

# **The Ratification Fallacy**

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## Abstract

Strategic thinking aims at planning actions such that they will have desired effects in the organization. Strategic managers supposedly think through the consequences of their envisaged actions in various contingencies and select the action which they believe will have the best outcomes for them. When we talk of *strategic choice* we assume that managers *do that which they have most reason to do*. This assumption has not been questioned in the strategy and strategic choice literature to date, where studies on managerial cognition have asked, ‘Are strategic choices and judgments *efficient?*’ and, ‘Are the judgments of strategic planners normatively *correct?*’ In this paper, I shall ask the different question, ‘Are strategic judgments causally *efficacious?*’ I will review results from experimental and cognitive psychology which show that the assumption is likely to be false: most people do not do that which they have most reason to do. They do, however, *believe* that they have acted rationally in the past, and expend considerable effort constructing *ex post* rationalizations of their actions. I call the conjunction of these two conditions the ratification fallacy, because it indicates that most people fail to ratify their decisions, but are oblivious to this failure. If this is true of strategic managers as well - and there is no reason why it should not be - then strategy research and teaching can act as a producer of rationalizations for practicing strategic managers. I will outline the implications of this fact for strategy substance and process research and teaching, and will recommend an agenda for strategy research that can produce *actionable reasons* rather than *rationalizable actions*.

## 1. Introduction.

The literature on managerial cognition and strategic decision-making [Eisenhardt, 1992; Zajac and Bazerman, 1991; Frederickson, 1984 ; Ginsberg, 1994 are some examples] relies on the fundamental assumption that managerial choice behavior is susceptible to reasons and counter-reasons for undertaking that behavior. This assumption is embedded in the idea that human behavior is purposive – that it is designed to optimally pursue or bring about a desired state of the world for the decision-maker and runs deeply both in standard economic analysis of behavior [Sen, 1997] and in the behaviorist theory of organizations that has sprung from the works of Herbert Simon [1947] and Cyert and March [1963]. It is, then generally assumed that, should either the desired state of the world or the optimal path to attaining that state of the world change, then managerial behavior will change accordingly.

The ‘blame’ for apparently inefficient managerial behavior leading to sub-optimal firm resource allocation decisions has been placed on erroneous calculation by the manager of the probabilities and payoffs of the lotteries corresponding to different choices due to incomplete information [Cyert and March, 1963] or on the inappropriate use of the available information by the manager [Zajac and Bazerman, 1991]. Thus, researchers on strategic choice behavior have generally asked, ‘Why are managerial choices inefficient?’ and have been guided in their search for an answer either by the proposition that ‘information and computation are costly’ (the bounded rationality assumption) or by the proposition that ‘judgments based on complete information are erroneous’ (the cognitive bias and fallacy assumption). They have therefore stressed what I shall call *weakness-of-the-warrant* explanations for inefficient managerial choices: the *warrant* or the evidential basis for making a particular choice is lacking or deficient.

### 1.1. Weakness-of-the-Warrant and Managerial Choice Behavior.

It is interesting that weakness of the warrant explanations are prevalent in the writing of thinkers from all of the major schools of thought concerned with the study of strategic choice [Eisenhardt and Zbaracki, 1992]. Thus, approaches based on the imputation of rationality or bounded rationality to managers [March and Simon, 1958] are based on Simon's approach to decision processes on the basis of the identification, development and selection of a particular course of action [Simon, 1965]. True to the cognitivist approach that Simon has taken generally, there is no step in the Simonesque description of choice that explicitly refers to the implementation or undertaking of the action, once it has been decided upon. This last step – the 'ratification step' – is of relatively recent vintage in the theory of rational choice [Jeffrey, 1983], and has not been included in the study of managerial behavior in firms.

Approaches based on a picture of organizations as political entities in which people with competing interests try to shape the commitments of the organization as a whole [Pfeffer and Salancik, 1974; March, 1962] also assume that individuals are rational *implementors* of their own decisions. They may not *succeed* in taking the action that they would like to take, because of obstacles raised by other people within the organization, and therefore the resulting organizational commitments and routines may reflect *truces* struck up among various people that individually wield power. Now, the organization as a whole may end up with an *incoherent pattern of strategic choices*, but the resulting failure of efficiency is not due to an individual inability to implement one's own decisions, but, once again, to a limitation on the information-processing capabilities of the firm imposed by the interpersonal phenomena that shape organizational policy. Thus, political approaches to strategic choice can appropriately talk about an organizational 'weakness-of-the-warrant'.

The ‘garbage can’ model of organizational commitment and strategic choice [Cohen, March and Olsen, 1972] depicts organizations as ‘anarchies’ whose ‘agendas’ are determined by chance fluctuations in the alignments of the interests, beliefs and resources of various individuals within the firm. The individuals themselves, however, are supposed to be capable of implementing their own decisions, i.e. of turning them into corresponding actions. The commitments of the firm as a whole may be inefficient, and this inefficiency arises from the fortuitous nature of the alignment between individual desires and resources required to produce a coherent, goal-directed pattern of strategic choices. Once again, the argument is for an organization-level weakness-of-the-warrant that accounts for inefficiencies in organizational strategic behavior.

## 1.2. Weakness-of-the-Will and the Implementation of Decisions

Richard Jeffrey [1983] was among the first professional decision theorists to recognize that the step of making a decision and the step of acting on the basis of that decision are – and can profitably be treated as – distinct from each other. Jeffrey argued that, whereas a decision can be ‘taken back’ or reversed, the action that corresponds to that decision cannot. Thus, his theory of rational choice bids the decision maker to explicitly consider his or her feelings after having made a decision, but before acting upon it. Tom Schelling [1984] has also implicitly made the implementation of decisions a subject for study by examining phenomena related to self-command. The ability to command oneself – on Schelling’s view – corresponds to the ability to produce the behavior that corresponds to a particular decision, after having made that decision. Finally, Jensen and Meckling [1994] have argued for a model of rational choice wherein the decision maker may not ‘carry through’ his or her original, decided-upon course of action (arrived at by rational, goal-directed deliberation about means), because of a sudden, ‘irrational’ susceptibility to the pain or the costs of carrying through with the action corresponding to the decision in question.

These ideas have appeared in relative mutual isolation and certainly in isolation from the literature on managerial choice. They share a focus on *weakness-of-the-will* as an explanation for inefficient choice behavior. From the perspective of the strategy researcher, they suggest a new paradigm for generating answers to the question, ‘why are managerial choices inefficient?’. The new paradigm is based on an examination of the causal potency of decisions – and more generally of reasons – in managerial deliberation. It suggests that we ask, ‘Are managerial judgments causally efficacious?’

In this paper, I shall develop an approach to the examination of inefficient choice behavior starting from the premise that the fundamental problem to be addressed is one corresponding to the weakness of the will of the decision maker, rather than the weakness of the warrant of his or her deliberative process. I will marshal a wide array of experimental results from social and cognitive psychology to show that people are generally not able to do that which they have most reason to do, even as they are quite convinced of their own agency and rationality. Thus, the paper attempts to re-direct inquiry in the field of managerial choice behavior towards an investigation of the processes by which managers produce their own behavior – and the ensuing commitment of the firm – on the basis – and in response to – reasons and counter-reasons that show that behavior to be optimal.

