



# Statistical Tests as a Hindrance to Understanding What the Controversy around the “Hiding Hand” Reveals about Research in the Social Sciences and Conceals about Project Management

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## SUMMARY

Albert O. Hirschman's famous Principle of the Hiding Hand describes an unconscious predisposition of project managers: Projects are launched in the belief that one is prepared for every possible future difficulty. However, some potential problems are overlooked during the planning phase and surprisingly might surface later—making it necessary to deal with them. Recently, this concept was statistically tested by Bent Flyvbjerg in *World Development*, who concluded that the Principle is “wrong”, “biased” and “potentially disastrous.” However, it is not the Principle of the Hiding Hand that is faulty, but the methodological approach taken by Flyvbjerg. In fact, Flyvbjerg's analysis is a telling example of what can go wrong if we assess the value of qualitative scholarship merely through the lens of large-n case quantitative analysis. Flyvbjerg seems to overlook both the context of the Hiding Hand and its connection to the work of Albert Hirschman. This article shows how specific notions of rigor can serve as a hindrance to understanding and thus belittle insights by one of the most original thinkers of the 20th century that are still useful in current debates on project management and expert behavior.

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## 1. Introduction

In a recent article published in *World Development* titled *The Falacy of Beneficial Ignorance: A Test of Hirschman's Hiding Hand*, Bent Flyvbjerg argues that the Principle of the Hiding Hand, an idea that Albert O. Hirschman introduced in his 1967 book *Development Projects Observed*, is “wrong”, inexistent, “invalid in scholarly terms”, “potentially disastrous” and should thus be rejected.

Flyvbjerg bases his claim on empirical evidence that he distills from his impressive data set on large infrastructure projects that he has collected (Flyvbjerg, 2016). The identical argument, using the same data set and methodology, is repeated by him in another article written jointly with Cass Sunstein that was published in *Social Research* in 2016.

According to Flyvbjerg, Hirschman's Hiding Hand suggests that “ignorance [of costs and possible problems] is good in planning.” It is beneficial in two ways. First, “because if decision makers knew the real costs and difficulties of projects, few ventures would ever get started” and second, because, problems that appear during project implementation are not only manageable but will be dealt with creatively and innovatively—in fact, the Hiding Hand implies that “problem-solving abilities will be triggered when needed.” The Hiding Hand covers up real costs and problem-solving abilities

—but as a general rule in Flyvbjerg's understanding, one can optimistically rely on the problem-solving abilities to turn projects into successes (Flyvbjerg, 2016, p. 177). For Flyvbjerg, the Hiding Hand thus offers a “theoretical justification” to a “start digging” approach to large investment projects (Flyvbjerg, 2016, p. 176) and is thus attractive for politicians and planners. He sees the Hiding Hand as the most common pretext “of why low-balled cost-estimates and optimistic business cases are considered acceptable in large projects” (Flyvbjerg, 2016, p. 176).

As a result, adhering to the Principle incites deliberate slack in project planning as planning is based on the optimism that all contingencies will be dealt with through unexpected ingenuity. The Principle, so Flyvbjerg, “stands stronger and more celebrated today than ever” (Flyvbjerg, 2016, p. 176).

His critique of Hirschman is harsh. Flyvbjerg accuses Hirschman of having refrained from presenting his findings “in an honest and balanced way” (Flyvbjerg, 2016, p. 181), that Hirschman misrepresented and mistook his own “view for empirical reality” (Flyvbjerg, 2016, p. 181), especially through anecdotal evidence, storytelling and a biased case selection. According to Flyvbjerg, Hirschman gives “a misleading account of economic development” (Flyvbjerg & Sunstein, 2016, p. 984) and that adhering to the idea of the Hiding Hand can have “potentially disastrous consequences

when applied in policy and practice” (Flyvbjerg, 2016, p. 176). Flyvbjerg holds that his findings “form a devastating verdict: Nothing about the Hiding Hand is right for understanding ‘project behavior in general’” (Flyvbjerg, 2016, p. 185). He even goes so far as to skeptically suppose that many other ideas from Hirschman should equally be tested in the future “in order to decide which parts stand up to closer scrutiny and which do not” (Flyvbjerg, 2016, p. 185).

