

Corporate Entity

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Preface

This book is about whether corporations exist. It is an interdisciplinary survey of legal and philosophical research. The intended audience is philosophical, so that I do not presuppose knowledge of corporation law in my readers.

Following Aquinas' dialectical approach, I first critically review the works of others, notably Michael J. Phillips, John Dewey, Sanford A. Schane, Joseph Vining, Igor N. Grazin, Evan Fales, and John Biro. Only then do I argue for my own theory in light of the virtues and defects of their theories.

It is usual to say that in studying philosophy of X, that we do best to acquire a pre-philosophical understanding of X before philosophizing about it. The more we know about X pre-philosophically, the better our philosophy of X will be. There is every reason to take this usual approach here, since it is a weakness of the philosophical literature on this topic that its authors are not legal scholars. Therefore I shall quote and discuss legal literature perhaps more extensively than a legal scholar might need.

There are three basic legal fictions, two of which are well known, but the third of which nonlawyers might overlook. First, there is the legal fiction that corporations are entities. Second, there is the legal fiction that corporations are persons. Third, there is the legal fiction that corporations are fictions. We may speak of corporations as legal entities, as legal persons, and as legal fictions, with no implication that legal entities are really entities, that legal persons are really persons, or that legal fictions are really fictions. At this level, we might better speak of more or less illuminating analogies to entities, to persons, and to fictions (compare Klein 1993: 109-10).

The analogy of corporations both to entities and to fictions is paradoxical. Perhaps today there is more of a temptation to say that legal fictions are really fictions than there is to say that legal entities are really entities or legal persons are really persons. This is due to the current popularity of methodological individualism, which methodologically presumes that corporations are mere legal constructions of natural individual persons and things (assets), unless shown to be otherwise. But if corporations really are entities, then even when it is legally appropriate to treat them as fictions--notably when a judge pierces the corporate veil to remedy some injustice--they nonetheless remain really entities. And this shows that and why it is correct to say that legal fictions need not be really fictions.

The legal phrase "piercing the corporate veil," which is a colorful way to describe a judicial decision to treat a corporation as a fiction and make human individuals responsible for some wrongdoing, seems to suggest that no corporation is really an entity to begin with. The suggestion is that when we pierce the veil, we find nothing but individual humans. This it may seem that corporate entity is the fiction and corporate

fiction is the reality. But again, if corporations really are entities, then even when it is legally appropriate to treat them as fictions, they nonetheless remain ontologically entities. Again, legal fictions need not be ontological fictions.

This must not be confused with the legal distinction between de jure corporations and de facto corporations. Something may legally be a corporation even if it does not conform to the legal formation requirements, and even if everybody has so far believed that it is not a corporation, including the people operating the enterprise, who may, for example, have thought they were operating a partnership or an association. The thing in question would be a de facto corporation if it behaves or functions like a corporation. Conversely, something which meets the legal formation requirements of a corporation may be legally determined to be a de facto partnership instead (compare generally Conard 1993: 19-47). Thus even within the legal domain, de facto corporations are considered to be, if anything, more real than de jure corporations. A judge might find that an enterprise is not a de jure corporation, since it fails to respect corporate formalities, but then go on to find that it is a de facto corporation, thus bringing it under corporate law as opposed to partnership law--and then use corporate law to pierce the corporate veil and treat it not as a corporate entity but as a corporate fiction.

While the concept of a de facto legal entity is meant to reflect factual reality (the very term "de facto" connotes this), it is still a legal concept governed by legal rules. Even a de facto corporate entity logically can lack ontological status as an ontological entity. And while the concept of a de jure legal entity is meant to reflect mere formal legal correctness (the very term "de jure" connotes this), a corporation which is a corporate entity de jure may or may not be an ontological entity. We can only say that de facto corporations are understood or supposed to be more like ontological entities than mere de jure corporations are. It still may be that no corporation, de facto *or* de jure, is an ontological entity. Or it may be that all corporations, de facto *and* de jure, are ontological entities.

Philosophy is pursuit of the truth whether we like to hear it or not. We follow the argument wherever it goes, and logic is no respecter of persons. For example, some people are made angry by arguments against the existence of God, or against objective morality. These people's feelings do not make the arguments any better or worse than they already are. Today, some people are angry about how corporations function as a veil against individual responsibility, and view corporations as a tool of capitalist oppression of the masses. I consider this irrelevant to the ontological study of corporations. If corporations are real, then like it or not, they are real. Indeed, if anything, it would make their oppressiveness--or their helpfulness--more real. I myself believe that like all or most artifacts, corporations can be well used or ill, and that on the whole, most people would have been far worse off without them. Thus I believe that on the whole, corporate regulation, not abolition, is best. In this I follow Hegel, who believes that the state can fruitfully control and regulate the corporate life of civil society, as against Marx, who thinks that corporations and the state should wither away. Granted, the ontological status of corporations as persons is logically connected to the issue of the existence of their moral responsibilities, and their legal status as persons is logically connected to the existence of their legal responsibilities. But, waiving Hume

on deriving ought from is, we should argue from ontological status to moral responsibility, not the other way around.

I thank Professor Joseph Vining of the University of Michigan School of Law for kindly commenting on Parts One and Two in May 1996, and Professor Edward H. Cooper of the University of Michigan School of Law for kindly commenting on Part Two, section 6 in May 1996. I added Part Three in 2005 because the economist David Gindis very kindly asked me some new questions. In Part Three, I develop a general theory of vagueness and reality, then apply it to corporations, offering a new critique of Russell and Quine on vagueness.; and I also discuss what it means to say a firm is real or fiction. I conclude with a section on the prospects for ontological commitment to, i.e. for quantification over, firms in economic science.

Parts One and Two were originally my (2004) paper on corporate entity, and Part Three was originally my (2005a) paper on corporate entity. The present book supersedes both papers by including new material, notably a distinction among twelve senses of "real distinction." Part Three, section 10 was added October 8, 2007.

Part One: Legal Theory of Corporations

1. The concession/fiction theory

Michael J. Phillips discusses four theories of corporations: "the concession/fiction, aggregate, nexus of contracts, and real entity theories" (Phillips 1994: 1063). Phillips holds that while entity theory is intellectually the best, or at least no worse than the others, "none of these theories is sufficiently well-grounded to be a solid basis for legal or policy implications" (Phillips 1994: 1063). I proceed now to the first theory.

Chief Justice John Marshall said in 1819, "[a] corporation is an artificial being, invisible, intangible, and existing only in contemplation of law" (Phillips 1994: 1064). The concession theory is that a "corporation derives its being by concession from the State" (Phillips 1994: 1064). The fiction theory, which seems very naturally to follow from the concession theory, is that corporations are "artificial, invisible, intangible, and fictional" (Phillips 1994: 1064).

The concession and fiction theories held sway in the early 1800s, when corporations were created by specific grants or charters "which usually limited them to public purposes," and became less important when new statutes made incorporation routine and mechanical, so that today the concession and fiction theories are merely formal doctrines (Phillips 1994: 1065).

The historical concession statutes might tempt one to say that these theories were *true* in the early 1800's, since corporate nature was *different* back then. But I do not think that corporations changed so fundamentally that they were ontological fictions in the early nineteenth century but became ontological entities by the early twentieth, when entity theory came to predominate in statutory law. One might say that corporations were *legal* fictions in the nineteenth century and predominantly became *legal* entities in the twentieth. However, the argument from concession theory to fiction theory strongly suggests that legal fictions are intended at least in part to be ontological fictions as well. And it is a nice question whether the concept of a legal entity can be applied retroactively to a time in which concession theory was reflected in incorporation statutes. After all, if the legislators at the time refused to make corporations legal entities and legally required that corporations be considered fictions, who are we to gainsay them?

Perhaps we could gainsay them in this way. How a thing is formed does not imply what it is. And to think otherwise is to commit what C. D. Broad calls the genetic fallacy (Broad 1968: 11-13). For example, religions arose from primitive superstitions and fears. But that does not imply that the great religions are nothing but primitive superstitions and fears in an advanced or disguised form. Likewise, that a corporation is

formed by concession from the state does not imply that it does not become an ontological entity when it becomes active in business. It does not even imply that a corporation is not a legal entity, for example on Conard's definition of "legal entity."

I do not like the way the fiction theory is based on the concession theory. It is easy to conceive of a possible world in which in which artificial hands are permitted to exist only by positive concession of the state. Yet an artificial hand is not a fiction. The fiction theory should simply be argued for by analogy to paradigmatic ontological fictions. Is a corporation a fiction like Sherlock Holmes? Or is it perhaps a fiction like electrons, on the theory that all unobservable sub-atomic items are explanatory scientific fictions?

I do not like the way the fiction theory is stated. The theory should simply state that corporations are, in some sense, fictions. It should not state that corporations are "artificial, invisible, intangible, and fictional" (Phillips 1994: 1064). Artificial hands are real. At least assuming a common sense scientific realism, quarks are invisible and intangible, yet they are probably real. Marshall's four defining features are not even co-extensive. For example, not every artificial thing is invisible, intangible, and fictional. Perhaps he was requiring that a legal fiction be artificial, invisible, intangible, and fictional. But what then of dollar bills, houses, and artificial hands, all of which are in some sense visible, tangible artifacts?

I do not like the way the concession theory is stated either. On its face, it conflicts with the fiction theory that is supposed to follow from it. If a corporation "derives its being" from a state or from anything else, then it has derived being, and cannot be a fiction. If it has derived being, then it has being, and cannot be a fiction in the sense of a nonbeing. If we derive our being from God, who created us from nothing, then are we fictions? What does it mean to "derive being" from something else, anyway? You could rephrase the expression as, "derive whatever being, if any, it has." But the notion of derivation remains magical and unexplained. How can a fiction be "derived"? Was Sherlock Holmes "derived" by writing fictional stories? Does that make a legislative grant of corporate status a fictional story like Sir Arthur Conan Doyle's "The Adventure of the Naval Treaty"?

2. The aggregate theory

This theory came to prominence in the later 1800s, as "some theorists began to use partnership analogies to describe the corporation, thereby characterizing it as an aggregate formed by private contracting among its human parts" (Phillips 1994: 1065). At first these constituents were only shareholders, but directors and officers came to be included, then other persons related to corporations, and even nonhuman assets. An ironic final addition is the fictitious corporate legal person as a constituent of the corporate aggregate (Phillips 1994: 1066).

The theory goes on to deny that an aggregate is an entity. A corporation is an aggregate, and an aggregate is not an entity; therefore a corporation is not an entity. "That theory is

a species of methodological individualism" (Phillips 1994: 1066). Methodological individualists hold that "individuals are the ultimate units of social explanation" and that "groups such as corporations can be completely described through their human components" (Phillips 1994: 1067).

Making an aggregate a member of itself violates Russell's theory of types. But I can hardly make that a criticism, since I reject that theory of types.

I think it is very doubtful that a fiction can be a constituent of a genuine aggregate in the world. True, we can and do speak of a set whose arbitrary members are {Bill Clinton, Sherlock Holmes}. Clinton is real and Holmes is a fiction, and both are equally members of the set. But this set scarcely seems like a genuine aggregate in the world. How can a fiction be a constituent of a genuine aggregate? I am merely asking how it can be done in any more meaningful sense than that of arbitrary stipulation. One might argue that far from being arbitrarily related, a corporate fiction is essentially related to its constituent directors, officers, and shareholders, since fiction and constituents logically cannot exist without each other. This is nothing more than to say that wholes cannot exist without parts and parts cannot exist without wholes. My reply is that I am not denying that. I am asking how it is more than arbitrary that a corporate fiction and its constituents form more than a merely arbitrary *aggregate* such that the fiction and the humans are equally members of the aggregate. Even in the case of a heap of sand, we can easily understand how each grain of sand can be equally a member of the heap. For "x belongs to heap H" defines a class, not merely an arbitrarily membered set. What then is the class to which corporate fiction and corporate constituents equally belong? I can only think of trivial class properties such as "x is a certain corporate fiction or one of that fiction's constituents."

It is intrinsically plausible to hold that a real aggregate has only real constituents. That might seem to commit the fallacy of division. The fallacy is to suppose that because a whole has a certain property, all its parts must have that property too. But that fallacy and its counterpart, the fallacy of composition, are recognized as having exceptions. Notably, if a whole is something, it cannot have parts which are nothing. I am not saying that a fiction is nothing, but in this context I think that fictions can be analogized to nothing.

It might be objected that aggregates are not real, since they are many not one, and that a fiction can be a member of itself. Surely a fiction can be a member of a fiction. But why suppose that aggregates are not real? Is not a heap of sand real? Is not a heap of sand an aggregate? In many ways it is far less organized and unified than a corporation! A puff of wind could blow it away. Granted, it is a famous ontological tradition, going back to Parmenides, that entities cannot be composed of other entities, since they might come apart, and no real entity should be able to come apart. But this seems wrong. A brick wall is as real as its bricks; a heap of sand is as real as the grains of sand. All are equally physically real; the laws of physics apply to bricks and walls, and to sand and heaps, alike.

I dislike Phillips' account of methodological individualism. We seem to have lost the methodological somewhere in the account. Does the view that aggregates are fictions define *methodological* individualism? In general, methodological Xism is the view that Xism is the best view methodologically speaking, that is, is the best view to use in practice until we run into problems. Of course we may simply rename Phillips' methodological individualism as "ontological individualism."

That individuals are, or are methodologically best taken to be, the "ultimate units of social explanation" seems very different from saying that "corporations can be completely described through their human components" (Phillips 1994: 1067). What is a social explanation? What is a complete description?

Are explanations the same as descriptions? In some senses yes, in others no. I hold that in one sense the most general description of a thing is its explanation. Thus where two straight lines intersect a third in a flat plane at 90 degree angles, two proofs are possible that they are parallel. The first is based on the angles' being 90 degrees, and the second is based merely on their being equal. I would say with Aristotle that the second proof explains why the two lines are parallel. But you cannot apply this sense of explanation to corporations, or to social phenomena in general, unless you have achieved a descriptive deductivist hierarchy of scientific laws. And that is hard to do in soft sciences, not to mention non-sciences.

Another problem is that there are different characterizations of ontological and methodological individualism. Consider this definition of methodological individualism by David Braybrooke: "the only ultimately successful strategy of explanation in the social sciences is one that moves from person facts to explain group facts and not the other way around" (Braybrooke 1987: 33). Note that person facts and group facts are equally facts. Thus Braybrooke's definition allows methodological individualism to be compatible with admitting corporations as ontological entities.

3. The entity theory

Around 1900, the entity theory came into prominence because primitive partnership-like corporations were being replaced with much more centrally unified management-controlled corporations (Phillips 1994: 1067). Since such corporations are more powerful, this recalls Plato's suggestion that existence is power (*Sophist* 247). Again, one may be tempted to say that corporations did change in nature and now became entities for the first time. To quote Gregory Mark, "[t]he 'life' of the corporation could no longer be identified with that of the corporators," and its "actions had to be recognized as autonomous, the product of its organization and management" (Phillips 1994: 1068). The (real) entity theory is that:

a corporation is a being with attributes not found among the humans who are its components. This corporate being, moreover, is a real thing. In particular, it is not the artificial entity of the fiction theory. To Arthur Machen, for example, "[a] corporation is an entity--not imaginary or fictitious, but real, not artificial but

natural." By using the word natural, Machen emphasized a view which distinguishes the real entity theory from the concession theory: The law does not create corporations but merely recognizes their independent existence. (Phillips 1994: 1068-69)

There are seven main variants of the entity theory. In order from least human-like to most, a corporation is:

1. "a relatively coherent and stable whole"
2. "an impersonal decision-making structure akin to a machine"
3. "an organism"
4. "endowed...with a group will"
5. "endowed...with...a distinct personality"
6. "a living organism and a real person, with body and members and a will of its own....it is a group-person, and its will is a group-will" [quoting Maitland]
7. enough like a natural person to "have moral rights and duties distinct from those the law gives them." (Phillips 1994: 1069-70)

These seven seemingly discrete variants disguise the fact that there is a slippery slope going from analogy in variant (2) ("akin") to progressively stronger literal descriptions in variants (3)-(7). When is something enough like a real entity to be a real entity itself? When is something enough like a person to be a person itself?

Also, the mere fact that something has "attributes not found among...its components" does not imply that the thing is real. Sherlock Holmes has attributes not found among his components. Yet Holmes and his components are fictional.

Even if its components are real, it does not follow that a corporation is real. For a corporation may be a merely rational entity as opposed to a real entity. There is an important distinction between real distinctions and distinctions in reason. Traditionally, two things are really distinct just in case both are real things, and either logically can exist if the other does not exist. Two things are distinct only in reason just in case they are different but not really distinct from each other. A single real entity can exist even if nothing else exists. A rational entity cannot exist apart from some real entity. Thus the mere fact that a corporation has what are called "logically emergent" properties, i.e. properties not found among its parts, nor definable in terms of the properties of its parts, does not imply that a corporation is a real thing. It might be a merely rational entity distinct in reason from its real parts. To show that a corporation is a real entity, additional argumentation is needed.

As I explain in my first book:

We may say that two entities are really distinct if and only if (1) either can exist independently of the other *and* (2) each has the ontological status of a real being. Many philosophers may think that requiring both conjuncts is needless. In a sense they are right. In traditional philosophy, the conjuncts would seem to imply each other. I emphasize conjunct (2) as a separate condition because without it the position of many earlier philosophers will be misunderstood. For them, many items which can exist independently of each other are not really distinct because they are not real things with real identities, but are merely parts or collections of real things. Their individuation consists merely of the concept we choose to "slice up" the real things before us. For instance, card decks can exist independently of each other as easily as individual cards can. But if cards are real things and card decks are mere collections, then many would hold that card decks are not really distinct from each other. Compare as theoretically susceptible to this kind of ontological analysis: Spinoza's water as one of extension's many modes, extension being in turn one of God's many aspects; Leibniz's body composed of many monads; Berkeley's city of many houses, and house of many walls and windows; Bolzano's, Reid's, and Hobbes's ship of many timbers (the rebuilt ship of Theseus); Hegel's book of many chapters and pages; Bradley's silk stockings reknitted with worsted; Bolzano's and Husserl's melody of many tones; Heidegger's collection of many coins; Sartre's group of three men conversing; Frege's card deck; Russell's army of many regiments, and Russell's and Reid's regiment of many soldiers; Wittgenstein's composite broom and chessboard; Quine's rabbits, undetached rabbit parts, and temporal rabbit-stages; and Butchvarov's bicycle and amoeba.

There are at least three further senses of "real distinction." (2) Conjunct (1) may be used alone, and held not to imply conjunct (2). Now, really distinct things can have conceptual identities. This sense may correspond with contemporary usage better. (3) Conjunct (2) may be used alone. This has the merit of allowing things that cannot cease to exist to be real things. Here, conjunct (1) might be reintroduced in a *per impossibile* sense. Namely, if two things could, *per impossibile*, cease to exist at all, then if either could exist without the other, then they are really distinct. (4) One might add to conjunct (2) the proviso that a thing is real if and only if it can exist even if nothing else exists. I find this fourth sense of "real distinction" very hard to apply to cases. The reason is that the sense of "else" is too unclear. As John Stuart Mill noted in his *System of Logic*, a thing cannot exist without its properties, and a property seemingly cannot exist without belonging to a thing. And what about relations among things? Russell gives the clearest statement of the fourth sense I know: Each particular "does not in any way logically depend upon any other particular. Each one might happen to be the whole universe; it is a merely empirical fact that this is not the case" (PLA 202). But even such particulars might logically depend on properties. On the whole, I shall ignore this ancient and troubling fourth sense, which is best suited to God or a monistic One. The applicability of conjunct (1) alone is enough to ensure the existence of an objective fact. So that in insisting on conjunct (2), I am going beyond the call of realist duty to set up a safety margin. However, the *per impossibile* sense of "real distinction" is a valuable extension of that notion, and

is defensible by being explicated in terms of the notion of independent content. E.g., the timeless Platonic forms *horse* and *dog* are, per impossibile, really distinct, because their conceptual contents are thinkable independently of each other. Another good explication is that those forms are really distinct if their respective instances would be. The four kinds of real distinction intimate four kinds of real identity.

All four kinds of real distinction are nonreflexive and nontransitive. For purity, they must also be symmetric. That is, *really* distinct items are really distinct *from each other*. All four kinds of real identity are reflexive, transitive, and symmetric. Thus all four kinds of real identity are equivalence relations.

Real beings can occur as real "parts" of a conceptual being. This would occur, for instance, if cards were real beings and card decks were conceptual beings. And conceptual beings can occur as conceptual "parts" of a real being. For instance, the round thing and the hard thing would be conceptually distinct but really one stone, if stones were real beings and round things and hard things were conceptual beings. This may be called the combinatorial interpenetrability of the real and the relative. Real things can still be simple in the sense of *real* indivisibility--or not, if you allow real things to compose real things, perhaps bricks and mortar to compose a wall. I am not concerned now with fine details. There are as many kinds of part-whole relation as there are pairs of overlapping categories. (my 2003: 26-28)

Concerning conjunct (1) of the primary sense of "real distinction," not all particulars are really distinct from each other. Millions of particulars are not really distinct from each other, for example a particular card pack from its particular suits and its particular cards. We may say that things are really distinct from each other in sense (1) if and only if they are real, and are wholly distinct from each other. Thus overlapping particulars are not really distinct from each other. This raises the question whether a whole is ever really distinct from its parts, since presumably a whole must cease to exist if its parts ceased to exist, i.e., if it had no parts. I shall return to this question in section 5.

There is a certain studied ambiguity in the concept of emergent properties. For instance, a brick wall is ten feet tall and can stop a car. Are those properties emergent properties? The bricks and mortar are not ten feet tall--or are they? Are the bricks and mortar ten feet tall if they are in the relationship of being a wall? Do bricks' properties include relational properties? That is, to prove an emergent property, do you have to have something radically different from mere constituents-organized-into-a-certain-relationship? For example, do you have to have something as exalted as a mind with consciousness, free will, and moral responsibility emerging from an organization of inanimate microphysical states? Or, to return to the brick wall, is it enough that no constituent brick is ten feet tall? On the usual logical definition of "emergent property," it is enough that no constituent brick is ten feet tall. But all that emerges is--a wall made of bricks. It is not nearly as exciting as if a conscious mind emerged. It seems to me that the properties of a corporation are more like the properties of mere bricks-in-a-wall than like the properties of a radically emergent conscious mind.

