SOCIONOMICS
FOUNDATION

THE SOCIONOMICS SLANT

A Review of Current Social Thought from the Viewpoint of Socionomics.

Book under review:
James Surowiecki, *The Wisdom of Crowds*. New York: Doubleday, 2004.

Review by:
Wayne D. Parker, Ph.D. | *Executive Director*

James Surowiecki, writer of the business column for *The New Yorker*, has written a fascinating book about the conditions under which (considerably more than) two heads are better than one. The issues he examines are complex, and many of Surowiecki's conclusions are surprisingly counter-intuitive. As we will see, some of his findings are supportive of socionomic theory, while we must disagree with others.

The main thesis of Surowiecki's book is that "…under the right circumstances, groups are remarkably intelligent, and are often smarter than the smartest people in them" (p. xiii). Of course, there is an opposing view: in 1841, Charles Mackay, in the classic *Extraordinary Popular Delusions and the Madness of Crowds*, wrote: "Men, it has been well said, think in herds. It will be seen that they go mad in herds, while they only recover their senses slowly, and one by one." So when is Surowiecki correct, and when is Mackay correct?

Surowiecki focuses on three general types of problems where "the wisdom of crowds" is demonstrated:

1) ***Cognition problems*** – Problems with definitive answers, such as "How many jelly beans are in this jar?"
2) ***Coordination problems*** – Those requiring groups of people to coordinate their behavior with each other, such as traffic problems, buyers and sellers finding a fair market price for an asset, companies organizing their activities.
3) ***Cooperation problems*** – These problems involve getting self-interested individuals to work together to do things they don't like doing, such as paying taxes, dealing with pollution, etc.

It is unclear how Surowiecki chose these three categories – the evidence for his conclusions throughout the book is mainly anecdotal.

Surowiecki also proposes that four conditions must be met in order for crowds to be wise:

1) ***Diversity*** – The wise crowd must not be too homogeneous, or else there will not be enough different ideas.
2) ***Independence*** – The wise crowd must have freedom to come up with its own thoughts.
3) ***Decentralization*** – The wise crowd must not be dominated by any one central authority demanding conformity.
4) ***Aggregation*** – There must be some mechanism for turning private judgments into a collective decision.

Again, Surowiecki does not specify the source of these criteria. We must conclude that these criteria are the product of his own personal observations of society. A major problem with this book is that the author is a journalist, not a scientist. He offers many interesting anecdotes, but scant quantitative, scientific evidence that his thesis is correct, or that his four conditions for crowd wisdom are the most critical criteria. He does not demonstrate empirical evidence for either their necessity or their sufficiency.

Of course, none of this keeps the book from being extremely entertaining. Surowiecki's evidence may be anecdotal, but the anecdotes make for a good read. For instance, in trying to show the superior intelligence of crowds, he informs us that on the television show *Who Wants to be a Millionaire?*, asking an expert yielded the right answer 65% of the time, but polling the audience (of average people, not experts) resulted in the right answer 91% of the time. This may not be serious science, but it is certainly thought provoking.

To his credit, Surowiecki also does a great job of telling compelling stories that illustrate the contexts where the crowd's wisdom is impaired. These "exceptions to the rule" make his argument in support of the importance of diversity, independence, and decentralization more persuasive, even if his stories are merely anecdotal. A good example is his rendition of psychologist I.L. Janis' study of "groupthink," a group decision process run amok, most famously in the decision resulting in the Bay of Pigs fiasco back in the Kennedy administration. I studied

this research as a student in one of Janis' social psychology courses at Yale more than 30 years ago, and the example is as relevant today as it was then. Lack of independence of judgment in a group, lack of freedom to openly dissent with group leaders, turns the wisdom of the crowd into decisions that seem crafted by a group of morons, even when the individuals in such groups have very high IQs. The author's discussion of "groupthink" is a valuable cautionary tale to corporate leaders and government decision-makers alike.

