COMPETITIVE ADVANTAGE AS A DISPOSITION

The concept of competitive advantage plays a deservedly central role in the field of strategic management. However, there is a background anxiety sometimes expressed about exactly what the concept of competitive advantage *is*, or how to analyze it in such a way as to justify the role that it plays (Ma, 2000; Powell, 2001, 2002; Arend, 2003; Rumelt, 2003; Foss and Knudsen, 2003; O'Shannassy, 2008; Sigalas and Economou, 2013). There is the central question of how 'competitive advantage' is to be defined, but there are many connected questions: How does a competitive advantage relate to the resources of the firm with the advantage, or is it just those resources? Does a firm's having a competitive advantage entail its superior performance, or does the entailment go in the other direction? How can we know that a firm has a competitive advantage? And how can the concept of competitive advantage itself prove useful in helping firms to perform well?

The field of strategic management has been crucial for demonstrating that competitive advantage is a foundational feature for firms to strive for (Porter, 1985), and it has also filled out many of the ways in which competitive advantage is connected to the resources of the firm. Nevertheless, the above questions remain. To answer them, we might think to appeal to the resources of analytic philosophy. Philosophy may seem like an odd place to look for these applied issues, but its scope and methodology provide uniquely helpful tools. What we are curious about is the *concept* of competitive advantage, after all, and philosophy is largely engaged in the project of conceptual analysis.

Within the strategic management literature, Powell (2001, 2002) has marshalled several different philosophical resources to make strong claims about the nature of competitive advantage. Through use of the philosophy of language, logic, logical positivism, pragmatism, empiricism, and even some Kant, he has adduced that the concept of competitive advantage does not correspond to any phenomenon in the real world, but that that should not bother us. As another example, Sigalas *et al.* (2013:76) appeals to Thomas Kuhn and the philosophy of science to heighten the importance of resolving this definitional conundrum. These authors adeptly use important figures and significant views in the history of analytic philosophy, especially in the history of the philosophy of science. Still, the answers offered (at least by Powell) are extreme—often so much so that it may leave us skeptical as to whether we really should have looked to philosophy in the first place.

I think philosophy has the resources to clarify the nature of competitive advantage, but not quite in the places that these authors have looked.[1] Whereas most of the focus in the literature has been on language, truth, and the philosophy of science, it would be more helpful to appeal to metaphysics.[2] We want to know about what kind of thing a competitive advantage *is*, after all, and metaphysics provides the tools for thinking about what things are. We are also curious about how competitive advantage relates to other items, such as a firm's resources or its profits, and metaphysics is invested in how best to characterize the relations between things.

Here, I will argue that competitive advantage is *a disposition*. More specifically, I will argue that competitive advantage is a disposition had by firms to secure sustained superior performance relative to peers given their resources. Explicitly recognizing competitive advantage as a disposition is important, because it allows us to draw from the recent literature in metaphysics on the nature of dispositions. In that literature, dispositions have been thoroughly characterized, and the debates surrounding them have been clarified. This makes it easy to see that we should characterize

[1] One exception to this trend can be seen in Durand and Vaara (2009), which applies recent work in the metaphysics of causation to carefully consider the use of counterfactuals in evaluating claims of competitive advantage.

[2] Here I am referring to metaphysics as the rigorous academic subfield of philosophy focused on questions concerning the nature of properties, events, objects, etc. This is not 'metaphysics' in the sense of the new age section of a bookstore.

competitive advantage as a disposition. It also constitutes an important contribution to management theory by helping to resolve several confusions about competitive advantage. More specifically, recognizing competitive advantage as a disposition provides a framework for understanding the relationships between competitive advantage and the resources of the firm, market conditions, and superior firm performance. It will also be crucial for understanding the role that competitive advantage should play in our theories.

In the first section, I discuss the literature on dispositions and their features. In the second section, I show how the features of dispositions map onto the concept of competitive advantage and how this allows us to give a novel account of competitive advantage. Finally, in the third section, I show several advantages for the field of strategic management that come from recognizing competitive advantage as a disposition.

WHAT'S A DISPOSITION?

Consider a glass vase. We can easily imagine that the vase is fragile. Everyone accepts that vases and other items can be fragile, but it is not easy to say what we mean when we say that the vase is fragile. One quick thing to say would be that the vase has the property of fragility, but this does not go very far towards demystifying what fragility *is*.

There are a lot of properties like fragility that we readily accept: solubility, flammability, likability, legibility, etc. Some of these are scientific properties of substances, and some are social properties or others. What is common between them is that they dispose certain objects to do certain things in certain circumstances. A water-soluble sugar cube is disposed to dissolve when placed in water. A likable person is disposed to being liked when meeting new people. Philosophers call such properties 'dispositions,' and there has been a lot written on how they work in the past few decades (Choi and Fara, 2016).

In this section, I will introduce more closely the features of dispositions. We will see how ubiquitous dispositions are taken to be, or how helpful it can be to try to understand certain phenomena as dispositions. Finally, we will consider several prominent accounts of dispositions that have been given. This will give us the tools necessary to not only show that competitive advantage is a disposition but also to appreciate how recognizing competitive advantage as a disposition helps to elucidate open puzzles concerning its nature.

To begin, there are a few important things to recognize about all dispositions. Dispositions dispose objects to do certain things. These are said to be the dispositions manifestations or responses. The soluble sugar cube has a manifestation of dissolving. The flammable newspaper has a manifestation of being on fire. That a certain entity is disposed to have a particular manifestation does not mean that the manifestation will necessarily occur—the flammable newspaper is still flammable even if it never catches fire. The fact that dispositions do not entail their manifestations will be significant for competitive advantage, but for now we only need to recognize that all dispositions have associated manifestations, which is just the state the entity is disposed to bring about.

Second, dispositions manifest when certain triggering or stimulus conditions obtain (when in the right circumstances). The sugar cube does not dissolve until it is put into water. The legible handwriting is not read until someone looks at it. The presence of these conditions is what leads to the object to respond in the way it does. Given this, a rough understanding of dispositions is as properties of entities that lead to a certain manifestation given the right triggering conditions.