There is also something paradoxical in saying that a person can be composed of simpler persons. Space, and even classical matter, have been viewed as infinitely divisible into smaller portions of space or matter. But minds or persons have not been regarded as divisible into smaller minds or persons even once, let alone infinitely many times. Here we are trying to say that a corporate person is composed at least in part of human persons. Does it matter that the persons are different sorts of persons? But what about organisms? Cannot organisms be composed of other organisms? Are not humans composed of living cells? Are not red blood cells like supply workers and white blood cells like soldiers or policemen? It would be more plausible to argue that corporations are merely organisms composed of human beings than that they are morally responsible persons composed of human beings. This is supported by the principle that you can strengthen an analogical argument by weakening its conclusion. Indeed, it may be argued that corporations are often better organized, more strongly unified, and have more power to endure and remain the same through change, than most biological organisms. Through the ways they can replace their constituent parts, corporations are theoretically eternal. But even variant (3) of real entity theory seems too implausible on the face of it.

Our argument here that corporations are real may be called the argument from emergence. Again, emergence is a logical property which is commonly defined as follows. A thing is an emergent if it has at least one property or feature which none of its parts has, and which cannot be defined in terms of the properties of its parts or their relations among each other. The premisses of our argument are that (1) corporations are emergents and (2) emergents are entities. An assumption of premiss (2) is that properties are always of something, i.e. properties are never of nothing. Or if you please, properties always belong to something and are never "homeless." This assumption appears to us to be unassailable. Thus, taking it for granted that properties always belong to something, if corporations have properties that do not belong to their parts, or cannot be defined in terms of their parts, then those properties can only belong to the corporations themselves, which therefore cannot be nothing. One weakness of this argument is that it may be admitted as perfectly sound as far as it goes, but all it shows is that corporations are entities in the sense of not being nothing, and this is the least of the four parts of what it means to say that something is an entity which we described at the beginning of this paper. But we can live with this weakness, as we are certainly going in the right direction. A more serious objection would be that the properties of corporations are supervenient on the properties and relations of their parts. The objection is highly technical and is based on recent philosophical literature on supervenience. As its leading proponent, Jaegwon Kim, understands it,

the concept of supervenience is based on the ordinary intuition that if two things are physically identical, that is, have the same kinds of micro-events in the same kinds of space-time relationships, then they must be equally good. If the intuition is correct, then ethics is said to supervene on physics, regardless of whether the laws or rules of ethics can be reduced to physical laws. Likewise, physically identical paintings surely must be equally beautiful (I attribute this thought to R. M. Hare). And if two possible worlds are physically identical in their full histories, the ordinary intuition many would have is that they must be equally

good, equally beautiful, and more than that, must have exactly the same mental phenomena (if any), regardless of whether ethical life, aesthetic life, or mental life can be reduced to physical laws. The idea is that goodness, beauty, and mind must be in some basic sense dependent on and determined by, and nothing more than, physical nature, if these ordinary intuitions are correct, regardless of whether there are any lawlike reductions.... (Dejnožka 1999: 19-20)

Here the argument against corporations as entities would be that physically identical worlds would have identical corporations; therefore corporations supervene on, and are nothing more than, the physical nature of their constituents, *even if corporations have emergent properties*. Our first reply is that this line of argument is too strong. It would also prove that individual human agents are nothing more than their bodies, a proposition very fiction theorists of the corporation would subscribe to. But the deeper reply is that the supervenience argument is a non sequitur. If the corporations in physically identical worlds are and can only be identical corporations, it does not follow that they are not real. Quite the opposite, they would have identically emergent properties and would be identically real, on the argument from emergence. The supervenience argument detects no flaw in the argument from emergence, but merely sweeps it under the rug. Kim's further distinctions among different kinds of supervenience make no difference to this point. Supervenience can be:

both "strong" and "global," on both Kim's original and revised understandings of those terms (Kim 1993: chapters 4, 5). On Kim's revised understanding, set of properties A strongly supervenes on set of properties B "just in case: (III) Necessarily, for any object x and any property F in A, if x has F, then there exists a property G in B such that x has G, and *necessarily* if any y has G, it has F" (Kim 1993: 80). A globally supervenes on B just in case A "[a]ny two worlds indiscernible with respect to B-properties are indiscernible with respect to A-properties" (Kim 1993: 82). [Supervenience can also be] "strengthened global." That is, "[w]orlds that are pretty much alike in B-properties are pretty much alike in A-properties" (Kim 1993: 89)...In an older terminology, all these things are distinct only in reason from each other. (Dejnožka 1999: 19-20)

We need not reach the question which of these kinds of supervenience may apply to corporations, since the supervenience argument is in any case a non sequitur, and simply ignores the argument from emergence. Therefore we for our part can admit any or all of these kinds of supervenience as applying to corporations without any discomfort for the real entity theory.

Although it has long been debated whether properties of things are in any sense parts of things (I deem them "ontological parts"), the emergence versus supervenience debate about properties invites a brief discussion of mereology. (This relates in turn to my further discussion of real distinction below, specifically, to sense B of "real distinction," the strictly, perfectly, or totally identical sense.) Casati and Varzi explain that classical or standard mereology is defined by:

some basic principles that have been set forth in the construction of axiomatic theories of parts and wholes (such as Lesniewski's "mereology" or Leonard and Goodnam's "Calculus of Individuals")....:

- (a) Everything is part of itself.
- (b) If x is part of y and y is part of x , then $x = y$.
- (c) If x is part of y and y is part of z , then x is part of z .
- (d) If every proper part of x is a part of y , then x is part of y .

The first three of these principles assert that the part-whole relation is a partial ordering: a *reflexive*, *antisymmetric* and *transitive* relation. The fourth is an independent thesis asserting that the relation is *projective* in the sense that inclusion of all parts entails inclusion of the whole...

[P]rinciple e below immediately follows from principles b-d:

- (e) If x and y have exactly the same proper parts, then $x = y$.

This principle corresponds to the set-theoretic axiom of *extensionality*.... (Casati 1994: 89-90)

Casati and Varzi say that the principles of standard mereology:

hold unproblematically only from an extensional perspective (that is, only if parthood is interpreted relative to a fixed instant of time t , and '=' as the relation of spatio-temporal coincidence at t). This is a caveat that many authors have put forward or would put forward when considering the mereology of material bodies.... "From a purely extensional perspective, using such principles as a-e above, it becomes difficult to account for the fact that [ordinary] things survive through time-- that they are continuously changing (growing or getting smaller, losing some parts or acquiring new ones) and yet remain *the same*. (Casati 1994: 90-91).

We may say that the usual criticism of, or more neutrally, observation about the limited scope of application of, standard mereology is this. Standard mereology applies to bodies, including corporate bodies, only insofar as bodies are regarded as four-dimensional worms frozen in space-time, and are identified with or differentiated from each other only as mere extensions, i.e., only in terms of their space-time coordinates. That is, mereology is the whole-part logic of timeless topology. Mereology is logically incompatible with ordinary, common-sense realism, on which ordinary things come into being and pass away from being, are generated from parts, grow as they acquire new parts, and become corrupted and eventually cease to exist as they lose parts. As for a flower or a human being, so too for corporations.

Casati and Varzi cite the ancient problem of the ship of Theseus (Casati 1994: 90), which they take to be a direct counterexample to (e). The ship of Theseus has its parts replaced one by one, the old parts going to a scrap heap. Then someone takes all the old parts and rebuilds the ship. Which ship is then the ship of Theseus, the one with spatiotemporal continuity with the original ship but completely new parts, or the the one that was completely taken apart and rebuilt from the original parts?

I criticize Casati's and Varzi's ship of Theseus counterexample to (e) for two reasons. First, the problem with (e) is not clear unless we understand what is usually or normally at stake. The key is that *an ordinary thing is not merely its parts, but its parts plus its structure*. And the most usual counterexamples are situations where the same parts are built into different structures at different times. The ship of Theseus is exactly the opposite-- two identical, co-existing structures built out of completely different sets of parts. To find more normal or typical counterexamples, we can build various structures out of the same tinker toys or erector set, say different kinds or styles of buildings. The parts taken out of the toy box will always be the same, but different things will be built at different times. This applies easily to corporations. The same human and nonhuman assets can be the parts of very different sorts of organization at different times. It is not at all necessary to scrap the parts or assets one by one, much less to rebuild a second business organization with exactly the same structure as the first, out of the scrapped parts or assets. In fact, it is extremely misleading to insist on such narrow limitations to the problem with (e). The virtue of the Theseus problem is that it implicitly aims to be very clear that *all* the proper parts of the two ships are the same. For the proper parts include not only the individual planks and nails, but all the *substructures* as well, all the way up to (but not including) each whole ship (or firm) itself; and two ships (or firms) have all the same substructures if and only if they are built exactly the same way. But the ship of Theseus example fails even in this attempt, since all the *individual* planks and nails are different in the two ships; and this is the second problem with the ship of Theseus as a counterexample to (e). This is a problem with the toy box counterexamples as well, but the opposite problem- all the tinker toy *individual* parts will be the same, but the *substructures* will differ if different structures of any great complexity are built. The successful counterexamples to (e), then, will be of the tinker toy *sort*, but will use the same toy parts to build different structures *so simple that there are no substructures*. Thus the successful counterexamples to (e) will each involve only two parts. For building a structure with even three tinker toy parts A, B, and C will necessarily involve three substructures, AB, AC, and BC. All this is even easier to see in the case of firms, since (at least) the (current) legal rules for the identity of a firm require its temporal continuity. If we slowly replace all the human and nonhuman assets of firm F1 one by one over ten years, then organize all and only the discarded assets into a structurally identical firm, under the law this can only be a new firm, F2; and it is clearer than ever that (e) is false. I propose as the true principle,

(e*) If x and y have exactly the same proper parts at time t , then $x = y$ at t .

But (e*) (pronounced "e-star") is too trivial to be of any interest to us. All it says is that the same proper parts cannot be built into two different structures at the same time. And this is merely an instance of the principle that one thing (or one group of things) cannot

have different properties at the same time, for example, cannot be in different places at the same time. In short, (e*) is an instance of the trivial principle known as the indiscernibility of identicals.

Note that if (e) is falsified by any counterexample, then if (a)-(d) collectively imply (e), then at least one of (a)-(d) is falsified as well. We need not decide which one(s) for our purposes, but it might be objected that our exposition would not be complete until we offer an opinion, since they are all *prima facie* true, and therefore collectively constitute a *prima facie* objection to our claim that their consequent (e) is false. My quick answer is that (a) is trivially true as a version of self-identity, but (b)-(d) all need relativization to time *t* in the same way (e) does.

Mereological essentialism is "the view that a true individual can neither gain nor lose any parts" (Casati 1994: 225). We might try to paraphrase this as:

(f) Necessarily, if *x* and *y* do not have exactly the same proper parts, then *x* and *y* are not identical,

which is logically equivalent to its contrapositive,

(g) Necessarily, if $x = y$, then *x* and *y* have exactly the same proper parts.

Ignoring the sentential modal operator "Necessarily," (g) is the converse of (e). If we equate parts with properties, (e) emerges as the identity of indiscernibles, and (g) emerges as the indiscernibility of identicals. But perhaps that is an argument against paraphrasing mereological essentialism as (f) or (g). For the indiscernibility of identicals is generally held to be completely uncontroversial, and (f) and (g) seem uncontroversial in basically the same way the indiscernibility of identicals is; but mereological essentialism is highly controversial. A more immediate or literal paraphrase would be:

(h) Necessarily, if *x* gains or loses any part *y*, then *x* is not a true individual.

But (h) scarcely advances the analysis. Even the weasel word "true" remains. And without at least a semi-formal paraphrase, we cannot tell if mereological essentialism logically follows from principles (a)-(e); here I am ignoring the operator "Necessarily" again.

Mereological essentialism is a natural and reasonable extension of standard mereology. Indeed, it would be natural and reasonable to prefix each of principles (a)-(e) with the operator "Necessarily." For insofar as principles a-e are true, one would expect them to be necessarily true. They are not logically contingent empirical generalizations. Mereological essentialism was held by Peter Abelard, has been recently discussed by Roderick M. Chisholm, Alvin Plantinga, David Wiggins, and Peter Simons, and is basically the same as Saul A. Kripke's thesis that things have essential or "rigid" structures or constitutions (Casati 1994: 225). But the difference between mereological essentialism and standard mereology makes no difference here. If anything, the usual

criticism of standard mereology applies even more immediately and directly to mereological essentialism. To sum up, standard mereology and mereological essentialism apply to corporations only insofar as corporations are regarded as frozen worms in four-dimensional space-time, and they and their parts are identified only by their space-time coordinates. And this we normally do not do. But even if we do so regard them, as we often do in science, the usual criticism still applies. Quine says:

The reasons for taking...physical objects...spatiotemporally, and treating time on a par with space, are overwhelming [for science]. Let us...ponder...the opposition to the four-dimensional view; for it is a curiosity worth looking into. Part of the opposition is obvious misinterpretation: the notion that time is stopped, change is denied, and all is frozen eternally in a fourth dimension. These are the misgivings of unduly nervous folk who overestimate the power of words. Time as a fourth dimension is still time, and differences along the fourth dimension are still changes; they are merely treated more simply and efficiently than they otherwise might be. (Quine 1981: 10)

Obviously, the misinterpretation that things are *frozen* in four-dimensional space-time is essential to mereology, since otherwise things would be changing, and gaining or losing parts. The truth is that things gain and lose parts, and that viewing things four-dimensionally does not somehow magically change that fact.

One may detect the heavy hand of Plato behind mereological essentialism and Kripkean rigid identities. Namely, Plato holds that only what is timeless and unchangeable is genuinely real or knowable. For Plato, there is change or flux, but it is on the level of appearance or even illusion- barely real or knowable. One may also detect a heavy link between Plato and Leibniz's conception of an individual as unchangeably defined by the exact bundle of its properties.

4. Entity theory: ambiguities

The historical roots of the entity theory lie in the early modern, specifically late Renaissance, economy:

The wedding of the entity concept with the business practice of a joint stock company came about, at least in England, in a peculiar way. When the East India Company was chartered in 1601, the Royal Act provided that it should be a body corporate"....The term implied that the company would possess the legal capacities [of] municipal and religious bodies. It was not until sixty-odd years later, when the East India Company adopted the structure of a business corporation, with fixed capital and negotiable shares, that the legal [entity] conception of a corporation was united with the financial structure of a modern business corporation. (Conard 1976: 131)

This merely postpones the ontological question to municipal and religious bodies: In what sense are *they* entities?

Conard suggests defining "x is a legal entity" as meaning that x has a "bundle of rights, duties, powers, and immunities, distinct from those of any member or combination of members" of x, where x need not be a real entity (Conard 1976: 126).

On this definition, corporations are not the only legal entities. The reader of this book is not just a human being, but is also a legal entity, a legal person, in virtue of having a bundle of rights. However, the definition fails to capture other legal entities. A house is not just a physical artifact, but is a legal entity, a property owned by some person, in virtue of that person's having a bundle of rights concerning that house. This stretches the meaning of "has," since the person not the house has the rights. Here we might bring Aristotle's theory of *pros hen* meaning to the rescue. Aristotle says that while humans are said to be healthy in a literal sense, urine or a climate is said to be healthy not literally, but only in virtue of its significant relationship to healthy humans. Namely, healthy urine is that which is typically produced by healthy humans, and a healthy climate is one which tends to produce health in humans. Likewise, perhaps a house might be said to be a legal entity not literally, but only in virtue of its significant relationship to persons who have bundles of rights. The trouble with the rescue is that it is hard to see why houses should not be legal entities in the literal sense, much as corporations and human persons are. But perhaps the definition might be amended to say more generally that s is a legal entity if and only if x has a bundle of rights or is legally associated with something that has a bundle of rights.

A deeper problem is that since x need not be a real entity, the definition is not going to resolve the ontological question.

Still deeper questions go unanswered. What it is to have a bundle of rights? What is a bundle of rights? Indeed, what are rights? How does Conard know that something having a bundle of rights need not be a real entity?

On Conard's definition, if x is a real entity, as I assume x is in the case of people and houses, what is the relationship of the legal entity to the real entity? Conard would seem committed to saying that x is both a real entity and a legal entity. But does my legal entity merge with my real entity in the sense in which lawyers say a dollar bill is a legal instrument merged with a real piece of paper? If you burn a dollar bill, the legal entity is gone. But if you kill me, is my legal entity altogether gone? Is it, perhaps, replaced by another entity known as my estate? And how could we tell if such a merger were successful? Is this simply a matter of determining that x has (or is legally associated with something that has) a bundle of rights?

How does the distinction between de jure and de facto corporations come out on Conard's definition? It seems to me that the definition is de jure, not de facto. Suppose we attempt a judicial determination of whether x is a de facto corporation. Such a determination cannot be made by inspecting x to see if it has a bundle of rights. For the whole question is whether it is appropriate to assign x a bundle of rights in the first place. Thus there must be an independent test of corporate entity, and that test would be the de facto definition.

While holism versus methodological individualism "remains a live issue among philosophers and social scientists," and "holism may dominate" among social scientists, the entity theory of corporations was largely abandoned by legal scholars in the 1930s (Phillips 1994: 1963-64). This great divide is between two disciplines which are expressly truth-seeking and a third discipline which is concerned with practical, social, political, and economic policies as well as with truth. Philosophy aims at truth and understanding for their own sake. Social scientists aim at truth, understanding, prediction, and control. Lawyers aim at winning disputes, and judges aim at ending disputes as quickly, fairly, and efficiently as they can. This suggests that while many legal scholars no longer find entity theory useful for their purposes, entity theory remains intellectually as viable as ever. It is also important to note that despite this supposed revolution among legal scholars, entity theory is remains very much the law today. Thus there is a divide within the legal community. Arguably the really pragmatic people, legal practitioners, still find entity theory useful. Perhaps legal scholars are not best viewed as bringing down new light to ignorant and struggling legislatures.

5. Entity theory: traditional arguments

Phillips correctly rejects the old argument given by Harold Laski that corporations are real because we feel or perceive that they are real. Phillips observes that such evidence is unreliable because not all of us perceive corporations the same way, and that even among those to whom corporations do appear to be real entities, not all believe the appearance is veridical (Phillips 1994: 1101-2). Of course, it has long been noted that there is a perfectly ordinary sense in which "I see a table" implies "A table exists," but also another perfectly ordinary sense in which it does not, depending on the context. If the context is one of ordinary, everyday perception, the implication is valid. If the context is one of dream or hallucination, the implication is invalid. If I see a table in a dream, it may or may not be a table that is real. I may dream about a table that really exists in my home, or about a purely imaginary table; often we know the difference as simply given in the dream, but sometimes dreams are psychologically subtle about such things. But this is not our issue about corporations, since we may take it as given that the context of the question whether perceived corporations are real is one of ordinary, everyday perception. The issue is instead whether we perceive corporations at all. We see the buildings, the crates of durable goods, and the people selling them, but do we see the corporation? Do we even see the sale? Does a sale have a perceptible sale-like quality? (Compare Ryle: does a thief have a sensible thief-like quality?) The issue devolves to context. An exchange of a durable good for money can be a sale in one context but not in another, just as whether a removal of money from a home is a theft depending on the context. In the case of whether we perceive corporations to be real, the issue may devolve to analogies to other cases where we discern real patterns in complex situations. After all, there is a perfectly ordinary sense in which we say we saw a sale or a theft, or the sun rising over the horizon. But such analogical arguments, though often providing intellectual illumination, are rarely conclusive.

Phillips rejects an argument by Arthur Machen that a group of people is an entity distinct from its members because the group can remain the same while the membership

changes. Phillips notes that an aggregate theorist would respond that the group does change. Machen would reply that we do not think we have a new and different school just because a new student joins it. But the aggregate theorist would respond that this is only a casual and convenient way of thinking, and that "if forced to think the matter through, people would have to admit that the school's identity actually has changed" (Phillips 1994: 1104). This recalls our earlier question whether a whole is ever really distinct from its parts, since presumably a whole must cease to exist if its parts ceased to exist, i.e., if it had no parts. In my view, neither Phillips nor Machen has the full picture. For there are at least three distinct sub-senses within my sense (1) of "really distinct." Again, things are really distinct from each other in sense (1) if and only if (1) either can exist independently of the other *and* (2) each has the ontological status of a real being. But the distinction among the three sub-senses concerns only conjunct (1); in what follows, I shall simply assume that conjunct (2) always applies.

Now, there is a clear, ordinary sense in which we say a regiment, a corporation, or the rebuilt ship of Theseus continues to exist even if all its individual human members (or in the case of the ship, all its planks) are replaced one by one over time, and the original parts or members eventually cease to exist (die or are burned). And conversely, a regiment or corporation can be disbanded or disestablished during the lifetimes of all its original members, and similarly for a ship that is taken apart and not rebuilt. Thus in this sense, many wholes are really distinct from their parts; this specifically includes corporations and their parts. But there cannot be a real corporation that does not have *any* real members, or a real ship that does not have *any* timbers. This is on the face of it an equally clear sense, and a deeper sense. Consider the following three statements:

- A. Corporations (in general) logically cannot exist without (any) human constituents (at all). (Compare Aristotle on substances as composed of form and matter, where an ordinary thing usually has several levels of structure such that level $n + 1$ is the form or forms relative to and relating level n material parts, e.g. body to organs, organs to cells, cells to molecules, molecules to atoms.)
- B. This particular corporation logically could not exist exactly as it is, i.e., would not be exactly the corporation it is, if any of its human constituents were replaced (or altered in the slightest aspect). (Compare Leibniz on identity in or across possible worlds.)
- C. This particular corporation logically can continue to exist (over time) even if all its present human constituents are slowly replaced one by one, and it can be disestablished even if its present human constituents continue to exist (live). (Compare Thomas Reid and Bertrand Russell on army regiments.)

Where any particular corporation is specified, all three statements would appear to be true, and this implies that there are and must be three different senses of conjunct (1) of sense (1) of "real distinction." We may call sense (A) the general sense, sense (B) the strictly, perfectly, or totally identical sense, and sense (C) the merely durational sense, of logical dependence and of logical independence. I think it is self-evident that sense

(A) is the logically deepest sense, and sense (C) the logically shallowest. But what does all this mean for the question whether corporations exist? Do these senses trump each other in order of logical depth? Or will any of these three senses of conjunct (1) suffice to show that corporations are really distinct from each other parts, and are therefore real? Of course, we simply assumed conjunct (2) applies; but the real argument is that conjunct (1) implies conjunct (2). I mean the real argument is that if two things are really distinct from each other, then both are real entities, where the context is one of everyday life as opposed to dreams, hallucinations, or the like. The argument here is against conceptual irrealism, not against Descartes' dream hypothesis or the possibility of hallucinations. When people debate whether corporations are real, they are not debating whether corporations might be dreamed or hallucinated, but whether they have only conceptual or linguistic being. The issue is categorial, not of mere happenstance. It might happen that all corporations are hallucinated or dreamed, just as all pink elephants are hallucinated or dreamed. But pink elephants logically could exist, and no one who argues that corporations are fictions would concede that corporations logically could exist, though none actually happens to exist at the moment.