Above all, Flyvbjerg finds fault with the fact that according to him, the Principle of the Hiding Hand represented a theory of human behavior, a “general Principle of action” (Flyvbjerg & Sunstein, 2016, p. 984) with universal validity.

Yet, I will show that it is not the Principle of the Hiding Hand that is to be criticized, but rather Flyvbjerg’s approach. Not only is his interpretation of what the Hiding Hand means misleading and wrong—it is only by claiming that the Hiding Hand describes a universally valid mechanism in the first place that it can be tested with Flyvbjerg’s data at all. This is a case in which the research question is constructed in ways to fit the available data. The quality of the statistical tests run by Flyvbjerg themselves is not the issue, but they do not test what the Hiding Hand is supposed to mean.

The original Hiding Hand was an observation derived from a qualitative study of a non-random sample of case studies. And nowhere in the writings of Hirschman is the claim made that it is universal, nor that underestimating future problems will as a rule lead to innovative problem-solving or to project success.

Yet, running a test on an erroneous interpretation of the Hiding Hand is not the main point of this paper. Flyvbjerg’s approach and interpretation shows an unwillingness to value the insights of qualitative social analysis. His critique of Hirschman is so devastating that he belittles his oeuvre by questioning its overall scientific value. This, however, might rather be telling of the effect of the prominent, if not monopolistic position held in the contemporary social sciences by quantitative analysis. Few are the articles in major Social Science journals that do not have at their core some test of statistical significance—just as the one provided by Flyvbjerg. Unfortunately, this rigorous scientific analysis fails to acknowledge three things: (a) the context in which the Hiding Hand was formulated and what the Hiding Hand actually means, (b) the role that this type of analysis and reasoning plays in the work of Albert O. Hirschman and (c) that the insight of the Hiding Hand is still important for understanding project management and that it actually touches upon on-going debates on experts and development planning.

I want to highlight these points in this paper. I will show that Flyvbjerg’s test is based on an erroneous interpretation of the Hiding Hand, that his test does not do justice to the concept, and in ignoring the context and the work of Hirschman in general as well as current debates, the test actually serves as a hindrance to understanding. In a day and age where statistical tests are held as the pinnacle of Social Science scholarship in research and teaching, it is worthwhile to highlight just how their application can go awry. Tests, so it seems, can become an end in themselves.

## 2. The Principle of Hiding Hand

The publication *Development Projects Observed* grew out of an evaluation of eleven World Bank funded development projects that Hirschman visited in the mid 1960s. The projects were chosen according to two criteria: “As a group, they had to be well diversified with respect to economic sector and geographical area, and each project had to have an extended history, including if at all possible several years of operation” (Hirschman, 1995a, p. 3).

The resulting projects, given that they were set up in the early development decades, comprised industry, transport, electric power, telecommunication, and irrigation schemes in Latin America (El Salvador, Ecuador, Peru, Uruguay), Africa (Ethiopia, Nigeria, Uganda), and Asia (India, Pakistan, Thailand) as well as one in Italy. Rather than describing the eleven cases separately and in detail, Hirschman condensed his overall impressions into a number of concepts and observations by making repeated reference to the individual projects.

In the first chapter of the book, entitled “The Principle of the Hiding Hand”, Hirschman highlighted the case of a newly built papermill in Pakistan whose main required input (local bamboo pulp) suddenly disappeared for the unexpected reason that the bamboo plants in the region began to flower (which happens seldom but after which the plants usually die). This unforeseen problem left the managers of the mill with the stressful task of looking for suitable substitute inputs. Since a substitute was found after some experimentation with other locally available plants and the mill continued to function, Hirschman parted from this specific example to dwell in more general terms on the issue of unforeseen contingencies and the response to them in project management and particularly in the management of development projects.

Hirschman argued that many development or generally large-scale investment projects would not have been realized at all, had all possible costs and possible problems been accurately anticipated. Therefore, at least for those involved in project planning, there seems to exist a “hidden hand... that beneficially hides difficulties from us.” (Hirschman, 1995a, p. 13).

