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RESPONSE TO COMMENTARY

On the Scientific Status of the Conscious Capitalism Theory

Chong Wang

This note is a response to Rajendra Sisodia's commentary on my article on the topic of Conscious Capitalism (in this issue of California Management Review). First, it raises new concerns based on Sisodia's commentary and challenges the scientific status of the Conscious Capitalism theory. It focuses on refutability, consistency, and generality, as these three characteristics are essential features of any scientific theory. Second, it responds to Sisodia's various comments. (Keywords: Conscious Capitalism, Refutability, Consistency, Generality)

My article “Conscious Capitalism Firms: Do They Behave as Their Proponents Say?” (in this issue of *California Management Review*) demonstrates that empirical evidence does not support various assertions made in Sisodia’s 2011 article in the *California Management Review*¹ regarding the drivers of the superior profit margins of Conscious Capitalism (CC) firms. Furthermore, my article presents evidence challenging the sustainability of CC firms’ superior stock performance as well as whether CC firms indeed respond less to equity market pressure, as inferred from CC proponents’ claimed departure from traditional shareholders’ primacy.

In his commentary on my article (also in this issue of *California Management Review*), Sisodia argues that: some of the positions originally held in his 2011 paper are no longer part of the CC theory (e.g., CC firms’ lower gross margin); the limitations of publicly available archival data do not allow researchers “to accurately test our actual assertions”; my article seems to “arbitrarily” cut off the examination of the post-2006 stock performance at December 31, 2010; and the implication that managers at CC firms should respond less to equity market pressure, as tested by my article, is “by no means a central aspect of our case.” Moreover, Sisodia does not find that my “approach to judging this issue (using discretionary accruals and earnings surprise) provides any real insights.” He concludes that my article “falls short of providing meaningful insights.”

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In my rejoinder, I defer my direct responses to Sisodia's various points to the second part and use first part to convey a serious concern that I derived from Sisodia's commentary, that is, *the scientific status of the CC theory*. Based on Sisodia's arguments, I raise a series of issues that center around three key features of a scientific theory: *refutability, consistency, and generality*. First, some of the new arguments put forth by Mackey and Sisodia in their 2013 book² are *irrefutable* and, consequently, are *empty* statements; and in turn they disqualify the CC theory as a scientific one. Second, it is not unusual to see that the views held by Sisodia and other CC advocates change, sometimes significantly, over time.³ This calls into question the *consistency* of the CC theory, which further undermines its scientific status. Third, Sisodia (along with other CC proponents) rely heavily on "a few highly conscious" firms to develop their CC principles. These small-sample deducted doctrines could not even hold for the very selective two-dozen firms cited in the 2007 book *Firms of Endearment*.⁴ Ironically, these firms, according to Sisodia and his coauthors, "made the final cut" and "best exemplified a high standard of humanistic performance." Hence, a natural question is: To what extent can CC theory be generalized to a meaningful population of corporations? As a result, I conclude that the CC theory, as it currently stands, lacks fundamental properties that distinguish a scientific theory from a non-scientific one.

The Scientific Status of the CC Theory

Is the CC Theory Refutable?

"One can sum up all this by saying that the criterion of the scientific status of a theory is its falsifiability, or refutability, or testability."—Karl Popper⁵

It is a widely held belief that a theory that is not refutable is not scientific. To a large extent, the CC theory, at its present form, is subject to this criticism. For example, consider how Sisodia interprets his new position⁶ on CC firms' gross margin. In his commentary on my article, Sisodia states the following:

We no longer assert that these (conscious) businesses have lower gross margins than their competitors; indeed, we find that many of them enjoy very healthy gross margins as a result of their strong value propositions for customers. What is significant is that these companies do not consciously seek to *maximize* their gross margins . . .