So understood, it is clear that dispositions are ubiquitous. Beyond the named dispositions discussed above, there are many dispositions that do not have easily given names. A dog may be disposed to bark when it hears something outside, or I might be disposed to cry in response to watching sad movies. These are still dispositions, although there is a question in the literature as to whether and how dispositions that are named can be re-written so as to mention their manifestation and triggering conditions (McKitrick, 2003:157-8). The broader point is just that since many (perhaps most) dispositions do not have the explicit name of a disposition, it will be no great objection to the idea that competitive advantage is a disposition to claim that it does not have the name of a disposition.

A dispositional framework has proven useful for understanding many items that may not at first seem to be dispositions. There are dispositional accounts for belief (Schwitzgebel, 2002), self-knowledge (Yalowitz, 2000), color (Locke, 1975/1700), conflicts of obligation (Robinson, 2013), evil personhood (Russell, 2010), love (Naar, 2013), and gender (McKitrick, 2015). Regardless of whether any of these accounts are correct (and many of them might be), they suggest the utility of considering concepts through a dispositional lens.

One especially relevant dispositional account for our purposes is the dispositional account of ability. Imagine that I have the ability to sink a free throw, speak French, and ride a unicycle (surely not all at the same time). Several philosophers have pushed for accounts of these abilities in terms of an individual's being disposed to do these things in the right sorts of circumstances (Smith, 2003; Vihvelin, 2004; Fara, 2008). For instance, even if I am not now around a unicycle, it may be true that I have the ability to ride a unicycle in the following sense: If I were presented with a unicycle, I could ride it if I chose to. Accounts such as this are controversial (see Clarke, 2009; Whittle, 2010; and Vetter and Jaster, 2017 for objections), but a dispositional account of ability may help us to understand competitive advantage.

Before moving on to competitive advantage, however, I first want to consider several accounts for dispositions that have been given. These accounts attempt to capture what it is to be a disposition. Our aim is not to adopt any particular account of dispositions or to adjudicate as to which account is correct; rather, the aim is to recognize the kinds of considerations raised by these different accounts with an eye towards how they may be relevant to competitive advantage. What an analysis of the concept of disposition attempts to do is to give all of those conditions individually necessary and jointly sufficient to pick out all and only dispositions. An analysis of dispositions is good to have on its own, but having such an account also makes it easier to spot dispositions. With such an account, we will be able to see that solubility and likability are dispositions, and this will pave the way for recognizing how competitive advantage is dispositional.

First, let's consider the standard historical view of dispositions, what is typically called the Simple Conditional Analysis (SCA) (endorsed by Ryle, 1949; Goodman, 1954; and Quine, 1960). (This is a somewhat unfortunate name, as sustained competitive advantage is often abbreviated SCA in the strategic management literature.) This analysis requires only the concepts that we have already discussed—that dispositions have certain manifestations when in certain triggering circumstances—and it codifies the rough understanding of dispositions given above. Where *M* denotes a disposition's manifestation and *C* denotes the relevant circumstances, the account is as follows:

An object is disposed to *M* when *C* if and only if it would *M* if it were the case that *C*.

This account is as simple as advertised, and it uses only what we tend to reference in describing how a particular disposition works. For example, the way we characterize the disposition of being likable is as someone's being liked when they are in the circumstances of being around other people. Unfortunately, it is susceptible to a set of famous counterexamples, or examples that (if right) demonstrate that the account is false.

The counterexamples to the SCA are of two kinds. The first kind involves cases where an object seems to have a particular disposition yet will not manifest that disposition when in the right circumstances, because the disposition is somehow masked (Johnston, 1992; Bird, 1998). The second kind involves cases where an object clearly lacks a disposition yet is nevertheless made to act as if it is manifesting that disposition in the normal circumstances (Martin, 1994). As an example of the former kind, we can imagine a fragile vase with a protective layer of bubble wrap around it. If the bubble wrap ensures that the vase will not break when dropped, and the vase is still fragile, then it must not be that its fragility consists in the fact that it would break if dropped.

A substantial literature has been generated around these kinds of cases and whether they are decisive counterexamples to the SCA. We will not adjudicate them here,[3] but recognizing these apparent counterexamples encourages us to consider what other factors may be relevant to dispositions and other accounts that appreciate them. Consider a different account, given by David Lewis, which introduces a new element meant to circumvent the counterexamples:

> Something *x* is disposed at time *t* to give a response *r* to stimulus *s* iff, for some intrinsic property *B* that *x* has at *t*, for some time *t'* after *t*, if *x* were to undergo stimulus *s* at time *t* and retain property *B* until *t'*, *s* and *x*'s having of *B* would jointly be an *x*-complete cause of *x*'s giving response *r*. (1997:157)

This account is intimidatingly complex. (Lewis himself calls it 'an unlovely mouthful' just after giving it.) Still, it turns on a very particular insight crucial to our understanding of competitive advantage. Most of the account is very similar to the SCA. The extra insight this account captures, however, is that objects with a disposition tend to have a particular intrinsic nature—sometimes called its *categorical base*—and it may be in virtue of its having that nature that it has that particular disposition. For example, central to a vase's being fragile is its having the molecular structure that it has. If the vase had some entirely different molecular structure (say, that of iron), then it would not break when dropped, and it would not be fragile. So, the vase must have that intrinsic property to be fragile, and it must continue to have that property throughout the time it is dropped. We might reasonably think that the vase's fragility *consists in* its having this molecular structure.

We need not concern ourselves with whether this account is successfully avoids the counterexamples to the SCA or with whether it will have new problems of its own. Instead, what we should focus on is this idea that the disposition of an item is somehow related to certain properties that it has, its categorical base. This feature will be central to our understanding of how a firm's competitive advantage is related to its resources.

Before delving into the case for competitive advantage as a disposition, I want to consider a final account of dispositions given in Manley & Wasserman (2007). Central to this account is the realization that having a disposition does not *guarantee* that that disposition will be manifested, and that some dispositions are comparative and can be had more or less strongly. Given this, their account is as follows:

x is disposed to *M* in *C* if and only if some suitable proportion of *C*-cases are such that *x* would *M* in them.

