

Original citation:

Liu, Chengwei (2017) *Strategizing with others' misperceptions of luck in extreme performances*. *Academy of Management Proceedings*, 1. doi:[10.5465/ambpp.2017.10](https://doi.org/10.5465/ambpp.2017.10)

Permanent WRAP URL:

<http://wrap.warwick.ac.uk/87583>

Copyright and reuse:

The Warwick Research Archive Portal (WRAP) makes this work by researchers of the University of Warwick available open access under the following conditions. Copyright © and all moral rights to the version of the paper presented here belong to the individual author(s) and/or other copyright owners. To the extent reasonable and practicable the material made available in WRAP has been checked for eligibility before being made available.

Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

A note on versions:

The version presented here may differ from the published version or, version of record, if you wish to cite this item you are advised to consult the publisher's version. Please see the 'permanent WRAP URL' above for details on accessing the published version and note that access may require a subscription.

For more information, please contact the WRAP Team at: wrap@warwick.ac.uk

STRATEGIZING WITH OTHERS' MISPERCEPTIONS OF LUCK IN EXTREME PERFORMANCES

CHENGWEI LIU

Warwick Business School
University of Warwick
Coventry, CV4 7AL, UK

ABSTRACT

Research suggests that people tend to be fooled by randomness and mistake luck for skill, particularly when evaluating extreme performances. I argue that these predictable mistakes can be translated into a source of competitive advantage: informed managers can exploit others' misperceptions of luck, such as by arbitraging in strategic factor markets. I then discuss limits to this arbitrage strategy due to social constraints: stakeholders may not be able to accurately evaluate performances and may disapprove atypical strategic activities, suggesting that only strategists who are less sensitive to this "lemon problem" can take advantage of the resulting arbitrage opportunities. I conclude with a flowchart about when strategists should pursue this alternative source of strategic opportunity that turns the well-known biases on their head.

INTRODUCTION

How performances are perceived and attributed have important implications for strategizing. For example, if a success is attributed to a strategy, the manager who formulated this strategy is likely to be rewarded and promoted, and the strategy will be replicated and diffused (Cyert & March, 1963; Haunschild & Miner, 1997; Strang & Macy, 2001). However, decades of research in cognitive and social sciences suggest that people tend to make predictable mistakes in attributions (Jones, 1979; Kelley, 1971; Ross, 1977). For example, the Fundamental Attribution Error suggests that outcomes are usually over-attributed to the person (e.g., the traits or skills of the strategist) rather than to the situation (e.g., being at the right time and right place) (Ross & Nisbett, 1991). This suggests that people systematically underestimate how events could have unfolded differently due to factors beyond individuals' control, implying that managers can be praised (blamed) for good (bad) luck.

The way people mistake luck for skill is particularly problematic when evaluating extreme performances. Recent studies demonstrate that exceptional performances tend to happen in exceptional circumstances rather than being a reliable indicator of exceptional skill (Denrell & Fang, 2010; Denrell, Fang, & Liu, 2015; Denrell & Liu, 2012). It follows that extreme performances should be attributed more to the situations the actors happen to be in (Liu & de Rond, 2016). For example, exceptional successes are unlikely to occur without strong performance reinforcements (Denrell, Fang, & Zhao, 2013; Denrell & Liu, 2012). A mediocre actor can get lucky early and her initial fortune reinforced to such an extent that she becomes the eventual star who receives all the fame and credits, whereas her more competent counterparts become obscure due to early bad luck (Arthur, 1989; Frank & Cook, 1995; Merton, 1968; Salganik, Dodds, & Watts, 2006). Similarly, research on disaster dynamics suggests that many failures should be attributed to circumstances such as tightly coupled, interdependent systems (Perrow, 1984). Even skilled operators can fail to stop a cascade of small errors becoming

something more serious once a tipping point is passed (Rudolph & Reppenning, 2002). The theoretical implication is that a non-monotonic pattern between performance and the expected level of skill may exist, as demonstrated in (Denrell & Liu, 2012). Higher performances indicate higher skill only in the region of moderate performances. Top performers may not have the highest level of expected skill, while the worst performers may not have the lowest level of expected skill (see the appendix for the mechanism that generates this pattern). Their extreme performances reflect a strong, enduring impact of luck so one should regress more to the mean when evaluating these outliers (Denrell & Liu, 2012).