But this Hiding Hand not only allowed for the realization of projects through covering up possible costs and problems ex-ante. As seen in the case of the papermill, the Hiding Hand induced a process of learning that led to a “creative response” (Hirschman, 1995a, p. 12) and thus enhanced know-how and capabilities.

Hirschman states that it was “quite plausible” to claim that “each project comes into the world accompanied by two sets of partially or wholly offsetting potential developments: a set of possible and unsuspected threats to its profitability and existence, and a set of unsuspected remedial actions that can be taken should a threat become real” (Hirschman, 1995a, p. 11). But while Hirschman saw a creative response in various of his projects, this was not always the case. This led him to express “an emphatic warning that by itself, trouble does not constitute a sufficient condition for a ‘creative response’” (Hirschman, 1995a, p. 12). Yet, in its essence, the Hiding Hand was a mechanism that induced “action through error” (Hirschman, 1995a, p. 29).

That possible difficulties were overlooked in project planning was often the result of one of two strategies: First, the “pseudo-imitation technique”, with the help of which a project was labeled as a copy of some identified universal best practice or as a one-to-one copy of a successful venture elsewhere. And second, the “pseudo-comprehensive technique” which “tends to give the policy makers and project planners the illusion that the ‘experts’ have already found all the answers to the problems and that all that is needed is faithful ‘implementation’” (Hirschman, 1995a, p. 23)

The advantage of the hiding hand and of the two “techniques” was that they made a “risk-averter take risks and in the process turns him into less a risk-averter. It permits prerequisites [like a necessary large propensity to risk-taking, P. L.] to come into existence *after* the event to which it is supposed to be the prerequisite” (Hirschman, 1995a, p. 26). The Hiding Hand was thus proof that in the process of development—or in the life cycle of a project, supposed sequences (believing that certain prerequisites have to be in place beforehand) could actually be inverted.

### 3. The testing of the Hiding Hand

As Flyvbjerg argues, Hirschman's ideas, have “become mainstream” in institutions such as the World Bank (Flyvbjerg, 2016, p. 176) and it is ever more surprising to him that it has never been tested for accuracy—not even by “highly regarded scholars” (Flyvbjerg, 2016, p. 180).

To Flyvbjerg, the Principle of the Hiding Hand is more than a detail. For him, the clear analogy to Smith's Invisible Hand “indicates just how theoretically ambitious Hirschman was with the Hiding Hand and how significant he took it to be.” For Flyvbjerg, the Hirschman's Hiding Hand constituted a “theory”, a general principle of action, an economic law, applicable to all sorts of project types. Since the Principle makes a truth claim and explains causal mechanisms, it can be tested (Flyvbjerg, 2016, p. 179).

Flyvbjerg accuses Hirschman of having “overextended his ideas” (Flyvbjerg, 2016, p. 181) based “on an exceedingly small number of observations and biased data” (Flyvbjerg, 2016, p. 180).

Although the proposal of the Hiding Hand gave the impression that it “is an ex-post empirical finding obtained from studying his data”, it rather constitutes, as Flyvbjerg holds, “a methodological artifact” in that Hirschman deliberately wanted to emphasize successful stories in his biased sampling and data collection. The data suffers from the fallacy of “sampling on the dependent variable” which “renders Hirschman's study invalid in scholarly terms” (Flyvbjerg, 2016, p. 181).

Flyvbjerg, himself, makes use of an impressive data set on large investment projects that he has compiled over twenty years. The first claim to legitimacy regarding his own approach is that he underlines that Hirschman's observations are merely based on 11 cases whereas his sample comprises over 2000. The dataset he uses “includes projects in 104 countries on six continents, covering both developed and developing nations” (Flyvbjerg, 2016, p. 181) as well as the time span from 1927 to 2013.