A fragile vase will almost always break when dropped onto a hard surface, but it will not *necessarily* break. We might get lucky (as I have with my phone many times). We might drop the vase in just such a way that it happens to not break upon impact. Similarly, we can imagine a slightly more fragile vase (it's even more delicate), and this vase would have broken in exactly that instance of dropping. For this vase too, it will be true that it will not necessarily break when dropped—its being

[3] See Gundersen (2002) and Choi (2006, 2008) for contemporary defenses of the SCA against the counterexamples.

dropped does not logically entail its breaking. Still, it would break in more scenarios in which it is dropped than our original vase. So it seems to be more fragile. This account captures the sense in which one vase can be more fragile than another, and it captures the fact that having a disposition does not entail that the disposition will be manifested *even in circumstances in which it normally manifests*.[4]

As with the other accounts, this view has problems of its own. It is difficult to specify the necessary proportion of scenarios in which something has a particular response in order to count as having a disposition. Nevertheless, this account does more to acknowledge the complex relation between a disposition and its manifestation.

Even without accepting a particular view of dispositions, we can see how several accounts contribute to our overall understanding of them. Dispositions are properties of items that have particular manifestations when in the right circumstances. Something's having a disposition is in some way explained by or related to its having other properties, and having a disposition does not entail that that disposition will be manifested even when it typically would. With this, we can move on to consider whether competitive advantage is a disposition and how thinking of it as a disposition can aid in our understanding it.

COMPETITIVE ADVANTAGE AS A DISPOSITION

Just as we could say that the vase has the property of being fragile, we can say that a firm has the property of having a competitive advantage. The question is whether having a competitive advantage, like being fragile, is a dispositional property. Given the above discussion of the features of dispositions, it will be fairly easy to see how having a competitive advantage is naturally understood as a disposition.

First, a competitive advantage seems to have a manifestation in the form of sustained superior performance. Just as a fragile glass has the manifestation of breaking, a firm that has a competitive advantage will tend to succeed relative to its competitors. This success may be a matter of higher margins or higher rents or growth in market share. How we define success will in part determine what we consider to be an advantage. Regardless, it is clear that having a competitive advantage is *in some way* connected to a firm's having sustained superior performance. We will discuss the nature of this connection more below, but having an advantage seems to precede, facilitate, and lead to a firm's having superior performance. Further, what matters is not merely happening to perform in a superior manner at one time; rather, it is a firm's having *sustained* superior performance that is good evidence of a competitive advantage. A firm's having a competitive advantage manifests as sustained superior performance.

Second, we can see that the mere presence of the firm with a competitive advantage does not lead to superior performance. The right market conditions must obtain. There must be customers that are poised to buy the firm's products; there must be a workable regulatory environment; suppliers must come through on their contracts; etc. Creating a new cancer drug can provide a competitive advantage to a pharmaceutical company, but whether this advantage leads to superior performance depends on whether it can pass the regulatory body's scrutiny, that the drug will be protected by patent laws, and on whether buyers can afford the drug. Just as a sugar cube needs water in order to dissolve, a firm needs customers in order to make a profit. The market environment is what allows or facilitates the firm's achieving superior performance, and so the market plays the same role that the triggering or stimulus condition plays for dispositions.[5]

[4] This is not the only account recently given that is able to capture this feature. Fara (2005) offers another.

[5] It should be mentioned that conditions must also be good within the firm as well. A firm may have a competitive advantage yet lack the wherewithal to capitalize on it.

These two elements alone are sufficient to characterize competitive advantage as a disposition on the Simple Conditional Analysis discussed above. Using it, we can say that a competitive advantage is a disposition of a firm to achieve sustained superior performance given certain market conditions. This alone will prove helpful in considering how competitive advantage relates to superior performance, but Lewis's account gives us even more reason to understand competitive advantage as a disposition. Remember that the central difference in Lewis's account was that it recognizes that a disposition of some entity is importantly related to some intrinsic features of the entity. A sugar cube's disposition to dissolve is importantly related to its molecular composition. Given this, we can quickly see what would play this role in the case of competitive advantage.

Much of the literature on this topic is concerns the relationship between a firm's competitive advantage and its resources. Specifically, the question often asked is whether the firm's competitive advantage *just is* its resources. I will take on this question in the next section, but here we can realize that a firm's resources appear to be the intrinsic features in virtue of which it has the competitive advantages that it does, what is called its categorical base. Just as the vase's fragility depends upon its molecular make-up, a firm's advantage depends on the technology, personnel, capital, and the other resources it can marshal to grow market share and profit margin. The firm's resources provide the basis that explains its having a competitive advantage, and these resources must be maintained in order for the advantage to manifest as superior performance. So, using the framework of Lewis's account, we can recast competitive advantage as a disposition of firms to manifest sustained superior performance in the marketplace given their resources.

There is a final way that we could be quickly led to the idea that competitive advantage is a disposition. Several authors have identified or at least tied the concept of competitive advantage to capacities of the firm (Teece, Pisano, and Shuen, 1997; Eisenhardt and Martin, 2000; Wiggins and Ruefli, 2002). This allows us to think of a competitive advantage as a kind of ability of firms to succeed. As we saw in the last section, some philosophers have argued that it is appropriate to understand abilities as dispositions. My ability to speak English just is a matter of my speaking English when prompted in the right circumstances. So, if a competitive advantage is best conceived of as an ability of a firm to achieve sustained superior performance, then this again will be to cast competitive advantage as a disposition.[6]

Thus, there are numerous reasons to be attracted to the idea that competitive advantage should be understood as a disposition of firms. As attractive as it may be though, there are reasons we could give to reject it. Concerning the last point, we might deny that abilities are dispositions (Clarke, 2009; Whittle, 2010; Vetter and Jaster, 2017). If competitive advantage can be shown to best be conceived of as an ability of firms, but if we have strong reasons to deny the dispositionality of abilities, then this would lead us to deny that competitive advantage is a disposition.

