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Social Science and Its Discontents: An Essay Review of Bent Flyvbjerg's *Making Social Science Matter* 

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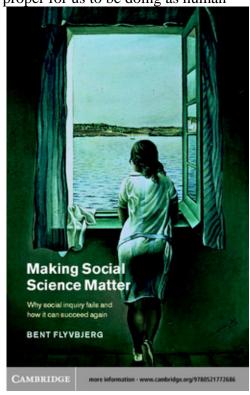
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Are the science wars over yet? Will they ever be? Bent Flyvbjerg makes the case that the conflict between the natural and social sciences ultimately boils down to a foundational misunderstanding about the role that each science can and should play in our society. The natural sciences have found their glory in explanatory, predictive theory – what Aristotle called *episteme*. For too long the social sciences have attempted and failed to succeed as epistemic sciences. But this should not have been their purpose. If the social sciences are to find their proper focus, they must practice what Aristotle termed *phronesis:* science which is practical, prudent, and capable of making a difference in the world. *Making Social Science Matter: Why Social Inquiry Fails and How It Can Succeed Again* amounts to a call to the social science community to face its demons and awaken from 300 years of Cartesian sleep.

Flyvbjerg notes that since the Enlightenment the natural sciences have dominated western culture, intensifying our focus on instrumental rationality, while suppressing value-rationality (reasoning about what is right and proper for us to be doing as human

beings). The result is a science without "a head on it." This epistemic science aims at predictive, rule-bound, context-independent theory. While possible for the *natural* world, this type of theory inevitably fails in the social world, where context reigns supreme. In fact, the social world must be understood as intuitive and phenomenological, standing opposed to context-independent theory. This gives heightened credence to the case study method, which has often been denigrated as unreliable according to epistemic criteria. In the penultimate chapter, Flyvbjerg puts theory to practice by describing his own case study of public policy in Aalborg, Denmark. Here, he tests whether phronetic social science is capable of answering the three questions most important to a healthy society: "(1) Where are we going? (2) Is this desirable? (3) What should be done" (Flyvbjerg, p. 60)?



Our essay review will begin with a summary of the book's main arguments, along with a critical analysis that focuses on three main aspect of Flyvbjerg's account: (1) his arguments relating to the difference between natural and social science, (2) his account of "phronetic" social science including Foucauldian/Nietzschean concepts of power, and (3) the philosophical foundation behind his work.

### **Summary**

The main idea of the second chapter, titled "Rationality, body, and intuition in human learning", is crucial to understanding much of the rest of the book. Flyvbjerg introduces the Dreyfus Scale, which articulates how humans may advance through five levels of learning: Novice, Advanced Beginner, Competent Performer, Proficient Performer, and Expert (p. 10). The early stages of learning depend upon following a set of prescribed, context-independent rules. Flyvbjerg uses the example of nurses-in-training. Given a procedure to follow for inspecting a hospital room full of infants, beginning nurses followed the procedures step-by-step for each baby. They never skipped a task, no matter how unimportant, even in a room full of crying babies. This contrasted with the experienced nurses who, when faced with a similar situation, were able to identify which tasks were key and which could be left out in order to tend to more babies faster (p. 12). Calling on their many experiences and intuition, these nurses were able to better serve their patients by forgoing the prescribed routine. Flyvbjerg, himself an avid chess player,

claims to never have been able to move beyond the level of *competent performer*, even though he has played for a long time. In fact, he says, few people ever do become *proficient performers* or *experts* in chess. He found that the people around him who were able to advance beyond *competent performer* were the ones who enjoyed playing speed chess. Speed chess involves making one move per second; it does not allow the player to analyze the move before making it. Stuart Dreyfus reports that these players are able to feel in their bodies which is the right move to make (p. 15). Flyvbjerg always played chess as an analytical game, but it was by ceasing to analyze, beginning to play the game intuitively, that the others were able to advance.