In order to test the Hiding Hand, Flyvbjerg sets out to find out whether threats to profitability and existence, as well as the set of unsuspected remedial actions that make up the Hiding Hand can be observed in his data set. In order to measure unforeseen threats and their possible remedies, Flyvbjerg compares “cost overrun” (as a proxy of unforeseen difficulties) of specific types of projects (divided into the headings: dams, bus transport, rail projects, tunnels, power plants, buildings, bridges, and roads) to the average “benefit overrun” (as a proxy of whether a project is successful). Cost, according to convention as Flyvbjerg mentions, is measured by construction costs and benefits are measured by first-year benefits. Cost overrun is measured as actual divided by estimated costs in real terms; benefit overrun is measured as actual divided by estimated usage in the first year—showing in essence, whether a project was more expensive than planned and if it is able to run effectively due to sufficient demand.

In analyzing his data, Flyvbjerg concludes that in contrast to what the Hiding Hand supposes, cost overrun is always higher than benefit overrun in every one of the different project types mentioned above. This, he interprets as proof that, in reality, difficulties are usually not dealt with successfully. Thus “Hirschman's idea of the Hiding Hand is wrong both by degree and by direction as it gets the size as well as the sign (minus instead of plus) wrong for benefit overrun” (Flyvbjerg, 2016, p. 182). His data suggest that the rejection of the Hiding Hand “applies at an overwhelmingly high level of statistical significance ( $p < 0.0001$ , Mann–Whitney test)” and as to emphasize this and lending more credibility to his findings, he adds that this is “a level rarely found in studies of social phenomena” (Flyvbjerg, 2016, p. 182).

Additionally, Hirschman's Hiding Hand is supposed to induce learning. To see if a learning process takes place, Flyvbjerg

measures the possible reduction of risk over time, in other words whether “cost overrun” for specific project types comes down with time while “benefit overrun” goes up (which for Flyvbjerg would suggest a positive learning effect from experience).

In his data set on projects that “opened to service in the period from 1927 to 2011”, this tendency of increasing benefits and decreasing cost overrun does not show, leaving Flyvbjerg to claim that not only is there no creative learning response at work. Deteriorating project performance on the benefit side shows that the working of the Hiding Hand even goes in the opposite direction as Hirschman claimed. For this, Flyvbjerg and Sunstein coin the term “malevolent Hand” which, as they propose, is apparently the common feature of projects: Potential difficulties are overlooked, but usually they are or cannot be not dealt with.

Flyvbjerg holds that Hirschman's “main error” was that he “mistook and misrepresented his own optimistic view for empirical reality” (Flyvbjerg, 2016, p. 181). Hirschman, so Flyvbjerg holds, was “clearly a romantic” who overstated his case by telling stories. Using the Hiding Hand unreflectively in policy and practice “as is commonly done”, leads to misallocation and, worse, to disaster, concluding that “it might be a good idea to similarly test some of Hirschman's other works” (Flyvbjerg, 2016, p. 185).

### 4. The real Hirschman: objecting to overconfidence and to the lack of complexity in development theory and practice

Flyvbjerg misunderstands what the Principle of the Hiding Hand is meant to say and his empirics are incapable of measuring it. But first, let's look at how Hirschman framed the Hiding Hand.

Hirschman argues that although planners might believe to have thought of every possible obstacle beforehand—there will always be surprises to which project administrators will have to react after the project has started. This reaction *can* or *might* take the form of a fruitful learning process—but not automatically. Nowhere in his writings does Hirschman claim that successful creative responses to problems are the rule or that the Principle of the Hiding Hand means that one can deliberately understate costs or just “go ahead” with projects trusting in the later beneficial creative responses.

What Hirschman does, however, is to reflect on human psychology. Problems, in reality, are usually not anticipated, they surprise us. But once they are there, we have to deal with them. “Far from seeking out and taking up challenges, people typically take on and plunge into new tasks because of the erroneously presumed *absence* of a challenge, because the task looks easier and more manageable than it will turn out to be” (Hirschman, 1995a, p. 13, emphasis in the original). Similarly, he writes that “mankind always takes up only such problems as it *thinks* it can solve” (Hirschman, 1995a, p. 14, emphasis in the original). But for Hirschman, the interesting part starts when problems suddenly appear.