As a more direct route, we could admit that competitive advantage would be a disposition if dispositions exist, but then we could argue that dispositions do not genuinely exist. On most accounts, dispositions are a matter of what some entity would do in non-actual situations, and many dispositions are never manifested. Given this, there are traditions within philosophy that will be drawn to denying their existence altogether, or to reducing dispositional language to extensional, empirical language that does not reference non-observable, non-actual scenarios. (This may be appealing for authors like Powell drawn to philosophical traditions such as logical positivism, according to which observability in actual scenarios may be necessary for positing some entity.) Though several authors have tried to

[6] Wiggins *et al.* (2002:84) even mentions that the firm's advantage will lead to higher relative performance '*ceteris paribus*,' or if everything else remains constant. It is significant that they would appeal to this, because, as Choi *et al.* say, "It is generally held that any specification of the stimulus condition of a conventional disposition must include covert reference to a *ceteris paribus* clause" (2016:18).

carry out this project (Kaila, 1939, 1942; Storer, 1951), it has largely been viewed as a failure (Burks, 1951; Pap, 1958; Sellars, 1958). It is incredibly intuitive that dispositions like fragility exist and cannot be analyzed in entirely empirical language, and this has largely been taken for granted for the last half century.

There are surely more possible objections besides these. Rather than pursue them further, however, I will now move on to consider the theoretical benefits of this proposal. Competitive advantage may seem related to performance, the market, and firm resources in ways that suggest that it is a disposition. As we will see, conceiving of competitive advantage as a disposition provides us with resources to clarify confusions in the strategic management literature.

HOW THIS CLARIFIES ONGOING DEBATES

Determining that competitive advantage is a disposition provides an answer to the central question of what a competitive advantage *is*. However, the real benefit comes from appreciating how this answer can be used in ongoing debates. In this section, I will show how it has four significant benefits: (1) it shows why the confusion over whether a firm's competitive advantage *is identical to* its resources is not an important problem for the field of strategic management; (2) it provides new tools for framing the debate between the resourced-based and the market position view of competitive advantage; (3) it explains the entailment relations (or lack thereof) between competitive advantage and superior performance; and (4) it charts a path towards understanding how to operationalize the concept of competitive advantage.

Competitive Advantages and Firm Resources

Consider a mining company with exclusive rights to a particular natural resource. We are apt to say that these natural resources *are* or *constitute* the competitive advantage of the company over its competitors. Given this, it is natural to think that competitive advantages literally are identical to the resources of the firm. This seems intuitive, as it may seem like shoring up certain resources or capabilities of the firm just is to increase its competitive advantage.

While agreeing that there is surely a close relationship between a firm's competitive advantage and its resources, we may nevertheless maintain that they are not identical. After all, a firm could have these resources but lack an advantage if it is barred from using them. The intellectual property of the composition of a certain drug may be a resource of an American pharmaceutical company, but this resource will not amount to an advantage if the drug cannot secure FDA approval. Even if we hold fixed that a company has a resource and the means of exploiting it, we may be inclined to say that the company can use the resource to gain a competitive advantage, not that the resource *is* the advantage.

So, there is an open question about whether competitive advantages just are the having of certain resources/capacities of the firm, and there is a further question about how they are related if they are not identical. Recognizing the dispositional nature of competitive advantage demystifies this relationship, as I will show presently. First, though, let's appreciate how hard it is to understand the relationship between resources and competitive advantages absent a dispositional framework.

Some have suggested that gaining resources *causes* the firm to have the advantage, which causes superior performance (Sigalas *et al.*, 2013:72). They take the relation between resources and advantages to be causal, and a firm's advantages are somehow thought to mediate its resources and its performance success. I am skeptical of this approach. Causes are distinct from and precede their effects, but it does not seem like the event of a company's gaining some resource precedes, and is distinct from, the event of that company's gaining an advantage. Without being separated in time, it will be implausible to say that the gaining of resources *causes* the gaining of a competitive advantage. Perhaps in the case of the drug mentioned above, the company gains the intellectual property before it gains the advantage (which it does only after the drug passes the trails). Typically, though, it's unclear exactly when to locate the gaining of an advantage in between the gaining of a resource and the accruing of profits.

If having a competitive advantage is a disposition, however, we need not say that it occurs only after the corporation gains certain resources. Instead, we can use David Lewis's account of dispositions to say that the resources of a firm constitute the categorical base of the firm's advantage. Just as the fragile glass has a certain molecular structure, and it is fragile in virtue of its having this structure, the advantaged firm has resources, and it has its advantage at least partially in virtue of its resources.

Appealing to the dispositional nature of competitive advantage allows us to diagnose the confusion with which this section began. We were not sure whether the firm's resources *are* the firm's competitive advantage or whether the resources and the advantage are somehow closely related instead. Recognizing those resources as the categorical base for the advantage allows us to see that our confusion is actually a species of the general confusion within the literature on dispositions. More generally, there is an open question concerning how dispositions are related to their categorical base. Some authors have maintained that dispositional properties are identical to those properties of the categorical base (Armstrong, 1973; Mumford, 1998; Martin & Heil, 1999); meanwhile, others have maintained that these properties are distinct but closely related (Prior, Pargetter, & Jackson, 1982; Prior, 1985; Jackson, 1998; Vincente 2002; Rives, 2005). Even if we accept that they are distinct, though, there is complex disagreement about the right way to think of how they are related.

Settling this issue requires taking on challenging issues within metaphysics that goes far beyond the scope of this paper (Choi *et al.*, 2016:sec.4). I only raise it here to make it clear that this is a hard question to answer even within metaphysics, so we shouldn't be surprised that it is so puzzling in the case of competitive advantage. The question of whether a firm's competitive advantage is identical to its resources is a challenging one, but that the question exists is no reason to be skeptical about the existence of competitive advantages. Instead, we need only recognize that they are related in whatever way it is that dispositions are related to their categorical bases.

The Relevance of Market Conditions: Extrinsic Dispositions

Some writing within strategic management might argue that I have done a disservice just by drawing such a close connection between firm resources and competitive advantage. While there is a tradition stemming from Wernerfelt (1984), Barney (1991, 2001), Connor (1991), Peteraf (1993) and others that sees a firm's advantages as depending in its resources, there is another tradition that downplays the importance (or the central role) of firm resources. According to this tradition, most famously characterized in Porter (1980, 1985), crucial to firm advantage is the firm's position in the marketplace relative to its peers. Are the firm's costs lower? Are its products differentiated? Does it have better relations with suppliers or buyers? For Porter, a strategic advantage concerns the position of the firm relative to those it is competing against.