### 1.3. The Idea of Performative Rationality

Current approaches to the practice of strategy assume that managers are instrumentally rational: given a goal  $G$  and some constraints  $a, \dots, z$ , the strategic planner should design, create or choose an optimal strategy or set of actions  $S$  that will most likely allow her to achieve  $G$ . If asked, ‘Why are you doing  $x$ ?’, the strategist will invoke  $G$ , qualified by  $(a, \dots, z)$  as *reasons*. If she is instrumentally *rational*, then she will not take an action that will

not lead her to the desired state of the world, given the constraints and goals she recognizes as valid. Therefore, her *ex post* account of her own actions will not contradict her *ex ante* reasons for acting. She will be *internally consistent*, or *coherent*. Let us call this, then, the *consistency* condition for rational, strategic action. The consistency condition as currently applied in the literature refers to the consistency between her account of her actions and her professed reasons for acting after the action was taken, and does not recognize the opportunity of the strategist to create the reasons after taking an action. If the strategist avails herself of this opportunity, then the rationality requirement camouflages irrational, but *ex post* rationalizable behavior.

Moreover, the reasons that the strategist has for acting in a particular way will be the causes or the causal factors in her actions: she will not, in other words, make up socially acceptable reasons in order to take actions caused by privately salient but socially unacceptable factors. Let us call this the *transparency* condition, to signal the fact that the causes of the strategist's actions are *transparent* to the understanding of an observer guided by reason and by an understanding of the situational goals and constraints of the manager. The transparency condition is currently *assumed* in most studies that carry out economic analyses of firms and strategic decisions, and therefore the studies in question do not seriously discuss the manager's opportunity to take action motivated by a set of causal factors that are not available for public scrutiny.

Violations of the transparency and the consistency conditions - which I shall call ratification failures - cannot be effectively ruled out by studies that *assume* that strategic choices already satisfy these conditions, and look for sources of variance in situational constraints and market conditions. However, this is the prevailing assumption in the field of strategy studies. Indeed, Porter [1980] assumes that each firm has a strategy - whether implicit or explicit - and that this strategy can be (1) detected by reference to the observed strategic choices (investment decisions) of the firm; and (2) corrected by the

presentation of reasons against pursuing that strategy or of a better alternative strategy. Because there are many different sets of market conditions that can be used to justify a particular choice, it is always possible to rationalize a particular choice - and thus avoid charges of violating the transparency and consistency conditions - using one set of market conditions or another. It is perhaps for this reason that various strategy researchers have not questioned the fundamental underlying assumption of the strategy research field: that managerial behavior is generally susceptible to purposive change prompted by rational deliberation. This paper will closely examine this assumption and find that it is unambiguously *refuted* by much experimental evidence from social and cognitive psychology.

To get someone act in the way in which she has most reason to act, we need to impose upon that person a condition that incorporates the consistency and transparency conditions explicitly. Let me call this the condition of *performative rationality*. If the strategic manager is performatively rational *then she will always do that which she has most reason to do at the time of the action*. Her reasons will be *causes* of her actions in the counterfactual sense of causation [Lewis, 1981]: but for a set of reasons that she believes to hold at a time *preceding* her actions, the actions will not be carried out. The performative rationality condition synthesizes within it the consistency and transparency conditions, as follows: If the manager's reasons for undertaking a particular action were not *transparent*, then he or she would not have any normative standard by which to judge his or her ex post account of the choice behavior. If, on the other hand, the manager's reasons for undertaking a particular action were *inconsistent* with his or her ex post account of the action, then there would be reasonable grounds to doubt that the *professed reasons* were indeed also causes of the action.

There is currently no trace of the problem of performative rationality in the strategy process and substance research literature, and no initiation or training in performative

rationality available for instructors and prospective managers in business schools. Indeed, there is not even the recognition of the *concept* of performative rationality in the strategy research literature. Strategy substance and process research treats managerial actions *as if* the managers taking them were *performatively rational*. In fact, by *rational* one usually means *performatively rational*, although no attempt has been made to show that people are in fact performatively rational. Much of this research, for instance, posits that *profit maximization* for the firm is a reason in the plan for the managerial *actions* that it *causes*.

As I will show below, doing what one has most reason to do is hardly a general feature of the general population, and there is no a priori reason to believe that it is the case in the population of strategic decision makers in firms. If it is the case that performative rationality is as rare in the managerial population as it is in the general population, then the enterprise of explaining business phenomena using rational-actor models and educating business managers to think using rational actor models is one which produces *rationalizations* rather than reasons, and rationalizing managers rather than rational managers. Instead of ‘putting out’ the flames of irrationality in the business world and helping people become more competent users of instrumental rationality in general, the research literature rather fuels these tendencies by providing ready alibis.

In this paper, I will make the case that performative rationality is a rare phenomenon in the general population. Instead, ratification failures seem to be quite frequent. As Robert Abelson has put it [1986], we almost never do that which we have reason to do, but almost always have reasons for what we have done. I will show that by and large people are inclined to expend great energy to rationalize decisions after the fact (call this the self-justification problem) . They often have little or no insight into the *causes* of their actions (call this the internal lability problem) [Wegner and Wheatley, 1999] , and are prone to change their past ‘reasons’ on the bases of information (call this the hindsight bias problem) [Hawkins and Hastie, 1992] that becomes available after they have taken action.

Moreover, most people seem blissfully unaware of their own incoherence. They conveniently forget and easily re-edit troublesome past cognitive commitments. The picture of human deliberation about instrumental action that emerges from the experiments reviewed is one of *social adaptivity* and *self-righteous hypocrisy* rather than performative rationality. I shall call the oblivion to the discrepancy between the causes and the professed reasons for a particular action (or the discrepancy between the causes and the rationalizing motives) the ratification bias.

I will argue that the process of *research* into strategy process and substance, aimed at producing *explanations* of firm phenomena starting from a rational actor model is far more likely to produce *rationalizations* for managerial actions undertaken for other purposes than to produce *reasons* for acting in ways that further the stated interests of the managers in question. But - one might ask - so what? After all, if it turned out that doing that which one has most reason to do (performative rationality) were equivalent with doing that for which, in retrospect, one will find most reason to have done (rationalizability) then the pursuit of rationalizability will have the same substantive consequences as the pursuit of rationality. I will analyze several cases relating to informational asymmetries between past and future and show that, except in the unrealistic case of perfect information, the pursuit of rationality is not equivalent to the pursuit of rationalizability. I will call the false equation of performative rationality with rationalizability the ratification fallacy.

The process of business education can produce good *rationalizers* and poor *strategists*. I will argue that strategic management education simply adds instruments into the toolkits of future social climbers who will use these tools for *simulating* rationality. I will outline the consequences of this situation for practicing managers and business executives, and will argue that business faculty do not seem to be aware of the separation of reasoning and action that takes place in the field – with a recent notable exception [Pfeffer and Sutton, 1992].