That unforeseen contingencies are tackled successfully happens “sometimes” (Hirschman, 1995a, p. 14). Not automatically and not generally. But the important aspect for Hirschman is to emphasize the importance of dealing with unforeseen problems. Success, i.e., having dealt well with unexpected problems might therefore rather be the result of unexpected “stumbling” than of careful ex-ante “planning” (Hirschman, 1995a, p. 14). The Hiding Hand induces “action through error” (Hirschman, 1995a, p. 29). But this does not entail that this action will automatically work out. The Hiding Hand is not a “prediction” (Flyvbjerg, 2016, p. 185) and it is not “an endorsement of ignorance as beneficial” (Flyvbjerg, 2016, p. 181).

In an essay written in 1994 and aptly titled *A Hidden Ambition*, in which Hirschman reflects about *Development Projects Observed* he wrote that “to give pride of place to the ‘Principle of the Hiding Hand’... was close to provocation. Nothing could be less ‘operationally useful’ than to be told that underestimating the costs or difficulties has *on occasion* been helpful in eliciting creative energies that otherwise might never have been forthcoming” (Hirschman, 1995a, p. ix, my emphasis).

This provocation was deliberate. Hirschman took issue with the pseudo-scientific technical treatment with which development projects in the 1960s were either selected ex-ante or evaluated ex-post especially by the World Bank (Hirschman, 1995a, p. viii)—through the calculation of “shadow prices” or “social cost benefit analysis” that gave the impression that “correct investment choices among investment projects could be made because every possible aspect had been meticulously dealt with” (Hirschman, 1995a, p. viii). For Hirschman, “in this intellectual atmosphere, it was to act as something of a spoilsport to call attention to the very different, and much more problematic, levels of concern about projects” (Hirschman, 1995a, p. ix).

The context in which the Hiding Hand thus has to be located was the high-time of the belief in rational decision-making, i.e., the idea that decision makers were assumed to be able to perfectly and faultlessly assess all possible options and then come up with the rationally optimal decision to be taken as if equipped with superhuman computational powers. During the 1950s and 1960s and taken from the theory of market behavior, this was the dominant approach in political science, economics and above all, management studies (see for instance Edwards, 1954 or Kepner and Tragoe’s “The Rational Manager: A Systematic Approach to Problem Solving and Decision Making” from 1965).

Studies such as Charles Lindblom’s seminal “The Science of Muddling Through” (Lindblom, 1959), as well as Herbert Simon’s investigations on “bounded rationality” (Simon, 1955, 1957a, 1957b) could be named as examples of how other researchers next to Hirschman attempted to deal with the obvious mismatch between the assumptions of rational decision-making and what could be observed “on the ground.” In the case of development policy, the assumption of rational decision-making was exacerbated by the positive role attributed to planning (i.e., through large-scale infrastructure and industrial projects) that was at the heart of development policy and theory in the first three development decades (see for instance the writings of the adherents of “balanced growth” like Rosenstein-Rodan, 1943 or Lewis, 1949, 1955, 1966).

The proclamation of a Hiding Hand was a reaction to “the overoptimism in the solvability of all problems” (Hirschman, 1993, p. 238) which Hirschman, using a phrase borrowed from Flaubert, described as ‘la rage de vouloir conclure’ (Hirschman, 1993, p. 238). Hirschman saw this overoptimism with experts, especially those suffering from “visiting economist syndrome” (Hirschman, 1986, p. 11), that issued “preemptory advice and prescription by calling on universally valid economic Principles and remedies... after a strictly minimal acquaintance with the ‘patient.’” Part of this “syndrome” was the belief that all possible problems of a project or scheme could be minimized and excluded beforehand through careful and meticulous planning.

In his writings, Hirschman generally expressed “a dislike for too uniform and unilateral diagnoses.” He writes: “I have always had a certain dislike for general principles and abstract prescriptions” (Hirschman, 1998, p. 88). And he continued: “The principle enemy is orthodoxy: to use the same recipe, administer the same therapy, to resolve the most various types of problems; never to admit complexity and try to reduce it as much as possible, while ignoring that things are always more complicated in reality” (Hirschman, 1998, p. 110, see also Hirschman, 1985).