Senses (1)-(4) of "real distinction" described in Part One, section 3 of the present book, when mixed and matched with senses (A)-(C) of "real distinction" as just described, form a matrix of twelve senses of "real distinction" altogether. I shall not examine each of these twelve senses individually in the present book.

The main question, whether and in what sense corporations are real entities because they are really distinct from their parts, is a red herring on two counts. First, the same question could be raised in turn about their parts, since human beings and physical assets are complex wholes themselves, and those who reject the reality of corporations generally admit the reality of human beings and physical assets. Second and more deeply, the argument need not be corporations are really distinct from their parts, therefore corporations and their parts are real. The simpler and more direct argument would be, corporations are really distinct from *each other*, therefore corporations are real. (Again, the context is assumed to be one of everyday life as opposed to dreams or the like.) If some corporations are wholly distinct from, wholly independent from, each other, then how can their existence or identity be merely conceptual or linguistic? For if they are logically independent of each other, this very independence would be on its face independent of how we think or speak of corporations. I say some corporations because some corporations do overlap; there are parent-subsidiary relations and so on. An analogy may help. Some brick walls are wholly independent of each other; they may be located, for example, in different cities. Are they then not as independently real as their constituent bricks are? But then, since all brick walls would have the same kind of reality, even interlocking brick walls that share some of their bricks would be real.

Phillips rejects Sanford Schane's ordinary language argument that a corporation must be a single entity because we refer to it with the singular definite article. He says that all the argument shows is that we speak and think of corporations as if they were entities. Machen's argument shows no more than that either (Phillips 1994: 1105-6). This seems quite correct. We can easily refer to dreamed or hallucinated things, or to mere aggregates of things, with the singular definite article.

Phillips seems tentatively to endorse an argument by W. Jethro Brown in 1905. This is the argument that people behave differently in groups than they do as individuals. They modify each other's behavior and develop a group spirit or ethos. They do things as members of the group which they would not do as individuals. Therefore, the behavior of the group cannot be *explained* in terms of the individuals considered as individuals.

Phillips' rejection of the first three arguments as logically invalid seems correct. However, these three arguments, reconstrued as inductive arguments, do give some genuine likelihood to the existence of corporate entities. If corporations appear to be entities, and if we think and speak of them as entities, then there is a rebuttable *prima facie* case that they are entities. I might add that in my own phenomenology and epistemology, a mere object of perception or thought, if it seems to "be" a real thing, is evidence that there is a thing in itself to which the object of perception or thought corresponds, and which it in a certain sense 'is'. That is because I hold that it is a synthetic a priori truth that if something seems to me to be the case, then I have objective reason to believe that it is the case. My view is inspired by Roderick M. Chisholm's synthetic a priori principle that if a person P believes that H, then P has reason to believe that H (Chisholm 1966: 50-54).

But I do not see why the aggregate theorist cannot reply to Brown much as he would to Machen, that we may naturally think that the group is an entity affecting the behavior of each individual, but if we think it through, we will come to realize that they are all individually affecting each other's behavior, and can paraphrase talk of entity accordingly.

I tend to agree with the Brown-Phillips argument. But I would emphasize that the causal powers of a group are what behaviorally unify it into an entity. That is, the causal power of a corporation is due to its structure as a group as opposed to its individual members. I would also emphasize the naturalness of group power as establishing group entity through behavioral unification. Namely, it is so natural that it is pre-human. Many animals have complex social groups. This gives them not only survival power, but the power to flourish. Recall Plato's suggestion that existence is power. The proper analogies are to the strong unity of the atomic nucleus, the weak unity of the atom, electromagnetic unity, and weakest of all, gravitational unity. These are the four principal forms of causal unity of natural entities as we now understand nature. A social group such as a crew of astronauts can be more powerful than the gravitational unity of the earth, in that it can be powerful enough to leave the earth and visit the moon. And a corporation is theoretically more unified, theoretically more capable of holding together as one thing, than the earth itself, in that a corporation's existence theoretically could survive the demise of the earth.

This is an existence-identity connection: x is a corporate entity being if and only if x acts in a (i) legally authorized or at least legally recognized, (ii) causally unified, and (iii) typically corporate way. That is very different from Machen's saying that corporations are the same if they have the same constituents (people and assets), or from saying that corporations are the same if they are composed the same set of contracts. The basic difference is that my connection is modal and intensional, involving the

causal modalities (causal necessity, causal possibility), while Machen's connections are nonmodal and extensional (set membership). There is a modal aspect to Phillips' suggestion that a group is formed when the behavior of its members is sufficiently mutually causally modified, but this aspect needs to be made explicit.

One might object to my proposed definition of corporate entity in terms of corporate causal unity that I am defining only strong corporations, while some corporations are weak and inept. One reply would be that I am defining de facto corporations primarily and de jure corporations derivatively. Another reply would be that even weak corporations can be strong enough to meet my definition.

One might object that conjunctive clause (iii) of my definition makes the definition circular, since the word "corporate" occurs in it. But this is only an occurrence of laziness, and can be spelled out by the detailed formation requirements of an incorporation statute.

One might object that modalities are disreputable. They are hard to make sense of. My reply is that causality can be reductively explained without making my definition of a corporate entity reductive, i.e., methodologically individualist. The reduction of causation is not a reduction from a group to its individual members, but a reduction of one kind of relationship to another. There is still a relationship. Even Humeans can admit causally closed systems of interacting variables. They merely understand what causal interaction is in a different way from that of the ordinary person. I myself would argue for the probable reality of causation by an "inference to the best explanation" of how the world is. But if I were wrong, I could and would still admit corporate entity as unified corporate power.

Corporate entity as unified corporate power does not entail or even suggest real corporate personality, as if the corporation had itself to be a person in order to have corporate power above and beyond the sum of the powers of its human person constituents. Only the *naturalness* of its power derives from its natural person constituents' naturally forming a de facto group.

Of course, I would not go so far as to suggest that it is specifically essential to human nature to form capitalist corporations. I merely hold that generically speaking, man and many other animals are naturally social, and that in some circumstances this social nature is causally responsible in considerable measure for the formation of corporations by many humans.

6. The pragmatic, anti-theoretic phase from 1930 to 1980

In the 1930s, entity theory fell into disuse. This time the historical reason was not any change in the formation or structure of corporations themselves, but rather a change in how legal scholars thought and reasoned about corporations. This era owes much to a 1926 article by the great American pragmatic philosopher John Dewey, "The Historic Background of Corporate Legal Personality":

Dewey made two influential arguments. First, practical legal questions should be resolved by assessing the consequences of competing rules [of law], not by deduction of some theory of the corporation. Second, even if recourse to such theories were otherwise acceptable, they would not be useful to legal decision makers because any particular theory of the corporation usually has conflicting practical applications. (Phillips 1994: 1073)

Concerning the notion of a legal person, Dewey rejected the traditional sort of theoretical definition which aims to state what an already existing objective thing is, and advocated a pragmatic, i.e., operational or functional, sort of definition "which proceeds in terms of its consequences," so that "a thing is--is defined as--what it does, 'what-it-does' being stated in terms of specific effects extrinsically wrought in other things" (Phillips 1994: 1075, quoting Dewey).

Evidently, Dewey did not mean that a thing should be defined as the set or bundle of its consequences (Phillips 1994: 1075). Dewey admitted "that groups such as corporations have a real underlying social identity of their own" (Phillips 1994: 1075). "But to Dewey neither this underlying social reality, nor any other basis for abstractly defining corporations, should control lawmakers. Instead, he evidently thought the decision whether to treat something as a legal person should be governed by the consequences of so doing" (Phillips 1994: 1075). This is how Phillips resolves the tension he sees between Dewey's admitting groups as socially real, yet holding that "corporations are their consequences" (Phillips 1994: 1075).

This view is called "pragmatic instrumentalism" (Phillips 1994: 1076, quoting Robert Summers). "One of instrumentalism's central tenets is that because law is an instrument to serve chosen ends, a particular form of law must be justified by assessing its consequences to determine whether it advances those ends" (Phillips 1994: 1076). "In particular,...the existence of corporate personhood should depend on the circumstances" (Phillips 1994: 1076). "If these views are correct, the debate over theories of the corporation seems largely a waste of time. Although the debate may have intrinsic intellectual interest, to an instrumentalist it would have little bearing on the practical issues lawmakers face" (Phillips 1994). Pragmatic jurists such as Oliver Wendell Holmes unfortunately called pragmatic instrumentalism "legal realism," meaning that the law is just what is really done in legal practice.

The best way to understand Dewey is in light of his general theory of pragmatism. Dewey understands the truth of statements and the meanings of expressions to be functions of their publicly and socially observable consequences. He has no articulated theory of meaning, but roughly follows Peirce on meaning and James on truth. Dewey does *not* view statements asserting that certain items are real entities as reducing them to bundles of consequences, or as eliminating real entities. Instead, he views statements positing real entities as literally true just in case the consequences of regarding those statements as literally true had utility, i.e., had useful consequences. In this, Dewey follows Peirce. For example, both Peirce and Dewey admit real universals in the sense of scholastic realism, because both hold there is utility in admitting real universals. In fact, of the three great pragmatists, only James is a nominalist (Dejnožka 1995: 68, 74).

Pragmatism or instrumentalism is an anti-metaphysical theory insofar as that often there is no utility in admitting certain entities one might like to admit, and this trims down the kinds of entities one admits. But pragmatism *is* a metaphysical theory, and pragmatists *admit* ontological entities when there is utility in doing so. Certainly Peirce and Dewey are realists.

To that extent it is a mistake to see Dewey as part of a much larger anti-theoretical, anti-metaphysical movement. It is not so much instrumentalism and pragmatism, but rather positivism and empiricism, particularly logical positivism, sometimes called also logical empiricism, which have set the anti-realist tone of much of this century. Such ideal language philosophies were followed by even more anti-metaphysical ordinary language philosophies. All this helps explain why real entity was largely ignored for fifty years, and not just in legal studies, but pretty much across the board.

Applying Dewey's general theory of pragmatism as I have just expounded it, whether corporations are real entities depends on whether there is utility in admitting them as real entities. The only sense I can make of Dewey's saying that the question whether corporations are real entities has nothing to do with the utility of admitting them is that he admits two kinds of utility: the theoretical utility of admitting corporations as real entities in his ontology, and the legal utility of admitting corporations as legal entities in his philosophy of law.

Thus there seem to be two kinds of consequences in terms of which to measure the two kinds of utility: legal consequences and ontological consequences. And if these kinds of consequences drift too far apart, then the law will lose touch with ontological realities. I suspect that they do greatly diverge, since the law is concerned primarily with moral and social policy consequences, with which the natural sciences are not at all concerned.

Phillips offers three criticisms of instrumentalism. (i) It is hard to tell "good consequences from bad" (Phillips 1994: 1077). That is presumably because it is hard to tell good ends of the law from bad. Many instrumentalists simply make the ends of law a function of "prevailing wants and interests," with no elitist preferences of my wants and interests over yours. (ii) Instrumentalism is a consequentialist, typically utilitarian ethic. And utilitarianism is notorious for being problematic as a moral theory (Phillips 1078). (iii) If corporations *are* real persons in some sense, "then their wants and interests might be relevant factors" (Phillips 1994: 1079). In fact, to build on Phillips, it might be elitist to prefer individual human wants and interests over corporate wants and interests.

It seems to me that contemporary utilitarianism and its generic modernization, consequentialism, are sophisticated enough to handle Phillips' first two criticisms. Moreover, I see nothing very elitist about making moral pleasures intrinsically more valuable than other pleasures in the manner of John Stuart Mill. But I myself am neither a consequentialist nor a utilitarian. The argument I use against such views is the familiar one that consequences must be assessed in light of their consequences, so that there is a vicious regress of consequences.

Phillips' third criticism is brilliant. Here many instrumentalists are indeed begging the question against entity theory. They fail to take the advice of the elderly Parmenides to the young Socrates, always to think both sides of the question. In contrast, Phillips has seen how the serious entity theorist would naturally respond to the instrumentalist critique.

I would incorporate pragmatism into philosophy of law as follows. We may import from philosophy of science the distinction between contexts of discovery and contexts of justification. We discover our most basic principles empirically and pragmatically. But then we use them deductively to justify and explain what we do at lower levels. The deductive-nomological model of science, understood as applying only within the context of justification, is not as rigid and foolish as it looks. I suggest that this natural law model is helpful for organizing legal theory too, with the caveat that applying specific rules of law in particular cases is a practical art, not a deductive science.

Natural law theory has favored the idea of deducing legal applications from theories or basic principles. Certainly it is fair to ask where those principles come from in the first place, and to observe that they cannot be justified a priori, but only inductively or pragmatically, broadly speaking. But it would be an injustice to natural law theorists such as Joseph Story to suggest that they were foolishly unaware of all this. Story evolved his own principles from a careful empirical study of law. Such principles are really contingent generalizations. The value of legal theory is not in revealing eternal natural truths but in systematizing and unifying the law, and of explaining as much as possible the more specific in terms of the more general. Even a pragmatist should find great utility in such legal theory. And if the most useful legal theory posits corporations as entities, then pragmatists should be the last to complain.

7. Do theories of corporation have conflicting practical consequences?

I proceed to the second major argument in Dewey's paper. Dewey apparently thought that legal theories are indeterminate because they imply, or at least have been used to imply, contradictory practical conclusions. Phillips agrees with Morton Horwitz that Dewey's view is too extreme. Legal theories may not be perfectly determinate, but they are not completely vague either.

Horwitz argues that entity theory has at least six practical consequences or tendencies all favoring business's ability to grow:

- (1) It is a consequence of entity theory that the basis for regulating corporations must be found in corporations themselves, and not in their "creation by the state" as on concession/fiction theory (Phillips 1994: 1081, quoting Horwitz), and not in the creation of corporations by private agreements among individuals as on aggregate/partnership theory. Entity theory is unique in requiring us to distinguish what corporations are from how they came to be, in order to determine how best to regulate them.

- (2) The entity theory justifies greater central power for corporations. It favors the theory that there are a few main controllers, while the aggregate theory tends to legitimize the many individual shareholders as the main players.
- (3) Entity theory helps justify requiring merely a majority vote of shareholders to approve mergers and consolidations, while the aggregate theory tends to justify requiring a unanimous vote. Thus entity theory greatly promotes effective action. In contrast, centuries ago Poland withered because the Polish Diet required a unanimous vote of thousands of nobles for any state action. The vote was almost never obtained. The result was that Poland was carved up among its neighbors and ceased to be a political entity until after World War I.
- (4) Entity theory helps shield shareholder liability. "By postulating an independent entity, [the theory] forced people to distinguish that entity's liability from the personal liability of shareholders" (Phillips 1994: 1083-84). Aggregate theory has no entity to do this, and concession/fiction theory has only a fictitious entity to do it. "It is not immediately obvious how a nonexistent entity can be completely liable for its obligations" (Phillips 1994: 1084). Shielding shareholders from liability from creditors, tort victims, and other aggrieved parties is the single biggest factor promoting investment in corporations.
- (5) Entity theory helped end the ultra vires rule, which is roughly that it is unlawful for a corporation to perform any act or kind of act which is not specifically authorized by the state charter creating it. This distinguishes entity theory from concession theory. Even aggregate theory slows down corporate efforts to do anything not specifically permitted by the charter, because aggregate theory requires unanimous shareholder consent to any significant new corporate actions (Phillips 1994: 1084-85, slightly modified). Corporate entities, so to speak, have lives of their own. They grow and develop and change. Such flexibility promotes responsiveness to markets.
- (6) Entity theory helps the free mobility of corporations to do business in other states and in other nations. On concession theory corporations "simply are creatures of [local] state law" and need not be recognized by other states (Phillips 1994: 1085). There is no such problem "if corporations are viewed as naturally occurring entities with their own inherent reality" (Phillips 1994: 1085). However, Phillips seems to say that the aggregate theory helps free mobility equally well, since it too views corporations as not being mere creatures of local state law.

Horwitz's drawing of six consistently pro-business consequences from entity theory is plausible. Mark Hager plausibly draws two further consequences from the same theory which are supposedly anti-business:

One is the theory's potential to justify corporate criminal (and tort) liability. The other is its ability to create institutions between an increasingly powerful government and an atomized mass of individuals.... (Phillips 1994: 1086).

As I see it, the first is only anti-business wrongdoers, and the second assigns a vital buffer role to businesses. I omit several other suggestions of Hager that supposedly go against Horwitz (Phillips 1994: 1086-87).

My criticism is that the eight consequences are better drawn not from the entity theory, but from strong corporations regardless of our ontology. This is not just a tacit equation of existence with power, but of philosophical entity with degree of ordinary, pre-philosophical power. The entity theory may be more natural and illuminating, or at least more convenient, for stating these consequences, but for all that it is a non sequitur to infer entityhood from degree of pre-philosophical strength. Many of the consequences are mere historical accidents of the development of entity theory.

Phillips says the consequences Horwitz and Hager draw from entity theory only seem to conflict. Taken together, all eight consequences portray corporations as complex entities with "drives and interests that deserve recognition, and with social functions and responsibilities that they must fulfill" (Phillips 1994: 1087). This "undermines Dewey's [second] argument and supports Phillips' own view that if corporations are real entities, "then their drives, interests, and duties are factors the law ought to consider in some contexts" (Phillips 1994: 1087).

This second argument of Dewey's is contingent on the existence of conflicting practical applications. Dewey proves no *a priori* metaphysical antinomies of the corporation. All eight consequences are logically compatible. There is no logical contradiction in attributing Horwitz's six and Hager's two consequences to admitting one and the same corporate entity.

On the whole-part theory of logical deduction, if a theory implies a contradiction, then the contradiction must already exist within the theory. That is, only an internally inconsistent theory has inconsistent deductive consequences. But Dewey is not talking about that. He is talking about legal theories as being so vague they can be manipulated. But if theories of corporation are too indeterminate in their practical consequences, perhaps they should be improved and made more determinate. There are precisising techniques to take care of vagueness.

The criticism that legal theories are so vague they allow of manipulation, if applied to entity theory and fiction theory, should be examined in light of an essential distinction between scientific and philosophical theories. A classical example of an ostensibly scientific theory accused of manipulability is Freudian psychology. The very fact that Freud had an answer to every empirical objection suggests that Freud was manipulating his theory to interpret any empirical fact. In short, the problem was that Freud's theory was evidently not falsifiable by possible empirical evidence, and was therefore not part of empirical science. While it is the mark of an adequate scientific theory that some possible experience *should* be able to clash with it, following Karl Popper on

emphasizing falsifiability is not necessary here; we may follow those who require that it must be possible for experience to confirm *or* falsify a scientific theory. This concerns theoretical scientific utility. But we must consider the kind of theory we are talking about. It is a mark of an adequate philosophical theory that *no* possible experience can clash with it, since it should be able to interpret and accommodate all possible experience. Perhaps going against the great pragmatists, that *is* precisely the utility of a philosophical theory: it gives a comprehensive interpretation of all possible experience. Now, entity theory is arguably more like a philosophical theory than like a scientific one. Granted, even philosophical theories of entity can be too vague and too manipulable. But is that really the case here? Is that what the clash between Horwitz and Hager shows? I think not. And if it is, we have seven more precise versions of entity theory to choose among (see section 4).

What is the proper relationship between a legal theory and its practical consequences? What kinds of theories should have primarily theoretical consequences and which kinds should have primarily practical ones? Are legal theories primarily meant to give philosophical understanding, or are they primarily meant to give practical guidance? Perhaps we should make up our minds as to what kind of theory we want legal theories of corporation to be before we start complaining about what kinds of consequences we can draw from them. Much the same question arises for political, social, or ethical theories.

If pragmatic or policy inconsistencies are all Dewey has in mind, then you may as well deny that human beings are real entities. For what is more pragmatically inconsistent or policy inconsistent than a human being?

If all theories of corporations had conflicting consequences, this would not single out entity theory as the worst. Therefore, before we condemn entity theory on the basis of its consequences, we ought first to compare it to the other theories on that score. In particular, we can simply invert the eight consequences of entity theory and achieve the same amount of conflict as before; I omit working out the details here. However, this would operate to condemn theorizing about corporations in general, which would be just as bad for the entity theory.

8. The nexus of contracts theory

In the 1980s, after some fifty years of virtually no theorizing about corporations, the nexus of contracts theory appeared. According to this theory, "a corporation is a set of contracts among the firm's participants" (Phillips 1994: 1963-64). This is a form of aggregate theory in which contracts are aggregated together, or perhaps contracts and contractors. No entity is admitted above and beyond such corporate constituents, and no form of corporate organicism is admitted. The contracts may be negotiated, court-implied, statutorily implied, or contracts of adhesion (take-it-or-leave-it "form" contracts with no bargaining). The articles of incorporation provide the basic contractual relationships (Phillips 1994: 1070-73):

From this it follows that various classes of people are parties to the contracts that form the corporation.... Some accounts emphasize such important corporate actors as shareholders and managers. Others identify employees and creditors, while still others add suppliers, bondholders, and customers. As the inclusion of these groups suggests, to nexus of contracts theorists the "corporation" has no precise boundaries. (Phillips 1994: 1073)

The parties thus fall into various classes, and may be either human beings or "rational utility maximizers of economic theory," who are abstract functor-entities such as "stockholders" and "directors" (Phillips 1994: 1073).

Even aside from the question of vague boundaries, it is not clear on nexus theory what the basic constituents of a corporation should be. Is a corporation (i) an aggregate of *contracts*, (ii) an aggregate of *individuals* who enter contracts, (iii) an aggregate of contractual *relations*, (iv) or an aggregate of what some philosophers would call relational facts, i.e., individuals' *standing in* certain corporate relationships? The theory seems by its very name committed to option (i). Option (ii) is ordinary aggregate theory. And options (iii) and (iv) do not seem considered at all. Yet option (iv) would give the fullest description of a corporation. A mere list of contracts, of individuals, or even of relations, does not tell us how the world is. To describe how the world is, you have to state which things stand in which relations. A complete list of all the things and relations there are would not give us any idea of how things are related in the world. The point is due to Wittgenstein's *Tractatus Logico-Philosophicus*.

Another way to put it is that the theory treats articles of incorporation as basic. And that is enough to make the individuals fall into certain classes. But not enough is being said about the hierarchic organizational unity of the contractual relationships. For a corporation is not a mere set or heap of contracts, not really an aggregate at all. The possibility that nexus of contracts theory is a form of complex entity theory is ruled out much too quickly. How real are contractual relationships? How real are contractual relational facts? Perhaps they are often more stable and durable than the individuals who enter into them.