While we might have some debate about whether resources or market position matter *more* for a firm's competitive advantage, clearly *both* are relevant to whether the firm has a competitive advantage. However, it is not immediately obvious how these firm features relate to one another or to the firm's competitive advantage. The question is, how can we appreciate the ways in which both a firm's resources and its position in the marketplace matter to whether it has a competitive advantage? Recognizing competitive advantage as dispositional provides the resources for answering this question.

Consider a metal key. This key is disposed to clatter when dropped on a hard surface. This is in virtue of its being metal. Its chemical structure is an intrinsic property—the categorical base of the disposition. As this is a disposition had in virtue of these *intrinsic* features, we might say that the disposition to clatter is an *intrinsic* disposition of the key. Contrast this with another disposition of the metal key: the disposition to open the door to my office. This is also a disposition that the key has partially in virtue of a certain intrinsic feature that it has; namely, it's shape. However, that the key is disposed to open the door to my office also depends on the exact specifications of the lock on my office door. If that lock where switched out, then this key would no longer be disposed to open my office door. Thus, this is a disposition of the key that also depends on certain *extrinsic* features, and so we can think of it as an *extrinsic* disposition.

If we grant that there are extrinsic dispositions,[7] then we can further argue that a firm's competitive advantage is one. A firm may have specific resources that in the actual world constitute a competitive advantage. However, this depends on the resources and market position of the other firms in the industry. Access to a particular material, for instance, may only provide a competitive advantage if other firms lack it. Maintaining an asymmetry of resources thus becomes as relevant as the resources themselves (Miller, 2003). More generally, the status of a firm's competitors, as well as the relative negotiating power of suppliers, customers, and others determines whether the firm will have a competitive advantage (Ma, 2000:17-18; Arend, 2003:280; Sigalas *et al.*, 2013:69).

This can hardly be surprising. An advantage of any kind is always going to be relative to others in some group (that lack the advantage). As Sigalas, Economou, and Georgopoulos say, "…competitive advantage is a relational construct…" (2013a:335). This relativity is captured on this framework in terms of the extrinsic conditions of a disposition. This will not settle the question concerning whether intrinsic resources or extrinsic market features are *more important* to a firm's competitive advantage, and this debate will surely continue within strategic management. A dispositional understanding of competitive advantage, however, provides the conceptual tools for framing this debate: what we are debating is the degree to which this disposition of the firm is extrinsic.

The Relation Between Competitive Advantage and Superior Performance

Just as with the firm's resources, there is a question about how a firm's competitive advantage is related to its achieving superior performance. While some authors may define competitive advantage in terms of superior performance or conflate the two (Foss *et al.*, 2003; Arend, 2010), most parties to the debate seem to agree that competitive advantage and superior firm performance are distinct concepts or different research constructs (Powell, 2001; O'Shannassy, 2008; Sigalas *et al.*, 2013). Granting this, there is a lingering question about the degree to which they are coextentional or entail one another.

[7] It is somewhat controversial in the dispositions literature whether there really are extrinsic dispositions. However, McKitrick (2003) argues compelling that there are such dispositions and gives cases like the one above as examples. If we do not accept extrinsic dispositions, there are other ways of conceptualizing the role of the status of other competitors. We may pack the position of other firms into the triggering conditions for the disposition. (So, rather than saying that competitive advantage is a disposition to succeed relative to peers, we might say that competitive advantage is a disposition to succeed when other firms do not enjoy the same extensive resources). Alternatively, we could say that each firm is disposed to succeed to some degree, and a competitive advantage is a relational/extrinsic property had by those firms that are disposed to succeed to a greater degree. This would technically make competitive advantage an extrinsic property of the firm's disposition, rather than an extrinsic disposition itself.

My suggestion will be that recognizing competitive advantage as a disposition (and performance as the manifestation of that disposition) makes the logical relations between these constructs clear.

Let's first consider whether having a competitive advantage entails that the firm will have superior performance. If competitive advantage is a disposition, then we should expect that it will not. As we have recognized, dispositions do not entail their manifestation. That a vase is fragile does not entail that it breaks; it will only break if it is dropped, if the surface is hard, etc. Merely having the property of fragility does not entail any particular result for the vase. Dispositions need to be triggered in order to manifest, and even a triggering event does not *guarantee* manifestation.

Upon reflection, the same seems true for competitive advantage. Sigalas *et al.* (2013:67) note that attaining a competitive advantage *leads to* superior performance, but if having a competitive advantage leads to superior performance, then it must precede it. In this case, it is always possible for a firm to have some competitive advantage that *would* lead to superior performance, though the necessary circumstances do not obtain for this condition to eventuate. Perhaps the firm's market for its product dries up, or individuals simply happen to purchase from a competitor, or perhaps the world ends before the resource can be adequately capitalized on. As long as advantages precede performance, it will be possible for an advantage to be had that is disrupted from leading to superior performance.

This has already been internalized in the literature. Many authors will not say that advantage entails performance; instead, they will say that having an advantage probabilifies superior performance (Newbert, 2008; O'Shannassy, 2008:171; Tang & Liou, 2010; Sigalas *et al.*, 2013:70). So, a competitive advantage only makes superior performance likely. And this, again, is exactly what we would expect if competitive advantage was a disposition. Even though dispositions do not entail their manifestations, they do probabilify them. Vases with the disposition to break are more likely to break than those without. This was captured on Manly and Wasserman's account of dispositions. Applied to the context of strategic management, firms with competitive advantages are likely to have sustained success relative to peers, and this is just to say their advantage disposes them to succeed.

Now we can consider entailment in the other direction: Does sustained superior performance entail that the firm has (or had) a competitive advantage? If competitive advantage is a disposition, then we should again expect the answer to be 'no'. That a vase breaks does not entail that it was fragile. Perhaps a sturdy vase falls that will almost never break when dropped, but *this* time it happens to fall just so that it breaks upon impact. (Perhaps it was thrown with great force.) Items can break without being particularly fragile, just as bad handwriting can be read without being generally legible.