**Bent Flyvbjerg** 

This is the case with any *expert*: doctors, guitar players, chess players, and actors in everyday social situations. When asked to elucidate their decisions, *experts* are rarely able to reduce their performances to an explanation. This is because *experts* do not separate solutions from problems; their decisions are based more upon intuition and recollection of countless experiences than upon formal rules. According to Flyvbjerg and the Dreyfus Scale, epistemic natural science can only explain the behavior of lower-level human learning. Context-independent, predictive theory cannot tell us how human beings will behave in situations where context is all-important. The Dreyfus scale effectively refutes the Cognitivist model which holds that human

beings can only act either rationally, as analytical problem-solvers, or irrationally. Instead, Flyvbjerg proposes the term "arational" to describe this type of situational behavior (p. 22).

If human behavior cannot be explained by universal laws, can we study it scientifically as we do the natural world? Flyvbjerg explains in Chapter 3, "Is theory possible in social science", that over time, the natural sciences have found a strong, prestigious place in society. This is due to the fact that they have led to greater prediction and control of nature. Attempts by the Positivists, Structuralists, and Cognitivists to create an epistemic social science have failed and will likely never succeed. Those who say that the social sciences are still in the Kuhnian pre-paradigm stage, awaiting the deliverance of normal science and systematic puzzle solving, are probably wrong. What principally separates the social and natural sciences is that the objects of study for the former, human beings, talk back to us. They are both objects and subjects of study. The natural sciences do not experience this object-reflexivity. Expert researchers in the social sciences cannot rely on the Platonic/Kantian model of rational decision-making; rather their skills must be situational and contextual.

Flyvbjerg offers as an example Bordieu's revision of Levi-Strauss's structural gift exchange analysis. Levi-Strauss believed that he had deciphered the formal rules of gift exchange in a society. However, Bordieu points out that these rules are dependent upon temporal and contextual elements which can determine whether or not something is

considered a gift at all. If a gift were followed by the immediate reciprocation of a similar item, it would be considered not a gift but an insult. The members of the society recognize intuitively, phenomenologically, what one can give as a gift and when one can give it. They do not follow explicable rules, but rather act as *experts*. Levi-Strauss's epistemic structural theory could not account for context. Thus, a fundamental difference in the goal of social science prevents it from ever achieving the epistemic objectivity of natural science.

Moving beyond the deconstructive portion of the book, Part I, Flyvbjerg in Part II attempts to build a model of a potent social science. Aristotle conceived of three intellectual virtues which can be described as: *episteme*, concerning universal, invariable knowledge, or "know why;" *techne*, arts and crafts, concerning the instrumental application of technical knowledge, or "know how;" and *phronesis*, concerning prudence, or practical common sense (p. 57). *Phronesis* requires experience and offers knowledge of how to behave in particular situations which cannot be reduced to generalized rules. A *phronetic* social science is strong where natural science is weak; it involves the reflexive analysis of goals, values, and interests necessary for an enlightened society.

The dominant conception of a science whose goal is the production of universal theory finds its roots in Plato and extends through the Enlightenment in Kant. Flyvbjerg prefers the philosophy of Aristotle, which (he says) has been carried on by thinkers such as Machiavelli, Nietzsche, Foucault, and most recently Bordieu and Rorty. Finding inspiration in these individuals, social science can make its greatest contribution by balancing now-dominant *instrumental rationality* with greater focus on *value-rationality*. As example, Flyvbjerg cites the book *Habits of the Heart*, which utilizes participant observation, historical analysis, and narrative to explore the nature of American individualism and ask whether or not it is desirable (pp. 62-65).

Traditionally and currently, the method of case study has been denigrated as producing biased, misleading, and unreliable information. In its place, randomized experiments which control for context and produce universal theory are lauded. However, as we have seen, context-independent theory is a poor target for social science; instead, it must rely on "The power of example", which is the title of Chapter 6. Here Flyvbjerg responds to five of the major criticisms of case studies. A principal doubt about the case study method is that they are biased toward verification and tend to confirm the preconceived notions of researchers. But according to many, in-depth case studies serve as the most powerful challenges to assumptions and force researchers to revise hypotheses. Although case studies have pitfalls, their social science alternatives lead to predictive dead ends. Case studies may be mendacious witnesses, but they are the only witnesses we have. If it is assumed that research is a form of learning, then advanced understanding can only come to us when we transcend rule-bound generalizations by placing ourselves in the context being studied. This is not to reject the value of large, random-sample studies whose value is breadth; it is only to balance them

with case studies, whose value is depth. At the end of the book, Flyvbjerg calls upon a case study of his own to support his model of *phronetic social science*.

