executive*, vol. 9, no. 1 (1995): 7-14.

35. Sun Tzu, Sawyer, trans., 157-58.

36. Sun Tzu, Sawyer, trans., 160. Compare to the discussion of Ssu-Ma Ch'ien, who argues that the pursuit of profit is a part of human nature; see Spengler, Ssu-Ma Ch'ien.

37. Sun Tzu, Sawyer, trans., 170.

38. Sun Tzu, Sawyer, 1996, 128. Recommended punishments for Chinese soldiers could be particularly harsh in the early military writings (Sawyer, 2007, pp. 197, 211). Sun Pin, for instance, advises, "If the members of the squad of five lose a member and fail to rescue him, they themselves will die and their families will be exterminated" (Sun Pin, *Military Methods*, 195). The passage cited before this note is not part of the traditional *Art of War*, but is included as a teaching of Sun Tzu in a Tang dynasty encyclopedia, the *T'ung Tien*.

39. Sun Tzu, Sawyer, trans., 185.

40. *Ibid.* It is important that Sun Tzu does not much comment on the punishments inflicted on spies. This is perhaps due to the disincentive a commander faces when punishing spies: unlike ordinary soldiers, spies possess information which could make them significant assets to either side, and thus the cost of alienating a spy is larger than other individuals within the military hierarchy. Sun Tzu only mentions punishment for spies in cases when their incompetence or disloyalty compromises the army's activities: "If before the mission has begun it has already been exposed, the spy and those he informed should all be put to death" *Ibid.*, 186.

41. *Ibid.*

42. *Ibid.*, 174-75.

43. *Ibid.*, 160.

44. *Ibid.*, 158, 166.

45. *Ibid.*, 165, 169, 172, 182.

46. Sun Wu, "Nine Configurations and Two Questions," in R. D. Sawyer, trans., *The Complete Art of War* (Boulder, CO: Westview Press, 1996), 292.

47. *Ibid.*, 131.

48. Sun Tzu, Sawyer, trans., 166. As noted above, the principle of avoiding being compelled applies not only to the general's conduct with regard to his opponents, but also to his relations with allies and superiors, such as the ruler. In addition, the incentives of the commanding generals must also align with the objectives of the ruler. See "War, State, and Economy" above.

49. *Ibid.*, 162.

50. Or triple agents, or whatever the case may be. The point is that the complexity of relationships and costs increases dramatically when one allows for this kind of deception. Mirrlees notes the difficulty of modeling situations in which a principal and an agent compete in trying to influence observational precision; see J. A. Mirrlees, "The Optimal Structure of Incentives within an Organization," *Bell Journal of Economics*, vol. 7, no. 1 (1976): 105-131.

51. B. F. Hoselitz, "The Early History of Entrepreneurial Theory," in J. J. Spengler and W. R. Allen, eds., *Essays in Economic Thought: Aristotle to Marshall* (Chicago: Rand McNally & Company, 1960), 234-257.

52. W. J. Baumol, "Entrepreneurship: Productive, Unproductive, and Destructive," *Journal of Political Economy*, vol. 98, no. 5 (1990): 893-919. Although in the current literature, military decision making would most likely fall under the umbrella of "political entrepreneurship"; see M. McCaffrey, and J. T. Salerno, "A Theory of Political Entrepreneurship," *Modern Economy*, vol. 2, no. 4 (2011): 552-560.

53. Michaelson, Sun Tzu, 2.

54. It is arguable that Sun Tzu's writings are consistent with other approaches to entrepreneurship as well. A full exploration of this possibility, while important, lies beyond the scope of this article.

55. Kirzner, *Discovery and the Capitalist Process; Perception, Opportunity, and Profit; and Competition and Entrepreneurship*.

56. F. A. Hayek, "The Use of Knowledge in Society," *American Economic Review*, vol. 35, no. 4 (1945): 519-530; Kirzner, *Competition and Entrepreneurship*.

57. R. Jacobson, "The Austrian School of Strategy," *Academy of Management Review*, vol. 17, no. 4 (1992): 782-807.

58. Kirzner, *Discovery and the Capitalist Process*, 7.

59. *Ibid.*, 17.

60. Similarly, Kirzner has also distinguished between the entrepreneurial function on the one hand and individuals who merely have a superior command of particular knowledge on the other (Kirzner, *Competition and Entrepreneurship*, 55-56). As he repeatedly emphasizes, "The kind of 'knowledge' required for entrepreneurship is 'knowing where to look for knowledge' rather than knowledge of substantive market information" (*Ibid.*, 68).