But it is hard to assess the reality of corporations on nexus of contracts theory prior to assessing the reality of their constituents. And it is not clear who or what the constituents are. We may assume human beings are real enough. But how real is *homo economicus*, the rational utility maximizer? Besides human beings and rational utility maximizers, a third candidate might be corporate offices that human beings can hold. But how real are corporate offices? Is economics a hard enough science that rational utility maximizers and offices are probably as real as gluons and muons?

Even worse, a set of contracts just does not have the properties of a corporation. A corporation can purchase a building or start a lawsuit. Can a set of contracts purchase a building or start a lawsuit? Can a set of contracts even be incorporated in the first place? If not, then the question devolves to whether talk of corporations can be paraphrased into talk of contracts, and if it can be, how much this really explains.

Another question is whether nexus theory is legal or economic. Theoretical reasoning about the economic life of corporations should not be confused with theoretical reasoning about the legal *or* the ontological status of corporations. To identify economic theory with legal theory or with ontology, you would have to justify an ancillary theory that economic realities are legal realities, or that economic realities are ontological realities. Perhaps many economic realities can be made legal realities. But the ontology of economics is a difficult subject. What is the ontological status of money, if its economic value is "merged" with the paper it is printed on? It seems to me that some economic values are terribly abstract, yet logically contingent items. Consider the axis of the earth. It is an abstract line, yet its existence is logically contingent on the existence of the earth. But economic values are not much like the axis of the earth. Does the axis merge with the earth in the way the value of one dollar merges with a piece of paper? Does the economic value of food and water merge with the food and water? There seems to be a distinction in reason between things and their economic values. But there are three sorts of distinction in reason here. If consciousness ceased to exist, (1) both the earth and its axis would continue to exist; (2) the water would continue to exist but its economic value would cease to exist; but (3) both corporations and their actor-constituents would arguably cease to exist. This indicates that the ontology of economics is different from the ontology of corporations, and that both are different from the ontology of physics.

9. The explanatory power of nexus of contracts theory

Phillips notes that the eight practical consequences of entity theory drawn by Horwitz and Hager were very important in the first twenty years of this century, but are not vital concerns today, precisely because corporations have already changed in all eight ways. Phillips suggests that nexus theory can justify the six factors Horwitz mentions as well as entity theory can. To make a long story short, all six pro-business factors "benefit the firm economically and...for this reason rational contracting parties would accept [and promote] them" (Phillips 1994: 1089). However, nexus of contracts theory fails to justify the two practical moral consequences Hager draws, or at least no nexus theorist has yet succeeded in doing so (Phillips 1994: 1089).

This attribution of explanatory power to nexus theory seems disingenuous to me. The explanatory power comes not from nexus theory as such, i.e., not from viewing a corporation as a set of contracts, but from regarding the individual constituents of a corporation as rational self-interested *homo economicus* instead of often nonrational *homo sapiens sapiens*. Indeed, pure aggregate theory should have the same explanatory power.

I disagree on the moral consequences as well. It is not just rational to be moral, it is economically rational to be rational in the long run. A corporation's admitting its own criminal or tort liability and taking quick steps to correct itself can be economically rational even in the short run, since punishments tend to be lighter and litigation cheaper. Business "good will," which is in part an indefinable moral attitude, and pure moral intangibles as trust, loyalty, and reputation, all can make or break a business. And

on any theory, using big corporations as a buffer between the people and the overbearing national government which will "enable people to resist government power and provide them with meaningful opportunities for democratic participation," and even justify the existence of labor unions and increased government regulation (Phillips 1994: 1086, 1089), can be economically rational as well as morally rational. States with all-powerful central control over atomized masses do not do well economically. To make a long story short, both moral factors "benefit the firm economically and...for this reason rational contracting parties would accept [and promote] them" (Phillips 1994: 1089). Indeed, pure aggregate theory should be able to justify Hager's moral consequences just as well as nexus theory.

One might mention Adam Smith's invisible hand theory here. That is the theory that self-interested business actions promote the well-being of society in the long run, as if the acts were guided by an invisible and beneficial hand. This speaks to moral utility.

I conclude that insofar as morality is economically beneficial, entity theory, nexus theory, and aggregate theory alike should be able to explain all eight factors. Some other ground for preferring one theory over the others would have to be found. But I agree with tradition in thinking that morality sometimes calls for going against economic interest, and here entity theory would best be able to justify corporate morality, unless perhaps we replace *homo economicus* with highly moral people. But that is not so much justifying the corporation as it is stuffing it full of virtuous constituents.

10. Which theory best explains corporate moral responsibility?

Phillips provides in effect a deep theoretical reason why nexus theory might not promote corporate moral responsibility. Namely, a corporation is a set of contracts. And contracts come under freedom of contract theory. Contracts "ought to be free from government regulation in general, and from corporate law's strictures in particular" (Phillips 1994: 1091, citing Jeffrey Gordon). In particular, the "basic" contract forming the de facto corporation is that among the shareholders, and their freedom of contract should carry no social responsibilities to other human constituents of corporations such as the employees or customers or the local community (I modify Phillips slightly). A second and perhaps deeper theoretical reason is that nexus theory is a form of aggregate theory, and on aggregate theory a corporation is but a fiction, and a fiction cannot have any moral responsibilities (Phillips 1994: 1091, citing Daniel Fischel).

For these theoretical reasons, nexus theorists favor the abolition of mandatory corporate laws and laws protecting against hostile takeovers, due respectively to their insistence on freedom of contract and on the freedom and economic self-interest of the basic contracting parties--the directors, officers, employees, and shareholders (Phillips 1994: 1093-94).

Phillips concludes that the key to the debate between entity theory and aggregate theory is moral responsibility: "the most important contemporary implication of the real entity theory's validity is the possibility that corporations have moral duties that sometimes conflict with the contractualist agenda" (Phillips 1994: 1094).

Phillips notes that to have literal moral responsibilities, it is not enough that a corporation be a real entity. We need to "consider whether corporations are the types of real entities that can have moral obligations," specifically whether they are "sufficiently like natural persons to have such obligations" (Phillips 1994: 1096, criticizing E. Merrick Dodd, Jr.).

Phillips finds at least two specific moral conflicts between entity theory and nexus theory. First, on entity theory one's duty is to the entity, not to the shareholders. Thus an entity theorist may have a moral obligation to fight hostile takeovers and protect the entity where a nexus or other aggregate theorist might consider only the benefit to shareholders and sell out. Second and more deeply concerning takeovers, the reason one's duty is to the entity is in part that the entity itself has a moral right to life, and to have its interests considered (Phillips 1994: 1097).

My initial objection to Phillips is that as I explained at the beginning of this book, we must investigate the ontology of corporations without regard for the moral consequences. As the saying goes, one philosopher's *modus ponens* is another philosopher's *modus tollens*. If nexus theory precludes certain kinds of corporate responsibility, a corporate moralist may reject nexus theory. But a determined nexus theorist can just as easily reject those kinds of corporate responsibility.

Phillips' argument invites a conflict between two principles deeply rooted in philosophical tradition. The first principle is very old, going back to Plato and Parmenides: nothing, so to speak, can have no properties. Only entities can have properties. Insofar as a moral responsibility is a property, only an entity can have this property. Thus if corporations have moral responsibilities, it seems logically entailed that they are entities. The second principle is more recent. It is David Hume's principle that you cannot derive an ought from an is. Thus you cannot derive moral obligations from the fact that a corporation is an entity or is even a person. The conflict is not a logically strict one. We can consistently hold both that only entities can be morally responsible and that their moral responsibilities cannot be logically derived from their nature or existence. But the conflict is really that Hume's principle, deeply understood, so severs fact from value that we cannot make even being an entity a logical prerequisite of the possibility of moral responsibility. The world logically can be full of entities but devoid of moral responsibilities.

The conflict can be defused by weakening the Plato-Parmenides principle. The weakness of that principle is that any adequate philosophy will account for all the appearances, including moral appearances. A realist theory will posit a real entity which can really have the properties in question. A reductionist theory or an eliminative theory will endeavor to explain the appearance that there is something that has the properties in question. For instance we can say that the positive integers are mathematical entities, or

we can reduce them to classes of classes which are purely logical entities á la Frege, or we can eliminate them as fictions by defining them as classes of classes and holding that classes are fictions á la Russell. On all three theories, it will be true that the number two is even. On the realist theory there is a real number two which is literally even. On the reductionist theory there is a class of classes, a logical object, which cannot literally be said to be even or odd. But we can define evenness in purely logical terms, so that the statement "Two is even" is just as true on the reductionist theory as it is on the realist theory. Similarly on the eliminative theory. Thus if the nexus or aggregate theorist gives an otherwise adequate analysis of corporations as consisting of contracts or of individuals, then the theorist may be able to explain the appearance of corporate moral responsibility, i.e. adequately paraphrase talk of moral responsibility, as well.

The result is to undermine the Plato-Parmenides principle. The principle remains true in that only entities can literally have properties. But now we cannot say that the number two must be an entity just because it is true that the number two is even. That will be just as true if the number two is a logical fiction.

Like the arithmetical property of evenness, moral properties are abstract. They cannot be heard, seen, felt, tasted, or smelled. There is no empirical argument to be made for their reality, so as to save them from being reduced or eliminated. This is so even though we can learn of mutable moral properties of human beings only through empirical experience. We can learn of arithmetical properties only through the empirical experience of counting.

I have not actually given a reductionist or eliminative definition of corporate moral responsibility in the way Frege or Russell does for the evenness of the number two. I am merely pointing out the consequences if such a definition were successfully given.

The conflict can also be defused by weakening the Humean principle. In fact, I reject Hume's principle as false. I cannot give the full argument here (Dejnožka 1992). I think that in some sense moral properties can be and indeed must be grounded in the nature of things, even if that is not provable deductively. I think that only persons who are free to choose actions can be morally responsible in a literal sense. Again, that does not preclude reductionism or elimination. For instance, even if I assayed human beings as ontological fictions, say as series of events, I could still argue that the ordinary language statement "Human beings are morally responsible" is true, if I could appropriately paraphrase that statement so as to save the moral appearances.

Therefore, Phillips' attempts to show that only entity theory can explain corporate morality are far from decisive, though certainly they are intuitively plausible in a general sense and follow the literature quite faithfully. Phillips is well aware of this indecisiveness, though for less theoretical reasons. He says, "Historically, there seem to be few clear links between the real entity theory and the emergence of corporate rights" (Phillips 1994: 1098). He notes that many of these rights were acquired during the 1930-80 period when the entity theory was dormant:

For example, the corporate free speech right recognized in *First National Bank of Boston v. Bellotti* was not based on the notion that corporations are real entities with expressive interests the constitution must recognize. Instead, the main rationale was instrumental: if the marketplace of ideas is to function properly, corporations cannot be excluded from participating. (Phillips 1994: 1098; Joseph Vining suggests that *Bellotti* is more complex than Phillips makes it out to be)

Indeed, the easy way out for the fiction and aggregate theories is simply to rely on instrumental or policy reasons to ascribe rights and responsibilities to corporations. Even if corporations are not morally responsible, that does not preclude our *holding* corporations responsible for policy reasons. That is so even if attempts at reduction or elimination fail to save the moral appearances. But there may also be ways they can save the appearances of moral rights and responsibilities.

11. Linguistic analysis of the word "corporation"

After a lucid and praiseworthy exposition of the corporation as discussed in Supreme Court decisions through American history (Schane 1987: 563-92), the linguist Sanford Schane proceeds to give the best linguistic analysis of the word "corporation" I have found.

As we saw, Phillips rejects Schane's analysis as showing merely how we speak and think about corporations (Phillips 1994: 1105-6). My comment was that this is still *evidence* for what corporations are. However, Schane is on stronger ground than that. Namely, Schane's linguistic analysis aims at revealing the underlying categorial structure of things. Schane is cautious in asserting this aim. But to rush in where Schane fears to tread, let us speak of the Analytic Assumption that Schane's sort of linguistic analysis of categories reflects true metaphysical categories.

To adapt to Schane's terminology, we will now speak of the concession/fiction theory as the "creature theory," of the aggregate theory as the "group theory," and of the real entity theory as the "person theory" (Schane 1987: 609 n.8; Schane omits discussion of impersonal corporate entity theory).

Schane distinguishes between two ways to develop new uses of words from old uses. First, we can take an ordinary word and use it in a new technical way which need have no resemblance to the ordinary use. That is how Dewey views talk of corporations as persons. Dewey says:

In saying that 'person' might legally mean whatever the law makes it mean, I am trying to say that 'person' might be used simply as a synonym for a right-and-duty-bearing-unit. Any such unit would be a person; such a statement...would convey no implications....What 'person' signifies in popular speech, or in psychology, or in philosophy or morals, would be as irrelevant...as it would be to argue that because a wine is called 'dry', it has the properties of dry solids.... (Schane 1987: 593, quoting Dewey)

In contrast, Machen sees corporations as called persons in a metaphorical use of language due to the analogy or resemblance between corporations and human persons. That is the second way to find a new use for an old word. Here Schane supports Machen over Dewey because the courts "pondered painfully" over the "striking similarity between the rights and duties of corporations and those of real persons," and that would make little sense if talk of corporations as persons were an arbitrary stipulation (Schane 1987: 594).

Schane describes four kinds of nouns--mythical, human, collective, and institutional--as follows:

Table I

Types of nouns

Mythical.....Human.....Collective.....Institutional

mermaid.....chairman.....committee.....corporation

unicorn.....teacher.....faculty.....Harvard University

Pegasus.....juror.....jury.....Supreme Court

angel.....priest.....clergy.....Catholic Church

centaur.....player.....team.....sporting industry (Schane 1987: 595)

Our aim is to see which of the first three types of nouns the fourth type, institutional nouns, are the closest to, in terms of relationships the various types of nouns can or cannot enter into, as expressed by verbs or predicates. We will be looking at both singular-plural agreement and semantic compatibility. Examples of semantic incompatibility include both "The President took place at twelve noon," which uses a temporal verb to describe something that is not an event, and "The dish ran away with the spoon," which attributes animate activity to an inanimate, object, which is permissible only in contexts such as fairy tales or poems (Schane 1987: 596, 609 n.99).

Human nouns are the paradigmatic nouns for persons. The verbs that go with them divide into three types: physiological, cognitive, and activity, as follows:

Table II

Types of Verbs

Physiological: eat, sleep, run; dine, take a siesta, jog.

Cognitive: think, know, realize, doubt, hear, see feel; announce, say, claim, ask.

Activity: read, watch TV, build a house, make a phone call; play chess, cook, vote. (Schane 1987: 597)

Our initial task is to see how compatible these three types of verbal expressions are with the other noun types: mythical, collective, and institutional.

As to mythical nouns, all three types of verbal expressions apply literally to, say, mermaids. Mermaids swim, think, and play games. The reason is that mermaids are animate, "or, to put this another way, if they were to exist in our world, they could also perform these same actions" (Schane 1987: 563). In contrast, to say that an automatic teller machine gobbled up my card or that my car has been misbehaving is not to speak literally. Cars and teller machines are not mythical, but they are not animate, and that is what counts (Schane 1987: 563).

As to collective nouns, either singular or plural verbal uses are appropriate, since a group can be treated either as one group or as many members. "What is significant about collective nouns is that they denote groups of like persons" (Schane 1987: 599). That is why any of the three types of verbs can be applied to collective nouns in either a singular or a plural form. Examples of all three verbal types in the plural form include:

(11)a. The faculty ate lunch.

(11)b. The faculty thought that the students would protest.

(11)c. The faculty signed a contract with the union. (Schane 1987: 600-1)

As to *singular* institutional nouns, Schane says, plural verb forms, pronouns, and adverbials cannot apply. We cannot correctly say, "The corporation have aligned themselves with labor" or "There is dissension among IBM" (Schane 1987: 601). Further, physiological verbs cannot literally apply to institutional nouns:

Whereas the sentences of (13) are perfectly natural,

(13)a. The team ate lunch.

(13)b. The jury took a walk.

(13)c. The faculty slept through the meeting.

those of (14) are decidedly bizarre:

(14)a. [The university at] Berkeley ate lunch.

(14)b. Harvard [University] took a walk.

(14)c. Toyota [Corporation] slept though the meeting. (Schane 1987: 602)

The suggestion is not merely that "institutions, understood as entities, simply do not have the physiology of humans" (Schane 1987: 602). It is that, despite all the physical assets they own, rent, or borrow, they themselves do not have bodies at all (here perhaps I go beyond Schane).

Physiological verbs can be applied to institutional nouns only metaphorically, as in "The giant corporation gobbled up the smaller companies," or metonymically, i.e. representationally, as in "Berkeley ate lunch at noon," meaning its representatives were scheduled to eat then, or "Toyota slept through the meeting," meaning its representative slept through it (Schane 1987:602).

In contrast, cognitive verbs can be literally applied to institutional nouns. There is nothing wrong with:

(16)a. Ford denied that the Pinto was a death trap.

(16)b. Princeton announced that it planned to raise fees....(Schane 1987: 603)

No "special readings" in "special settings" are needed, as opposed to the metaphorical or metonymical readings needed to apply physiological verbs to institutional nouns.

Last, only some of the activity verbs applicable to human nouns or collective nouns are applicable to institutional nouns. John Smith, the clergy of a certain church, and IBM can all be said to sign a contract, to sell some shares of stock, or to send a representative to lobby Congress. But only Smith and the clergy can be said to play chess. IBM cannot be said to play chess (Schane 1987: 604; "play chess" is a poor example of a personal activity verb, since impersonal machines can play chess quite well).

You can say, "General Motors voted for Reagan in the last election," meaning metonymically that most of its employees did. But if the Supreme Court were to rule that as person and citizen, General Motors could also cast its own ballot, then the sentence could be taken literally. In that case, since the employees retain their own votes, the sentence could be used either metonymically or literally. And the corporation's own vote could be different from that of most of its employees (Schane 1987: 605).

The semantic compatibility of so many cognitive and activity verbs with institutional nouns obviously favors the person theory of corporations.

We now return to the dispute between Dewey and Machen. Here Schane adds something to the distinction between stipulative-pragmatic new uses of old words and metaphorical-analogous new uses. Namely, there is a sub-distinction between live metaphors and dead metaphors. A live metaphor is one still treated as having a figurative meaning. A dead metaphor is one that "was once live, but is no longer perceived as such. Present-day speakers take its meaning to be one of the literal senses of the word, and standard dictionaries usually cite the meaning in this way also" (Schane 1987: 605). The last linguistic hope of the creature and group theories is

that applications of cognitive and activity verbs to institutional nouns are only as dead metaphors, and that so applied, such verbs not only have different literal meanings from the meanings they have when applied to human nouns, but there is not even a significant analogy to those latter meanings.

Schane's considered position is that cognitive verbs and many but not all action verbs are applied neither metaphorically nor metonymically to institutional nouns, but literally, and in the same sense in which they apply to human nouns. They are not even dead metaphors. On the strength of Schane's analysis, there is simply no difference in literal meaning between a human being's "signing a contract" and a corporation's "signing a contract," not even an exhumable metaphorical difference.

Schane now reveals that "some of the features of the mythical, collective, and institutional categories turn out to be uncannily similar to attributes from the creature, group, and person theories, respectively" (Schane 1987: 606).

Both mermaids and corporations on the creature (fiction) theory "refer to artificial entities, whose physical, mental, and social traits are bestowed on them in their creation" (Schane 1987: 606). But the institutional noun "corporation" does not belong to the class of mythical nouns:

First, mythical nouns, because they depict animate entities, can have physical characteristics literally attributed to them, but institutional nouns cannot. [Institutional nouns require that physiological verbs] be interpreted metaphorically or metonymically. Second, the entities denoted by mythical nouns may have restricted mental capacity, so that the nouns referring to such entities would not occur with all cognitive verbs. Institutional nouns, on the other hand, take the full gamut of cognitive verbs. (Schane 1987: 606-7)

This indicates that the creature theory is categorially wrong. Nor do institutional nouns such as "corporation" belong to the class of collective nouns, indicating that the group theory is categorially wrong as well:

First, a singular collective noun can trigger either singular or plural number agreement depending on whether it refers to the group or its members, but an institutional noun does not allow dual number; it denotes uniquely the corporate entity. Second, because collectives denote persons, any physiological, cognitive, or activity verb that can be applied appropriately to the individuals can be applied as well to the group as a unit. Institutional nouns, on the other hand, do not exhibit literal interpretations with physiological verbs, nor with the full range of activity verbs that occur with collective nouns. (Schane 1987: 607)

Thus the linguistic analysis supports Machen against Dewey:

The linguistic investigation leads to the conclusion that nouns such as 'corporation' occupy their own special class. Institutional nouns have unique properties....So far as language is concerned, institutions do not have bodies--they

indeed are incorporeal and intangible--but they certainly do have minds. They think and they feel and they say. Next, there are many activity verbs that are compatible with, and literally applicable to, institutional nouns, so that, linguistically, the institutions are viewed as competent to perform the designated acts. To be sure, language does not regard institutions as fully human, but it does impute important human characteristics of them--mentalities and the ability to pursue social activities. As a consequence, language treats the ensuing thoughts and actions as belonging to the institutions themselves--and not to the hidden members. This perspective from language turns out to be most congenial to the person theory of corporate personality. (Schane 1987: 607)

Schane applies this conclusion to the issue of corporate moral responsibility:

We are also in a better position to understand Machen's other statement that, in the appropriate circumstances, we can imagine corporations to be guilty of fraud or malice. Verbal expressions pertaining to fraud or malice in our analysis would be included among activity verbs, and many of these, too, are compatible with institutional nouns, provided that we view the institutions as competent to perform the designated acts. (Schane 1987: 608)

While the historically very earliest description of corporations as persons was metaphorical, as even Machen admits, the analogy between human nouns and institutional nouns such as "corporation" is so great and "deeply embedded within the structure of language" that all cognitive verbs and many activity verbs are now applied literally in the same sense to both classes of nouns.

I proceed to evaluate Schane's argument.

The whole Phillips-Schane dispute about the soundness of Schane's argument that corporations are entities, specifically incorporeal persons, concerns the truth of what may be called Schane's Analytic Assumption that linguistic analysis reveals metaphysical categories. I think the test for that is simply to rewrite the analysis using the material mode of speech (object language) instead of the formal mode of speech (meta-language). That is, wherever Schane speaks of applying verbs to institutional nouns, we will speak of applying properties or features to institutions.