Surowiecki's third chapter focuses on "herding" and related concepts, such as information cascades and imitation. There are significant differences between the author's concept of herding and that of socionomic theory. While on p. 41 the author acknowledges that "Independence [of decision-making] doesn't imply rationality," his later discussion of herding assumes that the process is both rational and conscious, unlike Prechter's version of herding, which posits that it is a pre-rational, unconscious process. For instance, Surowiecki writes that "The fundamental problem with an information cascade is that after a certain point **it becomes rational** for people to stop paying attention to their own knowledge…and to start looking instead at the actions of others and imitate them…. But once each individual stops relying on his own knowledge, the cascade stops becoming informative" (p. 54).

How does herding work? Surowiecki presents several interesting, but very conflicting theories. He first summarizes the work of economists Bikhchandani, Hirshleifer, and Welch, who suggest that people herd due to a rational process of imitation that occasionally ends badly if they accidentally get bad information early on in the process. He then relates a completely different theory, that of Malcolm Gladwell (author of the popular book *The Tipping Point*), who theorizes that "some people are far more influential than others" and that "epidemics" result from people rushing to imitate these early adopters of a new idea. Still another dissenting opinion comes from Yale economist Robert Shiller, who Surowiecki quotes as saying that "In most cases, many people independently choose their action based on their own signals, without observing the actions of others."

In this chapter, Surowiecki is acting more like a journalist than like an author defending a well-defined thesis. He simply quotes the varying theories about herding, rather than integrating them or taking a stand on the version he thinks is correct. And he doesn't always do the various theories justice. The Shiller quote, for instance, is brought in to say that herding isn't all that widespread, but Shiller is most famous for his work on financial "fads and fashions," including the "irrational exuberance" of crowds.

Unfortunately, the author's attempts to organize these disparate theories of herding suffer from two flaws. When in doubt, he appeals to an evolutionary explanation of the process of social imitation: "Used well, imitation is a powerful tool for spreading good ideas fast…. you can see it as a way of speeding up the evolutionary process – the community can become more fit without the usual need for multiple generations of genetic winnowing." This pseudo-scientific reasoning sounds good, but it is not open to falsification, and the argument has obvious flaws (herding doesn't always improve the group's fitness, as in stock market crashes).

Secondly, his attempts at conceptual synthesis of the differing theories of herding are transparently weak. For instance: "Intelligent imitation can help the group… but slavish imitation hurts." Let's see, so this means smart herding is good, but stupid herding is bad? Probably true, but fairly obvious. He struggles to distinguish between what differentiates the two types of herding, but can only come up with this optimistic thought: "The banal but key point I'm trying to make is that the more important the decision, the less likely a cascade is to take hold." (p. 63) If we consider the Bay of Pigs and the Wall Street debacle in 1929, this idea seems to be sheer wish-fulfillment.

In contrast to Surowiecki's theory, socionomic theory suggests that herding takes place in contexts of *uncertainty*, whether the issues being decided are important or unimportant. It is hard to argue that the length of hemlines or the style of popular music is vital to human survival, but Prechter and others have shown how herding produces trends in such matters over time. Similarly, one can hardly say that the economic stability of a nation's markets or the outbreak of major military conflict is unimportant, but herding produces the key processes that affect these matters, as well.

The common denominator of all these issues, both important and unimportant, is the *uncertainty* inherent in the context that governs the outcomes. In contexts with little uncertainty, as in the predictable relationship between supply and demand in microeconomics, or in the predictable relationship between better hybrid seed and increased crop yields (an example from corn farming cited by Surowiecki), there is little or no herding.