61. Kirzner, *Perception, Opportunity, and Profit*, 8.

62. Baumol, *Entrepreneurship*.

63. Sun Tzu, Giles, trans., 76.

64. Sun Tzu, Sawyer, trans., 162.

65. D.M.C. Yuen, "Deciphering Sun Tzu," *Comparative Strategy*, vol. 27, no. 2 (2008): 193-200.

66. Sawyer, 2007, 247.

67. Sun Tzu, Sawyer, trans., chap. 6. There are however certain general, conceptual principles which determine victory or defeat (these principles are the main subject matter of the *Art of War*), but there are no particular strategies which guarantee victory.

68. *Ibid.*, 167.

69. C. C. Rand, "Chinese Military Thought and Philosophical Taoism," *Monumenta Serica*, vol. 34 (1980): 171-218; Rand, "Li Ch'üan and Chinese Military Thought," *Harvard Journal of Asiatic Studies*, vol. 39, no. 1 (1979): 107-137; Sawyer, 2007, 247-49, 279-81, 286-88. However, the place of the *Art of War* in the historical timeline makes it unclear whether Sun Tzu explicitly adopted this idea from Taoist philosophy, or if an already-popular idea was incorporated into his writing.

70. McNeilly, Sun Tzu, 9.

71. Sun Tzu, Sawyer, trans., 164-65.

72. For an extensive analysis of the concept of the "unorthodox" and "orthodox" in Chinese military theory and history, see B. E. Wallacker, "Two Concepts in Early Chinese Military Thought," *Language*, vol. 42, no. 2 (1966): 295-299; and Sawyer, *The Tao of Deception*. These terms have been translated in numerous ways, including "indirect" and "direct," by Giles and Griffith.

73. Lau, *Some Notes*.

74. In Kirzner's work, this is referred to as "calculation," or maximizing in the Robbinsian sense (Kirzner, *Competition and Entrepreneurship*, 31-37).

75. Sawyer, 2007, 64-65.

76. Yuen, *Deciphering Sun Tzu*.

77. On the relation between classic Chinese military thought and philosophical Taoism, as well as some comparison of passages from the *Lao Tzu*, *Sun Tzu Ping-fa*, and *Sun Pin Ping-fa*, see Rand, *Chinese Military Thought*; Li Ch'üan.

78. Kirzner, *Competition and Entrepreneurship*, chap. 3.

79. McCormick, *Make Money Not War*.

80. Kirzner has always stressed the morality of entrepreneurial activity, so I wish to point out that I am making no moral statements about deceptive entrepreneurial activity. I am merely pointing out that such possibilities for deception could exist, and might be used to more successfully exploit profit opportunities, at least in the short run.

81. McCormick, Make Money Not War.
82. J. M. Klinger, "Political Economy and National Security: A Primer," in J. B. Bartholomees, Jr., ed., *U.S. Army War College Guide to National Security Issues, Volume I: Theory of War and Strategy*, 3rd ed. (Carlisle, PA: Strategic Studies Institute, 2008).
83. Further discussions of non-market entrepreneurship from a Kirznerian perspective may be found in G. E. Shockley, P. M. Frank, and Roger R. Stough, eds., *Non-market Entrepreneurship: Interdisciplinary Approaches* (Cheltenham, UK: Edward Elgar, 2008).
84. Ludwig von Mises, *Human Action: Scholar's Edition* (Auburn, AL: The Ludwig von Mises Institute, 1998).
85. Ludwig von Mises, *Bureaucracy* (Indianapolis: Liberty Fund, 2007). This argument forms the core of Mises's critique of socialist economic planning: under a system of public ownership of the means of production, meaningful market prices do not exist, and thus the socialist economy cannot allocate resources to their most urgent uses (Mises, *Human Action*, 694–711).
86. Mises, *Human Action*, 817–828; M. N. Rothbard, *Man, Economy, and State* (Auburn, AL: The Ludwig von Mises Institute, 2004), 72–76.
87. S. A. Kjar and William L. Anderson, "War and the Austrian School: Applying the Economics of the Founders," *Economics of Peace and Security Journal*, vol. 5, no. 1 (2010): 6–11; C. Westley, W. L. Anderson, and S. A. Kjar, "War and the Austrian School: Ludwig von Mises and Friedrich von Hayek," *Economics of Peace and Security Journal*, vol. 6, no. 1 (2011): 28–33; and W. L. Anderson, S. A. Kjar, and J. D. Yohe, "War and the Austrian School: Modern Austrian Economists Take on Aggressive Wars," *Economics of Peace and Security Journal*, vol. 7, no. 2 (2012): 30–37.
88. J. T. Salerno, "Imperialism and the Logic of War Making," *Independent Review: A Journal of Political Economy*, vol. 12, no. 3 (2008): 447–457.

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