Categorial analysis of Schane's sort arguably reveals what corporations are only in the sense of revealing what category they would they belong to if they did exist as entities. And that is compatible with the creature or group theories, which hold that corporations do not exist as entities. Talk of corporations, even though it carries all the implications Schane says it does, might still be better reduced to talk of groups. The reason might simply be that corporations are not entities. The institutional noun "corporation" may *behave* exactly as Schane says it does, and it may therefore express the *sense* Schane thinks it does. But the important ontological question is whether the noun *refers* to anything. Our argument that it does not might simply be that the very notion of an incorporeal being which can socially act is absurd. Schane's talk of "literal meaning" is hopelessly ambiguous. There is an ordinary distinction between literal sense

(connotation) and literal reference (denotation); no commitment to Fregean metaphysics is implied. The behavior of a word determines only its sense, so far as Schane's argument goes. We may assume with Schane that jurors exist and mermaids do not. But to assume that corporations exist merely because of various similarities or dissimilarities of verbal behavior is to beg the question.

The ontological question devolves in part to whether the properties Schane's analysis imputes to corporations can be successfully analyzed in terms of properties of groups. The rest of the ontological question would concern the nature of analysis: would it reduce corporations to their constituents, eliminate them as fictions, or establish their existence as complex defined entities?

I would not allow corporate nouns access to cognitive verbs across the board as Schane does. Can corporations daydream or hallucinate? They can feel that the time is right to merge, but can they feel a toothache? This increases the differences between human nouns and collective nouns on the one hand, and institutional nouns on the other. Perhaps a group of jurors cannot feel a toothache, but they can see the sun rise and can experience a mass hallucination. A harder question is whether we would allow access to the most highly generic cognitive verbs in the absence of accusative objects. Asking whether a corporation thought about the consequences of a waste dump is one thing. Asking whether a corporation can think is quite another.

If a corporation is controlled by a small group of people, say the directors, then we might reduce the mind of the corporation to the minds of those people. If one human controls the corporation--it might be a one-person corporation such as a kingship--we might reduce the corporate mind directly to the mind of that human being. Then most corporations would be human groups and a very few would be human individuals, but all of them would have human bodies. This would not necessarily mean that entity theory is wrong. The actions of human minds can provide a causally efficacious unity of behavior to corporations sufficient to make corporations entities.

I question whether physiological verbs might not be directly and literally applicable to some very small corporations after all, say a mobile videotaping company which drives all its assets and papers and constituents around in a single van. Its financial assets might be cash stowed in the trunk along with all closely held share certificates. I do not see why such a company might not physically move about from town to town. Consider also a king as a solo corporation. It used to be argued against the view that minds have no physical location that my mind is at least in the room where my body is. We might likewise argue that a kingship is at least in the room where the king's mind and body are. We also might introduce the notion of a scattered body to cover all corporations with human embodied constituents. When we speak of water or gold, we speak of all bodies of water or all particles of gold, wherever they may be. We may likewise speak of corporations as being wherever their embodied constituents are. Granted, water and gold are materials, and a corporation is not a kind of material. But the analogy seems strong enough that we may easily speak of corporations as being or having scattered bodies without admitting arbitrary collections of bodies as bodies. In fact, though physically scattered, corporations have far more causal unity than gold or water, which

are (except for minimal mutual gravitational attraction) *merely* scattered. Thus Schane has an overly narrow view of how we may literally attribute physiological verbs to corporations. I just described three ways, and there may be more.

Schane's view that both singular and plural verb forms are applicable to groups, and that only singular verb forms are applicable to institutional nouns, seems unduly influenced by American English. In British English, there is nothing wrong with saying, "The Bank of England are terribly displeased" (Conard 1976: 137-38). The American term "corporation" connotes a single body or corpus, while the British term "company" connotes a group of people. Alfred F. Conard says,

These etymological differences have probably had some subtle effects on legal thinking about business organizations. The European objection to a one-man company has been based in part on the conceptual argument that one person cannot be a *société*--the French counterpart of "company." There is no similar obstacle to one person's being a "corporation; corporations sole are among the prototypes of the genus, at least in England....

The effect of the "corporation" concept can be seen most clearly in the early U. S. decisions that a corporation is not entitled to the privileges and immunities of citizens, and has no existence outside the state of incorporation except by comity....

Whatever role these etymological differences may have played in the past, they are certainly submerged today. Whether it is better to say "corporation" or "company" depends now on whom one is addressing. (Conard 1976: 137-38)

The corporation-company distinction is, strictly speaking, not that of entity as opposed to fiction, but that of one as opposed to many. The metaphysical substance tradition has generally held that to be an entity is to be one as opposed to many. And here the word "corporation" most directly invokes the notion of a single body (*corpus* = body), which the word "company" does not. But following Conard, not much should be made of mere verbal connotations. We must look to corporations themselves.

I suggest blending Phillips and Schane as follows. The activity verbs that really count are those which pertain to corporate power to do things. These verbs apply literally to both human nouns and institutional nouns. Institutional nouns are semantically compatible with activity verbs. What follows from this is only that *if* corporations are entities, then they are active entities. But thanks to the causal unity of corporations, they *do* exist, since following Plato, existence is power. Therefore, corporations are literally active entities. However, corporations do not literally see, hear, feel, taste, touch, or think. They are not literally cognitive entities. There is no such thing as a scattered mind. Therefore, while many cognitive verbs apply with literal sense to corporations, they do not apply with literal reference. Such verbs require reductive or eliminative analysis. And corporations are not literally persons because they are not literally conscious. But viewing corporations as having scattered bodies, at least some physiological verbs apply to corporations with both literal sense and literal reference.

All this is in keeping with Aristotle's theory of truth: things are not the way they are because we say so; but because things are the way they are, we who say this have the truth.

12. Corporate persons as masks for human actors

I proceed to what might be called the theatrical theory of corporations. I shall briefly discuss chapters 4, 8, and 9 of Joseph Vining's book *Legal Identity* insofar as they bear on corporate entity. The gist of Vining's position seems to be that a human being is distinct only in reason from the many persons he is, where persons are roles he creates as personifications of his values (Vining 1978: 155). Most persons in this sense are pre-legal. Legal persons are persons which courts find value in recognizing, i.e., in giving legal standing to as *dramatis personae* in the courtroom (Vining 1978: 59-61, 126-27). For Vining, a corporation is a legal person which a group of humans wear as a collective dramatic mask in the courtroom.

Vining holds that there may be no final structure or order either in the outer world or in the inner world, but persons are at least a way to try to realize the great variety of our values compatibly, both in our personal lives considered individually and in the various modes of social and legal adjudication of competing interests. Vining goes so far as to say that it is these persons or roles "who contend in legislatures, courts, and agencies, pushing for attention, recognition, and realization of 'their' interests" (Vining 1978: 155). "The 'persons' who speak to the legal mind may not be reducible to individual human beings, but they cannot be separated either from individuals who 'as individuals' gave them life" (Vining 1978: 148).

Through the process of accommodating and harmonizing the many persons in each of us, "[i]t is not peace we seek, but self-realization, with all the variety that implies" (Vining 1978: 155). Yet

Unlike true adversaries--or disputants over rights of property--who seek to triumph and exclude, these persons must seek to cooperate and create. They cannot really want to annihilate each other, for like the head and the stomach in the fable, they are not separate. They may forget the fact and occasionally overreach, but they eventually rediscover that they are parts of the same human being. (Vining 1978: 156)

For example, a woman sues a sooty factory for ruining her drapes. Yet if the factory spends no money on anti-pollution devices, it is her purchases of the factory's product which are cheaper, and it is her shares of the factory's stock which earn her richer dividends. Thus the lawsuit is between conflicting interests within herself (Vining 1978: 146). Of course, this particular woman may buy none of the product and own none of the shares. By person Vining means a role that more than one person can play. There are many persons in each human individual, and there are many human individuals which are in each person (Vining 1978: 148). Thus there is a mix-and-match cutting across among minds or souls on the one hand, and persons on the other (Vining 1978:

146). Thus the persons in conflict here are "the housewife unhappy with pollution," "the consumer of products," and "the factory shareholder," each of which is or at least can be in three somewhat overlapping collections of human beings. This is also why "what we mean when we say an individual 'does wrong' is that he disregards one of his own values" (Vining 1978: 147). A human being recognizes himself as a murderer if and only if he admits that his taking another human life was wrong.

One might analyze a person as a human being in a certain mode of presentation. A human being regarded as being a certain legal person, for example a man appearing in court in his capacity as a corporate shareholder or as a father, would be more generally called a qualified thing by Antoine Arnauld. To be a qualified thing is to be a thing regarded or conceived in a certain manner (Arnauld 1964: 39; see Dejnožka 2003: xxvi, 47, 61, 73 on qualified objects). For example, The Morning Star is the planet Venus regarded as appearing in the morning. Likewise, a certain shareholder in Corporation C would be the man Smith regarded as owning shares in C. But for Vining, a person seems to be the mode of presentation itself:

A human being shifts among any number of [personal] identities during the day, during the year, and during his or her life: sports player, parent, drug taker, dancer,...and so forth. We see him as a member of one or another class that includes similar aspects of other human beings and that is defined by its activity and purposes. (Vining 1978: 59; see 61 on defining a legal class)

This classificatory aspect of persons suggests that Vining's persons are qualifications or modes of presentation. But whether persons are qualified things or qualifications of things, Arnauld takes us beyond Vining's specifically theatrical metaphor, in which a person is analogous to the mask or *persona* of a human actor in ancient Greek drama, to a far more general ontology which subsumes Vining's theory as a small part.

The problem is that Vining has only two notions, that of human being and of person, but there are really three: thing, qualification, and qualified thing (Arnauld 1964: 39). If you make persons qualifications, then persons equate to masks and human beings might be either things or qualified things. But if you make persons qualified things as I suggest, then persons do not equate to masks but to actors-in-masks, and human beings can only be things, for they surely cannot be qualifications.

Vining is puzzling because he seems to equate persons to masks, but takes great pains to express the concrete reality of human beings; it is a central, if not the central, theme of his book. His theory would not be formally inconsistent if he treated persons as masks, but it would not seem to be the most congenial approach considering his thought as a whole.

The English word "person" derives from the Greek word "persona." But it was never clear whether, in ancient Greek drama, "persona" referred to the mask the actor wore, the actor behind the mask, or the actor-in-the-mask. Vining seems to use person to refer to roles that correspond to the mask. But in many ways I think it would make more sense to think that courts treat legal persons as human-beings-in-persons, corresponding

to actors-in-masks. If I am right, then legal persons are more than masks or roles. They are human beings in masks or roles. And a corporate person is a group of human beings in a collective mask or role.

Vining seems to say that the identity of a human being (not: person) is defined objectively, not by his actions or social circumstances, but instead by his loves and beliefs (Vining 1978: 148). It would follow that the person or persons which best express the loves and beliefs of a human being best express his human identity.

The primary identity of a human being may or may not be occupational. It depends on how satisfying and rewarding the occupation is (Vining 1978: 148). Persons need not be economic at all in the pecuniary sense (Vining 1978: 157-58).

A human being may have no primary or essential identity. The thing to emphasize about a human being is his concrete richness. Persons, in contrast, are abstractions (Vining 1978: 128). Persons consist of the noticed characteristics of human beings. But characteristics are noticed only if they are valued, and nothing is necessarily either valued or not valued. What I sincerely value or truly believe is a logically contingent matter. Thus nothing logically defines who I am essentially or most deeply. (Vining 1978: 152). "There are no givens" as to who I am (Vining 1978: 152-53). "There is no such thing as a natural person" (Vining 1978: 59). However:

Nor should the fact that [personal] identities are values that must live through affirmation suggest that the individual is without substance and exists entirely by an effort of will, so that a failure of will means the loss of identity and "being no one" is an ever present danger....A "runner" who *has* a love of or belief in the value of extending oneself and making the air rush past the face cannot put that love away, like a material thing. However much he may will it otherwise, the delight and meaning of the experience remain....One cannot escape "being" manly or womanly. One cannot escape a love of quiet if one has such a love. That is part of one for the present. Nothingness does not catch up if the self-conscious will rests. The loves, the beliefs, the desires continue. The individual is still there. (Vining 1978: 154)

Thus Vining is no Sartrean extremist. Nor does Vining appear to admit a mystical self beyond all classification. "The beloved who seems beyond categories has [personal] identities that can be distinguished even by the lover" (Vining 1978: 59). One may have a personality as unique as you like, but that will not place one beyond being in classificatory persons. "To those who know him well his distinctive 'personality' will infuse each of his roles, and in the eyes of everyone he may embody a particular class aspect in a unique and creative way" (Vining 1978: 59). If the human being has no distinctive role at all, he will still be "in" certain catch-all persons such as "playboy" or "handyman," (Vining 1978: 150). Vining concludes, "No individual is 'no one'" (Vining 1978: 150).

The persons human beings are in slowly change over time, much as the cells which constitute our bodies come and go (Vining 1978: 146-47). At least, this is so in a fluid

society such as our own. But in a deeper sense such changes can also be described as discoveries of what we really were all along:

How often have we also heard ourselves or others say, "I never knew I really didn't care about this until I had it." Is that change or discovery? It really doesn't matter. The fact is that the meaning of a thing for us and our desire for it are different at one time and at another.... (Vining 1978: 155)

Because a human being is so concretely rich, a court cannot tell immediately which legal person is appearing before it when the human being shows up, but must make a decision (Vining 1978: 144). Before a court can tell if you are injured, it must decide who you are as a legal person, i.e. in what capacity or role you are injured. Telling who you are is arguably the court's highest and most valuable function, since everything else the court can do rests on it (Vining 1978: 144-45). That is why courts hate feigned roles or persons, unless feigning is the only way to get justice done (Vining 1978: 124-35). The principal requirement is that the person coming before the court have a significant social value as opposed to some merely private value to the human being in the person (Vining 1978: 61).

Corporate persons emerge as a special kind of legal person which whole groups of human beings may be in. No corporate entity need be admitted:

In view of who the person is that speaks in social discourse, the attribution of "legal personality" to institutions--corporations, associations, partnerships, unions--should occasion no surprise and require no special justification. They make decisions and arguments in pursuit of "their" interests without regard or inquiry into the effect upon any of the individuals, viewed as wholes, who are associated with them....One need postulate no special corporate *Volksgeist* to explain the phenomenon....Corporate or associational existence is little different from the existence of the "person" who speaks without obvious institutional affiliation--the "father," the "consumer," the "environmentalist." Each is the embodiment of a value or a set of values. (Vining 1978: 157; see 59)

It is in principle no different whether a court recognizes you as an individual shareholder or recognizes a corporation as being represented by you as an officer of it:

Certainly when an institution comes before a court it can be heard to say only what it is authorized to say. Human beings representing the institution are simply not speaking for the institution when not authorized to do so. The institution, or "person," is not *there*, cannot be seen or heard, when its representatives are acting without authority....A human being shifts among any number of identities during the day....To those who know him well his distinctive "personality" [not: role or person] will infuse each of his roles, and in the eyes of everybody he may embody a particular class aspect in a unique and creative way. But all this can be said of an institution too. It also speaks with a single voice, combines roles (though not too many, for that would defeat its purpose), and can perform a role in a special way.

Thus, whenever we "see" a human person, what we see is not very different from what we see when we recognize an institution. (Vining 1978: 58-59)

Vining's theory is very sophisticated, but his concept of a person needs ontological articulation concerning theory of universals. Persons are roles or characterizations, and are said to be common to many human beings. Thus Vining's persons would seem to be universals as opposed to particular features of particular human beings. Vining gives no hint of being a nominalist. But is he a conceptualist (universals are concepts in the mind) or a realist (universals are mind-independent)? If he is a realist, are his persons in *re* or *ante rem*? Is the person *shareholder* a timeless Platonic entity? Answers to these questions will help us in turn to fix the sense in which persons are "in" human beings and the sense in which a human being is "in" persons. This is not a serious criticism insofar as that persons could be analyzed on any of these theories, but it invites deeper reflection on what persons really are.

Vining's concept of a human being is likewise too elusive, if we are to understand these two senses of "in." There seems to me to be too much tension between the natureless concrete reality of a human being (Vining says there are no natural persons, no givens) and her classifiability in indefinitely many ways. The classifiability comes entirely from actions and circumstances, and the meaningful personal identities entirely from mutable loves and beliefs as articulated by actions. The fact that humans have bodily natures and needs is swept under the heading of a few remarks on the "'persons' of biology," and persons in subsistence economies, and dismissed on the ground that we no longer live in subsistence economies (Vining 1978: 148-49, 152). Contrast Joseph Raz, who divides our well-being into biological and personal well-being in a fairly evenly balanced way (Raz 1990 290-99). Contrast also James Bond Stockdale, who learned about his bodily nature by being tortured as a prisoner of war for over seven years in Vietnam. He says in his "The World of Epictetus":

The philosopher Durants said that culture is a thin and fragile veneer that superimposes itself on mankind. For the first time I was on my own, without the veneer....

The importance of the latter point is highlighted in prison camps, where everyday nature, stripped bare, can be studied under a magnifying glass in accelerated time.... (Stockdale 1986: 12)

I had entered the world of Epictetus, and it's a world that few of us, whether we know it or not, are ever far away from. (Stockdale 1986: 19)

To say that Stockdale was "in" the person of prisoner of war or torture victim is to miss the point. Stockdale, an embodied human being, was physically suffering because of what other embodied human beings were physically doing to him, regardless of what person or persons he or they were "in." That is what gave his being "in" the "person" of resistance leader as opposed to collaborator its heroic meaning, not the other way around.

If human beings were so natureless as Vining believes, would not their loves, desires, and beliefs be arbitrarily imposed on them from without? A *tabula rasa* is passive, as John Locke well knew. Contrast the studies of identical twins indicating that over seventy percent of human nature is genetically fixed across the board. Even our emotions are said to be some forty to fifty percent genetically determined. Presumably that includes the loves we value so much. How well would Vining's theory interface with philosophy of science, or for that matter, with science?

Insofar as Vining tends to identify human beings with minds or souls alone (Vining 178: 146), it is particularly hard how to understand how they could be "in" a person such as *breadwinner*, or how a person such as *breadwinner* could be "in" them, or how they could play a social role at all. How many Viningian human beings can dance on the head of a pin? But Vining seems to equivocate on whether human beings are minds or souls alone, and also on whether they can ever be disembodied:

Identities [of persons] lie mixed in the same breast, mind, or soul. They cut across and connect together a number of minds or souls, but are not reducible to those minds or souls.... (Vining 1978: 146)

The first sentence suggests that human beings are mind-body composites, or at least leaves the mind-body question open, while the second sentence talks of minds or souls alone.

As a result of underemphasizing our biological nature and overemphasizing our choices in life, I think Vining is over-optimistic in a sense. This over-optimism surfaces in another way: the theory that the housewife with blackened curtains may be only contending with herself as consumer and stockholder, and may thus, no matter what happens in court, be only enriching her own life by a more harmonious self-realization (Vining 1978: 146). That is certainly possible in some cases, but it sounds too poetic and too easy. In fact, it sounds uncomfortably like the best of all possible worlds as expounded by Dr. Pangloss in Voltaire's *Candide*. There should be more realism about the fact of irreparable loss in life. The chief fact about the courtroom drama is that one adversary wins and the other loses. This affects not only persons in the sense of roles. It affects human beings. If wholeness and loss are paradoxically intertwined, surely it is not due to some accidental extra role we may happen to have on the winning side, but to our being deepened by sorrow, and to our learning new virtues such as patience, courage, and humility--perhaps even becoming philosophical.

Vining's approach to corporate persons is really a subtle use of Occam's razor: we need not postulate corporate entity to explain corporate legal personhood. We can get along with the aggregate or group theory (there seems to be little discussion of the fiction or creature theory). But this is by the same token an avoidance of the question, Is there a corporate entity or not?

I reject Occam's razor. I hold that the best explanation is the true explanation. Sometimes the truth may be more complex than the simplest explanation of the facts would have it. If the simplest explanation sometimes is wrong, and if we do not know

how many times that is so, then we cannot even say it is more probable than not that the simplest explanation is right:

I incline to think that this would be a good case in which to use Occam's razor, [FN1] and thus avoid squandering our energies by contriving a rule about the res judicata consequences of our decision, since that is a question not now before us. However, parsimony in contriving concepts may sometimes mean excessive intellectual stinginess [FN2] or lazy unwillingness to think a subject through; and my colleagues apparently regard this as such an occasion.

FN1. Usually Occam's razor-like maxim is said to be: 'Entities are not to be multiplied beyond necessity.' Bertrand Russell reports, however, that Occam actually said: 'It is vain to do with more what can be done with fewer.' William James describes this law of parsimony as at best a labor-saving device.

FN2. Kenneth Burke remarks that, correlative with Occam's precept, we need another: 'Entities should not be **reduced** beyond necessity.' *McComb v Frank Scerbo & Sons, Inc. (2d.Cir.) 177 F.2d 137, 141 (1949) (conc. opn., Frank)*. (my boldface emphasis)

See also *Clark v. Taylor (2d.Cir.) 163 F.2d 940, 951 (1947) (diss. opn., Frank)* (citing Kenneth Burke, *A Grammar of Motives* (1945), 324).

I praise Vining's core idea, which is an ordinary, common-sense distinction between people and the roles they play, and I see no reason why his legal persons cannot be grafted onto my own theory, on which corporations are real entities but not real persons. Such entities can be legal persons in Vining's sense as least as easily as groups of human beings can. In fact, corporations, as entities, are themselves the legally recognized masks of groups of human beings.

13. Four ascending levels of legal being

Despite Igor N. Grazin's more obscure Marxist and hermeneutical ravings, his paper "Reflections on the Philosophy of Law" seems a good theoretical framework for discussing kinds or levels of legal being.

In "Part One: Levels of Legal Being--A Note on the Ontology of Law," Grazin distinguishes four levels of legal understanding. These levels are neo-Hegelian in that each subsumes and rises above the last, but they are also meta-levels of discourse like Bertrand Russell's simple theory of predicate-types and Alfred Tarski's theory of truth-levels.

We begin with how law appears to us ordinarily: as "a set of social phenomena of different kinds....[A]t this everyday level law appears as a set of norms or rules" (Grazin 1989: 285-86). It is "a set of restrictions" (Grazin 1989: 286). Grazin mentions Hegel in connection with this. Of course, Hegel uses the word "phenomenon" much as Kant

does, to denote ordinary public appearances whose description is "phenomenology." "This constitutes the first level of legal being or so-called 'Ordinary Jurisprudence'" (Grazin 1986: 286). On this level, law appears as "man made; that is, it is mediated by human creative activity" (Grazin 1989: 286). There is no consciousness of underlying systems such as capitalism. There is only a consciousness of the devising and application of rules in various cases. At this level, talk is of the form of assertions of "Rule R." This is probably best viewed as what is called the level of mere habit or custom which is not yet consciously law.