To make his point more convincing, Sisodia goes on:

Here is how we present this argument in the book *Conscious Capitalism*:

How do conscious businesses deliver superior financial results while creating many other forms of wealth and well-being for all of their stakeholders, including society? It boils down to these factors: these companies generate very high levels of sales because they excel at creating value for customers; *they willingly operate with lower gross margins than they are capable of, yet they achieve higher net margins* than their traditional counterparts. Over time, conscious businesses develop sterling reputations and grow faster. They attract more loyal customers, committed team members, higher quality

suppliers and generate greater community goodwill. All of this also helps these firms earn more and receive higher valuations relative to their earnings. [emphasis added]

Sisodia adds more:

There is thus a subtle but crucial difference between what we state in the book *Conscious Capitalism* and what was stated in my 2011 article. In some cases (such as Stonyfield Yogurt), conscious companies do in fact operate with lower gross margins and higher net margins than many of their traditional competitors. In most cases, however, they are likely to have higher gross as well as net margins, because of their greater sales intensity and despite generally paying their suppliers and front-line employees better than the norm. Note the key phrase above: Conscious companies “willingly operate with lower gross margins than they are capable of” [emphasis added]. This is a nuanced argument that cannot be verified or disproven by the kind of analysis done by Wang, or indeed, by using any publicly available data sources that we are aware of.

Thus, it is quite evident from the above passages that it is impossible to falsify the CC proponents’ self-claimed view, which is: “Conscious companies willingly operate with lower gross margins than they are capable of.” Sisodia and I could not agree more on this observation.

Sisodia seems to argue that because his view cannot be disproven, the CC theory prevails. Whereas I believe that he, along with his coauthor, made an empty statement. This statement is meaningless exactly because: “This is a nuanced argument that cannot be verified or disproven by the kind of analysis done by Wang, or indeed, by using any publicly available data sources that we are aware of.”

Another excerpt from Karl Popper enlightens us further.

A theory which is not refutable by any conceivable event is non-scientific. Irrefutability is not a virtue of a theory (as people often think) but a vice.⁷

Perhaps to a lesser extent, the lack of refutability also applies to some other arguments made by Sisodia. For example, citing the limitation of publicly available archival data, Sisodia states that “Since these (SG&A) cannot be cleanly separated, our hypothesis (about CC firms’ operating efficiencies) cannot be tested using publicly available financial data.” In a similar fashion, Sisodia says again “As with SG&A costs generally, the analysis of marketing costs requires more detailed data than is typically available through public sources.” What are we to conclude? Imperfect data makes perfect excuses for escaping refutation.

One might argue that a theory that is not refutable by using publicly available financial data could become so if voluntarily provided proprietary data is obtainable. This argument is questionable due to the lack of verifiability of the private data. In contrast to publicly available data, which are verified by independent auditors, self-reported and unverified information are subject to manipulation and could be impacted by incentives of the various parties involved. For instance, the managers of a firm could have an incentive to self-portray the firm as a CC business if such an image benefits public relations. Researchers could have vested interests in promoting the CC philosophy, which could lead them to overstate the evidence that is in support of their beliefs and understate or even omit the evidence that does the opposite.

Therefore, a useful inference is that a theory should only include statements that are falsifiable by using *credible* data. Any empty statement that is not refutable should be removed from the theory.

To recap, the CC theory, or at least part of it, lacks refutability, and hence is not scientific.

Is the CC Theory Consistent?

No.

How does that affect the scientific status of the theory? The wisdom of Popper is once again useful:

Some genuinely testable theories, when found to be false, are still upheld by their admirers—for example by introducing *ad hoc* some auxiliary assumption, or by reinterpreting the theory *ad hoc* in such a way that it escapes refutation. Such a procedure is always possible, but it rescues the theory from refutation only at the price of destroying, or at least lowering, its scientific status.⁸

The most evident example of this “moving position” is the 180-degree change of the CC claim on gross margin. After his original statement being strongly rejected by my article, Sisodia acknowledges that “Some of the hypotheses the authors attempt to test are ones that we no longer propose.” While this reposition is necessary, it nevertheless damages the scientific status of the CC theory (as pointed out by Popper). In the future, if such inconsistency becomes a pattern rather than an exception, the consequence may be sufficiently detrimental that the theory will be completely ignored.