In Chapter 7, "The significance of conflict and power to social science", and Chapter 8, "Empowering Aristotle", Flyvbjerg develops the central element of his phronetic social science: power. He invokes Foucault and Nietzsche to counter Habermas, a Kantian moralist, who believes in consensus-as-democracy. For Habermas, democracy results from communicative rationality, or "the power of the good argument." In this model, democracy can be ensured by a universally constituted procedural law, particularly good constitutions. For Nietzsche and Foucault though, Habermas's neglect of power would render his philosophy inadequate. They see that constitutions can easily be bent to serve personal ends. True democracy can only be the result of conflict and struggle. This fact finds its expression in the example of suffrage movements, which were not won through the power of argument and rational ideals. Instead, they were won piecemeal, case-by-case, first by non-property-owners, then by women, then by blacks, and finally by citizens between the ages eighteen and twenty-one. Foucault rejects rationalist foundationalism and the search for a universal morality. Domination can best be minimized by examining the way in which constitutions and laws are interpreted and used, by discovering how power is exercised. Power has traditionally, and erroneously, been conceived of as localized and possessed. Foucault is valuable because he conceives of power as relation; it exists not in centers or loci, but through strategies and tactics. It is not simply negative in the sense that it controls, suppresses, or dominates, but positive as well in the sense that it produces realities and domains of truth. Power shows itself through struggle and confrontation that can strengthen or transform force relations. As Flyvbjerg shows, power is discursive and interpretative. It is involved in the politics of knowledge and truth. Flyvbjerg suggests that Foucault recovers Aristotelian phronesis in his (Foucault's) Nietzschean ethics and genealogy and, in doing so, "empowers" Aristotle. Flyvbjerg also mentions that this Foucauldian link to Aristotle is difficult to come by. Flyvbjerg writes, "with Foucault the influence from Aristotle, and especially from Aristotle's Ethics, is indirect; it reaches Foucault via Nietzsche" (p. 111).

To show this indirect link, Flyvbjerg cites "Nietzsche's debt to Aristotle's *Ethics*" (p. 111) from Walter Kaufmann's canonical work on Nietzsche, and moves from this mostly well-known observation to the *extremely* well-known fact that Foucault was deeply influenced by Nietzsche. Citing James Bernauer, Flyvbjerg asserts: "The collected works of Foucault have made it more difficult to think unhistorically, nonpolitically, and nonethically about praxis." Flyvbjerg follows that statement by maintaining that, "In my interpretation, this is what *phronesis* is about." (p. 112) Flyvbjerg goes on with various citations and references to Nietzsche, Foucault, Machiavelli, and Derrida to explain their various understandings of genealogy as it compares favorably to Aristotelian *phronesis*.

From this ethical and then genealogical association, Flyvbjerg moves into another application of Foucauldian power, the Aristotelian notion of *phronesis* (hence the "empowering"). He asserts that "when analyzed conceptually, as opposed to historically,

the similarities are striking between Foucauldian thought, as defined above, and Aristotelian *phronesis*" (p. 127). In the final sentence of chapter eight he refers directly (albeit not in a textual citation and perhaps incorrectly regarding freedom) to Aristotle when he explains that *phronesis* is, "the intellectual virtue most relevant to the project of freedom" (p. 128).

This similarity is important because, for Flyvbjerg, *phronesis* must be developed to include power. He makes this point earlier in the book when he notes the lack of these power-infused readings of Aristotle in Bernstein or anyone else when he (Flyvbjerg) writes:

Yet, as Richard Bernstein points out, if we are to think about what can be done to the problems and risks of our time, we must advance from the original conception of phronesis to one explicitly including power. Unfortunately, Bernstein himself has not integrated his work on phronesis with issues on power. Nor, to my knowledge, had anyone else (p. 3).

So, Flyvbjerg sets out to do this uncharted task in the well-traveled seas of Aristotle in an effort to infuse the intellectual virtue of *phronesis* into the mix of its more fashionable counterparts: *episteme* and *techne*.