At this level of phenomenology, I concur that we do have a level of being. On the level of objects of thought or perception, to be is merely not to be nothing (Dejnozka 2003: 124). Here a corporation would consist of a bundle of rules, and as such would exist in this minimal sense of not being nothing--and also as man made.

Ordinary jurisprudence, with its rules, gives rise to the conception of a normative system of law. The rules lead to our developing certain norms. In earliest times, such norms were not even understood "as norms created by men" but "as myths, religions, etc" (Grazin 1989: 286). Later they became understood as the human norms they are. In either case you now have a higher level of discourse which does not merely create, assert, and apply rules, but which consists of normative talk *about* the activity of rule-making and rule-applying. It consists of "descriptions of obligations" or "everyday understandings, etc." (Grazin 1989: 287). Grazin "designate[s] the language expressing this level of legal activity as Lo (L-ordinary)" (Grazin 1989: 287). It is talk of the form, "There ought (or ought not) to be Rule R." This is the Ordinary Level of Law. On level Lo, corporations are no longer mere bundles of specific rules, but acquire a normative being. If they are legal beings at all, then they *ought* to be the way they are. This is where habit or custom acquires a patina of legal obligation and what is called customary law in international law; but of course there is no requirement of internationality here.

After the Ordinary Level of Law, specific norms are generalized and come to form some sort of system or pattern. "The most distinctive form of this level is expressed in the systems of codified law" (Grazin 1989: 287). "It is a result of a transformation from casuistic legal systems to codes that unify different fragments of [legal] being....This is the point where precedent also ceases to be only a model of a decision of a relatively identical case but becomes a general form of solving legal problems" (Grazin 1989: 287). "Let us designate the language expressing this level of legal activity as Ln (L-norm)" (Grazin 1989: 187). This is talk at the level of enshrining some general and systematically interrelated rules into a Code C of law, such that C generalizes and systematizes our legal norms, and such that any specific Rule R can be derived from C. The first known appearance of level Ln was, of course, the Code of Hammurabi. On level Ln, a corporation becomes much more unified and integrated in its legal being. Its unification and integration is owing to a code of laws which authorizes corporations.

Third, we come to the Theoretical Level of Law. This is the level of enough jurisprudential self-consciousness that we *formulate* theories such as natural law theory and legal positivism describe and evaluate what codes of law are and ought to be. Here there is consciousness of the distinction between "is" and "ought," and there is an effort

to describe the "is" of codes of law "in such a manner that Ought can be derived from Is" (Grazin 1989: 288). I agree that, despite Hume, there is nowhere else to derive what ought to be except from what is, in practice if not also in theory. "Let us designate the language corresponding to this level of legal activity as Lt (L-theory)" (Grazin 1989: 288). At this level, we finally begin to speak of corporations as legal entities in the manner of the theoretical legal literature on corporate entity. Here a corporation might be said to become a theoretical legal being.

So far Grazin has been equating levels of legal being with levels of legal activity. He has not considered corporations (he does not discuss corporations) or anything else as having extralegal reality.

Fourth and last, we have The Meta-Theoretical Level of Law. Here we leave jurisprudence and enter philosophy of law. Here we attempt to *decide* among theories such as natural law and legal positivism, and hopefully to subsume their respective merits in a higher synthesis, a unified overall philosophy of law. Grazin sees this not as metaphysics so much as "a level of meta-scientific (gnoseological) reflection upon law and legal theory.... [which] deals with theories of law as products of the cognitive activity of man" (Grazin 1989 (288). "Let us designate the language corresponding to this level of legal activity as Lmt (L-meta-theory)" (Grazin 1989: 288).

Those are the four levels. Each level subsumes the content of all the levels below it into a more inclusive outlook (Grazin 1989: 289). In retrospect even the ordinary Rules R, not viewed yet as legal rules but as the commandments of a god, belong to a "mythological interpretation of the world" which may count as on the theoretical level Lt, though not of Lmt (Grazin 1989: 288). On level Lmt, such a mythological "theory" would probably be rejected quickly, and the main task would be to reconcile more serious theories such as legal positivism and natural law. But surely metaphysics plays a heavy hand in such a rejection; and Grazin himself brings in Marx-Engels' materialism on just this level. I reject the materialism, but agree that this is the right level on which to admit or reject it. Thus Lmt philosophy of law really broadens out to become general philosophy. Therefore this is not only the level for discussing theoretical legal being, but it is also the level for discussing ontological being. It is the level on which we discuss the ontological status of corporations.

I commend Grazin for describing the four levels of "legal being." However, to me they seem to be not so much levels of legal being as levels on which to discuss legal being; and that would apply really only to the last two levels, Lt and Lmt. I think we must admit Grazin's four levels of legal being only in a certain very special sense of the expression "legal being." They are really levels of talk. Suppose, for example, that a corporation is created on the basis of a code of law, putting it on Grazin's level Ln. Well, what *is* the degree or kind of reality of that corporation on that level? That is the question. Nor do I see that viewing the very same corporation on Lt or Lmt changes its degree or kind of reality from what it already is on Ln.

Grazin's level of codes is inapplicable to common law. The whole point of common law is to develop law from precedents without codification. You do not codify common law, you replace it with a code--not always an improvement.

14. Classes of human corporate constituents as legal entities

Plaintiff or defendant classes are deemed legal entities. Philosophically this would concern the ontological status of classes and sets. Do such classes have more or less reason to be considered entities than corporations? On the one hand, classes are less structured and have less power to act in a unified way. On the other hand there is a huge philosophical literature arguing that because classes (or sets) are the most primitive sorts of pluralist entities, they must be admitted if arithmetic and counting are to be explained. Indeed, corporations might be assayed as organized hierarchies of classes of constituents such as the class of directors and the class of shareholders.

Granted, we do not speak of penetrating the class veil or disregarding the class entity. However, that is in effect what we do when we refuse to certify classes, or when we certify classes only for litigation of guilt and assess damages individually, or when we distinguish sub-classes to avoid conflicts of interest or to handle discovery more efficiently. Sometimes we even penetrate the class veil for the same reasons we penetrate the corporate veil: to promote justice and equity. If we took to thinking of penetrating the class veil as a general concept, we might emphasize equitable flexibility and discretion so much that we would start thinking of penetrations not authorized by present rules of civil or criminal procedure, even though the rules of class litigation already allow a great deal of flexibility and discretion.

Class entities arguably admit of the same de jure-de dicto distinction as that admitted for corporations. There are arguably real classes "out there" waiting to be discovered and perhaps tailored into artifacts by judges. And many classes are arguably of indefinitely long life, much as corporations are. Certainly class litigation can go on for many years, with old plaintiffs dropping out and new plaintiffs coming in.

However, classes are not admitted by the same procedures or for the same reasons that corporations are. Corporations are admitted by legislative procedures on the whole. Some classes are legislated into existence, as in worker's compensation law or securities law, but many classes are judicially constructed in the hearing of specific lawsuits. And while corporations are admitted chiefly to promote the economic general welfare, classes are admitted for very different reasons, such as: avoiding the risk of inflicting conflicting duties on the party opposing the class, *Federal Rules of Civil Procedure* 23(b)(1)(A); protecting the interests of members of the class who are not parties to the suit, FRCP 23(b)(1)(B); handling intransigent parties who act inconsistently or refuse to act consistently with respect to all members of the class, FRCP 23(b)(2); or handling common questions of law of fact as efficiently as possible FRCP 23(b)(3). All these things promote the general welfare, but none of them specifically promotes the economic welfare the way corporations do.

To sketch my theory briefly, the sort of classes the law is concerned with are not abstract entities, but concrete human beings in certain common Viningian role, which derive their reality or power as a unified concrete entity from the fact that their members have something legally significant in common. In general classes are less real than corporations in that they are less integrated and unified. But classes can be more real and more powerful than corporations in that they can defeat corporations in legal or economic conflicts, and even outlive corporations. The class of past, present, and future employees of corporation C will almost by definition exist longer than C does, if C is liquidated in bankruptcy.

Since a corporation is organized differently from a legal class, corporations are not classes. Corporations are distinct in reason from the classes of their constituents, at least in sense (A) of conjunct (1) of sense (1) of "real distinction."

15. Corporations as one and as many

William A. Klein and John C. Coffee, Jr. suggest that a corporation can be viewed as one entity or as many constituents, and that which view the law should take in any given context should depend on the practical convenience. In some cases, it is simply easier to proceed thinking of a single entity; in others, it is more important to disregard entity and concentrate on the constituents. Thus corporate entity is a matter of convenience of legal viewpoint:

Both lawyers and laypersons tend to speak instinctively of the corporation as an "it"--that is, as a thing that has an identity and existence of its own. While this is sometimes a helpful shorthand form of expression, a basic message of this book is that corporations should not be analyzed in this fashion, except when the complexity of the actual relationships becomes so unmanageable as to make it necessary to reify.

[I]t is clear that the law, itself, does not do this. In general, the corporation is reified....

Admittedly, reification may sometimes be a useful device, because it allows us to manage complexity. It is useful to think, for example, of the United States entering into a relationship with China, rather than thinking of the citizens of each of the two countries acting through complex mechanisms to alter their relationships with one another in an infinite variety of ways....In law, the idea of the separate entity serves the further, more mundane, function of symbolizing a set of important legal rules or doctrines, such as the limited liability of shareholders....When the entity theory leads to bad results, the courts often find ways to avoid or ignore it. Still, reification is a device for making something that is in fact complex seem simple, and that can be dangerous. In reality, only individuals enjoy the benefits, or bear the burdens and the responsibilities, of actions affecting other individuals. (Klein and Coffee 1993: 109-10)

I praise this theory for its simple elegance. It seems to have two levels. On the ontological level, it is a fictionalist or aggregate theory. On the pragmatic or conceptual level, it holds that it is sometimes, but not always, pragmatic to conceive of the corporate aggregate as a single entity. This second level includes not only the convenience of simplification, but also the symbolic convenience of legal talk of legal entities.

The Klein-Coffee theory recalls the more general theory of Frege that depending on the sortal concept we choose to apply, the same phenomenon can be intellectually "sliced" as one or as many objects: one heap of sand or many grains, one forest or many trees, the foliage of a tree or many leaves, one pair of boots or two boots, one card deck or a few suits or many cards. By "slice" Frege would not mean create, but discover. To slice a certain phenomenon as one heap of sand, the heap must already be an object. Thus to slice a certain phenomenon as one corporation, the corporation must already be an object. I presume that mental ideas, too, can be sliced for Frege; but a corporation would have to be an objective, i.e. public, object in Frege's metaphysics. Thus Frege's theory can be applied to corporations only insofar as it has already been established that corporations are, or at least can be viewed as, entities.

As Klein and Coffee say, corporate existence and identity go together. I shall now review briefly the basic tenets of 'no corporate entity without identity'. According to the Revised Model Business Corporation Act of 1984 ("MBCA"), the formal or de jure requirements for formation are these. One applies "to the secretary of state to furnish a certificate of existence for a domestic corporation or a certificate of authorization for a[n already existing] foreign corporation" (Conard 1987: 77/MBCA §1.28(a); U.S. corporations are regulated by state law, not federal law, so that a "domestic" corporation is a corporation residing in a certain U.S. state and a "foreign" corporation may be from another U.S. state). The corporate name must identify the corporation as a corporation (Conard 1987: 86/MBCA §4.01(a)). With certain exceptions, the corporate name must also be unique within the incorporating state; therefore a foreign corporation must adopt a new name if an already registered corporation is using the newcomer's name (Conard 1987: 87/MBCA §4.01(b)). The exceptions include consent, court-adjudicated authorization, and merger with the other corporation (Conard 1987: 87/MBCA §4.01(c) and (d)). Upon authorization of existence, a corporation is identified as a theoretically eternal legal person:

Unless its articles of incorporation provide otherwise, every corporation has perpetual duration and succession in its corporate name and has the same powers as an individual to do all things necessary or convenient to carry out its business and affairs....(Conard 1987: 84/MBCA §3.02)

Corporations may merge and become one under certain conditions. These include (i) merger by mutual consent, if the board of directors of each merging corporation adopt the same plan of merger and the shareholders of each merging corporation approve the plan; (ii) acquisition of all the shares of one or more classes of the other corporation through an adopted and approved plan of share exchange; or (iii) merger of a subsidiary corporation to its parent corporation without the subsidiary's approval, if the parent

owns at least 90 percent of the subsidiary's stock (MBCA ch. 11). Or a corporation may be voluntarily dissolved into its constituents, i.e., disunified (MBCA ch. 14). There are also merger and asset sales, de facto mergers, triangular mergers, unfriendly acquisitions, involuntary dissolutions in bankruptcy, and corporate successors to the assets and liabilities of dissolved corporations (Conard 1993: ch. 12). Some of these forms of reorganization are standardly represented by diagrams which I shall not reproduce here (Conard 1993: 1031-34). More rarely there is nationalization or compulsory share exchange. This is not an exhaustive summary of how corporate existence and identity can change--for example, a corporation may become a de facto partnership--but it does cover the main or typical modes of change.

Part Two: The Ontology of Corporations

1. Six initial suggestions

In the first part of this book, we have already much discussed the ontological status of corporations. I proceed now to a purely philosophical examination. In this section, I shall discuss three Aristotelian suggestions and three modern suggestions.

First, it might be suggested that "corporate entity" is a *pros hen* term, that is, that corporations are said to be entities not literally, but in virtue of their significant relationships to genuine entities. People can be literally healthy. Climates and urine cannot enjoy literal health, but are said to be healthy in virtue of their relationships to humans. A healthy climate is one which promotes health in humans, and healthy urine is the type of urine healthy humans produce. In like manner, it may be that corporations are entities in virtue of their relationships to genuine entities such as human beings and corporate assets (buildings, trucks, and so on).

The problem is that there is no evidence for a *pros hen* theory of the meaning of the word "corporation." In fact, it may seem that the *pros hen* theory is clearly not why we call corporations entities, because it may seem that we call them entities solely in virtue of their own proper character by way of analogy to paradigmatic entities. But I depart from the traditional view that analogy and *pros hen* are different kinds of relations. I hold that analogy is a kind of *pros hen* relation, since a significant analogy is after all a significant relationship. The question then devolves to whether corporations are sufficiently analogous to paradigmatic entities to be called entities themselves. Therefore any merit the first suggestion may have will come from that of the next suggestion.

Second, then, we might say that a corporation is an entity by analogy to paradigmatic entities such as stones or trees. More specifically, it might be that the de jure existence of a corporation corresponds to what Aristotle would call the form of a stone or tree, and the de facto existence of a corporation corresponds to what he would call the matter of a stone or tree. On this suggestion the main question is whether corporations are sufficiently analogous to stones and trees to count as genuine entities too, or whether they are merely said to be entities by analogy to genuine entities. (There is no difference, of course, between a genuine entity and an entity.) But this suggestion is worth pursuing only for corporations which exist both de jure and de facto. The analogy limps in the case of corporations which exist only de facto. Even worse, a form includes the characteristic activity or activities of a thing. And this suggests that the form of a corporation is its de facto corporate behavior, while its matter is its scattered constituents. I accept this second suggestion as illuminating. Indeed, Aristotle's natural substances are all complex structures of small parts. so that the chief difference is

merely the scatter. However, the suggestion is highly generic, and it will be worth pursuing a more specific Aristotelian suggestion.

My third Aristotelian suggestion, then, is that corporations are artifacts. For Aristotle, artifacts such as houses and chairs are reasonably paradigmatic entities, even if they might not be quite as paradigmatic or quite as real as natural entities. I accept this suggestion too, and add that insofar as many artifacts are complex wholes having characteristic types of action, such as ships and swords, the third suggestion does much to support the second. But if a corporation *is* an artifact, then it *is* an artifactual entity. No analogy to other artifacts is needed. The only analogy is that of artifacts in general to natural entities such as stones and trees.

I proceed to three modern suggestions.

The fourth suggestion is based on the logic of relations. C. D. Broad distinguishes between unities of center and unities of system. If the relations which a set of things have to each other are "due to the fact that they all stand in a common relation to something...which is not itself a member of the set," then the group has a unity of center (Broad 1968: 213). If the things are "just directly related to each other by [some] relation, and this relation does not depend in any way on their all being related by some common relation to something which is not a member of the set," then they have a unity of system (Broad 1968: 213). Every unity of center is a unity of system, since every unity-of-center relation implies a derivative unity-of-system relation, but the converse does not hold. Therefore it is easy to mistake a unity of center for a unity of system, if you notice only the derivative relation. But if you notice the unity-of-center relation, then you know it is a unity of center (Broad 1968: 213). If you observe no existent center, then the question is whether you need to postulate one to explain the unity of the set of things, or whether you can get along without it (Broad 1968: 585).

Broad applies this distinction in attempting to account for the unity of a human mind. The question is whether a human mind has a metaphysical self as its existent center. I cannot discuss Broad's lengthy arguments here, much less whether they apply to corporations. But Broad's distinction is not going to help us, since it merely restates the problem. For a corporation is an entity in its own right if and only if it has a unity of center. For the corporation itself as a whole would be the existent center, and its constituents would be the set of things it relates. And a corporation is not an entity if and only if it has only a unity of system. I oversimplify, since a corporation has various classes of constituents in different relationships, but the main problem is clear enough.

The fifth suggestion is based on ordinary language analysis. The later Ludwig Wittgenstein would be quick to note that corporations are ordinarily said to exist. The legal language-game of corporate entity is very widely played, and it is played by non-philosophers. Now, much like the word "game," the word "entity" does not carry a connotative halo with it into every application. Rather, the word's use is like a thread with many fibers, no one of which lasts the whole length of the thread. There are family resemblances between the many things we call entities, but there is no one feature they all have in common. Since no one feature is essential to being an entity, to that extent

nothing appropriately called an entity is more "really" an entity than anything else. That is, there is nothing wrong with calling corporations entities, if you understand the language-game. But at the same time the question of corporate entity does depend at least on there being a sufficient analogy to paradigm cases of talk of entities (Wittgenstein 1968: #67-#75).

I hold that ordinary language analysis is a fine and sensitive tool for investigating nuances of analogy. I think that the fourth suggestion can only support the second and third suggestions. But I also agree with Bertrand Russell's critique of the later Wittgenstein. Russell argues that words in philosophy, like words in science, can meaningfully be given theoretical uses, so that philosophical issues cannot be dissolved by mere ordinary language analysis. I do not wish to repeat that critique here (Russell 1985a: 160ff.). I merely wish to note that Russell's approach seems to support the second and third suggestions even better than Wittgenstein's. Therefore I accept the fourth suggestion as qualified by Russell.

The sixth suggestion is based on phenomenology. Phenomenologically speaking, different corporations will appear more or less strong or real in their presence in our lives. This is Grazioplene's level L-ordinary, on which corporations are presented as man made, i.e. as artifacts (Grazioplene 1989: 286).

My view is that phenomenology is only a starting point for ontology. I agree with Hegel that the given is what is least real, and that what explains the given is what is more real. Still, for what it is worth, phenomenology supports the view that corporations are entities. In terms of my own phenomenology, which I do not wish to emphasize here, qualified objects, or objects of public perception or thought (Dejnozka 2003: xxvi, 47, 61, 73), include corporations, since a corporation is typically thought of by many people as being the same single object. Therefore corporations cannot be nothing. And as qualified objects, or intentional objects, corporations are as likely to correspond or, in a special sense, 'be', real entities as are many other things we think of and treat as real. I shall be elaborating on that shortly.

This concludes the six initial suggestions. All of them favor the entity theory except the fourth based on the logic of relations, which is indecisive.

2. Can social contracts create intentional entities?

Evan Fales discusses methodological individualism versus emergentism of societies and corporations as follows. Synchronic reduction, or reduction of statements about a corporation at time *t* to statements about "the behaviour, beliefs, etc. of some group of individuals at that time" are doomed to failure because the former statements may be true and the latter false in various imaginable situations (Fales 1977 (140-41)). Thus diachronic reductionism is the only possibility for the methodological individualist. But in speaking of past acts which constitute a present corporation, there is a vicious regress of past acts of past acts, since the question will arise at each stage, What constitutes these acts as acts which could constitute a corporation? This *reductio ad absurdum*

suggests that cultures or societies must have emerged at some historical time in a nonreductionist manner (Fales 1977: 141).

The argument against synchronic reduction needs restatement. For the 1914-18 Bertrand Russell, a corporation would be a logical fiction, or a *temporal series* of classes of sensed and unsensed sensibilia. Thus synchronic reduction would not do justice to Russell's conception of methodological individualism, but only to a momentary slice in the life of a logical fiction. Thus we need to restate Fales' argument so as to make it the entire duration of the corporation. But the real problem remains. Since Russell would analyze a corporation as a temporal series of *classes* of individual sensibilia, theoretically Russell can account for all imaginable counterfactual situations in the corporation's life. The stock criticism of Russell is that since there would be indefinitely many classes involved, he could never complete an actual analysis of a logical fiction. My reply is that on the face of it, Russell only intended to give a theoretical account of logical fictions in general, not an actual account of any specific logical fiction, and the practical impossibility of the latter is no argument against the theoretical correctness of the former.

The argument against diachronic reductionism is unimpressive too. If we spoke of speech acts, which would in general be the sort of acts conferring legal existence on corporations, the halt to the vicious regress would be obvious from Wittgensteinian literature. Namely, at some point, we simply say this is what we do, or this is the way the language-game is played. Fales needs to engage the Wittgensteinian literature, if his vicious regress argument is to succeed.

Fales supposes for the sake of the argument that a society is constituted by a conscious and deliberate social contract. "[T]he reductionist may...claim that the making of the contract consists in just the attitudes, intentions, and behaviour of a set of rational agents historically or heuristically conceived" (Fales 1977: 142). This is a subtle nexus of contracts theory:

[T]he nature of the established entity cannot be entirely independent of the nature of the intentions conceived to have characterized the act of incorporation. Specifically, the *force* of such a contract will depend upon the contractual intentions expressed in it by its makers, and the nature of the social unit thus formed must, in so far as the binding force of the charter constitutes its character, reflect the stipulations of that charter.

So in this respect nations (and corporations of other sorts) are intentional entities. Thus whether--and in what respects--their properties may be said to depend upon, or be analyzable in terms of, the properties of individual members, may be determined by the way in which these entities are conceived or intended to be constituted. (Fales 1977: 142)

But, Fales adds, "The fact that the *genesis* of a social entity may depend upon certain individuals['] having performed certain actions with certain intentions does not entail that the entity so created be one whose existence consists in what is in the hearts and

minds of men" (Fales 1977: 142). Thus the door to emergentism is theoretically open. Specifically, the reductionist "must show that no corporations *can* be created through deliberate intention, or at least that such intentions could not be effective if they have as their goal the creation of something irreducible--for example, a corporation to which rights, duties, and aims may be assignable independently of individual beliefs and intentions" (Fales 1977: 143).