I will outline a proposal for advancing the idea of performative rationality in the research agenda, in the classroom and in the boardroom. The proposal is that strategy research needs to become increasingly *realistic* and self-searching in its assumptions about human behavior. The perversions of instrumental rationality uncovered by anthropologists and social and cognitive psychologists need to be included in the models of individual managerial behavior that we use to understand the activities of people working in business firms. In turn, those teaching strategic management need to become more involved with the *irrational* aspects of human behavior - which may well motivate the actions now 'explained away' by rational actor models. Classroom discussions should focus as much on the irrational plausible alternative explanations of behavior, and the 'seemingly rational' explanations of behavior as they do on the rational explanations currently cultivated. The principle of *minimum charity* which imputes - but does not question or test - rationality to a person *before* his or her actions and expressions are observed should be questioned and - in my view - abandoned. The imputation of performative rationality should always be put to empirical tests, or weakness-of-the-will should be considered as a relevant alternative explanation for observed choice behavior. Currently 'illicit' or socially forbidden emotions such as fear, envy, ambition and jealousy need to be brought to the forefront of the discussion and always pressed as relevant alternative explanations for any particular action [Moldoveanu and Nohria, forthcoming, 2000].

## 2. Ratification Failure: The Basic Model

To make the ensuing assertions empirically testable, I will define a strategic decision as a simple three-period game played between the decision maker and Nature. In the first period, the decision maker formulates a plan for acting, which includes the reasons for taking a particular action. In the second period, he and Nature act simultaneously: the decision maker implements his decision and Nature determines the consequences of

implementing the decision. The decision maker may or may not implement the decision that he has decided upon during the first period of the game. However, the causes of his or her actions are not directly observable. The observer therefore has to rely on inferences to the best explanation about the causes of the decision-maker's actions, which are based on experimental, empirical and philosophical inquiries. These inquiries will turn up "most-probable causes" for the decision maker's actions. These inferred causes can be compared with the reasons and accounts given by the decision maker about his actions. In the third period, the decision maker observes the consequences of his decision and constructs an account of his decision process. He may or may not publicize this account. We then have:

*Proposition 2.1. Ex ante reasons and ex post accounts of executive decisions are uncorrelated or weakly correlated.*

*Proposition 2.2. Ex ante reasons and most-probable decision-time causes of decisions are uncorrelated or weakly correlated.*

*Proposition 2.3. Most-probable causes for actions and ex post accounts of actions are uncorrelated or weakly correlated.*

In what follows, I will try to make the argument that we have unwittingly - but falsely - based our thinking, research and teaching of strategy process and substance on an assumption that can be traced to Socrates, which states that if someone will know the good, he or she will do the good. Let me call this the Platonic model of automatic mental causation. The Platonic model, while seductive, seems to be descriptively incorrect. The results of psychological experiments and studies suggest that people find it very difficult to do that which they would acknowledge to be right or good, even as they are

surprisingly adept at accounting for their actions in ways that makes their acts seem - in retrospect - right or good.

I argue that the problem of performative rationality is a difficult one to uncover by the traditional research methods, and that the epistemological doctrines which have been used to justify these research methods carry within them the seeds of obfuscation. In particular, the prevalent behaviorism and instrumentalism that have characterized research in economics – the dominant social science in the business strategy arena – falsely marshal apparent explanatory successes in the support of the validity of their findings in the same way that participants in the experiments I am about to cite marshal *ex post* reasons as evidence for their rationality. I argue that the most promising approaches attempt to understand precisely how and why reasons are used in social settings, and are based on the kind of cognitive mapping which psychologists for the past twenty years have engaged in.

### 3. Acting and Deciding : What has Reason Got to Do with It?

I will review some significant arguments from social and cognitive psychology that argue for the prevalence of ratification failure: namely, that ostensible reasons offered for particular actions are rarely the motive forces behind taking the action in question, but rather justifications for that action that are manufactured after the fact. I will also argue that there is a good reason why this fact has not received the requisite attention in the literature, which is that most people exhibit a strong preference for depicting the world in controllable and predictable terms, to themselves and to others. Seeing socially acceptable reasons as *causes* of behavior, rather than *ex post* justifications of behavior caused by unruly passions and whims contributes to crafting a picture of the world in which both the actions of *others* and those of *ourselves* are predictable and controllable because they are subject to logically connected *reasons*. Thus, the Enlightenment project of creating a world order transparent to an understanding guided by reason, I will show, has

contributed to creating a world order based on self and mutual deception about the transparency of social action to reason: seemingly more predictable than one based on the open recognition of passions, but truly far less predictable than it is commonly thought. In each case below, I will advance testable propositions about the corresponding phenomena involving business decision makers.

### 3.1. Cognitive Dissonance Reduction

Psychologists have argued for some time that man is the *rationalizing animal* [Aronson, 1969]. In Leon Festinger's seminal studies [1957] participants were likely to place a higher value on an item they were given or forced to choose, than on an item which stood among other choosable objects. They were also likely to infer that they had preferred a particular option to other choosable options 'all along' in an experiment in which the other options became unavailable. Festinger labeled the psychological state accounting for this phenomenon cognitive dissonance aversion, and argued that it is a general proclivity of the human mind to desire to establish logical coherence among various propositions describing one's own behavior. Having chosen an apple over an orange, for example, is not logically consistent with preferring oranges to apples. Therefore the decision maker *accounts* for his or her choices in a way that maximally preserves the logical consistency or coherence among the various propositions which describe his or her activities and preferences.

### 3.2. Rationalization and Insight

It seems, therefore that people need to justify their actions and decisions, even if this means that they must re-edit, ex post, the information they had before making the decision or taking the action in question. It is therefore legitimate to ask whether there is a willful re-editing taking place, wherein people know the true causes of their action but choose to hide them, or, rather, the true causes can themselves be interpreted and re-interpreted

according to the circumstances. Do people regularly have insight into the causes of their behavior? Can they be misled? The answer to the first question may vary with the proclivity towards self-analysis. The answer to the second question appears to be: 'Yes'. Schachter and Singer [1962] injected participants to their experiment with epinephrine, a substance which can cause sweating and heart palpitations. Some participants were alerted to the possible effects of the injection, and those participants correctly attributed their sensations to the effects of the injection. Other participants, however, were not told of the possible effects of the injection, but were rather brought into contact with a confederate of the experimenters who had allegedly also received a shot of the same substance injected into the body of the participants. The confederate acted out various emotions, such as anger or euphoria. Upon debriefing, the participants to the experiment also attributed their internal sensations to the *emotions* of anger or euphoria, taking their cues from the confederate.