Nevertheless, people tend to romanticize and attribute extreme performances more to the persons involved than to the situations and predict that these extreme performances are likely to continue due to these persons (Meindl, Ehrlich, & Dukerich, 1985; Ross & Nisbett, 1991), exactly the opposite to the above normative account. These misattributions of luck can have severe consequences. For example, competent but unlucky managers can be fired after failures, e.g., managers of Major League Baseball teams who lose most of the games in the first half of a season (see also Feiler & Taylor, 2013). The organization may develop false confidence from this decision because the performance is likely to improve after a new manager joins. But the performance changes may have nothing to do with the new manager but instead reflect regressing upward to the mean after an extremely low performance, implying a version of superstitious learning (Levitt & March, 1988; Liu & de Rond, 2016; Zollo, 2009). If this suboptimal learning occurs in an interdependent system like nuclear plants, the system may remain tightly coupled and fragile, awaiting the next “normal accident” (Perrow, 1984). Importantly, even with clear cues that extreme performance cannot happen without extreme luck, experiments show that people still tend to believe the extreme performers must have done something right (or wrong) to deserve the extreme reward or punishment (Denrell & Liu, 2012). The implication is that people’s tendency of mistaking luck for skill is the most salient and consequential when evaluating extreme performances.

I argue that the predictable misperceptions of luck about extreme performances can be translated into a source of competitive advantage. Conventional approaches to this problem focus on how to more accurately evaluate performances through de-biasing the evaluators (Bazerman & Moore, 2009; Kahneman, 2011; Kahneman, Lovallo, & Sibony, 2011). Here I focus on how informed managers can take advantage of others’ predictable mistakes in order to gain an advantage (Gavetti, 2012). For example, informed managers can arbitrage in a strategic factor market (Barney, 1986) by hiring managers who have been unfairly blamed for failure (i.e., buying low) or selling exceptionally performing business units to naïve buyers who ignore regression to the mean (i.e., selling high). The key is that people’s misperceptions of luck about extreme performances can lead to systematic over- or under-estimation in strategic factor markets that enable informed managers to identify and arbitrage the market inefficiencies.

However, there is a limit to this arbitrage strategy due to a “lemon problem” in markets (Benner & Zenger, 2016). Financial market can be inefficient because traders can lose capital support from their funder if the formers’ trading strategy is too sophisticated for the latter, resulting in fewer arbitrage activities than it needs for eliminating market inefficiencies (Shleifer & Vishny, 1997). This analogy can be applied to strategic factor markets (Barney, 1986; Denrell, Fang, & Winter, 2003): managers can lose both capital and social support if stakeholders fail to comprehend their strategy. Exploiting others’ misperceptions of luck implies that managers often have to act against the crowd’s misperceptions of luck. Arbitrage strategies such as hiring the fired or dismissing the stars are likely to be discounted due to their uniqueness and atypicality

(Correll, Ridgeway, Zuckerman, & Jank, 2012; Litov, Moreton, & Zenger, 2012). My theory predicts that managers who are less sensitive to social and stakeholders' constraints (e.g., private equity, see Benner and Zenger, 2016) are more likely to engage in such arbitrage. The implication is that fortune may favor the less sensitive because there is a limit to arbitrage for the more sensitive ones even when they are smart enough to identify the misvaluation opportunities.

More generally, this paper suggests an alternative source of strategic opportunity by turning the biases documented in the literature on their head. Decades of research in Organization Behavior/Theory, Judgment and Decision-making and Strategy have documented numerous suboptimal organizational processes such as decision biases, learning myopia and organizational inertia (Bazerman & Moore, 2009; Hannan & Freeman, 1984; Levinthal & March, 1993). These biases are counterproductive for the focal company, but I argue that they in fact illuminate ways for informed managers and entrepreneurs to gain an advantage by exploiting these predictable mistakes. This paper focuses on one particular bias, e.g., misperceptions of luck about extreme performances. Strategy researchers and practitioners can extend this approach by examining the extent to which other biases can be translated into an advantage and their scope conditions. Overall this approach suggests an additional branch of Behavioral Strategy (Gavetti, 2012; Powell, Lovallo, & Fox, 2011) as providing ways to identify and exploit arbitrage opportunities in strategic factor markets with social savvy.