Though I think the same is true for competitive advantage, it can be somewhat harder to see this. Many authors casually take performance as a measure of advantage, and so they implicitly infer competitive advantage from firm performance. Powell (2001) explicitly endorses an entailment relation here of a sort.[8] However, this has severe consequences that we should appreciate. If a firm is logically guaranteed to have a competitive advantage merely because it has superior performance, then this undermines the claim that competitive advantage is a distinct construct that can be empirically tested for. If a competitive advantage is analytically guaranteed, then it is not something that can be found or found to be absent. Claims of competitive advantage will not be able to be falsified (Powell, 2001). And this undermines the idea that there is a fact of the matter in the first place concerning whether a successful firm *really* has a competitive advantage, or that this is something that is true and that we can come to learn.

Powell fully recognizes this consequence and instead suggests that this is as it should be. "Indeed, nearly all good theories," he says, "even the most esteemed theories of the physical and

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[8] Though he explicitly denies that sustained superior performance entails having a competitive advantage, he *does* affirm that sustained superior performance entails either that the firm has at least one competitive advantage or that the firm did not have competitive disadvantages (879).

biological sciences, have metaphysical qualities, incorporating devices, shielding them from empirical falsification" (2001:883). By accepting pragmatism in the philosophy of science, he can rescue a science of competitive advantage that is useful for practitioners. Though, it is not in the business of telling us what's true. If one likes pragmaticism generally, then this may sound appropriate. However, very few people within philosophy of science today accept it, and I am in the majority.

For those of us that take there to be facts about which firms have competitive advantages that we can come to learn, we must deny that superior performance entails having a competitive advantage (or lacking a competitive disadvantage). Stepping back, denying this entailment seems reasonable. In principle, it doesn't seem like there is any reason why a firm couldn't just happen to perform better than its peers while lacking any distinct advantage. It might be very unlikely for a firm to have *sustained* superior performance without having a competitive advantage, but it's not impossible. It could just be an anomaly, just like the sturdy vase that happens to break. The firm got lucky (Barney, 1986). There are challenges, of course, with how we can come to learn about when a competitive advantage is had or lacked (some of which we will discuss below). Absent any theoretical reasons for maintaining the entailment,[9] though, we should take it for granted that sustained superior performance does not deductively entail anything about competitive advantage.

So, we should deny any entailment relations between competitive advantage and firm performance, and this makes sense when we consider competitive advantage on a dispositional framework. The question remains, however, just what *is* the relation between a firm's having a competitive advantage and superior performance if it is not entailment? Here again, understanding competitive advantage as a disposition provides the framework for pursuing an answer. Or, rather, it offers an explanation for why an answer is not immediately forthcoming.

Consider one idea in the strategic management literature: perhaps a firm's competitive advantage does not entail but instead *causes* the firm to have superior performance (Durand, 2002:868; Sigalas *et al.*, 2013). We have noted that an advantage will precede good performance, and we might take the firm's advantage to be a probabilistic cause insofar as it probabilifies this performance (Hitchcock, 2018). However, this idea faces an apparent alternative. We might think that the fact that the firm is disposed to succeed only indicates that it will, it does not cause the success. Instead, it is *the resources* of the firm that cause the firm to perform as well as it does (or properties of the resources; see Durand *et al.*, 2009:1259). Given this alternative, we are left with several follow-up questions: How do we determine whether a firm's resources cause it to have superior performance or whether its competitive advantage causes it to have superior performance? Or, since the firm's advantage is constituted by those resources, is this just the same thing?

These are deep metaphysical questions, and it is unclear how the literature of strategic management alone can answer them. Within metaphysics, however, the issue becomes clear (if not less complex). If superior performance is the manifestation of having a competitive advantage, then the question of the relation between competitive advantage and firm performance collapses into the question of the relation between dispositions and their manifestations more generally. Given this, we can see the above confusion as a confusion over whether it is appropriate to think that a disposition *or its categorical base* causes the manifestation. For instance, we may wonder whether the vase's fragility caused it to break, or if its molecular structure did, or whether they both count as causal in some sense.

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[9] Powell maintains that this entailment itself falls out of prominent views of competitive advantage. For example, he suggests that it follows from the resource-based theory (2001:881-3), on which competitive advantage is understood in terms of firm resources. Distinct firms will have distinct resources, and so any superior performance will be had by a firm with distinct resources. However, Powell doesn't quite make clear how these ideas guarantee an entailment. First, though firm heterogeneity requires that firms do not have numerically identical resources, they could have qualitatively identical resources from the perspective of the market. And, second, though firms that have superior performance will have distinct resources, this alone does not tell us whether these resources constituted a competitive advantage.

From here, there are many different possible answers, most of which have advocates. If dispositions are taken to be identical to their categorical base, then both a firm's resource and its advantage will count as one and the same cause of firm performance (Armstrong, 1973; Mumford, 1998; Martin & Heil, 1999). Alternatively, if we think that dispositions are distinct from their categorical base, we may hold that the categorical base causes the manifestation while the disposition is causally impotent (Prior *et al.*, 1982), or that a disposition and its categorical base *both* count as causes of the manifestation (McKitrick, 2005), or we may think that the categorical base causes the manifestation while the disposition plays a distinct causal or explanatory role (Rives, 2005; Vincente, 2002).

The philosophical menu of views here is vast. Luckily, we can again leave this for metaphysicians to sort out. Philosophers will give very different answers depending on the background set of views they accept concerning the nature of causation and the proper metaphysical relation between a disposition and its categorical base. Most of these, though, will be compatible with a coherent view of competitive advantage. Those working in strategic management need only trust that there is a right way to construe these relations, and so not be tempted by these puzzles into skepticism about competitive advantage as a construct. As we will see below, the mere fact that competitive advantage is best understood as a disposition is sufficient to help theorists operationalize the concept, regardless of how we address these challenging metaphysical issues.

Operationalizing Competitive Advantage

It is an important part of understanding competitive advantage to see how it relates to other concepts within strategic management; however, in a sense this is all prologue to how the concept can be used. On the one hand, academics may hope to integrate competitive advantage into studies as something that can be determined, measured, or predicted as a part of a legitimate scientific enterprise in the pursuit of truth. And, on the other hand, practitioners and managers may hope to use results about competitive advantage to increase firm performance. Theorists have struggled so far to determine how either of these tasks can be accomplished. However, recognizing that competitive advantage is a disposition allows us to chart a course towards achieving both ends, or at least a means of addressing some of the troubles with doing so.