Now, let us put together the findings of cognitive dissonance reduction and emotional lability. The latter suggests that people's insight into their own sensations is susceptible to external influence, and therefore that what they perceive to be the causes of their actions will be subject to interpretations which may inspired by the words and behaviors of other people. The former finding suggests that people will make up, create or manufacture reasons for having acted in a particular way, once that action has been taken. Behaviors are causally linked to internal sensations, which, however, a person may be led to interpret in one of several different ways, without retaining the insight that the interpretation is a super-structure. This super-structure is a rationalization - it must be in the case of the Schachter and Singer experiment, since the participant did not have any a priori intention regarding his or her behavior. Finally, cognitive dissonance theory suggests that people will select the rationalization which best fits - or logically coheres with - a set of contextual or self-descriptive propositions which are salient immediately after the action was taken.

### 3.3. Self-Perception and Self-Censuring

If we take the above model seriously, then we should also expect to find that people who hold a belief for one set of reasons, will, upon changing their mind, deny having ever held those reasons in the first place. Here the 'changing of the mind' is itself the 'action', and the ex post reconstructed set of reasons is the rationalization. First, by cognitive dissonance reduction, we would expect that people will resolve the discrepancy between 'I believe P' and 'I believe (not P)' (where P is the rationalizing belief) by a cognitive commitment to 'I believe P'. Second, by cognitive dissonance reduction, the same person might resolve the tension between 'I believe P but used to believe (not P)' and 'I am a consistent person' by a cognitive commitment to 'I never used to believe (not P)'. Moreover, because asserting the propositions 'P' and 'not P' are actions caused by sensations which can be interpreted in many ways, 'I always believed P' simply appears as a new interpretation of an ever-malleable internal disposition.

This self-censuring effect is in fact what experimenters have reported [Bem and McConnell, 1970; Goethals and Reckman, 1973]. Participants in those experiments were invited to make an assertion and offer the grounds for it, then were given evidence that refuted their assertion. After they 'changed their minds', the participants did not recall their previous attitudes, and reported always having held the new (and modified) beliefs. The revisionist tendencies of people are also on display in what psychologists call the hindsight bias [Hawkins and Hastie, 1990], which refers to their propensity to judge the *prior* probability of an event *after* the event has occurred to be significantly higher than the *priori* probability of the same event *before* the event had occurred. What seems to be at stake here for the individual is the ability to persuade herself of her own predictive competence. If we furthermore see the illusion of predictive competence as the outcome of a desire to believe oneself in control, then we also realize that these findings are related

to Ellen Langer's studies [see the collection of articles in Langer, 1975] showing that people expend great cognitive energies to persuade themselves that they could have predicted sequences of outcomes generated by random devices.

Greenwald [1980] goes even further in his essay duly entitled *The Totalitarian Ego* [1980]. He starts from the premise that the ego or the self is an organization of knowledge 'characterized by cognitive biases strikingly analogous to totalitarian information control strategies'. He paraphrases these biases using Orwell's formulation [1948] of a totalitarian information control strategy: 'Who controls the past, controls the future. Who controls the present controls the past.' Greenwald then marshals a large literature documenting confirmation biases in memory searches [Mischel, Ebbesen and Zeiss, 1976; Snyder and Uranowitz, 1978; Greenwald, 1975], cognitive conservatism, and the susceptibility of visual memory to textual revision [Loftus, 1970] as arguments that support his contention that the ego relies on information distortion, deletion and re-creation in order to serve its purposes, which are self-preservation and self-enhancement.

### 3.4. The Disjunctive Bias.

Now let us consider the use and function of reasons themselves. What kind of reasons are most useful to a decision-maker? How does he or she use reasons in order to make decisions? People seem to need reasons for acting in a particular way which explains or accounts for all of the information relevant to their predicament, rather than just a part of it. Shafir and Tversky [1992] confronted participants to an experiment with a predicament in which they were about to go through a difficult examination, but were faced with an immediate choice between booking a vacation after the exam, not booking it and possibly foregoing the option to go, or paying some money to defer their decision until after they discovered the results of the exam. Most of the participants chose to pay for the option to postpone the decision. However, most of the participants to another version of the

experiment, told that they had just passed the exam, elected to go on the trip, as did most of the participants to a third version of the experiment, who had been told that they had just failed the exam.

Shafir and Tversky called this reasoning pattern disjunctive, because they concluded from the results to the second and third versions of the experiment that the passing or failing of the exam should have had no bearing on the decision of the participant in question. They reasoned that for some participants going to Hawaii was recompense for having done well on the exam, while for others, going to Hawaii was consolation for having done poorly on the exam. Beyond the obvious 'disjunctive' effect, the results of the experiments show a preference for certain kinds of reasons over others, and in particular for reasons which incorporate as much as possible of the information available or prospectively available to the actor. People not only want to do *well*, but also to do *right*. Quite often, however, whether or not one has done right can only be established after the event on which the decision is predicated. Therefore it is vitally useful, in this case, to wait until after the critical or conditioning event in order to create a reason for acting in a particular way. After-the-fact reasoning, then, serves the useful purpose of creating *accounts* or rationalizations that have greater explanatory powers of the self for the self than does before-the-fact deliberation.

### 3.5. Deliberation Avoidance: The Phenomenology of Tatonnement

Some psychological studies have purported to show that people are averse to reasoning through difficult choices. When confronted with a choice between two housing options, each superior to the other along a different dimension (time to work or cost of living) most participants in the experiment of Shafir, Simonson and Tversky elected to spend time and energy to come up with a third option [Shafir, Simonson and Tversky, 1993] even

though they did not seek a third option when the choice between the two options was made 'easy' or obvious. As Shafir, Simonson and Tversky write, 'it appears that the search for additional alternatives depends not only on the value of the best available option, as implied by value maximization, but also on the difficulty of choosing among the options under consideration.' The 'third option' in such cases appears to beckon the decision maker as a potential 'tie-breaker' between the two options that are conflicting the decision maker's mind. What is 'fetching' about the potential third option is the alleviation of the deliberative 'load' which the need to choose between the conflicting options is placing on the decision maker. The findings of the study thus provide indirect support for the hypothesis that real deliberation has a negative utility for a decision maker.

In summary, the picture of the most-commonly-encountered strategic manager that studies from social and cognitive psychology give us can be summed up by the following proposition:

*Proposition 3.1. Most strategic decision makers are not performatively rational. They do not do that which they have most reason to do, by their own standards of reasoning.*

#### 4. Rationality and Rationalizability: What is the Difference?

It may be argued that acting rationally and acting rationalizably are not all that different from one another. After all, if I know that I will need to rationalize my actions after I have taken them (to myself or to others) then I will act *as if* I am *moved* by the rationalizing reasons. Perversely, it is rational to act rationalizably. Therefore seeking rationalizability is rational. Therefore there is no tangible difference between acting rationally and acting rationalizably: we are constrained to act rationally by the need to rationalize our actions after taking them.