In addition to gross margin, other changes of positions also exist in Sisodia’s commentary. For example, a new claim is that “the single greatest driver of superior financial performance for highly conscious businesses is their ability to generate superior sales volumes on a given asset base”; while in the past Sisodia stressed operating efficiency as demonstrated by his quote “SG&A . . . is where conscious businesses really shine.”⁹ Another change of position in Sisodia’s commentary is the relation between the CC philosophy and superior financial performance. For the first time, Sisodia wants to separate the two; he states:

It is important to emphasize that just being conscious does not guarantee that a business will exhibit superior financial performance. A conscious business is still a business; it must have competent management, understand its market well, offer a strong value proposition for customers, have sound competitive strategies, and excel at execution and risk management. Proponents of Conscious Capitalism believe that when you take a well-managed business and add to it the elements of higher purpose, a mindset that emphasizes value creation for all stakeholders, service-driven leadership, and a culture built on trust, authenticity, and transparency, its long-term performance is significantly enhanced. Sound management practices and conscious business practices are thus complementary engines of prosperity and growth. For many traditional enterprises, the “conscious business” engine does not exist, or fires poorly. For some idealistic firms, the level of consciousness may be high, but their business fundamentals may be weak.

I find this paragraph very interesting because the main message conveyed appears to be different from what Sisodia and other CC proponents stated or at least implied in the past.

In his response to O’Toole and Vogel,¹⁰ Sisodia states: “What we do believe is that companies that subscribe to the tenets of Conscious Capitalism will, in the long-term, outperform other companies along multiple dimensions, financial included, while having a greater beneficial impact on the world at large.” Sisodia, along with other CC proponents, also clearly stated that CC is so different from Corporate Social Responsibility (CSR), in the sense that it is not public relations, it is not philanthropy, it is beyond any type of “doing good,” rather CC is “a comprehensive *philosophy* of doing business.” Naturally, a better way of doing business will lead to a better financial performance. As a testimony of this inference, Sisodia states, “Conscious Capitalism does not advocate for ‘virtuous’ behavior per se, and the superior performance of conscious business is not a direct consequence of their acting more virtuously. Rather, it is because they act more *wisely*.”

This indicates that, at least in the past, proponents of CC believe that a CC philosophy will lead to a superior financial performance. Note that now Sisodia wants to separate the two by claiming: “being conscious does not guarantee that a business will exhibit superior financial performance,” and “sound management practices and conscious business practices are thus complementary engines of prosperity and growth.” In my view, this is a big reposition.

Two concerns here. First, in order to be called an “engine,” a conscious business practice *itself* must be capable of running the business well regardless the status of traditional management practices.¹¹ I doubt that is the case given that Sisodia’s commentary said the following: “For some idealistic firms, the level of consciousness may be high, but their business fundamentals may be weak.” Second, even the concept of “complementary engines” is acceptable, how could anyone determine to what extent a particular CC-adopted company’s success was due to engine one (i.e., sound management practice) versus engine two (i.e., conscious business practices)? The reason why these two worries are important is that in the past, the CC concept was promoted as a stand-alone, self-sufficient business philosophy. Now the argument seems to be that CC only works if bundled with traditional *good* management practices. This is a huge step back, which makes the CC movement much less appealing to its potential adopters.

To recap, it is not unusual to see proponents of the CC movement changing their positions. While this is not as fatal as the lack of refutability disqualifying the CC theory as a scientific one, it does seriously diminish the scientific status of the CC theory.

Consistency is a desirable feature of a scientific theory. Being at an early stage of a theory is not a justification of inconsistency. More likely, ex-post corrections are a result of lacking careful definition, observation, and generalization, ex-ante; or more seriously, due to a non-scientific approach of developing theory. From the beginning, two major weaknesses in the CC literature have been how the CC principles are derived and how the good CC business practices are confirmed. According to Sisodia’s commentary, the ideas underlying CC were formed by talking to business leaders of a few “highly conscious” firms, and the practices were supported by cases. We often hear quotes like this:

For example, the “conscious” food retailer Wegmans has sales per square foot that are 50 percent higher than the industry average. Costco, another firm we consider to be

conscious, generates sales of nearly \$140 million per warehouse and \$1,000 per square foot. Its competitor Sam's Club generates \$78 million and \$586, respectively, and BJ's Wholesale Club does \$54 million and \$500. Sales at Trader Joe's exceed \$1,750 per square foot, more than three times the industry average.