Interestingly, Surowiecki comes close to making this key distinction between contexts of certainty vs. uncertainty, but fails to make anything of it. In reviewing the work of psychologist Vernon Smith, he concludes that "Smith's experiments show that there's a real difference between the way people behave in consumer markets (like, say, the market for televisions) and the way people behave in asset markets (like, say, the market for stocks" (p. 106). He even hints that herding takes place mainly in the latter situation. But he does not relate this to theories of herding, but only to his point that people "can coordinate themselves to achieve complex, mutually beneficial ends even if they're not really sure, at the start, what those ends are or what it will take to accomplish them" (p. 107). The author's eagerness to find proof for his main thesis about the superiority of the wisdom of crowds seems to blind him to the real implications of the evidence from Smith's experiments. And he once again seems overly optimistic in his assumption that the herding in the asset markets will always yield a "mutually beneficial" result. There are notable exceptions to his "beneficial" rule, and the stock market in the next few years may well produce another one.

Surowiecki's chapter on cooperation (Chapter 6) starts out strong, but ends up revealing more of his unscientific thinking. He tackles the issues of altruism and selfless cooperation (major challenges to the rational choice model so popular in much of economic and political theory these days), beginning with a nod to game theory and behavioral economics. He cites briefly some fascinating cross-cultural research to show that these issues may be mediated by cultural factors that differ from country to country. He ends one section with the intriguing summary, "Individually irrational acts, in other words, can produce a collectively rational outcome" (p. 116). But he never demonstrates evidence for this point in the rest of his discussion, meandering instead into an argument that evolution (once again) plus capitalism produces altruism. Even this is not a point the author seems willing to stand by, however, for he ends the chapter calling cooperation a "mystery" (p. 141) and concluding: "We can anatomize these [altruistic] acts and explain what gives rise to them. But there is something irreducible at their heart, and it marks the difference between society on the one hand and just a bunch of people living together on the other" (p. 142). This may pass for interesting journalism at a weekly magazine like *The New Yorker*, but it does not pass muster as scientific thinking.

How does socionomics differ in its explanation of altruistic or cooperative behavior? It eschews an allegiance to the type of mechanistic, reductionistic thinking embodied in the most popular versions of game theory and sociobiology. Both these theories, quite different in their emphases though they may be, ultimately see man as a slave, either to the rational dictates of logic (game theory) or to his genetic heritage (sociobiology). Both theories are threatened by the suggestion that man may not always act rationally (a threat to game theory), or that he may freely choose to act unselfishly toward his fellow man (a threat to sociobiology). Both these mechanistic theories, in order to remain true to their assumptions of reductionism and external determinism, have had the burden of reconstruing cooperative behavior to explain away human freedom or to explain away acts of seeming unselfishness by humans. Socionomics, without the constraint of a commitment to mechanistic reductionism, has no burden obliging it to explain away human freedom or altruism. Socionomics sees man as a fundamentally active organism, not a fundamentally reactive (externally determined) organism. Accordingly, man's freedom to choose to act in ways that benefit his neighbor is seen as neither a necessity nor an anomaly. It is simply one of the millions of choices man has. There is an element of determinism in socionomics, but it is formological determinism of a sort that remains compatible with individual freedom. While socionomics posits that the pattern of social action in the aggregate is probabilistically determined by the formological system described by Elliott wave fractals, this pattern is generated by a prerational process of herding which an individual man, if consciously aware of the pattern, has the freedom to depart from. Herding is a tendency of the crowd, whether wise or unwise, not a mechanical necessity for each individual.

Nowhere are the differences between Surowiecki's thoughts and socionomic theory more clear than in his chapter on

the stock market (Chapter 11). He struggles to fit his stories about the stock market into the same framework of ideas he has argued for in the rest of the book: people can be dumb, but the crowd is smart. While rejecting strict versions of the efficient market hypothesis, he also rejects the critique offered by behavioral economists who suggest that "the market is deeply flawed in its judgments." He tries to resolve this by arguing that "If investors, as individuals, are irrational, it's still possible that when you aggregate all their choices, the collective outcome will be rational and smart" (p. 230). Possible, perhaps, but this conclusion is a bit too optimistic to fit the real record of stock market history.