This argument would fare well if there were a one-to-one mapping between reasons and actions: if, that is, for any one action, only one set of reasons could be invoked in order to rationalize it. This, however, is not the case. Each action is over-determined in the space of reasons. Several different explanations of the action can be brought forward in order to make it intelligible or to rationalize it to an observer. There is, therefore, no *a priori* guarantee that the rationalizing reason is also the *moving* reason. We could act because we are swayed by one reason and then pretend as if we have been swayed by a different reason. The problem for the rationalizing actor, in this case, is not that of choosing - *ex ante* - the action that is most easily rationalizable, but rather that of choosing - *ex post* - the rationalization that is most suitable for a particular action.

However, there is also no *a priori* guarantee that the rationalizing reason is *not* the moving reason. It may be; and an observer with access to a person's behavior (and *ex post* assertions) may never know it. However, the weight of evidence and argument from psychological studies seems to be against the proposition that rationalizability begets rationality through the social pressure for conformity acting on the individual actor. In order to make this argument, I will recast the experimental literature on attitude change and belief change as a body of evidence about the link between thinking and acting.

The generic attitude change experiment is based on eliciting some prior belief or attitude from a participant, exposing the participant to a stimulus which can be easily interpreted as refuting the prior belief, and then eliciting a posterior belief or attitude from the participant. Commonly, psychologists do not think of the verbal behavior of participants in forced choice experiments as an action which the participant has undertaken on the basis of his or her beliefs. But that is precisely what it is: saying 'I do' to the question 'do you believe P?' is an *action* which is justified by the subject's belief that P is the case. Therefore the truth of P functions as a reason for the *action* of asserting that one believes that P is true. Therefore we can re-interpret the entire attitude change literature as a

literature that informs the problem of *rational action* as well as the problem of rational belief.

What should we expect to find if reasons are more often rationalizing than they are rational? Whereas rational deliberation and rational planning is about choosing the actions that will bring about a better future for the decision maker, rationalizing discourse is about making the past easier to live with. Therefore we should expect that if used rationally, reasons should be responsive to arguments and counter-reasons, as the decision maker is not interested in holding on to any one reason at the expense of doing more poorly for himself/herself than he/she otherwise might by letting go of the belief in question. On the other hand, if used as rationalizations, reasons will be fairly unresponsive to arguments, because the beliefs that function as reasons are valuable *in themselves* for putting a good light on an event or a series of events that is already past. Accepting the defeater of a reason as true or valid endangers the positive slant on the past that the decision maker has pieced together.

If reasons are used as motivators for actions taken for self-interested ends rather than as rationalizations or justifications, then we should also expect to see that the substance of an argument - the degree to which it supports or refutes a particular reason - should matter far more to someone's adherence to that reason than should the degree to which other people approve of the reason in question, or the degree of social support that the reason in question is perceived to have. The latter should matter if, in fact, the main value of a reason is the degree to which it can be used in an *ex post* conversation in which the subject is trying to justify himself, or to get the maximum social mileage or social credit out of his (already consummated) actions. If reasons are used as *ex post* rationalizations of actions which have interpersonal aims and targets (getting the decision maker closer or farther away, emotionally from someone else), then we should find that interpersonal emotional factors (such as the attractiveness of the communicator) have deep influences on the

degree of cognitive commitment of a person to the propositions put forth by that communicator, and weigh more in the formation of that cognitive commitment than do the substantive merits of the argument.

Broadly, speaking, the experimental record of social psychology supports the thesis that reasons are not generally responsive to counter-reasons or arguments, and the thesis that the degree of cognitive commitment to a reason varies with the perceived degree of social support for that reason, and with 'interpersonal' factors in the reasoner's predicament, such as his or her degree of liking for the communicator or the person who asserts the argument that is (to an observer) a defeater or supporter for the reason in question.

Let us now map some of the literature on attitude and belief change, keeping in mind that we are treating beliefs and attitudes as potential reasons for acting, and therefore drawing inferences about people's 'calculus of reasons' from the psychological studies pertaining to their 'calculus of beliefs'. Remember that, throughout the discussion, I have cast the subjects' assertions about their own beliefs as the actions for which their commitment to the assertoric beliefs served as the reasons.

4.1. Lack of responsiveness. Researchers found early on that memory of *contra* arguments correlate only very weakly with attitude change [Greenwald, 1968] in experimental participants, refuting the expectation that people who changed their mind (i.e. acted to signal a change in their beliefs) on the basis of arguments would be more likely to remember those arguments than would people who did not change their minds [Hovland, Janis and Kelley, 1953]. More dramatically, mixed arguments (for and against capital punishment) produced a *polarization* rather than a moderation in the positions of groups that supported or deplored, respectively, the practice of capital punishment [Lord, Ross and Lepper, 1979]. That reasons and beliefs are not responsive to arguments was strongly suggested by a study in which students persuaded (using lies) that they had become expert

judges of the authenticity of a suicide note, persisted in believing in their expertness *after* they were debriefed of the deception involved [Ross, Lepper and Hubbard, 1975]. The effect does not seem to be due to a self-enhancing motive, as is suggested by the study of Ellsworth and Ross [1980], in which supporters of capital punishment were asked for the reason why they supported the measure. Most answered that they supported capital punishment for its deterrent value. These were then asked how their position would change if they saw completely clear data that refutes the hypothesis that capital punishment has any deterrent value. Most of the participants remained committed to the pro-capital punishment belief.

#### 4.2. Importance of the perceived social value of a reason.

Although no direct empirical evidence is available in the socio-psychological literature, some indirect evidence may nevertheless be cited. The propensity of people to justify their self-interested choices in terms of transcendental moral principles (which change to follow changes in the interest of the person in question) has been documented by Loewenstein [1996]. In the studies he cites, people elected hourly pay 'because it is just' when they were getting paid by the hour for a longer-than-average day whereas their counterparts were getting paid by the day; and elected to get paid by the day 'because it is just' when roles were reversed. These experimental findings suggest that genuine concern with the transcendental values or altruistic motives may not be the cause of invoking transcendental values or altruistic motives as reasons for one's behavior. Rather, considerations of social acceptability guide people's choice of reasons used to justify individually advantageous actions. It then appears that reasons of equity and justice are selected for the social credit which they bestow upon their users, who come *themselves* to accept the reason as a valid justification for their actions.

#### 4.3. Importance of interpersonal circumstances and emotions.

Several studies have shown that the attractiveness, style and demeanor of the communicator carry great influence with the deliberator in constructing or modifying his or her beliefs. Thus, Mills and Aronson [1965], Horai, Naccari and Fatoullah [1974] and Dion and Stein [1978] showed that the physical attractiveness of the communicator correlates with his or her ability to persuade a subject of an opinion or belief. Perceived physical and psychological 'kinship' between the communicator and the audience was shown to correlate with the degree to which the communicator was able to induce an attitude change in the audience [Mazen, 1968 on pregnant women's effects on pregnant women; Stoneman and Brady, 1981 on the effects of children on children]. Sympathy effects of the subject towards the communicator were shown to correlate with the success of the communicator in producing an attitude change [Aronson and Golden, 1968]. Confident negotiators (instructed to use as often as possible cheap expressions like 'of course', 'the fact is' and so forth) were shown to be more persuasive (to an audience) than were their more 'timid' counterparts (instructed in the experiment to temper their assertions with phrases such as 'I suppose it's true that...', 'maybe' and so forth) [London, Meldman and Lanckton, 1971].