Flyvbjerg states that his goal is to move beyond the dualisms of agency and structure, idealism and fatalism (p. 137). Aristotle's *phronesis* is about reflective thought aimed at action. Such emancipatory philosophy cannot remain at the theoretical level; it must be carried out in practice in specific cases because the project of freedom is not epistemological. Flyvbjerg wants to add input to the ongoing social dialogue so that he may do something about social problems. Chapter 10, "Examples and illustrations, narratives of value and power", is an analysis of the Aalborg Project, which Flyvbjerg involved himself in for almost fifteen years. As a case study, the Aalborg Project is a prototype of the *phronetic* social science which has been explained above.

Aalborg is an urban commercial center of five hundred thousand residents in northern Jutland, Denmark, Flyvbjerg's home country. Overrun with cars, traffic, and various forms of environmental pollution, the City Council voted 25-1 to take action to reduce the traffic and improve the environment; the Aalborg Project was born. Years after the completion of the project however, Flyvbjerg found that traffic had actually increased along with accidents and pollution. What had gone wrong? Examining the design and implementation of the project, Flyvbjerg discovered that several groups were involved in the decision-making process: The democratically elected City Council, the private-representative Chamber of Industry and Commerce, and the executive body of the police. While the City Council argued that the project should be aimed at improving the environmental conditions of the downtown area, the Chamber argued a distinctively different rationality: Automobile drivers are good for business; business is good for

Aalborg; therefore, what's good for cars is good for Aalborg (p. 147). In order to lend credence to its rationale, the City Council conducted a survey which seemed to prove that customers coming by car contributed relatively little to Aalborg's revenue; therefore, reducing automobile traffic would not hinder revenue. However, the Chamber interpreted the study differently. Their interpretation, which held that out of-of-town, driving customers were more important, coincided with the local newspaper, whose headline read, "Aalborg's Best Drivers Come Driving in Cars." The Chamber also had the ear of top municipal administrators including the alderman for planning and environment. This group was able to back its rationale with the most political muscle. As a result, traffic was not reduced. Both traffic and sales revenue increased. Traffic accidents and pollution increased. Power defined reality.

Determining that this was not desirable, Flyvbjerg took the findings of his study onto Danish Radio along with the alderman and the chairman of the local chapter Danish Cyclists Federation. Flyvbjerg announced that in lieu of the original goals of the project, bicycle accidents had increased in the recent years. The alderman initially rejected the statistics, but later conceded Flyvbjerg's point. Still, the alderman continued to publicly defend the rationale and results of the Aalborg Project. Eventually, the issue caught national and then international attention. The matter became transparent and brought public accountability. A revision of the Aalborg Project ensued which finally ameliorated the traffic problem and eventually won a European Planning Prize for involvement of citizens and interest groups in democratic urban policy.

This case study is an attempt by Flyvbjerg to show how social science can overcome its "so what?" stigma. By abandoning the vain attempt at *episteme* and embracing *phronesis*, social science can matter again. Here we see how "fieldwork in philosophy" was able to contribute to value-rationality and counteract the destructive tendencies of "headless" instrumental rationality.

# **Critical Analysis**

### 1. The differences between social science and natural science: Questions

Flyvbjerg has made an important contribution to social inquiry. He makes a valiant attempt to overcome the "physics envy" of the social sciences and addresses one of the principal problems of modernity: that science and technology, free of value-rationality, without "a head on them," have escaped human control and now threaten our very existence. Still, *Making Social Science Matter* leaves some unresolved questions and issues that stand in need of further clarification. We begin with Flyvbjerg's differentiation of social science from natural science.

Flyvbjerg criticizes the idea that social science should be like natural science in its explanatory aspirations. Social science cannot generalize and predict like the natural science. Flyvbjerg writes:

The problem with the study of human activity is that every attempt at a context-free definition of an action, that is, a definition based on abstract rules or laws, will not necessarily accord with the pragmatic way an action is defined by the actors in a concrete social situation. Social scientists do not have a theory (rules or laws) for how the people they study determine what counts as an action, because the determination derives from situationally defined (context-dependent) skills, which the objects of study are proficient and experts in exercising, and because theory—by definition—presupposes context independence (p. 42).

