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The Art of Strategy

**A GAME THEORIST'S
GUIDE TO SUCCESS
IN BUSINESS & LIFE**

Avinash K. Dixit

Barry J. Nalebuff



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To all our students,
from whom we have learned so much

(especially Seth—BJN)

to buy the good. The only way to ensure that you win whenever the price is below your value is to bid the true value.

In a Vickrey auction, bidding the true valuation doesn't make you pay more—except when someone else would have outbid you, in which case you would have wanted to raise your bid until the selling price exceeded your valuation. The risk associated with a Vickrey auction is limited; the winner is never forced to pay an amount greater than her bid. While there is uncertainty about what the winner will pay, this uncertainty is only over the degree of good news. Even though the good news might be variable, the best strategy is to win the auction whenever it's profitable. That means bidding your true value. You never miss a profitable opportunity, and whenever you win you pay less than your true value.

BUT ONE LIFE TO LAY DOWN FOR YOUR COUNTRY

How can the commanders of an army motivate its soldiers to risk their lives for their country? Most armies would be finished if each soldier on the battlefield started to make a rational calculation of the costs and the benefits of risking his own life. What are the various devices that can motivate and incentivize soldiers to risk their lives?

Case Discussion

First look at some devices that transform the soldiers' self-regarding rationality. The process begins in boot camp. Basic training in the armed forces everywhere is a traumatic experience. The new recruit is maltreated, humiliated, and put under such immense physical and mental strain that the few weeks quite alter his personality. An important habit acquired in this process is an automatic, unquestioning obedience. There is no reason why socks should be folded, or beds made, in a particular way, except that the officer has so ordered. The idea is that the same obedience will occur when the order is of greater importance. Trained not to question orders, the soldier becomes a fighting machine; commitment is automatic.

Many armies got their soldiers drunk before battle. This may have reduced their fighting efficiency, but it also reduced their capacity for rational calculation of self-preservation.

The seeming irrationality of each soldier turns into strategic rationality. Shakespeare knew this perfectly well; in *Henry V*, the night before the battle of Agincourt (fought on St. Crispin's day, October 25, 1415), King Henry prays (emphasis added):

O God of battles! steel my soldiers' hearts;
Possess them not with fear; *take from them now*
The sense of reckoning, if th'opposed numbers
Pluck their hearts from them

Just before the battle, Henry does something that may at first seem to defeat his purpose. Instead of enforcing any compulsion to fight, he declares:

... he which hath no stomach to this fight,
Let him depart; his passport shall be made,
And crowns for convoy put into his purse:
We would not die in that man's company
That fears his fellowship to die with us.

The catch is that anyone who wants to take up this offer has to do so in full view of all of his companions. Of course everyone is too ashamed to do so. And the action (actually, inaction) of publicly declining the offer changes soldiers' preferences, even personalities, irrevocably. By their act of rejecting the offer, the soldiers have psychologically burned their ships home. They have established an implicit contract with each other not to flinch from death if the time comes.*

* Others have used the same ploy. Roald Amundsen started his journey of exploration to the South Pole using a trick; those who signed up did so in the belief that they were going on a long but much less risky voyage to the Arctic. He revealed his true objective only at the last possible point of return, and offered a passage-paid return to Norway to anyone who did not want to continue. No one took him up on this, even though later there was much muttering: "Why did you say yes? If only you had answered no, I would have done the same" (Roland