There are a number of *prima facie* difficulties with integrating competitive advantage into a comprehensive scientific theory. For example, advantages are unobservable (or, the fact that a firm's resources constitute a competitive advantage). Even if we grant for the sake of argument that some firms have advantages and others do not, the fact that they are unobservable makes it unclear how we can tell when firms have them (let alone how to measure their impact). It would be one thing if we could simply infer their presence from a firm's superior performance, but, as we saw in the last section, we cannot treat competitive advantage as both inferable from performance *and* as a legitimate empirical phenomenon.

It is troublesome that advantages are unobservable, but it is also to be expected if competitive advantage is a disposition. Dispositions in general cannot be observed, and this does not cause us to doubt that objects can have them or that they can be fully scientific. We do not see the newspaper's flammability or the sugar cube's solubility, but these are properties of these objects, and scientific properties at that. It would be nice if we had a direct way to observe them, but the fact that they are unobservable does not undermine our attempt to integrate them into a complete view of the physical sciences. (If this were the bar for legitimate science, it would undermine all of quantum mechanics.) So, the mere unobservability of a firm's advantage should not dissuade us from attempting to incorporate it into management theory.

It is also true that it is unclear how to determine competitive advantage if it cannot be inferred from a firm's superior performance. But we should expect there to be a way. Dispositions generally cannot be inferred from manifestations, but we do not doubt that there will be a way to come to have knowledge of them.

So, how can we come to have knowledge about competitive advantage? Let's start by considering the more specific question: How can we come to know whether a firm has (or had) a competitive advantage? We can of course see whether the firm performs better than its peers along a variety of metrics. As we have said, superior performance does not entail competitive advantage; nevertheless, superior performance does make it more likely that a firm had an advantage. Powell (2001:879) appeals to a Bayesian framework, showing how a firm's superior performance should raise our credence in the firm's having had a competitive advantage, because that performance was itself more likely to happen given an advantage. To be more explicit, if we had a low credence that firm has a competitive advantage, then observing its superior performance should make us more confident that the firm has an advantage. The better its performance or the longer we observe its superior performance, the likelier it is, and the more confident we rationally ought to be, that the firm has a competitive advantage. Observations of sustained superior performance should make us very confident or give us a high credence in this.

Many epistemologists will be satisfied with this result. High credence may be all we need for our purposes, or all that can be reasonably demanded of a science. However, some might balk that we cannot be *sure* that the firm has a competitive advantage, and that there will always be space for the skeptical hypothesis that no advantage is had.[10] Can we really *know* that a firm has a competitive advantage by observing sustained superior performance? This question is honestly still without a definitive answer within epistemology itself. How we answer it will turn on the relation between credence and knowledge as well as the possible fallibility of knowledge (Reed, 2002; Dougherty, 2011). However, it is by no means a fringe view that high credence beliefs can constitute knowledge (e.g., Moss, 2016).

It is important to be able to identify *ex post* which firms likely had a competitive advantage, but doing this alone is not very helpful for managers to determine what leads to having a competitive advantage *ex ante*.[11] What managers want to know is how to cultivate advantages that will manifest as superior performance in the future, not which firms that have already outperformed were likely to have had an advantage.

To learn about competitive advantage *ex ante*, we need to think more about firm resources than firm performance. If a firm had superior performance, then it likely had a competitive advantage, and that advantage will be constituted by certain firm resources. But while we can come to know that the firm had an advantage (or likely did), it may remain opaque to us which resources constituted that advantage. In fact, the main idea of causal ambiguity is that the fact that it is unclear which of a firm's resources constitute a firm's advantage can itself constitute a kind of competitive advantage. The key to *ex ante* knowledge of competitive advantage, however, is in coming to know generally which kinds

[10] This issue is quite challenging in the case of competitive advantage because it is very difficult to determine that the advantage is *not* had if the firm has superior performance. It may not be difficult to judge that a vase is not fragile if we know the material it is made out of, and we can maintain this judgment even if the vase happens to break. In the case of firms, however, it is often unclear what the source of a firm's advantage is. This is the phenomenon of causal ambiguity (Lippman and Rumelt, 1982; Ryall, 2009; McIver and Lengnick-Hall, 2018), and it makes judgments of competitive advantage even more challenging to form, though not impossible.

[11] Consider asking why a pill led one to fall asleep and being told that the pill is sleep-inducing (or, in the parlance of the literature, it has a 'dormative virtue'). Even if true, this explanation is hardly informative. What we would want to know is in virtue of what a pill is sleep-inducing or how to make it such that a pill will induce sleep.

of resources constitute competitive advantages.[12] If we know that a particular kind of resource constitutes a competitive advantage, and we know that a firm has worked to develop that resource, then we can know that it likely has an advantage even before we measure its performance.

This suggests the role of empirical study within strategic management, which is much as we find it. We consider firm performance and conclude in different industries which firms likely had competitive advantages. While it may be unclear in the case of a particular firm which of its distinct resources constituted its advantage, we can look across successful firms for common kinds of resources and then adduce that those resources constitute competitive advantages. That the firms had that particular kind of resource best explains their superior performance. Then, we can look at a particular company and see whether it has this kind of resource that we know to constitute a competitive advantage. If it does not, then it could perhaps cultivate an advantage by securing a resource of that kind.

This makes sense if we reflect on our *ex ante* knowledge of dispositions more generally. We might not be able to tell looking at a vase whether it is fragile. Instead, we should look to see what it is made out of. If we know that it has a particular molecular structure, and we know that other objects with that structure tend to break when drop, then we will be in a position to know that this molecular structure is likely a categorical base for the disposition of fragility. So, we will know that this vase is fragile even before it is dropped, and we will know how to make a vase that will be fragile (by making it to have this molecular structure).

I take it that this is how we can learn *ex ante* about firm advantages; however, there are a couple of issues that arise that are particular to competitive advantage as a disposition. We just said that we can make a vase be fragile by being sure to make it have a particular molecular structure that we know to constitute fragility, but this kind of procedure is more challenging in the case of competitive advantages. First, many advantages are advantages because they are hard for competitors to replicate. So, while it might broadly be true that a firm can cultivate an advantage by cultivating resources that are harder to replicate, gaining an advantage will not be as easy as actually replicating the resources of already successful firms. Instead, what is involved is cultivating a distinct resource that is similarly difficult to replicate.