If we were to outline the steps of the argument, it could be reconstructed in the following way:

- a. Social actors, when acting within the normal activities of community life, act like *experts* in that domain (i.e., their actions are context-dependent).
- b. Expert action can never be described in terms of rule following.
- c. Therefore, social action cannot be conceptualized in terms of rule following.
- d. Predictive social science theory conceptualizes social action in terms of rule following.
- e. Therefore, there can be no predictive social science theory.

This is, no doubt, a provocative account of why social science has failed—the fundamental units of analysis cannot be formulated in terms demanded by social theory.

There may, however, be some problems with this argument. The argument seems to suffer from internal incoherence. Both (a) and (b) are empirical claims, both of which can be true or false. In supporting his claim about the nature of expert action in premise (b), Flyvbjerg draws on Dreyfus and Dreyfus (1986) who are interpreted to argue that experts cannot be "verbalized, intellectualized, and made into rules" (p. 19). Expert behavior, therefore, is "intuitive, holistic, and synchronic...unhindered by analytical deliberations" (p. 21). In establishing this claim, Dreyfus and Dreyfus themselves draw on relevant empirical work, such as descriptions of novice and expert CPR performance.

There is a tension, however, with the way that this empirical work is used. The problem is not that this empirical premise (b) is false, but that it is true: it seems to be a predicative claim, one that is based on social science research. The suppressed predictive rule that is assumed in premise (b) is this: If X is an expert in any social practice, X will not be following rules. For his argument to work, Flyvbjerg clearly needs to make a claim about all (or most) experts and this is necessarily predictive and generalized. This, however, is precisely the sort of predictive claim that Flyvbjerg claims is impossible in the social sciences. If Flyvbjerg's premise (b) is true, then it suggests that predictive social science fails; if premise

(b) is false, then his argument also fails because it contains an untrue premise. Flyvbjerg needs to explain either why his claim about experts is not a claim of predictive social science, or, if it is, why the argument then escapes from incoherence. Or, he would need to help us to better understand his argument.

One might claim that premise (a) is simply a "limiting condition," and that it is therefore a different sort of claim than that of traditional predictive social science. But notice that the same problem occurs with respect to premise (a), in which Flyvbjerg must assume that all (or most) social actors operate at the expert level. This is, again, an empirical claim that could be true or false. Flyvbjerg himself admits that in chess, most players never move beyond the level of *competent performer*. Such lower-level competency may, in fact, be describable in terms of rules. Perhaps some or many social actors never advance past basic levels of competency either—we don't know for sure. To say that all social actors are experts in their domains seems to involve making predictions and generalizations that have been ruled impossible. For example, we might do a study of a group of expert nurses and find that they are not following rules. Do we expect all expert nurses not follow rules? To say yes, we need to make a fairly robust predictive claim. If we say no, then the actions of nurses can perhaps be described in terms of rules and a predictive social science becomes possible again.

Flyvbjerg is pessimistic about predictive social science because, he argues, social action cannot be reduced to rule following. Flyvbjerg, however, needs to make some necessary distinctions. When somebody is playing chess, there are different types of rules that they could be following. Suppose a social scientist from another planet wanted to understand the game of chess. It would be relatively easy, we think, for the social scientist to discover the rules of chess (the movement constraints of the various pieces). With this, a social scientist could create a helpful description of what is involved in the game. What the social scientist could not describe so easily, if at all, would be the rules of how to play chess well. This is a distinction between the rules of chess, and the rules of chess competence. The rules that constitute the practice are not particularly mysterious; they can be taught in a straightforward way. The rules necessary to play chess competently, in contrast, are mysterious; they cannot be articulated or taught in quite the same way. This seems to us to be an important distinction: if a social scientist is interested in the rules governing or constituting a social practice, then predicative social science might be possible; if the scientist is interested in finding rules that govern expert behavior, then it might be impossible.

Flyvbjerg would have also enhanced his argument by accounting for what we may call "loose rules" of social action. Often these are actions that the relevant practitioners cannot themselves spell out. People, for example, seem to follow fairly specific rules when in conversation, even if they are not consciously aware of it. Social sciences such as linguistics and anthropology have been able to discern general rules governing social action, particularly communication. *Conversational Maxims* can, with some accuracy,

predict how far apart persons will stand when speaking to each other, how long one person may speak at a time, and how long a conversation may pause between speakers (Bonvillain, p. 110). *Conversational maxims* are to some extent context-dependent, but they are also generalizable to a considerable degree. In the main, *Making Social Science Matter* casts context-dependence and context-independence as bi-polarities without acknowledging the middle ground. The social world contains spectrums of context where, although we cannot find definitive rules, we nevertheless benefit by simplifying and categorizing in order to make situations more cognitively manageable.