The Principle of the Hiding Hand is therefore a critical reaction to the reduction of complexity in project planning—and economic theory—and to the resulting overconfidence of theorists and experts alike, especially when projects were based on context-free imitation and supposed comprehensive study of difficulties. The Principle simply focuses on something overlooked, i.e., the reactions to unforeseen problems after project implementation and to the fact that the success of a project might be closely linked to how problems have been tackled. The positive effect that the successful elimination of the problems *might* have on one’s own problem-solving abilities is not to be underestimated. However, Hirschman openly acknowledges that his insights on projects “were of course not meant to hold any immediately applicable ‘practical lesson’” (Hirschman, 1995a, p. ix). They signaled what theory and practice overlooked. This is a far cry from claiming to have found a predictable and testable iron law at work or to claim that the Hiding Hand justifies as “start-digging” approach.

Flyvbjerg goes to great lengths at interpreting the Hiding Hand as a testable theory—despite existing contradictory opinions on the non-testability of the Hiding Hand voiced by other scholars that Flyvbjerg quotes in his article (Flyvbjerg, 2016, p. 179) and despite Hirschman’s own explanations on what the Hiding Hand and his general approach were all about. Equally, Flyvbjerg holds that the Hiding Hand is almost universally endorsed as a genial excuse for the implementation of projects or that Hirschman supposedly saw the Hiding Hand “as a general Principle of action” (Flyvbjerg, 2016, p. 181). A “start digging” approach might be the sad political reality of many large infrastructure projects. But this is not something the concept of the Hiding Hand can be made accountable for. Only by assuming that the Hiding Hand is testable and describes a universally valid mechanism can it be tested with Flyvbjerg’s data set at all. Yet, in no way do the data and the used proxies (cost versus benefits) reflect what the Hiding Hand is all about.

The Hiding Hand does not state that first year benefits will be higher than planned. Neither does it state that second-, third-, or any other year benefits will necessarily and automatically be larger than anticipated. The idea of the Hiding Hand makes no claim regarding the expected profitability of a venture. And it is debatable whether cost overrun can be understood as a proof of overlooked difficulties at all. Difficulties can mean any form of unplanned jeopardy to a project—not necessarily to do with costs. These might include issues like political interference, social unrest, catastrophic weather phenomena etc. In fact, any problem that comes as a surprise. Just looking at the fact that a project is more expensive than planned does not tell us that the project was started because the costs were overlooked. What the Hiding Hand does focus on, however, is that with unforeseen contingencies, unexpected and valuable problem-solving abilities might surface. This again, is not adequately reflected in the proxies used by Flyvbjerg.

Many of Hirschman’s writings were a reaction to dominant theories or approaches he believed to be faulty. He wanted to show that often “it ain’t necessarily so” (Hirschman, 1995b, p. 43). He counteracted conventional wisdom: be it in trade theory, the theory of inflation, balanced growth, dependency theory, the logic of collective action, market orthodoxy, project management, and development practice. Yet, he did not limit himself to the role of a spoilsport. He wrote: “I like to combine the pleasure of theory building with that of theory smashing” (Hirschman, 1998, p. 106) or that “I like to underline the exceptions to a theory, but every once in a while I enjoy building up a theory of my own” (Hirschman, 1998, p. 95). *Unbalanced Growth with the Linkage Concept*, his theory of *Shifting Involvements*, the *Rhetoric of Reaction*, *Possibilism*, but first and foremost, his theory of *Exit and Voice* come into mind (Lepenies, 2004, 2008). He also acknowledges that he consciously promoted his critique by “inventing new expressions”

and by “playing with words” (Hirschman, 1998, p. 103). His expression *The Principle of the Hiding Hand* is a case in point. These expressions in Hirschman’s oeuvre of which there are many are to a large degree ironic—they poke fun at scholarly nomenclature. Yet, at the same time, they concisely identify overlooked aspects and provide different and original interpretation of observed phenomena. It is in this sense that the term “beneficially” was used in the original quote when Hirschman wrote that the Hiding “beneficially hides difficulties from us.” It did not mean that projects will be beneficial in the sense of benefits, or that the learning process resulting from unforeseen contingencies will be successful. It ironically states that without the Hiding Hand, the project would not have been undertaken if difficulties had been fully anticipated. Whether the project itself is a success or not is not the issue.