Another challenge comes from the fact that the categorical base for having a competitive advantage can change over time. This is not the case for most dispositions. If a particular molecular structure makes a vase fragile, then that same vase will be fragile (in virtue of having the same structure) tomorrow or if many other vases are made out of the same structure. The same is not true of competitive advantage. If firm X has a particular resource that would constitute an advantage, but then firms Y and Z in the same industry find a way to cultivate the same kind of resource, then that kind of resource will no longer constitute an advantage for firm X. Whereas we might otherwise infer inductively to the presence of a particular disposition (other things of this type had this disposition, so this will too), this feature of competitive advantage in particular threatens to undermine a similar instance of induction: inferring from the fact that a kind of resource has constituted an advantage for companies in the past to the claim that this kind of resource will constitute a competitive advantage *this time*. Some authors are skeptical of any kind of long time-horizon for having a sustained advantage (Wiggins *et al.*, 2002). This is not to say that we can never have *ex ante* knowledge of firm advantage,

[12] It is important to appreciate that many different kinds of resources will constitute a competitive advantage. These resources might all have certain features in common (e.g., being hard to replicate), but they may still be very different in nature (e.g., having more to do with cost-saving capabilities or access to certain kinds of natural resources, or a certain kind of firm capacity, etc.). In this way, competitive advantage is similar to dispositions like fragility, as objects with many different types of molecular structures may all be fragile (and each in virtue of the structure that it has). In the language of dispositions, different types of resources can form the categorical base for the disposition of having a competitive advantage.

but I think we do have to be careful to weigh whether resources constitutive of an advantage in the past are likely to remain so in the present case.

These challenges do not undermine the claim that firms can have competitive advantages or that competitive advantage is best thought of as a disposition. Instead, they offer an explanation for what we already knew, that it can be hard to identify and cultivate the resources that constitute advantages. It might be that we are not able to identify which resources are those that constitute an advantage (if it is causally ambiguous). And if we are able to carefully judge what resource constitutes a firm's advantage, other managers will either be unable to replicate it or else be unable to replicate it in such a way that it *continues* to constitute an advantage.

CONCLUSION

In his own conclusion, Durand writes, "Philosophy also brings many potential contributions into strategic management, but it should be used more to open discussions than to convince" (2002:871). I think this undersells analytic philosophy's value to strategic management. It can also be used to clarify the nature of and relations between complicated concepts. In order to understand the concept of competitive advantage, what was needed was to consider the kind of thing a competitive advantage is, to see what it is similar to, and to look to the literature that has developed around similar properties. Once we do this, it becomes clear that competitive advantage has all of the hallmarks of a disposition, and a whole literature on how dispositions operate has developed in the last half century.

Dispositions are properties of entities that manifest in a particular way when triggered. Further, they manifest as they do in virtue of being constituted by a categorical base (or its intrinsic features). What's more, entities can have dispositions to a greater or lesser degree, which is measured by the counterfactual instances in which the disposition would manifest. Certain firms have competitive advantages, and recognizing competitive advantage as a disposition allows us to see that what this means is that they will have superior performance when in the right industry environment. Firms have competitive advantages in virtue of their resources. And how strong of an advantage they have depends on how different their industry could be while where they would still perform above their peers.

I argued that it was not only true that competitive advantage is a disposition, but that recognizing it as such gave us the means of answering or reframing at least four outstanding questions about it. First, we saw that it is natural to wonder what the relation is between a firm's advantage and the resources that constitute it. I do not have an answer to this question, but I showed that it will follow from the best answer that we give to the general problem of determining how dispositions relate to their categorical base. This is still an open question, but it is one we can only expect to answer in analytic philosophy, not in the literature of strategic management.

Second, there is a question concerning whether industry position or firm resources are more important to having a competitive advantage. I also did not purport to settle this issue. Instead, I showed how this question can be framed in terms of the question of the extent to which the disposition of competitive advantage is extrinsic. This should help theorists to categorize their approaches going forward.

Third, I considered the question of the logical relations between competitive advantage and firm performance. I argued that superior performance does not entail that a firm had a competitive advantage (though it probabilifies it), that having an advantage does not entail having superior performance (though it probabilifies it), and that all of these claims follow from the appropriate characterization of the relationship between a disposition and its manifestation.

Finally, I considered the challenging practically significant epistemological questions of (a) how we can know *ex post* if a firm that performed better than its peers had a competitive advantage and (b) how we can know *ex ante* whether a firm has a competitive advantage (before we observe its performance). Concerning (a), I argued that observing superior performance should increase our credence that the firm had an advantage, observing continued superior performance should increase our credence in this even higher, and that a sufficiently high credence in a firm's having an advantage might constitute knowledge. Concerning (b), I argued that the key to having *ex ante* knowledge of competitive advantage is in appropriately utilizing *ex post* knowledge of the resources that we know to constitute a competitive advantage. We can observe which resources have led to superior performance and then inductively infer that a firm that cultivates those resources will have a competitive advantage.

Of course, problems remain. Until philosophers come to some consensus, we will not be sure whether a firm's advantage *is* or is *constituted by* its resources/capabilities. And, given how philosophers can be, we may be waiting quite a while. Further, while it is in principle possible to have knowledge of dispositions, we saw how causal ambiguity and other issues make it even more challenging to have and use knowledge of competitive advantage. Still, appreciating competitive advantage as a disposition sheds light on the true import of the concept of competitive advantage.

The importance of the concept of fragility is not that it explains a vase's breaking. It is an unilluminating explanation of that fact. More important is that we can use the knowledge of which molecular structures realize the disposition of fragility to determine which objects we have to treat carefully. Similarly, the role of the concept of competitive advantage is not to best explain superior performance. Instead, the role of the concept of competitive advantage to help us to appreciate how firm resources, capabilities, market position, and other factors matter to how the firm performs relative to its peers. Appreciating that fact is the necessary first step towards finding ways to leverage these factors to ensure superior performance.

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