Finally, most of the book relies on the idea that expert human action transcends formal, context-independent rules. Flyvbjerg relies on the Dreyfus Scale and states that its litmus test is Artificial Intelligence (AI). AI aims to replicate the decision-making skills of experts such as doctors and athletes. However, since most of traditional AI is rule-bound, and since *expert* decisions are context-dependent, then most AI should be unable to exceed the capability of the *competent performer*. For the most part, this is true, but there are exceptions. Since Flyvbjerg uses the example of chess to communicate the idea behind the Dreyfus Scale, we wish he would have addressed how traditional AI— and a rule-bound decision-making computer such as Deep Blue—has been able to defeat the world's greatest chess masters. Are such computers not really playing chess? Without a qualifying explanation, it would seem that Flyvbjerg's litmus test, while generally accurate, might fail in this specific case. At the very least, comparing Deep Blue's success in chess with other robots' lack of success in language-use may enlighten us about differences between expert action in specific activities such as chess and expert action in the more general world of social intercourse.

# 2. The possible limitations of the phronetic alternative

Obviously, Flyvbjerg's *phronetic* social science rejects the disinterested spectator model of social science. He argues that social science, as it is, has had limited success in simply generating theory. In order to stake its rightful claim as a valid and potent endeavor, it must empower us to do something; it must enable us to make a difference in the world. Flyvbjerg places emphasis on the value of praxis and it is easy to read his involvement in the Aalborg Project as a prototype of the engaged social science that he hopes to advance. While this particular case study appears highly successful and valuable, we caution that one must not overzealously embrace an engaged *phronesis* to the exclusion of a more disinterested *verstehen*. *Making Social Science Matter* implies that the social scientist ought not to stop at simply understanding social reality; he or she ought to do something to improve it. We applaud bringing *phronesis* out from the shadows, but emphasize that it must stand next to and not in front of, *episteme*. There is still much value in social science simply aimed at understanding.

Flyvbjerg does little to recognize the important contributions that traditional social science has made. Some anthropologists have made great (and useful) contributions, not by trying to change a social situation, but by trying simply to

comprehend it. The examples of Marshall Sahlins (1988) and Michael Taussig (1980) come to mind as *social scientists* who have enhanced the value-rational deliberation of society in ways that *phronetic* social science is unable to do. Sahlins, by examining culture through the lens of consumption, and Taussig, by invoking a non-capitalist people's rejection of capitalism, effectively enhance our understanding of this economic system and its relation to our lives. They are able to broaden our understanding of our own culture, not by attempting to change anything, but by painting a picture that contrasts with our self-understanding. This knowledge is useful when we pose the questions, "Where are we going?" and "Is it desirable?"

Flyvbjerg's celebration of engagement and involvement of the researcher is welcomed in many cases, but it cannot be interpreted as a free pass for a social scientist to impose his or her will upon any and every social situation. Fran Schrag, in his own review, writes, "Suppose, for example, that Flyvbjerg's analysis of the accident data had supported the allegations of the powerful chamber. Would he have been obliged to report it (or to suppress it for the sake of advancing his political aims)?" (Schrag, 92). Likely Flyvbjerg would have said, simply, yes. But, we see with this question that the desirability of engaged, *phronetic* social scientists depends upon their ethical and sound exercise of value-rationality. Combining the social researcher with the social activist could as easily result in marrying *the will to knowledge* to *the will to power* (see Diggins, 1994). Before *phronetic* social science becomes entirely acceptable, it will require deeper ethical exploration. A good start can be found in the analysis and reinterpretation of Flyvbjerg's account of *phronesis*, praxis, "the good for man" and the fidelity of his interpretation of Aristotle via Nietzsche/Foucault.