In summary, we have the following proposition for the post-decisional behavior of the most-commonly-encountered strategic manager:

*Proposition 4.1. Although strategic managers do not do that which they have reason to do they generally will offer plausible reasons for behavior that they have already engaged in.*

##### 5. Weakness of the Will and Ratification Failure: A New Lens on Managerial Action.

In this section, I will apply the new lens on managerial strategic behavior to some well-known findings and arguments in the strategic choice and decision-making literature. The ‘strategy’ that I shall use for applying the lens is a simple one: wherever a question such as ‘why are managerial choices inefficient?’ is posed, I shall seek to advance a ‘weakness-of-the-will’ argument to contrast the ‘weakness-of-the-warrant’ argument that is generally put forth in the literature. I will then show how performative rationality and ratification failure can explain the phenomenon in question, and why performative rationality is important to interventions aimed at modifying managerial choice behavior.

### 5.1. Competitive Decision-Making: Blind Spots or Weak Spots?

Zajac and Bazerman [1991] have persuasively argued that inefficiencies in strategic choice may be due to the fact that top managers and decision makers within the firm do not adequately incorporate their expectations about competitors’ responses to the firm’s strategic choices, leading to value-destroying decisions to expand production capacity leading to over-capacity and price wars in the firm’s industry, or to enter a new industry by acquisition or internal development, leading to over-investment in the opportunity on the basis of over-confidence in the future cash flows generated by the firm. They introduce the notion of competitive decision-making to denote the process by which strategic decision makers take into account the expected responses of competitors to the firm’s strategic moves.

Their argument can be parsed into two lines of reasoning. The first is that people do not readily engage in competitive decision-making because thinking about what someone else is thinking, thinking about what he or she is thinking they are thinking, and so forth, is an unfamiliar cognitive habit. ‘People just do not think that way’. This argument does not seem to be supported by recent experimental evidence [reviewed in Moldoveanu and

Langer, 1999:2] that shows that people engage in interactive epistemology regularly – although not always realistically or correctly.

The second is that interactive reasoning is just too complex a cognitive process for decision makers to engage in. As Jacquemin [1987] argues, *the entry candidate is assumed to be capable of imagining all possible cost structures of its adversary and of contributing a subjective probability to all eventualities; of calculating the likelihood of the price strategy used by its rival as a function of each cost structure  $c_1, \dots, c_n$ ; of estimating the joint probability to have at the same time a cost structure  $c_j$  and a price policy  $p$  for each possible cost structure; of evaluating the marginal probability of having this price policy  $p$ , whatever the cost structure; and finally of assessing the posterior probability of the cost structure affecting its rival.* This claim is difficult to criticize on empirical grounds, because there are too many degrees of freedom in the specification of the problem: one can choose to ‘imagine’ a very simple cost structure for one’s rival (‘high-low’), and a discrete probability distribution function, turning the problem into a very simple one, even without the help of a personal computer. In view of the fact that chess masters typically hold tens of thousands of pieces of information – some logically connected – in their minds while trying to decide on the next move in a match [Simon, 1978], it is difficult to make the argument that the human mind is intrinsically limited and therefore cannot handle the computational requirements of such a calculation. Alternatively, one can imagine a very complicated, contingent cost structure (with cascading conditional probabilities all the way down to events of which the decision maker feels ‘certain’, which may be in the distant past) wherein the computational complexity of calculating the firm’s best response turns into a computationally intensive one even for a super-computer. In any case, the facts that Jacquemin’s argument relies on an *algorithmic* model of the other firm, that algorithms are suitable for implementation on finite state computational devices (i.e. computers) and that the price per MIPS (million instruction per second, where an instruction is defined as a floating point addition or a multiplication)

stands in 1999 at \$0.05 suggests that computational resources may not be the constraint on interactive reasoning that we think it is. Because of the freedom that we have in defining the problem of computing a ‘best response’, the argument that managers ‘don’t do it’ may come out to be either ‘true’ or ‘false’, depending on the assumptions about the problem statement one makes (and body of evidence one is willing to cite).

An alternative explanation to the problem of over-commitment and resulting over-capacity in competitive industries is that, even though people are quite capable of interactive reasoning and of making decisions on the basis of such reasoning, they do not *ratify* these decisions into actions. As Bargh and Chartrand write [1999], many of our behaviors that appear to observers to involve conscious choice and to incorporate reasoned judgment are in fact automatism: *[T]he evaluations we’ve made in the past are now made for us and predispose us to behave in consistent ways; the goals we have pursued in the past now become active and guide our behavior in pursuit of the goal in relevant situations; and our perceptions of the emotional and behavioral reactions of others makes us tend to respond in the same way, establishing bonds of rapport and liking in a natural and effortless way.* Moreover, the ‘unbearable automaticity of being’ – as Bargh and Chartrand call it, is not at all immediately obvious to introspection, as the evidence cited by Wegner and Wheatley, showing conscious will to be an illusion of the actor [1999] tends to show. Thus the explanation suggested by the argument presented in this paper is that because managerial choice *behavior* is not counterfactually dependent upon managerial *reasons* for producing that behavior, therefore managerial cognition of the importance of competitors’ decisions is *causally inert*.

## 5.2. Why Does Training Fail to Produce Changes in Judgments?

The most perplexing fact that emerges from the literature on cognitive biases and fallacies [Dawes, 1998] is that these phenomena usually persist even after the experimental participants have been ‘trained’ in the right application of reasoning to the data with which they are presented, and also in spite of the fact that they themselves have agreed to the correctness of the ‘normative’ perspective. Although the ‘normativity of the normative’ view and its applicability to the study of cognitive processes is itself a subject of critical dialogue [Moldoveanu and Langer, 1997], nevertheless the *disconnect* the theory-in-use [Argyris, 1990] and the espoused theory of correct judgments under uncertainty is puzzling, especially in a setting where the costs to recognizing a dysfunctional behavior and modifying it do not seem all that high. Corroborating evidence for the recalcitrance of decision-making behavior also comes from the studies of Babcock and Loewenstein [1997] who find that negotiators’ over-confidence in their assessment of a bargaining scenario cannot be corrected by training that includes informing the participants of experimental results that confirm the over-confidence bias.

The ratification fallacy I have discussed here presents a simple explanation for such recalcitrance. Experimentalists need to recognize that what they are measuring is not the ‘raw’ cognitive state of the participant, but rather his or her choice *behavior*. What they commonly assume to be the failure of the participant to *reason* correctly, may turn out to be the failure of the participant to *act* in accordance with his or her reasons. This is not a failure of logic or of cognitive rationality, but rather one of performative rationality. It is not a problem caused by a weakness of the warrant, but rather one that is due to a weakness of the will. If this argument is correct, then we should expect to see some cognitive biases and fallacies that have been well-documented (such as regret avoidance leading to intransitivity of revealed preferences) disappear with interventions aimed at making the chooser more conscious of his or her role as a decision-maker. This is, indeed, what we find, as exemplified in [Moldoveanu and Langer, 1999:1].