Fales proceeds to refute the objection that a society cannot exist if all of its members die, and therefore cannot "be anything over and above those persons" (Fales 1977: 143-44). Fales begins with "the suggestion that persons are themselves emergent entities consisting of a mind and a body, where the latter may be said to *embody* the former, and the former require such embodiment" (Fales 1977: 144):

Thus, although minds are not bodies, and may for purposes of attribution be construed as the bearers of special non-physical properties, the criteria for the identification and individuation of minds depend upon there being a publicly accessible world of material objects, including a certain complex kind which qualify as bodies of persons; but to construe an entity so identified as a person capable of having beliefs, performing actions, and so forth, is to place the entity so identified under the aegis of a conceptual framework not reducible to descriptions of causally interacting bodies. Similarly, works of art are construed as objects whose production requires the exercise of certain kinds of intentions by rational agents within a cultural milieu; as such, their existence requires that they be embodied in physical objects (blocks of marble, books, orchestra scores and performances, etc.); but they themselves are not *identical* with their physical embodiments....[If this] view is a plausible one, then it seems equally plausible to suppose--and for rather similar reasons-- that a society may be conceived as consisting of a social structure and a population [of individual members], where the social structure is embodied in the population (and artifacts), just as the people (and artifacts) are themselves embodied, in turn, in physical objects of certain kinds. (Fales 1977: 144-45)

Fales distinguishes between formal and material substancehood. The former consists of logical characteristics such as being an ultimate logical subject of predication and the former consists of having some kind of stuff or material, and allows only bodies to be (both formal and) material substances. Corporations, minds, and works of art are only formal substances (Fales 1977: 145n.). Fales adds that if corporations are not literally persons, that is no argument against their formal substancehood, since we might construe them not "*literally* as persons, but rather on the *model* of personhood" (Fales 1977: 145n.). Fales concludes:

Ultimately, then, social institutions [such as corporations] and roles may be taken to be embodied in physical objects..., so that the existence of the former is ontologically dependent upon the existence of the latter. And this embodiment relation is mediated by the existence of rational agents. Like works of art and artifacts generally, social roles and institutions are culturally emergent entities;

indeed, they are the culturally emergent entities *par excellence*. (Fales 1977: 145-46)

The problem with Fales' distinction between formal substances and material substances is that it overlooks a basic tenet of the Aristotelian substance tradition. Namely, simpler compounds of form and matter are the matter of higher level compounds of form and matter. For Aristotle, humans are composed of organs, organs are composed of tissues, and tissues are composed of still simpler compounds of form and matter. A corporation would be a material substance which takes individual human substances as its matter. That is, in assaying corporations as incorporeal formal substances, Fales does not consider the possibility that they can have *scattered* corporate bodies. Traditional formal substances are uncreated, powerless, timeless, immutable entities. For Aristotle they include only the prime mover and the divine intelligences immediately moved by the prime mover, and the "active" element in human reason, as distinct from the whole human mind or soul (Ross 1960: 157). Mutable human minds and mutable corporations are not formal substances. The human mind or soul is not even a substance at all (Ross 1960: 130-31). Nor does Fales honor the legal distinction between corporate form and corporate substance, i.e. corporate formalities and corporate economic reality, including its human and nonhuman assets.

Fales analogizes corporations to minds or persons as emergent beings. Yet there is a big and perhaps very relevant disanalogy: persons are *natural* emergents while corporations are *cultural* (and in that sense *supernatural*) emergents (Fales 1977: 150). People are not culturally emergent entities. Persons are not created intentional entities, unless you mean that God or their parents created them. Even worse, a corporation, lacking consciousness of its own, is far better viewed as an embodied structure with an essentially physical existence than as analogous to a mind or person which happens to be incarnated in a body. Fales seems to want to show that corporations are as real as people. He would be better off pursuing the analogy of corporations to bodies and structures composed of bodies. Just as corporations can act in this world only through people, people can act in this world only through their bodies.

Fales proceeds to discuss entities of "four kinds: persons, officers, offices, and nations or societies [or corporations]" (Fales 1977: 145). Just as persons have functions such as thought or nutrition, so acts of persons have functions. These functions are embodied in the actions. Now, "*offices* are constituted by the social functions and duties which their occupiers serve to perform" (Fales 1977: 145). An office defines an official or social personage, the officer, who is embodied in an already physically embodied natural person. By parity of reason, officers are "performers of culturally emergent actions," while the natural persons who embody the officers act in ways that "embody the" culturally emergent actions of the officers (Fales 1977: 145). Finally, societies are defined as "structures or systems of offices embodied in persons" (Fales 1977: 145).

Officers are not literally persons, but are modeled on natural persons. By parity of reason, whole societies are not literally persons, but are modeled on natural persons as well. Because they are conceived as being like persons, they therefore *are* person-like. This is no doubt due to their essentially intentional nature as created entities. Fales holds

that this does not make corporations fictitious persons. "They are *not* fictions, literally, in the way Mr. Pickwick is" (Fales 1977: 147n). They are genuine entities which are *like* natural persons.

The problem I see with this is that a whole society is not very much like an individual officer unless it participates in an officiating manner in a larger organization such as the United Nations, and that is a logically contingent matter. And even within the United Nations, only a few nations, notably members of the Security Council, would be like officers in any important sense. If you are told that Smith is an officer, you may legitimately ask, What organization is Smith an officer of, what office does he hold, and what are his duties within that organization? Historically most societies have not belonged to larger organizations in a way which would permit answers to such questions.

Fales proceeds to a slippery argument. What if some people formed a corporation and did not intend that it be an emergent entity? What if they were all methodological individualists? What if they intended to create a mere aggregate, statements about which can always be translated into statements about the members of the group? We might still postulate an emergent entity which they unwittingly created, and justify our postulation on, say, its explanatory power. This raises the question, "to what extent is the social scientist justified in postulating, for the purpose of explanation, structures and forces which participants in a society do not recognize or acknowledge?" (Fales 1977: 148n.). Later on, Fales gives primacy to explanations in terms of rational agents' intentions to create as paradigmatic, and counsels postulation of entities contrary to what the agents intended to create only as a last resort.

The slipperiness I find is this: What if some of the agents are emergentists and others are reductionists? --What if eighty percent of them are reductionists? Is the corporation they create an entity or not? Can it be a mixed entity and nonentity if its creators' intentions are mixed or confused? Or, what is surely the usual case, what if they are not theorists at all, and the whole issue of entity versus nonentity never enters their heads? Is that reductionism by default? Or suppose they decide to create a profit-making entity. Is it then essentially both an entity and profit-making? But what if it never makes a profit? In what sense is it then essentially profit-making? Only in the sense that it was essentially *intended* as a profit-making entity! But if being essentially intended to be a profit-making entity does not make it profit-making, then why should being essentially intended to be an entity make it an entity? Conversely, why should being essentially intended to be a mere aggregate non-entity make it such? Or even more simply, suppose I intend to create nails, push the wrong buttons by mistake, and create buttons instead? Are the buttons essentially nails? Worst of all, the argument completely ignores the nature of legal entities. The law is extremely well settled that a group of people can intend to create a mere association or partnership, yet end up inadvertently creating a corporate entity. Here ontology must follow the law, since a corporation is a legal entity, and by definition there can be no legal entities which are neither legally authorized nor legally recognized. No nonlegal entities need apply to the ranks of corporate entities. The only question is whether legal entities are entities.

Fales recognizes some slipperiness when he acknowledges a puzzle posed by Joseph Margolis about a nation with a secessionist movement claiming to be a nation in its own right. The patriots insist the movement is not a new nation; the secessionists insist that it is. Each side claims to be the "relevant group" whose intentions govern whether there is a new nation-entity. Fales admits that there may be no objective way for a neutral observer to decide the question, and the opposed groups may have to fight it out to see whose view prevails. Fales says that such is the way of intentional entities in general; this possibility is always there (Fales 1977: 148 n.20). But Fales admits this sort of slipperiness only as an asymptotic limit on the creation of corporate entities, and he would be right to note that it does not affect his argument in situations where all the founders of a corporation do clearly intend to create an emergent entity. He overlooks the more serious sort of slipperiness noted in the previous paragraph.

While offices and societies can be created or destroyed by intentional acts of agents, there is also a sense in which they can exist indefinitely as new natural persons assume old offices. "Although they clearly do change in time, social structures are frequently or even ordinarily *conceived* in an idealized way as unchanging by those governed by them" (Fales 1977: 149n). "In so far as the structure does not change, and the 'personhood' of officers is defined in terms of a stable set of rights and duties, it is even possible, forensically, to construe officers as immortal persons each embodied in a succession of private persons" (Fales 1977: 149). This is done in the medieval idea, "The King never dies" (Fales 1977: 149n.), and in the ancient idea of each new pharaoh as a reincarnation of the god Horus. Fales says this accords perfectly with the legal theory of corporate entity, on which corporations are theoretically eternal entities. I find this point in accord with corporate law, which expressly holds that corporations can exist forever in theory.

Corporations are "more powerful than individual men--and, in a sense, more powerful than their [constituent] population at any time taken collectively" (Fales 1977: 149). Fales adds that it is even possible for each individual member of a corporation to hold that action A is against his private interest as an individual, and yet good for the corporation (Fales 1977: 150). This too is in perfect accord with the legal theory of corporate entity. In fact, the human constituents of a corporation are legally obliged to act in the best interest of the corporate entity as opposed to their own. That is their fiduciary duty. I think this point is also the best argument for corporate entity, when we add the Platonic major premise that existence is power.

As a corollary to this, Fales follows Joseph Agassi in holding that intentions of corporations are identifiable only as authorized intentions of authorized representatives:

General Motors' [intention] to split its stock amounts to certain individuals having that intention. But: (1) these individual aims are and can be expressed only by reference to the corporate structure (as is conceded). (2) While, to be sure, GM's intention must be embodied in the intentions or actions of certain men, it is not the private identity, but the corporate identity-- position in GM's hierarchy--that is relevant. The rules governing that structure determine what officers shall be such that their intentions or actions shall *count* as GM's having some intentions.

Finally, (3) the aims of an institution may be only loosely connected with the aims of its officers.... (Fales 1977: 148)

Here too Fales understands the law well. It is an axiom of the legal theory of corporate entity that a corporation can act only through its authorized constituents, who are said to represent the corporation.

Fales offers a criticism of Emile Durkheim. Durkheim "argues that since the properties of wholes are different from the properties of parts, social phenomena are non-reducible. But on this view, colour and temperature, for instance, could not be given a microphysical explanation, which is absurd" (Fales 1977: 150). I think that this is right in a sense and wrong in a sense. Yes, we explain the color red as a certain wavelength band. We find a descriptive correlation. We then assume it is nomological. We then theorize that what a red object really transmits to our eyes is that wavelength. But in another sense, we have not at all explained why this sensible quality is caused by this wavelength. We are not explaining what the color red, qua sensible quality, literally is. As George Berkeley pointed out long ago, the color red does not exhibit a wavelike motion. This is yet another ambiguity in the concept of methodological individualism. It is a form of the paradox of analysis. If we analyze A as B, then if A and B are the same, the analysis is trivial. But if A and B are different, the analysis is false. In linguistic terms, if "A" and "B" are synonymous, the analysis is trivial. If "A" and "B" are not synonymous, then "B" cannot mean the same as "A." The solution invites traditional talk of distinctions of reason. Wholes are distinct in reason from their parts. Durkheim is right that wholes and their parts are different, while Fales is right that wholes and their parts do not exist independently from each other. In the case of color and wavelengths, the dependence is causal. Insofar as causal dependence is weaker than logical dependence, Durkheim is in a stronger position than he would be if Fales had given an example involving logical dependence, such as reducing a triangle to its three sides. When we talk of reducing corporations to their human and other constituents, this has both causal and logical aspects. A corporation's power to influence events causally depends on the abilities of its human constituents. And a corporation logically cannot exist if no (sufficiently) conscious, (sufficiently) rational beings exist. If corporations are not wholly identical with the populations that embody them, they are not wholly distinct from those populations either. These facts entail that they are distinct only in reason from their changing populations. This is in the logically fundamental sense (A) of conjunct (1) of sense (1) of "real distinction" explained earlier in this book.

Fales parries the objection that our ability to create and destroy culturally emergent entities at will invokes Occam's razor to shave away corporate entity by noting that it is only particular entities which are created and destroyed, while Occam's razor is offended only by the creation or destruction of whole new *categories* of entities (Fales 1977: 147). I think this is a misreading of Occam. Occam's razor can be applied to particular entities or to categories of them. It is applied to entities or categories of entities not in case they can be created or destroyed, but in case we do not need to assume or admit their existence when their existence has been assumed or admitted. For an accurate translation of Occam's razor plus a criticism of it, see Part One, section on Vining, quotation from *Scerbo*. See also Curtis Swann v. Paul Olivier:

FN7. See *Swierupski v. Korn* (N.Y.A.D.1979) 69 A.D.2d 632, 419 N.Y.S.2d 87, 91 ("the simplest of competing theories [should] be preferred to the more complex and subtle"); *Allen v. United States* (D.Utah 1984) 588 F.Supp. 247, fn. 201 ("if everything in some science can be interpreted without assuming this or that hypothetical entity, there is no ground for assuming it," quoting Bertrand Russell); *Village of Elm Grove v. T.V. John & Son* (Wis.App.1992) 173 Wis.2d 170, 496 N.W.2d 167, 167 ("matters must not be multiplied beyond necessity"); *Drake v. State* (1982) 248 Ga. 891, 287 S.E.2d 180, 185 (conc. opn. of Weltner, J.) ("essentia non sunt multiplicanda praeter necessitatem"). Perhaps the most robust expression of the rule is the colloquial "Kiss principle," standing for "Keep it simple, stupid." *Curtis Swann v. Paul Olivier* (Court of Appeal, Fourth District) 22 Cal.App.4th 1324, 1329, 28 Cal.Rptr.2d 23 (1994).

I think that the *Swann* court understands Occam's razor perfectly well.

I omit the second part of Fales' paper, which shows the close similarity of myth-structure and social structure. Suffice it to say that embodied gods and witches are kinds of social office-holders, and that myth-makers are often shrewd devisers and upholders of social realities. At least the best explanation is that the gods are social realities, since that is what they are intended to be by their rational human creators. I disagree both with the claim that gods were intended to be social realities and with the claim that if gods are intended to be social realities, then that is what they essentially are. [FN1](#)

What is an intentional entity? Fales fails to explain what they are. And without knowing what they are, we cannot tell whether they are. The most we can tell from Fales is that they are created by deliberate intention, and that the intention with which they were created is essential to what they are. I find this obscure and mysterious. Is a pancake an intentional entity? No pancakes occur in nature. Yet a pancake logically can exist in the absence of any intentions or agents. Are only pancakes intentionally cooked by people essentially pancakes, while pancakes that occur through natural chance or that are cooked by reading the wrong recipe are not? Are artificial diamonds essentially intentional entities? Is salt formed by boiling sea water an intentional material? Compare: (1) "He made a pancake by mistake!" (2) "She made an artificial diamond by mistake!" (3) "They made salt by mistake!" and (4) "They formed a corporation by mistake!"

Intentional objects in the traditional sense are objects of perception or thought, including chimaeras and griffins. Many would argue that they are not, as such, entities at all. Realism demands that entities be what they are independently of what we may think, believe, describe, hope, want, or (to use the generic term) intend them to be. Intentional objects are real only in the minimal sense that they are not nothing. I think that just as any other things I think about are real if they exist independently of my thinking of them, so intentionally created corporations are real if they exist independently of the thoughts of their creators and constituents. Corporations do have this sort of mind-independent reality. For the creators of a corporation may have mistakenly believed they were creating a partnership.

There is a deeper difficulty. Intentional objects, as such, are never identical with real objects. That is, objects of perception or thought are not identical with objects in themselves. At best, they may arguably correspond with real objects. If an intentional object does not correspond with a real object, for example a hallucinated pink rat, then it is delusory. If it corresponds with a real object but its properties differ from those of the real object, for example, an egg as seen through a red glass, it is illusory. Now, as intentional objects, Fales' corporations are indeed entities insofar as that to be is not to be nothing, and they essentially are as they appear to be. But that does not make them real objects. And as intentional entities, Fales' corporations are not morally responsible, since only objects in themselves, specifically persons in themselves, can literally act as moral agents.

Instead of intentional objects, i.e. objects of cognitive apprehension, we might deem corporations objects in themselves which we intend, i.e. purposefully plan, to create. Perhaps that is what Fales really has in mind. But if that is so, it is hard to see why things are essentially as we plan them to be. Planning that something be essentially F does not make it so, even if it is something you create, or think you create. Suppose that everybody has known for years that I plan to create a corporation; and now, I am finally in a position to. Knowing little about enterprise organization, I proceed to form what is essentially a partnership in the mistaken belief that I am forming a corporation. Is this deliberately planned entity essentially a corporation merely because I intended it to be? No, it is not a corporation at all. Admittedly, there is an equivocation here. In a sense it is accidental that I formed a partnership. But accident as unexpected mistake or happenstance concerning an agent's conscious action is not metaphysical accident as opposed to metaphysical essence.

Earlier I classified Fales' theory as a subtle nexus of contracts theory. But his emphasis on intentionality recalls concession theory. For creation by concession from the state would be intentional in the sense of deliberate.

It is not clear whether Fales wants to distinguish corporations from artifacts. But I think that corporations are clearly artifacts largely made from living materials. There is no reason why artifacts must be made from nonliving materials.

3. Persons as corporate entities or corporations as persons?

John Biro observes that the parallels between persons and corporations have usually been used to illuminate persons in terms of corporations. Plato analogized the soul to a city, and David Hume analogizes a person to a commonwealth. Biro suggests going in the opposite direction and using recent philosophical theories of the person to help understand what corporations are (Biro 1981: 173). This goes in the same basic direction as Fales' analogical approach.

Biro rejects the entity theory of corporations. Just as a corporation has no metaphysical core, so a person has no core entity such as mind or soul. "On the positive side, the corporate metaphor suggests that a certain sort of representation of a person--roughly by

a flow-chart displaying a person's functional/ hierarchical organization, much as with a corporate entity--will bring out the real properties which underlie those attributed to him in ordinary intentional and mental characterizations" (Biro 1981: 173). This sort of representation is called homuncular functionalism, or homunctionalism. Homunctionalism:

describes a person (or some other creature) as a system of connected and intercommunicating agencies or departments, each assigned a specific function, whose fulfillment is that agency's contribution to the overall business of the person. That business is understood as the reception, interpretation and manipulation of external stimuli and the production of appropriate behavior in response to such stimuli....

A crucial feature of the model is that it proceeds from the top down.... (Biro 1981: 174)

Conversely, explanation will proceed from the bottom up. "We can think of the functions posited on each level as making possible the performance of some function on a higher level, until all aspects of the most general function, which we might...call 'intentional behavior'[.] has been, as it were, grounded" (Biro 1981: 174). Thus the top superiors will be explained in terms of lower level departments. The hope is that when we get to the bottom departments, we will find nothing like persons doing things, but "mindless jobs which can be performed by mindless bits of matter" (Biro 1981: 175).

Biro assumes that this corporate model of the person is correct, and then applies it in turn to corporations, so as to "learn something about what properties *corporations* can and cannot have" (Biro 1981: 175). Call this Biro's Assumption.

I find Biro's Assumption doubly disingenuous. First, Biro claims to be going in the opposite direction from that of Plato and Hume. But the Assumption moves in the direction of Plato and Hume. It illuminates humans in terms of corporations. Without the Assumption, the later move going in the other direction is not very plausible. And that brings us to the second disingenuity. Namely, it is disingenuous to assume that persons are like corporations and then pretend to discover that corporations are like persons. Biro pretends to be going in the opposite direction from that of Plato and Hume, but he is really executing a U-turn.

Biro suggests "most strikingly that we can make corporations the subject of intentional, teleological and ultimately moral characterizations in a perfectly straightforward sense, and that there is nothing especially metaphorical involved in ascribing moral status to corporate entities" (Biro 1981: 175). The astute reader can see what is coming: Biro will be arguing that since we ascribe literal moral responsibility to human persons, who are best understood as being like corporations, we can and must do the same to corporations. The parallel will be so close, on Biro's Assumption, that we must ascribe moral responsibility to both or to neither.

A key move is that ascriptions of literal intentionality to systems do not require that such systems have metaphysical cores such as minds or souls:

All that is needed for our viewing some entity as an intentional system is the appropriateness and fruitfulness of adopting an intentional stance towards it in dealing with it or in explaining its behavior. If it helps us make sense of a thing to ascribe to it intentions and purposes, various mental states and processes, above all rationality--in a word, I-predicates--we have reason to do so. And it appears that we often do have such reason in our dealings with and descriptions [of] corporate entities of various sorts. (Biro 1981: 175)

As to whether this is realist or merely instrumentalist, "we need not take sides in that dispute; all we need to note is that there is no reason to construe the intentional stance more *or* less realistically in the non-human case than in the human" (Biro 1981: 175-76). After a few words disposing of sensible qualities we consciously apprehend as merely assumed (in the case of other minds), and as not shown to be needed to help account for mental life, Biro observes:

It is important to see that our willingness to attribute minds or, if we prefer not to talk that way, I-predicates literally understood, to corporations should not be rooted in the fact that corporations are, after all, made up of people. (Biro 1981: 177)

Corporations could be made up of anything; the question is how best to explain their behavior. Biro concludes:

I have not tried in this paper to extol the virtues of homuncalist theories, nor do I wish to suggest that they are not open to serious suggestions. What I have tried to do is suggest that there are interesting connections between an exciting and rich view of the person developed in some recent work in the philosophy of mind, on the one hand, and questions about the nature of non-human entities such as corporations, on the other. Even if this connection is surprising, it is nonetheless one that should be taken quite seriously. Its implications for our willingness to accord moral status to corporations are obvious, though the working them out in detail would have to be the subject of another discussion. And perhaps it isn't so surprising that our view of what a person is and our view of what a corporation is should have such reciprocal connections. After all, both corporations and persons are *constructs* ultimately resting on our observations of the comings and goings of chunks of matter we call people.... (Biro 1981: 178)

The work in philosophy of mind Biro is alluding to is that by Daniel C. Dennett and William G. Lycan, among others (Biro 1981: 180).

I have four comments.

This is a fine piece of work ending in a moderate conclusion. Granting Biro's Assumption, this is the way to go. But the assumption is of course a huge one. It begs

the question of corporate entity and the question of human personal entity, not to mention the question of morality.

Biro is correct to observe that his argument does not depend on corporations' being composed of human persons as constituents. However, in the last sentence of the last block-indented quotation, Biro makes use of the fact that corporations are composed of human constituents to strengthen his argument, and that might be thought to be inconsistent of him. But I see no contradiction between "does not depend on" and "strengthens." Biro is being subtle.