## 3. Problems in the Philosophical Grounding

Nietzsche and Aristotle. A key to Flyvbjerg's theoretical account is the connection he wants to draw between Aristotle and Foucault through Nietzsche. To make this point Flyvbjerg writes that Nietzsche was, according to Kaufmann, "indebted" to Aristotle's Ethics. This may indeed be the case, as Nietzsche certainly does see the Greeks as pivotal in the history of morality. The nature of the debt, however, needs to be explained more fully. Indeed, there are important differences between Aristotle and Nietzsche. Alasdair MacIntyre, for his part, has carefully compared Aristotle and Nietzsche with respect to social inquiry and has found them to be very different on points relevant to Flyvbjerg's analysis. In his chapter in After Virtue, "Nietzsche or Aristotle," MacIntyre writes:

Nietzsche, in *Genealogy of Morals* and elsewhere... rarely refers explicitly to Aristotle except on aesthetic questions. He does borrow the name and notion of 'the great-souled man' from the *Ethics*, although it becomes in the context of his theory something quite other than it was in Aristotle's. But his interpretation of the history of morality makes it quite clear that the Aristotelian account of ethics and politics would have to rank for Nietzsche with all those degenerate disguises of the will to

power which follow from the false turning taken by Socrates (MacIntyre, p. 117).

Here we find a radically different account from the one Flyvbjerg offers. True, there does seem to be an indebted interaction, if what we mean by that is simple influence, but on the level of endorsement we find none. According to MacIntyre, we find quite the opposite when looked at historically. MacIntyre writes: "In a much stronger sense Nietzsche's moral philosophy is matched specifically against Aristotle's by virtue of the historical role which each plays" (MacIntyre, 117). Therefore, the starting point of Flyvbjerg's comparison of Aristotle to Foucault via Nietzsche is called into question by the weakness of what is meant by "debt" and their antithetical historical relationship manifest in Macintyre's careful study of the two in *After Virtue*.

Aristotle on Phronesis. If we also look to MacIntyre's careful analysis of Aristotle's Ethics, including his notion of phronesis, we find an account that is somewhat different from Flyvbjerg's. Flyvbjerg cites the Aristotelian definition of phronesis: "a 'true state, reasoned, and capable of action with regard to things that are good or bad for man'" (2). From this definition Flyvbjerg launches directly into challenging the other intellectual virtues from chapter five of Aristotle's Ethics, episteme and techne (the ones that, according to Flyvbjerg, are favored by scientific inquiry today). To make social science matter, Flyvbjerg argues, social science should abandon those desires for technological and epistemological generalizability and certitude and turn to phronesis—prudence. Social science should proceed by refining our faculties of judgment through our careful study of, and our intelligent engagement with, individual cases.

This argument seems sound and is provocative, to be sure. In fact it is very close to chapter eight of *After Virtue*, entitled, "Character of Generalizations in Social Science." In this chapter MacIntyre points out that the Machiavellian notion of *Fortuna* haunts our knowledge seeking. MacIntyre describes *Fortuna* as "that bitch-goddess of unpredictability," and says, "we cannot dethrone her" (MacIntyre, 93) and, for just that reason, social science is valuable. From this commentary on social science, MacIntyre dedicates the next four chapters that describe in close detail the "Nietzsche *or* Aristotle" distinction as a kind of choice for modernity (or post-modernity) moving forward.

What we do not find in MacIntyre's analysis of Aristotle is an isolated conception of *phronesis* – *phronesis* interacts with *techne* and *episteme* under a larger umbrella of *eudaimonia*. This interconnected understanding of *phronesis* is something that seems lacking in Flyvbjerg, but is central to Aristotle. MacIntyre writes of eudaimonia as the "good for man" and asks:

What then is this good for man turn out to be? Aristotle has cogent arguments against identifying that good with money, with honor, or with pleasure. He gives to it the name of *eudaimonia*—as so often there is a difficulty in translation: blessedness, happiness, prosperity.

It is the state of being well and doing well in being well, of a man's being well-favored himself and in relation to the divine. But when Aristotle gives this name to the good for man, he leaves the question of the content of *eudaimonia* largely open (MacIntyre, 148).

In this passage we find that *phronesis* operates within scope of *eudaimonia*. This means that the phronetic does not simply serve some prudential task that makes it "matter" and that it does not compete with the other intellectual virtues. Phronesis is what is needed when living in a world full of *Fortuna*.

