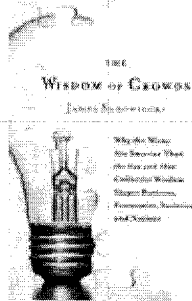


Beyond the Mad Crowd Disease

A Review of



The Wisdom of Crowds

by James Surowiecki

New York: Doubleday, 2004.

296 pp. ISBN 0-385-50386-5.

\$35.95

Reviewed by

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Crowds have gotten a bad rap in psychology. Nineteenth century opinion held that men could be rational individually, but, when placed in a crowd situation, they rapidly devolved into emotional, impulsive, and suggestible beings. In other words, they became like women. Gustave Le Bon (1895) championed this view, and, along with the writings of other authors from France and Italy at the time, his approach came to be known as the romance school of crowd psychology. This school of thought had considerable impact. Freud (1921) honored Le Bon's work by dedicating his book *Group Psychology and the Analysis of the Ego* to the task of reformulating crowd psychology in psychoanalytic terms. Classic social psychology produced experimental demonstrations of the pitfalls and dangers of group life, giving empirical power to concepts such as deindividuation, groupthink, and attitude polarization. Although social psychologists soon became convinced that the Le Bonian idea of the "group mind" was fallacious, the cumulative empirical record emphasized the detrimental aspects of group life over the beneficial ones.

In his engaging new book *The Wisdom of Crowds*, James Surowiecki uncovers many cases in which the judgments of the many are, on average, better than the judgments of individuals. His first example proves that the potential wisdom of the crowd was never a secret. Francis Galton, a contemporary of Le Bon's and arguably a man of more lasting impact, observed at a livestock exhibition that the average of many estimates of an ox's weight came within 1 pound of its true weight. From this and other examples of this kind, Surowiecki concludes that classic measurement theory does a good job of describing human judgment. According to this theory, a judgment can be modeled as *information plus error*. Information is the true value to be estimated (e.g., the ox really weighed 1,198 pounds), and error is the difference between an individual's estimate and the truth. Errors are assumed to be random and, thus, expected to wither away as more estimates are averaged. The model fits if, after massive aggregation, no nontrivial difference remains between the average estimate and the truth. If there is a difference, a term denoting systematic bias must be allowed, which, in turn, requires a psychological explanation.

Surowiecki deduces that crowds are smart when four conditions prevail: First, individuals must hail from diverse backgrounds so that no valid perspective on the judgment problem is missed. Second, they need to be independent of one another, because only then can their idiosyncrasies be modeled as random error. Third, they need to be operating in a decentralized environment, which means they must be allowed to self-organize without having to submit to some executive plan or control. Finally, their judgments need to be aggregated, which is perhaps a task best left to an administrative figure. Think of Galton taking his spreadsheet to the pasture or of an enlightened boss collecting and integrating the

diverse and independent views of her team members.

— Surowiecki knows that the model works—indeed, that it *must* work—when these conditions are met. The questions are when they are met and what can be done when they are not. The most compelling evidence for the utility of the model comes from cognition tasks, in which individuals function as measurement instruments, as the model assumes. To err is human, but if one person's error is independent of another's, they do better collectively than individually. The method works best when the task is too difficult or too ambiguous to permit real expertise yet easy enough for most people to have some valid information and for *some* people to suffer the illusion that they know much better than the crowd. Predictions about the social behaviors of others, the trend of the stock market, or the coming of the hurricane season sometimes satisfy these conditions.

— In clinical judgment, the wisdom of aggregation has long been recognized in theory, although it has been largely ignored in practice. Many clinicians continue to trust their own ability to beat actuarial prediction models, although they rarely succeed (Dawes, 1994). In contrast, many personality psychologists place too much faith in aggregation when aiming to capture true personality by averaging peer judgments (e.g., Hofstee, 1994). This view reduces personality to reputation. It ignores the target person's privileged access to relevant information and the real possibility that observers are not randomly sampled. Nor is it clear that observers are free from bias. This latter possibility has been a central interest of social psychology. When social judgments are averaged, it is often only the significant departure from some ideal value that is of interest, not how accurate the judges manage to be under difficult conditions (Krueger &

Funder, 2004).

— The wisdom of crowds is a good antidote against the simplistic view that groups are either all good or all bad when compared with individuals. Although the book seems to suggest an agenda of proving the good, Surowiecki is sensitive to the challenges of modeling social judgment. He realizes that the information-plus-error model works only when all of its conditions are met. As one reads on, one begins to appreciate how easily collective biases can creep in, as a result of a lack of diversity, independence, or decentralization. Not all reviewers seem to have read on, however, judging from Michael Shermer's (2004) exulting summary of Chapter 1 in *Scientific American*.