The full paper is structured as follows. In the next section, I firstly define what luck is. I then review the cognitive and social reasons for mistaking luck for skill, before emphasizing that these biases are mostly problematic when evaluating extreme performances. Next, I outline how these predictable biases can be translated into advantage and discuss the caveats due to limits to arbitrage. I conclude the paper by presenting a decision flowchart about whether one should pursue an arbitrage opportunity resulted from misperceptions of luck, and discussing the implications of this arbitrage strategy for theories and practices, particularly the idea of behavioral strategy as (overcoming limits to) arbitrage in strategic factor markets.

CONCLUDING REMARKS: BEHAVIORAL STRATEGY AS OVERCOMING LIMITS TO ARBITRAGE

I outlined an alternative source of strategic opportunity by arbitraging strategic factor market inefficiencies resulted from people's systematic misperceptions of luck when evaluating extreme performances. I also discussed the caveats of identifying and exploiting such arbitrage opportunities due to hurdles such as the lemon problem. Misperception of luck is just one of the predictable mistakes identified in the literature. There are other biases such as overconfidence, learning myopia, organizational inertia or the hot stove effect that can lead managers make systematic mistakes. Future research can examine the scope conditions of these biases and whether they can also become a source of strategic opportunity.

An analogy of the framework proposed in this paper is how Michael Porter turned Industrial Economics on its head and created his Five Force framework that contributes to competitive advantage (Porter, 1979; Porter, 1980). Few ideas in his Five Force framework were novel in Industrial Economics, but the focus then was on how to avoid monopoly and make the market more in line with perfectly competitive markets. Michael Porter focused instead on how a firm can become a monopoly – suggesting that all constraining factors against perfectly competitive markets could turn into enabling factors for a firm to maximize its competitive advantage.

Similarly, most of the biases discussed in this paper are well known in the literature. The main contribution of this paper is how these biases can be turned on their head by suggesting how informed managers can gain advantage by exploiting others' predictable mistakes. The limits to arbitrage also suggest that money may be left on the table and a strategic opportunity may continue to be unexploited. Some people may not see an opportunity because of decision biases or learning myopia. Some people may be able to see an opportunity but fail to act on it due to social constraints. Fortune may favor the insensitive and the naïve because others will not be able to fully realize the strategic opportunity due to interactive cognitive and social dynamics. This paper thus suggests a new branch of Behavioral Strategy for illuminating ways to overcome the limits to arbitrage strategic factor market inefficiencies with social savvy.

REFERENCES

- Arthur, W. B. 1989. Competing technologies, increasing returns, and lock-in by historical events. *The Economic Journal*, 99(394): 116-131.
- Barney, J. B. 1986. Strategic factor markets: Expectations, luck, and business strategy. *Management Science*, 32(10): 1231-1241.
- Bazerman, M. H., & Moore, D. A. 2009. *Judgment in Managerial Decision Making* (7th ed.). New York, NY: Wiley
- Benner, M. J., & Zenger, T. 2016. The lemons problem in markets for strategy. *Strategy Science*, 1(2): 71-89.
- Correll, S. J., Ridgeway, C. L., Zuckerman, E. W., & Jank, S. 2012. It's the conventional thought that counts: How third-order inference produces status advantage. *Working Paper. Stanford University*.
- Cyert, R. M., & March, J. G. 1963. *A Behavioral Theory of the Firm*. Malden, MA: Blackwell Publishers Inc.
- Denrell, J., & Fang, C. 2010. Predicting the next big thing: Success as a signal of poor judgment. *Management Science*, 56(10): 1653-1667.
- Denrell, J., Fang, C., & Liu, C. 2015. Chance explanations in the management sciences. *Organization Science*, 26(3): 923-940.
- Denrell, J., Fang, C., & Winter, S. G. 2003. The economics of strategic opportunity. *Strategic Management Journal*, 24(10): 977-990.
- Denrell, J., Fang, C., & Zhao, Z. 2013. Inferring superior capabilities from sustained superior performance: A Bayesian analysis. *Strategic Management Journal*, 34(2): 182-196.