Flyvbjerg could have benefited from a more detailed engagement with Aristotle. Nowhere do we find an exacting comparison of texts. To be fair, we might assume that Flyvbjerg is carrying his definition of *phronesis* from Aristotle in his (Flyvbjerg's) first chapter where he writes: "In Aristotle's own words *phronesis* is a 'true state, reasoned, and capable of action with regard to things that are good or bad for man" (2). What is striking here is how little attention Flyvbjerg pays to "things that are good or bad for man" that are central to Aristotle's *Ethics* (see books one and two). It would have been useful for Flyvbjerg, if he is to claim Aristotle, to more fully develop how *phronesis* relates to the other intellectual virtues and to the good life more broadly.

Phronesis as Praxis. Where Flyvbjerg's point may have been merely underdeveloped regarding the meaning of phronesis, his argument that Foucault and Aristotle find common phronetic ground in regard to praxis seems misguided. Flyvbjerg maintains that: "...theories, and conceptualization in general, must be constantly confronted with praxis, including praxis of the individual scholar. Here, again, Foucault shows himself to be closer to Aristotle and phronesis, than to Plato and epistemology" (pg. 128). Here, as we said before, Flyvbjerg describes freedom as practice and phronesis as "the intellectual virtue most relevant to the project of freedom" (128).

This praxis-oriented interpretation, however, is at least initially opposed to how Aristotle describes the acquisition of intellectual virtues. The very distinction between intellectual virtues and virtues of character is based, at least at first, on how they are acquired. MacIntyre makes this point clearly when he writes of "Aristotle's Account of the Virtues" in chapter twelve of *After Virtue*:

Aristotle's distinction between these two virtues is initially made in terms of a contrast between the ways in which they are acquired; intellectual virtues are acquired through teaching, the virtues of character from habitual exercise. We become just or courageous through performing just or courageous acts; we become theoretically or practically wise as a result of systematic instruction (MacIntyre, 158).

From this it is clear that Flyvbjerg's interpretation of *phronesis* as a virtue steeped in questions of praxis needs further clarification. Although *phronesis* certainly deals with issues of practice, it is not acquired through practice. Flyvbjerg uses *Phronesis* in a way

that seems to run counter to Aristotle's account of its acquisition. It would follow that the association with Foucault's commitment to "practice" would therefore be problematic as well.

Phronesis may indeed have deep insight for social science; after all, it certainly was important for Aristotle as it applied to life in general. But Flyvbjerg's treatment of it is underdeveloped. In our view, it may attempt to force Aristotelian phronesis into a literature where even he admits it has yet to be found. This is a problem that strikes at the very heart of Flyvbjerg's theoretical project, but the blow is not fatal to the book as a whole. Even when we consider the work done by MacIntyre in After Virtue, there is great deal of "mattering" – that is there seems to be a real, relevant place for social science in the Fortuna-riddled world – for social science to do. In other words, despite some questions in the philosophical grounding of this book, its central argument about the value of social science still seems plausible and valid; which should prevent said flaws from dismantling social science as a whole.

#### Conclusion

Flyvbjerg states that the natural sciences have reached their strength because of the way they have enabled us to become masters of the physical world. While he writes that the social sciences will do best to abandon their attempt to become more like the natural sciences, he believes that they will find their own place by making a difference in society. In effect, he wants the social sciences to become a transformative tool for the social environment in the same manner that the natural sciences have been a transformative tool for the natural environment. That is not an ignoble desire; it implies that the natural and social sciences have more in common than often assumed. Both can help us cope with our worlds; they must, however, go about that task in different ways.

Aristotle held up *phronesis* as a moral virtue because it contributed value and prudence to *techne* and *episteme*. It is what prevents crude power from asserting itself. Pithily, social science can matter again because it can ask the questions: Where are we going? Is it desirable? What can be done? Let us reaffirm that *Making Social Science Matter* is a valuable contribution to its field. Our criticisms and additions are intended to improve upon Flyvbjerg's work and keep the conversation moving forward. In spite of the book's shortcomings, if more social science followed the guidelines that Flyvbjerg describes and exemplifies, we have no doubt that our social world—like the town of Aalborg—would be a better place. While we are not prepared to abandon epistemic social science altogether, reading this book impressed upon us the feeling that its author is on to something important.

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