— After showing that crowds can solve cognition problems when conditions are favorable, Surowiecki moves on to the more complicated world of group dynamics. Here, the challenge is to get coordinated and to cooperate. In other words, the challenge is not to obtain accurate knowledge of some external thing but to optimize the crowd's behavior to attain the greatest good for the greatest number of people. Coordination problems require that people figure out how to do the same thing. If all a man knows, for example, is that he will meet his date at 6:00 p.m. at the mall, he needs to identify the most likely spot for the rendezvous. If both the man and his date believe that the food court is that place and both believe that the other believes the same, a romantic evening may be at hand. No one gains by "defecting" and going to the main entrance of Sears. Cooperation problems, however, all too easily create dilemmas, because defection pays. If the couple agreed beforehand to split the dinner bill, the gourmand comes out ahead.

— Surowiecki serves up a dizzying variety of coordination and cooperation scenarios, most

of which are taken from the world of business and finance. This is just as well, because most of the pertinent contemporary literature is found in economics journals. The references cited are up to date, and Surowiecki does an excellent job describing complicated models accessibly and accurately. To the psychologically minded readership, this is valuable, because much of this literature is easily overlooked, simply because it is associated with a different branch of social science.

— When contemplating how groups and societies manage to self-organize to make markets efficient, traffic flow smoothly, and companies flourish, one wonders whether the diversity-plus-independence-plus-decentralization model is still the right one. Take coordination problems. As Surowiecki notes, cultural learning and the acquisition of tacit knowledge are critical in enabling people to anticipate what others will do. Having these kinds of valid estimates, people can act effectively. Assuming, quite reasonably, that others have been socialized in much the same way as they themselves have been socialized, people can know how others will act without putting too much thought into it. Such culturally derived predictions are valid inasmuch as people are not diverse. Greater diversity may bring greater excitement, but it makes coordination more difficult. Even independence need not be an asset. If a man tells his date that he will be waiting for her at the food court, her decision to meet him there (or stand him up) is now a dependent one. Decentralization, however, may remain a desirable property, especially when coordination on a large scale (e.g., the national economy) is at stake.

— Now consider cooperation. Surowiecki puts his trust in trust. "To solve cooperation problems, [people] need to adopt a broader definition of self-interest than the myopic one


that maximizing profits in the short term demands. They need to be able to trust those around them" (pp. 110–111). In most social dilemmas, such as giving to charities, paying taxes, or voting, the challenge of cooperation is the challenge of containing the individual's temptation to take a free ride. The problem, as Surowiecki recognizes, is that "the more people trust, the easier they are for others to exploit" (p. 126). That is the rub; that is why it is a dilemma. The trinity of diversity, independence, and decentralization again fails. Trust can be built by culture, as the example of the Quakers' ideology and their early economic success nicely illustrates. Once free riders are on the loose, punishments are effective in bringing them back into the fold (Fehr & Gächter, 2000). A decentralized society, however, has no punishing authority. Individual members have to take it on themselves to mete out punishments at their own cost. Many do, again irrationally but for the common good. This creates a second-order social dilemma. I'd rather have someone else go to the trouble of punishing the defector than have it to do it myself. Now, who would punish those who selfishly refrain from punishing the first-order defectors? Luckily, most people (irrationally) fail to think that far.

— A good deal of cooperation spontaneously occurs, and trust seems to play a role. As with coordination, however, this works best if people are homogeneous instead of diverse. This is so because a homogeneous group is more likely to have emerged from a common cultural matrix (e.g., the Quakers), and individuals have an easier time projecting their own intended acts of cooperation onto others in this group (Robbins & Krueger, 2005). It works even better if individuals have a chance to talk to one another and to make promises of cooperation (Caporael, Dawes, Orbell, & van de Kragt, 1989). Thereby, they become mutually dependent rather than independent. Alas, even centralization can be a good thing,


for it may take a Hobbesian Leviathan to extract commitments to cooperate and to ensure that these be honored.

The second half of the book is a tour through a family of real-world social contexts in which the three types of problem (cognition, coordination, cooperation) occur. The chapters on company organization and market efficiency are sure to attract much-deserved attention in business and finance circles, respectively. The chapter characterizing science as a gift economy ought to be of interest to anyone who has been caught in the trade-off between remuneration and reputation (or who has managed to get both). Through it all, Surowiecki emerges as a scholarly mind and a great storyteller. The few small lapses can be forgiven (the word *data* is still plural; p. 169; and the expert on minority influence is Charlan Nemeth, not Chandra; p. 183). Perhaps most important, Surowiecki strikes an effective blow for a free society in which efficient markets, humane companies, and a democratic political system cannot be imposed but can evolve with goodwill and a little luck.

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March 2, 2005 Vol. 50,
No. 9, Article 3

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