Hirschman objected to scholarly over-simplification and his ambition was to reflect the complexity of reality—he wished to “to sing the epic adventure of development—its challenge, drama and grandeur” (Hirschman, 1995a, p. viii). He focused on what could be done under specific circumstances with the resources at hand. He wrote “I am always more interested in widening the area of the possible, of what may happen, rather than in prediction, on the basis of statistical reasoning, of what will actually happen” (Hirschman, 1998, p. 96).

Consequently, one of the main goals of Hirschman’s entire project- and development-related scholarship is not to look for universal prescriptions, but for endogenous “inducement mechanisms”; to identify possible “pacing devices” or “built-in modifiers or remedies” that not only lead to beneficial change—but that help overcome unforeseen problems—problems that for instance the Hiding Hand hides from us. For Hirschman, the Hiding Hand and the insights of *Development Projects Observed* were important stepping-stones in the evolution of his own thinking. Out of *Development Projects Observed* resulted the theory of *Exit, Voice, and Loyalty* (Hirschman, 1970a)—not only Hirschman’s best-known work, but doubtless a lasting classic for the entire Social Sciences. The Theory of *Exit and Voice* is a further deliberation of the fact that the Hiding Hand incites a reaction to unforeseen problems. The subtitle of *Exit, Voice, and Loyalty* consequently reads “responses to decline” and although it produces valuable insights for institution-building, planning, and problem-solving, the theory of *Exit and Voice*, just as in the case of the Hiding Hand, does not state that problems will be automatically overcome—but argues that effective feedback might induce positive problem-solving, and that lack of it might prevent it. Without the Hiding Hand, there would have been no Exit-Voice.

## 5. Conclusion

In 1970, Albert Hirschman published a paper in the journal *World Politics* entitled “The Search for Paradigms as a Hindrance to Understanding” (Hirschman, 1970b). Therein, Hirschman took issue with the then prevalent tendency of social scientists to rely excessively on comprehensive theory-building to explain observed socio-economic and political phenomena. In his view, this reliance on all-encompassing theoretical constructs prevented the search for context-specific explanations and solutions to pressing needs. It seems as if Flyvbjerg’s work is an example of the pendulum swinging into the other direction in which it is no longer reliance on theory that hinders understanding, but the overreliance on statistical tests as an end in itself. Even in 1970, Hirschman already saw this as a possible problem. “The spread of mindless number work in the social sciences” seemed to him like “a disease as prevalent and debilitating” as the overreliance on theory (Hirschman, 1970b, p. 329).

Needless to say, statistical tests and quantitative approaches are useful. I do not argue against them. Rather, my point is to show how the use of statistical tests or more generally speaking, using tests as a means of scholarly persuasion, can lead to conclusions that do injustice to the tested verbal arguments and insights.

In dwelling on sample bias and the small number of case studies—while at the same time claiming that his own findings are closer to reality due to the large-n sample and as well as by qualifying the work of Albert Hirschman as being not only biased, but unscientific, romantic, and lacking honesty, Flyvbjerg not only shows an astonishing disregard for this type of qualitative research.<sup>1</sup> Methodologically, he compares apples with pears. Only his deliberate framing makes the Hiding Hand testable—and supposedly refutable through the provided evidence of the large-n sample analysis that serves to correct Hirschman’s “false results” (Flyvbjerg & Sunstein, 2016, p. 988).