### 5.3. Why are Organizations Inert in the Face of Environmental Change?

Organizational inertia has been singled out as an important phenomenon surrounding the adaptation of organizations to changes in their upstream and downstream markets. Indeed, population ecologists [Hannan and Freeman, 1977] and evolutionary economists [Nelson and Winter, 1982] simply assume that organizations will not be able to survive radical environmental change, while thinkers in the administrative [Christensen, 1997] and sociological traditions [Tushman and Anderson, 1986], point to repeated failures of organizations to adapt to technological changes in their markets. Jensen [1993] has argued strongly that deficient intra-organizational incentive patterns account for the pattern of inefficient choices (such as over-spending on research and development) that he documents in large firms such as General Motors over the twenty years preceding his study. However, if managerial biases in decision making are responsible for inefficient resource allocation choices, then we should observe a reversal of at least some cognitive biases in laboratory settings where incentive structures can be manipulated. Once the ‘correct’ way to make a decision or judgment is introduced to a participant and the right incentives for using the new conceptual tools are put into place, then we should observe the disappearance of the inefficient choice patterns. However, this is precisely what we *do not* observe [Babcock and Lowenstein, *ibid.*] In fact, Dawes has made it a point of defining cognitive biases and fallacies precisely by the *resistance* of the corresponding, experimentally induced behaviors to interventions aimed at exposing the fallacy involved.

Although there are many structural and evolutionary models that would predict organizational inertia with reference to the difficulty of overcoming standard operating procedures [Cyert and March, 1963], the power of organizational dialects or codes to ‘blind-side’ decision makers to paradigm shifts in their industries [Moldoveanu, 1999:1, 2] and the effects of organizational patterns of behavior aimed at generating, selecting,

confirming or refuting beliefs about the environment [Moldoveanu, 1999:3], the argument presented in this paper suggests that *intra*-personal, as well as inter-personal phenomena account for the slow rate and great caution with which organizations respond to new threats and opportunities. If top decision makers exhibit the type of ratification failure that the experimental evidence I have marshaled suggests that most people exhibit, then it may be the case that failures to adapt to changes in the environment that are *cognized* – and therefore supply *reasons* for behavioral changes – are due to the automaticity in the behavior of top managers who have the ultimate check-signing privileges in their firms.

#### 5.4. Why are ratification failures ratified by financial markets?

There is an apparent tension between the great number of biases and failures of reasoning documented by social and cognitive psychologists [Kahneman, Slovic and Tversky, 1982] as prevalent in the general population and by scholars of managerial cognition as prevalent among top managers and decision makers, and the widely documented tests of stock market (weak-form efficiency) [Fama, 1988]. If current stock prices incorporate all of the available information about the equity of the firm that issues the stock – including, presumably, information about the cognitive biases and failures of the top managers of the firm – then why are cognitive biases still prevalent among top managers? Presumably, even a weakly efficient stock market should eliminate (by withdrawing capital from) those firms that are led by managers who consistently commit such fallacies of reasoning as have been documented in the general population.

The lens that I have introduced in this article focuses our attention on the people who make the *decisions* to advance money to or withdraw money from a particular organization – the managers of large pension and mutual funds and of institutional

portfolios and the small investors, whose overall decisions are reflected in the ongoing price of the stock of the organization. If these agents were just as prone to the ratification fallacy as are top managers and people in the general population sampled by psychologists, then, they, too would exhibit automatic behavior that would not be susceptible to change in the face of realizing that top managers in a particular firm do not do that which they have reason to do. In particular, making changes in one's investment strategy requires that one be able to direct oneself to act in accordance with one's reasons at the time of the action. Otherwise, the same over-justification and escalation of commitment [Staw, 1976] that we are likely to observe in firms whose managers are not performatively rational should be on display among the people whose role was believed to be to 'discipline' top managers into making effective choices. Thus, the ratification fallacy is likely to be a cross-organizational problem as well as an intra-organizational problem, in that 'watchdog organizations' – financial firms – led by managers who are not performatively rational are not likely to effectively discipline firms that are led by performatively irrational managers. At the same time, however, tests of stock market 'efficiency' are likely to come out 'positive', because the standards for efficient choice behavior have been created to rationalize not only the resource allocation decisions of the firms themselves, but also the resource allocation decisions of those who have invested in them.

A test of this analysis may be found in the consistently strong performance of venture capital limited partnerships [Sahlman, 1990; Stevenson, Timmons and Muzyka, 1987] that 'wire' performative rationality into the up front into covenants between the partnership and the start-up venture, by tying subsequent rounds of investment to the successful and verifiable attainment of technological and financial performance milestones by the firm. In such cases, one automatically does (withdraw subsequent investment) what one has most reason to do (stop investing as indicators of subsequent performance turn negative, in spite of potentially large sunk costs that invite ex post rationalization and escalating commitment). The two elements of performative rationality – transparency and coherence

- are both present in the operation of the venture capital limited partnership. Transparency is achieved by the up-front announcement of verifiable conditions under which the venture fund will *cease* to invest. Coherence is achieved by the inalienability of the decision rights of the limited and general partners in the venture fund, which enables the same principal who made the *ex ante* contingent commitment for funding and set the milestones (reasons for not funding) to be the one who makes the decision to stop funding and the same one to bear the costs of this decision.

#### 6. Performative Rationality: A New Agenda for Business Scholarship and Teaching.

In the above paper, I have tried to establish that there is a problem with the way most people claim to use reasons in order to guide their actions, and have applied this problem to the field of strategic management decision and choice. I have proposed that:

1. Ratification failure arises when one is not able to bring oneself to do that which one has most reason to do, because of a performative inability to 'implement' the action required by a set of reasons.
2. Ratification biases obtain when one falsely persuades oneself that one's *ex post* reasons for a particular choice are the same as one's *ex ante* motivations for taking a particular action leading to that choice.
3. Ratification fallacies arise when people are oblivious to their own failures of ratification.
4. Ratification problems are pervasive in the general population, and there is no good reason to think that they are not pervasive in the managerial population as well. It is well-hidden by self-justificatory and ego-defensive strategies which shield the irrational from the imputation of irrationality. These self-defensive biases and tendencies again have been

well-documented in the general population; and there is no reason to think that they would not occur with the same frequency in a population of strategic managers.

Now I would like to argue that the problem of performative rationality is worth pursuing head-on by a concerted effort among people working in the various disciplines of psychology, economics, sociology and cognitive neuroscience; business strategy scholars and teachers; philosophers concerned with the practical implications of thinking and deliberation; and practicing top executives who wish to broaden their insight into their own (and others' behavior). This effort, I suggest, can be organized along the lines of questions about the uses of reasons and the uses of logic in order to motivate, explain and rationalize the behavior of oneself and of others. The effort - should it materialize - will be distinguished by a research agenda that is directly inspired by the problem of performative rationality as it is encountered in business practice.