- Denrell, J., & Liu, C. 2012. Top performers are not the most impressive when extreme performance indicates unreliability. *Proceedings of the National Academy of Sciences*, 109(24): 9331-9336.
- Feiler, D., & Taylor, E. J. 2013. The hot seat: Over-attribution to leaders and dismissal for bad luck. *Academy of Management Proceedings*, 1: 12371.
- Frank, R. H., & Cook, P. J. 1995. *The Winner-Take-All Society*. New York, NY: Free Press.
- Gavetti, G. 2012. Toward a behavioral theory of strategy. *Organization Science*, 23(1): 267-285.
- Hannan, M. T., & Freeman, J. 1984. Structural inertia and organizational change. *American Sociological Review*, 49(2): 149-164.
- Haunschild, P. R., & Miner, A. S. 1997. Modes of interorganizational imitation: The effects of outcome salience and uncertainty. *Administrative Science Quarterly*, 42(3): 472-500.
- Jones, E. E. 1979. The rocky road from acts to dispositions. *American Psychologist*, 34(2): 107-117.
- Kahneman, D. 2011. *Thinking, Fast and Slow*. London, UK: Penguin.
- Kahneman, D., Lovallo, D., & Sibony, O. 2011. Before you make that big decision. *Harvard business review*, 89(6): 50-60.
- Kelley, H. H. 1971. *Attribution in Social Interaction*. New York, NY: General Learning Corporation.
- Levinthal, D. A., & March, J. G. 1993. The myopia of learning. *Strategic Management Journal*, 14(8): 95-112.
- Levitt, B., & March, J. G. 1988. Organizational learning. *Annual Review of Sociology*, 14: 319-340.
- Litov, L. P., Moreton, P., & Zenger, T. R. 2012. Corporate strategy, analyst coverage, and the uniqueness paradox. *Management Science*, 58(10): 1797-1815.
- Liu, C., & de Rond, M. 2016. Good night and good luck: Perspectives on luck in management scholarship. *Academy of Management Annals*, 10(1): 409-451.
- Meindl, J. R., Ehrlich, S. B., & Dukerich, J. M. 1985. The romance of leadership. *Administrative Science Quarterly*, 30(1): 78-102.
- Merton, R. K. 1968. The Matthew Effect in science: The reward and communication systems of science. *Science*, 159(3810): 55-63.

- Perrow, C. 1984. *Normal Accidents: Living with High Risk Technologies*. New York, NY: Basic Books.
- Porter, M. E. 1979. How competitive forces shape strategy. *Harvard Business Review*, 57(2): 137-145.
- Porter, M. E. 1980. *Competitive Strategies: Techniques for Analyzing Industries and Competitors*. New York, NY: Free Press.
- Powell, T. C., Lovallo, D., & Fox, C. R. 2011. Behavioral strategy. *Strategic Management Journal*, 32(13): 1369-1386.
- Ross, L. 1977. The intuitive psychologist and his shortcomings: Distortions in the attribution process. *Advances in Experimental Social Psychology*, 10: 173-220.
- Ross, L., & Nisbett, R. E. 1991. *The Person and the Situation: Perspectives of Social Psychology*. London, UK: McGraw-Hill.
- Rudolph, J. W., & Reppenning, N. P. 2002. Disaster dynamics: Understanding the role of quantity in organizational collapse. *Administrative Science Quarterly*, 47(1): 1-30.
- Salganik, M. J., Dodds, P. S., & Watts, D. J. 2006. Experimental study of inequality and unpredictability in an artificial cultural market. *Science*, 311(5762): 854-856.
- Shleifer, A., & Vishny, R. W. 1997. The limits of arbitrage. *The Journal of Finance*, 52(1): 35-55.
- Strang, D., & Macy, M. W. 2001. In search of excellence: Fads, success stories, and adaptive emulation. *American Journal of Sociology*, 107(1): 147-182.
- Zollo, M. 2009. Superstitious learning with rare strategic decisions: theory and evidence from corporate acquisitions. *Organization Science*, 20(5): 894-908.