According to Popper, a theory is not established and supported by *confirmations*. Let me quote,

It is easy to obtain confirmations, or verifications, for nearly every theory—if we look for confirmations. Confirming evidence should not count *except when it is the result of a genuine test of the theory*; and this means that it can be presented as a serious but unsuccessful attempt to falsify the theory.

Is the CC Theory Generally Applicable to a Meaningful Population of Corporations?

Again the answer seems to be no.

The issue of generality surfaced in O'Toole and Vogel's 2011 article, where they challenge CC proponents on their belief that CC can, and should, be applied to a universal population of firms. O'Toole and Vogel state: "Because the number of successful business strategies and models is infinite, no one is, or can always be, superior to all the others." I concur with O'Toole and Vogel on their skepticism, yet would like to approach the generality issue from a different angle.

Proponents of CC, represented by Sisodia and Mackey, almost exclusively rely on a few "*highly conscious*" firms to define, guide, and promote the CC movement. Sisodia's commentary demonstrates CC's high degree of reliance on "*highly conscious*" firms.

The first four of these conjectures were made in my 2011 article. They were based on discussions with CEOs and examinations of a few highly conscious companies, not on an empirical assessment of a broad range of firms with varying degrees of consciousness.

The over-reliance on a small sample of "role-model" firms for generating a theory is a legitimate concern. However, I understand proponents of CC are taking a normative approach.

More skepticism was warranted due to the revelation that these small-sample deducted doctrines did not hold for a very selective two-dozen firms cited in the book *Firms of Endearment*.¹² Sisodia's commentary, in response to my study, confirmed this fact:

It is important to emphasize that the statements we make regarding margins and efficiency apply to *highly* conscious businesses, not necessarily to all the companies cited in the book *Firms of Endearment*. Like any set of companies adhering to a particular business philosophy, conscious businesses exist on a continuum: from companies that just make the threshold to ones that truly exemplify the philosophy and show where it can lead. It is the latter set from which we have the most to learn about the strengths as well as limitations of the philosophy.

This quotation from Sisodia's commentary reveals the vulnerability of the CC theory. It calls into question the idea of generality, that is, how generalizable is the CC prescription if even the very selective firms cited in the book *Firms of Endearment*

do *not* all qualify themselves as a “highly conscious business”? Recall that Sisodia et al. chose those 26 firms out of thousands and they are the final winners following three-round contests. What is disconcerting is that if CC is a superior business diagram as claimed by its proponents, why is such practice so rare in the real world? Why is it that even the most relentless CC proponents could not find two-dozen firms for which their prescribed principles prevail? Note that CC is not a brand new idea, most of the concepts of CC, as stand-alone thought, has existed for long time. Why haven't other CEOs adopted the CC principles, as John Mackey and Doug Rauch advocated?

The fact that CC practice is rarely observed suggests a revisit to the two competing views of the world, namely, normative versus positive thinking. While not strongly objecting or advocating either,¹³ I do believe there are caveats associated with the former and merits with the latter. The depiction of CC by its proponents emphasizes the benefits. Little has been said about the cost side. Hence a legitimate question is: do the costs help to explain the rareness of the practice; and why would some firms voluntarily switch from being a CC firm to a non-CC one? Note that Sisodia's commentary explicitly states: “Some companies that were included in the 2007 book no longer qualify as conscious companies. For example, we no longer consider Johnson & Johnson to be a conscious company, as we believe it has not lived up to its own credo in recent years.” These facts need a good explanation. A positive approach could be useful here to understand “why” before we propose “should” or voice “should not.” This leads to the next point.

Inspired by O'Toole and Vogel's comments that one size does not fit all, I call for research aiming to explain why different firms end up choosing different business models and philosophies. In particular, why only a small handful of companies chose to be CC firms, why the vast majority of firms did not select to follow the suit, and why some firms like Johnson and Johnson once chose to be a CC firm but later switched away?