More specifically, the research effort should be directed at understanding how failures or shortcomings of performative rationality can be identified and corrected or improved upon, whether or not performative rationality is or can be the proper object of education, and how an educational program can proceed to make the attendees more performatively rational (than they were to begin with). A sensible partitioning of the problem seems to be one which isolates the *ex ante* and *ex post* phenomena surrounding a decision with respect to an action or an observable choice.

The Ex Ante Problem. The investigation of pre-decisional deliberation should focus on the phenomena which in some way cause the actor to take the action that he or she takes.

1. Philosophical investigations could illuminate the extent to which reasons - and mental phenomena more generally - could function (or be said to function) as the causes of actions - or physical phenomena . In particular, are reasons merely epi-phenomena? Are we ultimately self-deceived about the true causes of our actions? Or, rather, is it possible,

through analysis of one's own motives, beliefs and past behavior, to arrive at a situations where *ex ante* reasons can function as the causes of action?

2, Philosophical analysis could also help make progress on the problem of logical sloth. Are we doomed to choose between requiring logical omniscience and condoning passive acceptance of the first thing that comes to mind in our normative stance towards deliberation? Is there some middle ground that places some positive normative value on deliberation? On the other hand, is the verification of logical consistency among one's axioms a sufficient condition for performative rationality? Is the rational imagination of the decision maker equally important to her ability to engage in logical discourse in the establishment of performative rationality?

3. Researches in cognitive neuropsychology can inform us about the physiological correlates of decisional processes. Is the somatic marker model of decision making an insurmountable barrier to performative rationality? Are people unable - even through the use of reasons and counter-reasons - to genuinely 'change their minds', where the change of mind can be measured by further somatic responses?

4. Research in cognitive and social psychology may inform us about the function of arguments in influencing the course of action that people choose. Are people hopelessly unable to let themselves be swayed by the argument that is put forth, as some of the studies cited above have shown? Or, is it rather that the 'right' counter-argument was not put forth by the researcher, appearances notwithstanding? Or, yet, is it that the counter-argument that was put forth did not cut deeply enough, to the assumptions and pre-suppositions of the decision maker, whose ultimate refutation is a necessary condition for producing a 'change of mind'? If so, then how 'deeply' in the logical space, does a counter-argument have to cut in order to produce a change of mind? Here, some preliminary results showing that people's commitment to a particular belief diminishes

once they realize that they lack cognitive support for one of its ‘ultimate’ assumptions [Maio and Olson, 1998] is significant, because it suggests that early attitude change studies were not sensitive enough to the ‘logical depth’ (i.e. the number of times the person could answer ‘why?’) of her commitment to a proposition or belief.

5. Business strategy researchers and action theorists could investigate the phenomenology of deliberation in top managers and executives, with the aim of discovering the depth of the cognitive commitments that the managers in question have to their reasons for action. The depth of a commitment to a proposition can be uncovered by asking ‘why?’ regarding that proposition until the proponent runs out of answers. Do different levels of logical depth inhere in arguments used in organizations with different approaches to public deliberation? Is the defense of deeply held assumptions (where the depth of an assumption is the logical distance – the number of intermediate propositions or steps - between the assumption and the proximal reason for action) a tangible goal in some organizations? If so, then should we not include it in the decision making model for the top managers (among the ‘goals’ of the manager in that particular situation)?

Business strategy teachers and practitioners can be helpful by eliciting and producing (respectively) frank accounts of the deliberation process. What are the relevant dimensions on which we could think about the phenomena of deliberation? How many acts which appear as ‘choices’ to the outsider also appear as ‘decisions’ to the actor? Can the actor’s perception of his own choices be modified by reflection, or by acquaintance with the observer’s model? Again, some work in social psychology [Storms, 1977] suggests that actor-observer effects can be reversed by presenting the actor’s own actions to herself on film. Are these effects replicable in the boardroom? What about the classroom? With what means? With what results?

### The Ex Post Problem

The *ex post* problem relates to the ways in which relevant pre-decisional factors may be filtered and edited out by a self-therapeutic process aimed (consciously or unconsciously) at keeping up positive appearances, self-images, self-narratives, self-schemata - or result from cognitive 'biases' and distortions which have been documented. The aim here is three-fold: to understand the extent to which, in the executive world, the therapeutic biases which turn most people into skillful rationalizers have the same hold, to determine the extent to which *accounts* of past actions can be used as signals of the pre-decisional mindset and deliberative process of the actor, and to propose ways by which one can cut through the rationalizing proclivities of oneself and others, without triggering even greater levels of defensiveness and obfuscation.

1. Philosophical analysis can help tease apart the various defensive routines and cognitive rituals that help people rationalize their behaviors *ex post*. What are the constraints that rationalizing explanations must fulfill? What are the bounds of rationalization? Is there anything we cannot rationalize? (The fact that there seems to be little we cannot explain in each of our disciplines in the social sciences seems ominous in this regard). Suppose we considered rationalizations as self-explanations, and subjected them to the searching analyses that epistemologists have turned on scientific explanations. Would they hold up to logical scrutiny? From these questions, a valuable discipline of critical questioning and self-questioning can emerge, which can shed light on the problem of performative rationality.

2. Psychological investigations of rationalizing behavior (already numerous, and including investigations of memory distortion effects, memory-editing effects and hindsight biases) can be augmented to test hypotheses about the link between a person's epistemological outlook and the structure and content of his or her beliefs. Does an enhanced awareness of different epistemological approaches decrease one's proclivity to rationalize? Does an

enhanced awareness of alternative explanations of one's own behavior similarly decrease one's propensity to produce therapeutic ex post accounts of one's behavior? If, as Greenwald suggested, the self is an organization of information, then epistemology and epistemological commitments form the glue that holds the self together. Changing epistemological approaches should also change the adhesive power of the 'glue' and therefore should have marked changes on the self – so defined.

3. The investigation of the uses of reasons in managerial deliberations is virtually an untouched field (in part because of the fact that the 'data' is very difficult to obtain). However, the investigation of organizational 'defensive routines' of Argyris [1991] and of professional defensive routines by Schon [1983] and the classic work of Goffman documenting the 'face-work' characteristic of much of everyday life [Goffman, 1959] offer starting points for hypotheses about the uses of reasons in private ex post deliberations and methodological ideas for testing these hypotheses. At the very least, we could attempt to replicate the findings by social and cognitive psychologists on college campuses in the top tiers of large organizations.

Business strategy teachers and practitioners, in their turn, can help their students tackle the problem of performative rationality by exposing the latter not only to the 'sanitized' versions of case studies which neatly fall under one or another strategic scenario which can be analyzed by game-theoretic means, but also to the overwhelmingly large body of evidence that suggests performative rationality is a rare phenomenon, and to the large number of alternative explanations which can most likely account for any strategic decision. Inference to the best explanation (rather than 'fitting the data to the suggested explanation') could be a new model for the discourse carried out in the classroom.

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