Alas, in his general disqualification of Hirschman’s qualitative reasoning, Flyvbjerg is in good company. Paul Krugman marveled on more than one occasion about the lack of supposed analytical clarity in Hirschman’s writings. Krugman wrote “from a point of view of a modern economist, the most striking feature of the works of high development theory [such as Hirschman’s] is their adherence to a discursive, non-mathematical style” (Krugman, 1997, p. 24). Although Krugman referred to mathematical theorizing, not to statistical testing, he held that it was the qualitative approach through which early development economists like Hirschman “failed to communicate clearly what they were talking about” (Krugman, 1997, p. 29). In another article, Krugman criticizes Hirschman’s “richness of plain English” (Krugman, 1994, p. 287) which according to Flyvbjerg was “seducing—and misleading people” (Flyvbjerg, 2016, p. 183).

Flyvbjerg’s approach reflects an unwillingness to understand “discursive style” research or to learn about its context and it exemplifies a reflex to attempt to “falsify” through large-n statistical tests in which the concept tested is adapted to available data in such a fashion that it no longer reflects the original idea.

In fact, the issues raised by Albert Hirschman more than half a century ago are anything but outdated. In project-based development aid work, the idea of transferable “best-practice” projects that can be put into action free from any cultural, national or geographic context is as prevalent as the notion that through careful professional and technical ex-ante scrutiny, all aspects concerning a project’s feasibility (and thus concerning all possible difficulties) can be forecasted.

In development aid (and economic consultancy in general), there clearly still exists a tendency to believe in and to rely on universal and oversimplified ex-ante prescriptions (see Rodrik, 2006, 2013). And this is especially the case if these prescriptions (or projects and project designs) are based on “scientific” findings (“evidence-based”) that make us believe that scholars have found out “what really works in development” as many papers based on randomized control trials, to give an example, claim.

But it is not only the supposedly riskless project ideas themselves that are problematic, but also the process through which these ideas and the resulting projects are promoted and administered by (outside) experts. The figure of the “visiting economist” or paternalistic outsider with one-size-fits all approaches has been a problematic feature of early development and still is today. And the combination of supposedly risk-free and watertight project

<sup>1</sup> See formulations such as “studying a much larger sample than Hirschman did” (Flyvbjerg & Sunstein, 2016, p. 979) “to go beyond revealing anecdotes and interesting mechanisms to identify testable hypothesis” (Flyvbjerg & Sunstein, 2016, p. 981) or “such an assessment has not been done before” (Flyvbjerg & Sunstein, 2016, p. 984); “biased data collection”, “too-small-sample”, “misrepresentation of findings” and “false results” (Flyvbjerg, 2016, p. 185).

approaches together with overoptimistic external experts has been identified as a major deficiency of aid work even in the more recent critical development literature (see e.g., Dichter, 2003; Easterly, 2006, 2014; Ellerman, 2005; Moyo, 2009; Ramalingam, 2013; Rottenburg, 2009 to name but a few). Even allowing for the certain degree of generalization and over-simplification, the author of this paper, who has worked as a development project manager for many years, holds that this pattern, in its essence, is still characteristic of aid.

And this is why Hirschman's concept of the Hiding Hand still is a valuable scholarly contribution. It opens analytical pathways to come to grips with the fact that projects do not work out as planned. It is an attempt to understand complexity, human psychology and to show how overoptimism and the belief in comprehensively foreseen risks might lead to unexpected and surprising scenarios—out of which, in the best cases, a positive learning experience can result. A close reading of Hirschman can result in a heightened sensitivity not only for complexity, but for the problematic consequences of oversimplistic mechanical approaches behind large-scale projects in development, or elsewhere in theory. Hirschman induces constructive skepticism that results in a more realistic approach to social phenomena. This type of critical reasoning borne out of observation and taking issue with reigning orthodoxy is useful to project managers, researchers, and students alike. According to Hirschman, ideas such as the Hiding Hand “have a purpose closely connected with my hidden agenda: to endow and surround the development story with a sense of wonder and mystery that would reveal it to have much in common with the highest quests undertaken by humankind” (Hirschman, 1995a, p. ix). Unfortunately, a completely different and new Hiding Hand seems in place in the Social Sciences. It hinders researchers fixed on large-n empirics, or those fixed on formal economic theory, to appreciate Hirschman's lasting relevance and has them, quite erroneously, claiming that “nothing about the Hiding Hand is right for understanding “project behavior in general” (Hirschman, 1995a, p. 10).

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