The reason why this type of research is important is that firms' choices of business philosophies are *endogenous* decisions as opposed to exogenous givens. It seems incorrect to make a universal presumption that a CC philosophy is necessarily superior to any other alternative ones without consideration of individual firms' situations. Benefits, *as well as costs*, need to be considered in each possible scenario. The absence of discussions of the costs associated with the CC implementation, similar to *irrefutability*, is not a virtue, but a serious flaw of the theory.

Direct Responses to Sisodia's Commentary

Building on the criticisms made above, I respond briefly and directly to various arguments and comments made in Sisodia's commentary.

- In his response to my finding that gross margins of CC firms are higher, rather than lower, than their industry-peers, Sisodia's commentary acknowledges that “Some of the hypotheses the authors attempt to test are ones that we no longer propose.” I welcome this repositioning statement, but also express my concern over the *consistency* of the theory over time and more importantly, over the *irrefutability* of the new twist they put on the gross margin.

- Sisodia's commentary cites the limitations of publically available archival data (such as S&P 500) and claims the data "do not allow [Wang] to accurately test our actual assertions." I partially agree with Sisodia's point on the limitations of the data. However, imperfect data do not create justification for escaping refutation. I also point out the limitation of voluntarily provided proprietary data, that is, private data is not verifiable and hence subject to opportunistic manipulation.
- Sisodia's commentary states that my article seems to "arbitrarily" cut off the examination of the post-2006 stock performance at December 31, 2010. At the time of analysis, my best data availability ended at December 31, 2010.
- Sisodia's commentary argues that the implication that managers at CC firms should respond less to equity market pressure, as tested by my article, is "by no means a central aspect of our case." Moreover, Sisodia does not find that my "approach to judging this issue (using discretionary accruals and earnings surprise) provides any real insights." First, let me quote Sisodia's 2011 article to show that the aforementioned implication tested by my article is indeed "a central aspect" of the CC concept. On page 105, he says:

Theme 5: Since Wall Street is notoriously focused on the short-term, do conscious businesses need to avoid the equity markets altogether?

We do not believe that the equity markets are a major constraint on conscious businesses. We have studied a large number of publicly traded companies that are conscious businesses and have found that they are able to operate in a conscious manner despite the short-term pressures that may come from certain analysts on Wall Street. In the long run, equity markets do reward sustained superior performance, which is what conscious businesses deliver. Most analysts may not understand how these firms are able to deliver superior performance, but that is not a hindrance as long as the leaders of these businesses are resolute and stay true to the principles of Conscious Capitalism. It is only when they start operating according to the conventional performance models used by many analysts that such firms begin to suffer. [italics added are mine]

Very well stated. Based on the statement it seems reasonable to conjecture that a CC firm manager should adhere to his or her long-term goal of maximizing all stakeholders' welfare and at least bow less (if not "not bow at all") to equity market pressure. I would like to stress that not only is this prediction a natural inference¹⁴ of the CC principle (as first confirmed by the quotation in Sisodia's 2011 article but later denied in Sisodia's 2013 commentary on my article), but also this prediction is one of the most important testable hypotheses, if not the only one, that we can generate from the CC theory. This hypothesis, if confirmed, would lend great support to the validity of the CC theory. Unfortunately, this hypothesis is rejected by my article, which casts further doubt on the CC principle.

I also disagree with Sisodia on his charge that my "approach to judging this issue (using discretionary accruals and earnings surprise) does not provide any real insights." Accounting literature has long documented that managers use their discretions in financial reporting to manage earnings, oftentimes to

meet or beat consensus earnings forecasts. The two metrics, discretionary accruals and discontinuity around zero earnings surprises, are well established measures of managers' opportunism, which is often driven by equity market pressure. The empirical evidence clearly shows that *managers of CC firms are just as eager as their non-CC counterparts to meet or beat Wall Street expectations*, that is, the financial market "tail" does apparently wag the conscious business "dog."