Surowiecki tries to argue that bubbles and crashes are the exception that proves his optimistic rule: "Bubbles and crashes are textbook examples of collective decision making gone wrong. In a bubble, all of the conditions that make groups intelligent – independence, diversity, private judgment – disappear" (p. 244). This in itself is a good insight. Though it would take far more research than Surowiecki offers to prove it, these three factors may well have a lot to do with good group decisions. Where socionomics would differ with Surowiecki, however, is in his notion that bubble psychology is a rare exception in the stock market. He claims, "Most of the time, then, the stock market is an ever-changing but relatively stable mix of independent and dependent decision making. Bubbles and crashes occur when the mix shifts too far in the direction of dependence" (p. 248). This is simply good old-fashioned equilibrium theory – the market is seen as mainly seeking an equilibrium, but is occasionally knocked out of whack by exogenous shocks. In contrast, socionomic theory says that the large percentage moves by the market at certain points in history are a predictable part of the fractal pattern Elliott described so many decades ago, and are not an anomalous exception to the rule. Surowiecki unwittingly describes the frustrating weakness of the blind spots of traditional finance theory: "The real mystery is why crashes occur when they do, since most major crashes in financial history have seemed out of proportion to their immediate causes" (p. 249). This huge understatement betrays the very core of the problem: When one's theory forces one to look only at "external events" for the "immediate causes" of a stock market crash, one will never solve the mystery if the real cause lies in the endogenous dynamics of the formological system of the market.

As he did in discussing theories to explain herding in general, Surowiecki introduces two incompatible theories about the dynamics of market crashes, but does not resolve the conflicts between them. He mentions in passing: "Perhaps the best analogy is that offered by the biologist Per Bak, who compares a market crash to the collapse of a sandpile. As you add grains of sand to a pile, it will keep its shape as it grows bigger. But at some point, one grain of sand too many will send the pile tumbling." In this theory, all investors are homogeneous. Compare the opposing theory, also quoted approvingly, by sociologist Mark Granovetter (describing mob behavior, which Surowiecki likens to market crashes). Here, "instigators" and "followers" (plus a mid-level group) have a complex relationship that sometimes leads to mob violence and sometimes not, depending on the "mix" of these three subgroups. Does Surowiecki integrate this theory with Bak's sandpile, or reconcile the theoretical differences? No. He simply concludes, "The analogy to a stock-market bubble is obvious: the more investors who refuse to buy stocks just because other people are buying them, the less likely it will be that a bubble will become inflated. The fewer investors there are who treat the market as if it were Keynes's beauty contest, the more robust and intelligent the market's decisions will be" (p. 258). Surowiecki seems to mean this as a serious prescription: "Okay, no more herding, guys!" If wishes were horses, beggars would ride. Socionomics takes a more realistic approach: the vast majority of humans will always herd in contexts of uncertainty such as the stock market – and the educated beggars can profit from this knowledge. To the individual investor, socionomics says, "Don't change the herd – change yourself, by disciplining yourself to ride the waves of the formological system of the market even when your emotions tell you otherwise."

Surowiecki seems to be at his best when telling interesting stories, not arguing a tightly reasoned case for a scientific theory. Whether reporting the disastrous process of poor group decision-making that resulted in several tragedies at NASA, or discussing success stories of corporate America, The *Wisdom of Crowds* makes for fascinating reading, even if the author's support for his conclusions is a bit thin on empirical data. Even when he stretches his stories to force them to offer support for his key hypotheses, the stories are entertaining. He relates the now-familiar tale of greed and financial disaster in the episode about Long Term Capital Management, and it is good reading. He concludes,

however, by saying the main lesson from the LTCM debacle was that lack of diversity in a group yields poor decisions, whereas it seems more to the point that LTCM's poor decisions sprang from hubris, excessive leverage, and a slavish belief in simplistic theories about mean reversion in financial markets.