- In addition to the major responses above, I have three extra comments. First, my article extensively discusses the selection bias problem in the identification of "Firms of Endearment," which remains unanswered in Sisodia's commentary. Second, Sisodia's commentary argues that "Firms of Endearment" is not synonymous with CC, which is interesting given the following excerpt from the introduction of Sisodia at the website of Conscious Capitalism Institute, which Sisodia is the Chairman: "His book, *Firms of Endearment: How World Class Companies Profit from Passion and Purpose* is considered a foundational work in explaining the precepts and performance implications of pursuing a conscious approach to business." Last, there is an error in the new argument put forth by Sisodia's commentary regarding gross margin.¹⁵ Specifically, it is not correct to say: "conscious businesses have strong gross margins because they create great value that customers are willing to pay for, *and they generate high sales relative to their assets.*" [italics added are mine] High sales relative to assets, referred to as *assets turnover* by accountants, has zero impact on gross margin ratio. Asset turnover does impact Return on Assets (ROA) through generating higher sales volume.

Concluding Remarks

Conscious Capitalism, despite a good intention and being promoted by dedicated and eloquent advocators, falls short of being a scientific theory due to its *irrefutability, inconsistency, and lack of generality*. Moreover, Sisodia's response to my article raises more questions than it answers.

Notes

1. Rajendra Sisodia, "Conscious Capitalism: A Better Way to Win—A Response to James O'Toole and David Vogel's 'Two and a Half Cheers for Conscious Capitalism,'" *California Management Review*, 53/3 (Spring 2011): 98-108.
2. John P. Mackey and Rajendra S. Sisodia, *Conscious Capitalism: Liberating the Heroic Spirit of Business* (Boston, MA: Harvard Business Review Press, 2013).
3. Theories are not necessarily refined on their first pass, in that sense they do evolve. However, evolution of a theory does not necessarily leads to inconsistency over time. For a well-thought and carefully developed theory, refinement is often done through modifications rather than dramatic changes of previous positions.
4. Rajendra S. Sisodia, David B. Wolfe, and Jagdish N. Sheth, *Firms of Endearment: How World-Class Companies Profit from Passion and Purpose*, (Upper Saddle River, NJ: Pearson Prentice-Hall, 2007).
5. Karl Popper, *Conjectures and Refutations: The Growth of Scientific Knowledge* (New York, NY: Routledge, 1963).
6. Note that this new position no longer assumes that CC firms' gross margins are lower than their traditional counterparts. Rather, Sisodia's commentary acknowledges that CC firms' gross margins often are higher than their industry peers, yet those margins are still lower than the CC firms could charge, i.e., CC firms do not seek to maximize their gross margins.

7. Popper formulated his 1919-1920 thinking in 1963, so if counting from 1920, the wisdom of his idea has lasted almost 100 years.
8. Popper, op. cit.
9. Note that Sisodia new claim (in his commentary in this issue) focuses on asset turnover efficiency. Sisodia's old claim (in his 2011 article), i.e., CC firms' superior SG&A, is not supported by my article.
10. James O'Toole and David Vogel, "Two and a Half Cheers for Conscious Capitalism," *California Management Review*, 53/3 (Spring 2011): 60-75.
11. One such analogy is that if we shut down any three of the four engines of a Boeing 747, the fourth is still able to keep the plane flying. The most essential feature of an "engine" is its *independent* ability to power the vehicle. Anything that is not a stand-alone driving force cannot be called an "engine." In that sense, the term of "complementary engines" is somewhat misleading because it hints that the business can achieve "prosperity and growth" only when the two engines work together.
12. These two-dozen firms, according to Sisodia and his coauthors, "made the final cut" and "best exemplified a high standard of humanistic performance."
13. I think both have pros and cons.
14. Note that both John Mackey and Doug Rauch explicitly put customers and employees ahead of shareholders, which is a significant deviation from traditional shareholders centrality.
15. I assume that we are discussing gross margin ratio (i.e., (Revenue-COGS)/Revenue) rather than gross margin per se (i.e., (Revenue-COGS)). The former metric neutralizes the size effect and hence is a more useful concept to discuss in a cross-sectional setting.