The homunculist approach would go well with Thomas V. Morris' theory of informative identity statements as explained in terms of our having to look up something in two different mental filing cabinets and finding to our surprise that the files refer to the same thing (Morris 1984: 58-65, 87-90, citing Michael Lockwood as developing the notion of a mental file). That would allow both humans and corporations to make informative identifications. Corporations would use literal files and filing cabinets. That might play a legal role in explaining what humans and corporations "knew or should have known."

Both Fales and Biro try to analogize corporations to persons, but there are some major differences between them. Fales makes corporations disembodied formal substances, but Biro is not interested in what they are composed of. Fales accepts the entity theory, but Biro rejects it. Fales characterizes corporations in terms of people's intentions to form them, but Biro characterizes them in terms of their behavior and holds that talk of intentions need not be assayed as realist. Because of that, where Biro seeks to explain corporations from the bottom up, Fales in effect seeks to explain them from the top down. In this, Fales is surely right as against Biro, since formation intentions and corporate intentions are generally those of the controllers at the top. In Aristotelian terms, Fales discusses the formal and final causes of corporations, but Biro discusses the formal and material causes.

Besides begging the whole question by making Biro's Assumption, the chief problem with Biro is that he misconstrues entity theory as positing a "metaphysical core" as opposed to a mere complex system. But complex systems can be and are entities. Entity theory can easily admit corporations as complex wholes or structures.[FN2](#) Ironically, therefore, Biro's Assumption that persons resemble corporations can be reinterpreted as the assumption that persons resemble corporations in respect of being complex entities. But then the Assumption immediately becomes less plausible, since only persons can be the sort of entities which consciously reason and act.

4. Corporations: complex artifactual entities used as legal masks

Having considered other authors, I shall now venture my own theory, attempting to honor their insights and to avoid what I have argued to be their errors.

Although a corporation has a core structure, talk of a corporate entity as a metaphysical core is inappropriate and misleading. From the ontological point of view, the crucial feature of corporations is that they have constituents arranged into a structure. The two great holist thinkers, Hegel and Marx, considered corporations as more real than people because corporations are wholes composed of people as parts. I shall argue more moderately that corporations are at least as real as people.

My theory is that a corporate entity is a legally authorized, physically embodied structure of human and nonhuman asset-constituents which serve as its scattered body (*corpus*). This entity is unconscious and impersonal, but serves as a protective legal mask or veil collectively worn by its agents, controllers, and shareholders in the business world and in the courtroom. In the courtroom, the corporate veil may be pierced in the interest of justice. The normal legal protection of the mask is limited liability, i.e. liability limited to the extent of corporate funds or, in the case of shareholders, to the extent of their investments. In that this mask is a legally recognized person, many cognitive and activity verbs may be applied to the corporate entity in their literal *sense*, but not with literal *reference*. The mask of legal personhood is a fiction, a mere object of public thought and discourse. But the corporate entity behind the mask is a physically real artifact composed of human and nonhuman assets. Not all of its nonhuman assets need be concrete--financial credit, fiduciary obligations, and the intangible aspects of corporate good will are arguably abstract. Thus corporations are ontological entities but are not literally persons. My theory is fairly complex. But I do not see that any simpler theory will adequately account for the legal and ontological facts.

Corporations are artifacts like clay pots, with humans as the clay. That is not a significant difference from the ontological point of view, even if humans are naturally or essentially social in a sense in which humans are not naturally or essentially makers of pots. Legal requirements are intended to shape or mold corporations, much as a potter may intend to shape or mold pots from a plan. Corporations are real artifacts created by humans much as pots are. Pots are just as real as clay, but are new wholes with a newly imposed structure. Likewise, corporations are just as real as people, but are new wholes with a characteristic structure.

Concerning physical structures of physical objects, the wholes are exactly as real as the parts, since wholes and parts alike are physically real. Consider a brick wall composed of bricks and mortar. Brick walls need bricks, but bricks do not need to be in walls or other structures. Bricks need only be made for the purpose of potential use in walls or other structures. Brick walls, of course, are artifacts.

The four kinds of natural physical unity, in order of progressively descending strength, are the strong unity of the atomic nucleus, the weak unity of the atom, electromagnetic, unity, and gravitational unity. We might also distinguish sub-degrees of unity and say that the gravitational unity of the earth is greater than that of the far-flung solar system, though this is admittedly a function of distance as well as of mass. The whole solar system, if as close together as are the stones of the earth, would be far harder to separate spatially. The idea is that the stronger the unity, the more real the entity.

According to Aristotle, artifacts such as chairs are substances, but are more weakly held together than are natural substances such as trees. In the present era of superglue, the artifacts may be winning.

How would corporations fit into this degrees of reality scale? One might think poorly, since none of the four kinds of physical unity plays much of a role in holding corporations together, though admittedly our corporations have been entirely or almost entirely earthbound by gravity. But what holds a corporation together physically into typical behavioral (commercial) patterns are the physical actions of people. If a thief steals a corporate car, corporate personnel may legally try to get the car back, to pull it back into the corporate orbit so to speak. All this is true even though it may not be physical causes and effects of people so much as their choices and acts as agents which hold corporations together. Causes and acts are very different things, but we need not discuss their basic differences now. Such differences will make no difference to the ontological reality of whole corporations.

The peculiarity of corporations as artifacts is that they are principally composed not of inanimate physical things, but of people, sometimes the very same people who artifice them. Thus what is ontologically close to a corporation is a human pyramid formed by an acrobatic troupe, or a shield wall. That a corporation is more widely dispersed over time and space is ontologically unimportant compared to its far greater capacity to hold together, to remain unified. In fact, dispersion can promote unity. The shield wall of Harold Godwinson's Saxons lasted only some six hours against about twelve thousand Norman invaders. But it would be hard today for William the Conqueror to wipe out Exxon, whose directors can spend billions on moving their world-wide operations about, not to mention over-the-horizon weapons.

Consider the brick people. These are people conscious like us, but they look like bricks. They look like they have mortar on their tops, bottoms, and ends, but under the microscope the seeming mortar is revealed to consist of thousands of tiny hands by means of which they can move about like centipedes. The brick people like to form themselves into walls or buildings, and when they do their hands hold each other like superglue for days, centuries, or millennia. Often younger brick people replace older ones so as to maintain these structures. Unless you are lucky enough to catch them undergoing various rearrangements of their structures, you would think you were looking at an ordinary wall or house. That is because they have passed laws regulating the kinds of structures they can form using themselves. Usually brick people wanting to form a house fill out an incorporation petition. But if they forget to comply with the formalities, brick judges will legally recognize a de facto brick house. Brick people pool their money together to buy inanimate doors and windows, which are valuable assets for any house to have. They are venturesome travellers on their tiny hands and engage in many acquisitions, mergers, spinoffs, and dissolutions of their buildings. They will even rebuild the same house in a distant state, if authorized by their law to do so. Usually this sort of activity is decided by control bricks. It is often hard to tell who are the control bricks, but a director, senior officer, or major shareholder is presumptively a control brick.

I suggest that if an ordinary brick wall is as real as the ordinary bricks that compose it, then a brick people wall is not only as real as the brick people who compose it, but is at least as real as an ordinary brick wall as well. And if degree of reality is measured by strength of unity, a brick people wall may be more real than an ordinary brick wall. Thanks to replacements, brick people walls might last for millions of years under conditions that would reduce any ordinary brick wall to sand. Theoretically a brick people wall can last forever, in that the brick people that compose it can always be replaced by other brick people. While the same might be said of an ordinary brick wall, an ordinary brick wall has the disadvantage that its constituent bricks cannot initiate their own replacement. An ordinary brick is inanimate and cannot take steps to ensure the immortality of a wall of which it is a constituent. Neither an ordinary brick building nor a brick people building would be a conscious person in its own right. It is the constituent brick people who do all the acts.

In like manner, corporations held together by the acts of their own human constituents theoretically can last forever, and may hold together better than any inanimate walls or buildings. Humans can play an active role in preserving corporate unity, a role which can count for more in preserving unity than mortar or superglue can.

Archie J. Bahm distinguishes three specific categories of wholes:

the aggregate, the mechanical whole, the organic whole. In an aggregate the parts are absolutely independent of each other, both functionally and existentially....In a mechanical whole, such as a watch, the parts depend on each other, functionally, but are independent existentially....In an organic whole, the mutual dependence of the parts and the whole is complete.... (Bahm 1974: 37)

This threefold distinction may not be as clear as we would like, but it should be clear that a house composed of brick people is only a mechanical whole. The house itself is not an organism; the brick people are not its organs. By analogy a human pyramid of acrobats, a shield wall, and a corporation would be likewise only mechanical wholes. They may appear very unmechanical. Indeed, they may appear positively organic and alive as an effect of the acts of their constituents, but they are simply not organisms.

Of course, since people are free agents, corporations are not mechanical wholes in any very mechanical sense of "mechanical whole." But what is a mechanical whole? It seems to me that a mechanical formal proof by truth-tables is a mechanical whole. The premises entail the conclusion in a determinate number of steps, yet the writing of each sentence is existentially independent of the others. Surely the proof is neither a mere aggregate nor an organic whole. Thus the concept of a mechanical whole is broader than one might at first imagine.

Part Three: Vagueness, Artifice, and Reality

1. Logical determinacy (the law of excluded middle)

The chief new topic is vagueness. The argument would be that corporations are vague, therefore they are not real. More precisely, where a vague thing is a thing that has vague boundaries (as opposed to sharp boundaries and a vague interior):

1. Corporations have vague boundaries.
2. Vague boundaries are made into determinate boundaries only by our stipulations, however well-reasoned.
3. But then we are deciding rather than discovering these determinate boundaries.
4. Therefore any determinate boundaries of corporations are not real.
5. Therefore corporations are not real.

I shall call this the vagueness argument.

An argument is sound if it is valid and all its premisses are true. An argument is valid if the conclusion logically follows from the premisses.

If it is valid, the vagueness argument is valid not in virtue of anything specific about corporations, but in virtue of its logical form. That is, the argument would be just as valid or invalid no matter what you substitute for "corporations." Replacing "corporations" with "x" reveals the form of the argument.

One may show that the form of an argument is invalid by producing a counterexample, i.e. by describing an actual example which makes the premisses true but the conclusion false, or even a hypothetical example which would do that if it were actual.

I think there are indefinitely many counterexamples to the vagueness argument. The argument is defeated by a cloud, or an emotion. Many things are undeniably vague, yet just as undeniably real, in a perfectly ordinary, pre-philosophical sense of "real."

Counterexamples show that an argument is invalid, i.e., that the conclusion does not follow from the premisses. Thus they show there is something wrong with the logical form of the argument, or in the case of an informal (intuitive as opposed to deductive) argument, by showing *simply* that the conclusion does not follow. But it does not follow from the fact that there is a counterexample to an argument that the argument's

conclusion is *false*. A counterexample merely shows that the argument does not *establish* its conclusion as true. Even worse from the analytical point of view, a counterexample may not make it clear where the argument goes wrong.

It seems to me that we should look for assumptions of the vagueness argument, and I think there are several. Five assumptions are obvious:

- 3a. If the boundaries of a thing are not naturally as opposed to artificially (i.e. decisionally) determinate, then the thing is not real.
- 4a. If the boundaries of a thing are not real, then the thing is not real.
- 4b. If the boundaries of a thing are not determinate, then the thing is not determinate.
- 4c. If the boundaries of a thing are not determinate, then, the thing is not real.
- 4d. If a thing (and here things include boundaries of things) is not determinate, then it is not real.

(3a) is assumed in the move from premiss (3) to premiss (4). (4a)-(4d) are assumed in the move from premiss (4) to premiss (5). It is *not* an assumption of the argument that

- 4e. All the parts of a real thing, including its boundaries, are real.

For the *only* parts of a thing the argument is concerned with are its boundaries. Thus the deepest assumption is (4d). (4a) and (4b) seem trivially true, but the other three assumptions do not. In fact, (3a), (4c), and (4d) all seem to be false. Intuitively, determinately fashioned artifacts are counterexamples to (3a). Clouds and emotions are counterexamples to (4c) and (4d).

A logically precise version of (4d) would be: if a thing does not conform to the law of excluded middle, then it is not real. That is, if a thing is not logically determinate, then it is not real. Here we should be clear on what the law of excluded middle is. So to speak, we need a determinate understanding of the law of excluded middle. Traditionally its form is: For any A, either A or not-A. Where either A or not-A is some fact, this may be called the factual or (perhaps begging the question) realist version of the law of excluded middle. The semantic or linguistic version of the law is that for any meaningful statement "A," "A" is either true or false. This version is called the law of bivalence. Bivalence is the view that there are only two truth values (bi-valence), and every meaningful statement has exactly one of them. Third, the rational or intellectual version of the law is that for every thought A, A is either true or false. There is no commonly accepted name for this third version. *Quartum non datur*.

Where statement "A" is a statement of the form "S is P," the law of excluded middle may be interpreted in these three ways: as about properties in the world, predicates in language, or concepts in the mind. These may be respectively called the propertial,

predicational, and conceptual versions of the law. The propertial version is that every subject-thing S is such that every property P is either exemplified by S or is not. The predicational version is that every subject-thing S is such that every predicate P either applies to S or does not. The conceptual version is that every subject-thing S is such that every concept P either applies to S or does not. Again, *quartum non datur*. Nine sub-versions of these laws can be defined by variously interpreting S as subject-thing S, linguistic subject "S," or idea of thing S, but I shall not trouble to do so here. Strictly speaking, I have stated the propertial, predicational, and conceptual versions of the law as the sub-versions interpreting S as subject-thing S.

More precisely, the law of excluded middle is traditionally taken to be about the world, i.e. about facts, as saying that either A is the case or not-A is the case. If the law is true, we may say that every fact is logically determinate. If the propertial version of the law of excluded middle is true, we may say that every property is logically determinate. The law of excluded middle as just described is commonly distinguished from the law of bivalence, which is: Statement "A" is either true or false. If the law of bivalence is true, we may say that every statement is logically determinate. If the predicational version of the law of bivalence is true, we may say that every predicate is logically determinate. There is no established name for the law: The thought expressed by "A" (or the thought that A) is either true or false. We may call it the law of determinate thought. If the law is true, we may say that every thought is logically determinate. If the conceptual version of the law of determinate thoughts is true, we may say that every concept is logically determinate.

Terminologies vary. Dummett calls excluded middle a logical law, and bivalence a semantic principle. Dummett says:

The importance of distinguishing the semantic principles from the logical laws lies in the fact, generally acknowledged in the case of [excluded middle and bivalence], that, while acceptance of the semantic principle normally entails acceptance of the corresponding logical law, the converse does not hold. (Dummett 1978: xix)

But I think Dummett has it backwards. For it depends on the ontological locus of truth. If truth is a timeless property of all possible statements or thoughts, then and only then are the laws of excluded middle, bivalence, and determinate thought logically equivalent. But if truth is only a property of *actual* statements or thoughts, then there would be no truth if there were no thought or language in the world. But facts of the matter and properties of things would still be going about as well as ever, so in that case excluded middle would entail bivalence and determinate thought as limited cases, but the converse would not hold. For there *are* no actual statements or thoughts about most facts or things, for example each particle of dust on the far side of the Moon. I mean that most things in the world are never singled out in reference or thought; of course, there are universal statements or thoughts of the form *all S are P* which *apply* to everything whether every thing is singled out or not.

In a standard introductory logic text, Copi calls bivalence an "alternative version" of the law of excluded middle (Copi 1978: 306). I call it the semantic version. But as I just showed, whether the factual, the semantic, and the rational versions of the law of excluded middle are logically equivalent depends on our theory of truth.

Where every fact consists of a subject-thing and a property (we may allow a fact to consist of a plurality of subject-things and a relational property), the factual version is logically equivalent to the propositional version. Similarly for the logical equivalence of the semantic version with the predicational version, and also for the logical equivalence of the rational version with the conceptual version. But this paragraph is trivial bookkeeping.

Where a thing is logically determinate according to *any* of these versions of the law of excluded middle, the following simplest version of the vagueness argument-- it is really the deepest assumption, (4d)-- is intuitively a non sequitur:

1. x is not logically determinate.
2. Therefore x is not real.

The counterexamples are clouds and emotions. There are facts, statements, and thoughts about clouds and emotions, all of which are logically indeterminate in the respectively appropriate senses, yet clouds and emotions are real. If so, then there is no need to discuss trivial or shallower assumptions (4a)-(4c), since the vagueness argument is already dead.

It is worth discussing assumption (3a) separately, as it raises a different issue. Perhaps a less obvious assumption of the vagueness argument is that if we draw or decide the boundaries of a thing, then that thing is not real. This assumption governs the move from (3) to (4) in the vagueness argument. But while assumption (3a) may be less obvious than assumption (4d), I think it is just as easily shown to be false. In fact, I think Frege has already done so. Frege says:

The objectivity of the North Sea is not affected by the fact that it is a matter of our arbitrary choice which part of all the water on the earth's surface we mark off and elect to call the "North Sea"...If we should happen to wish, on another occasion, to draw the boundaries of the North Sea differently..., that would not make false the same content that was previously true: what we should perhaps rather say is, that a false content had now taken the place of a true, without in any way depriving its predecessor of its truth. (Frege 1974: § 26)

Frege means that if we change our definition of "North Sea," the truth-values of the *sentences* containing that expression may change, but the truth-value of *what was asserted* by those sentences on the earlier definition does not change.

If we substitute "corporation" for "North Sea," Frege's insight is this. The objectivity of the corporation is not affected by the fact that it is our arbitrary choice which part of all

the real human activity and real physical materials on the earth's surface (or elsewhere) we mark off and elect to call a "corporation." If we later wish to define "corporation" differently, that does not make false anything we truly asserted using the old definition, but merely makes our sentences into assertions about *other* real portions of real human activity and real physical materials.

Frege's insight applies even if our change of definition changes which boundaries of the North Sea, or which boundaries of Exxon, are *vague*.

If we variously shape a lump of wet clay now into a teapot, now into a vase, does its reality change in the slightest? --If we variously shape a group of people now into a corporation, now into a sole proprietorship with employees, does its reality change in the slightest? --Well, perhaps in the slightest! But in ontology we are primarily concerned with the general sort of reality of each of the most general, i.e. the metaphysical, categories of things, and not so much with slight differences within a category.

What is vagueness? Quine says,

Commonly a general term true of physical objects will be vague in two ways: as to the several boundaries of all its objects and as to the inclusion or exclusion of marginal objects. Thus take the general term 'mountain': it is vague on the score of how much terrain to reckon into each of the indisputable mountains, and it is vague on the score of what lesser eminences to count as mountains at all. To a less degree 'organism' has both sorts of vagueness....

The first of the two ways in which 'mountain' is vague causes an indeterminacy of count: it is not clear when to declare a saddle to be in the middle of one [indisputable] mountain and when between two [indisputable] mountains. The issue makes all the difference between one [indisputable] mountain and two. (Quine 1975: 126)

Note the artificiality of Quine's distinction. The distinction would vanish altogether if I did not keep inserting the term "indisputable." For if the boundaries are vague enough, the object is marginal. And vagueness in *either* of Quine's two ways causes an indeterminacy of count. Thus this is a distinction only in reason. But even an artificial distinction can illuminate. The North Sea is indisputably a real sea, and Exxon is indisputably a real corporation, even if their boundaries are not logically determinate in any of the senses I have defined.

Grice and Strawson, in the beginning of their famous critique of Quine, confirm that the distinction between corporations and non-corporations does not fail merely because there is a vague line between them:

There are many ways in which a distinction can be criticized, and more than one in which it can be rejected. It can be criticized for not being a sharp distinction (for admitting of cases which do not fall clearly on either side of it); or on the

ground that the terms in which it is customary drawn are ambiguous (have more than one meaning); or on the ground that it is confused (the different meanings being habitually conflated). Such criticisms alone would scarcely amount to a rejection of the distinction. They would, rather, be a prelude to clarification. It is not this sort of criticism [of the analytic-synthetic distinction] which Quine makes. (Grice 1956)

Thus the vagueness argument is a mere prelude to clarification. Not only is it based on the mere vagueness of the corporation-noncorporation distinction, but it may conflate philosophical talk with legal and economic talk of reality, if jurists and economists take it seriously.

Richard Taylor beautifully states the vagueness argument as follows:

There is a common way of thinking that we can call *polarization*, and that appears to be the source of much metaphysics. It consists of dividing things into two exclusive categories, and then supposing that if something under consideration does not belong to one of them, then it must belong in the other. "Either/or" is the pattern of such thought, and because it is usually clear, rigorous, and incisive, it is also often regarded by philosophers as uniquely rational. Not surprisingly, it is presupposed in logic texts, in which we are told, on the first page, that every proposition is *either* true *or* false--and the abstract science of logic proceeds from there.

Consider what would seem to be an obvious instance where the "either/or" pattern would fit without exception--for example, the statement that either it rained at a given place or time, or it did not....But suppose that on an exceptionally clear day a few raindrops fell in some remote corner of Chicago. Was the weather forecaster wrong who said the day before that it would be clear? Here we are tempted to say that, "strictly speaking," he was not quite right, but that practically speaking he was. But suppose there is but a single raindrop in my yard, along with others nearby. Did it rain in Chicago? Did it rain in my yard? In my entire yard? Or only part of it?....Or only at the spot where the drop fell? Or what?

One should resist the temptation to figure out (by drawing more distinctions) the "right" answers to these odd questions. There is no right answer. Either "yes" or "no" is as good an answer as the other. And the only thing odd about such questions is that there would seldom be any practical point in raising them. When questions of this sort arise in philosophy, however, then it does not matter whether there is any practical point in raising them, for philosophy does not pretend to be practical.

Consider the question whether, at a given moment, a certain person was or was not in Wisconsin. In most cases, of course, there will be a definite answer. But what of a passenger in an airplane flying over Wisconsin? Would he be lying if, some years later, he said he had never visited Wisconsin? Here the temptation is to say that, "strictly speaking," he would be mistaken, since we must include the

space above Wisconsin within its geographical limits. But must we? How much space? Shall we say that astronauts, thousands of miles above earth, are nevertheless still passing through Wisconsin?....

The point then is that with respect to such "either/or" choices, there are no right answers to be found; they can only be invented, and this is invariably done with an eye to practical consequences. But then you have to be careful not to view this invention, this "sharpening up" of a concept, as it is sometimes misleadingly described, as enabling you to express the truth more accurately than before. On the contrary, it distorts the truth by making reality appear to your mind to be more neat and tidy than it is....

For example, you sometimes find people, even educated people, trying to discern the borderline between life and death. Is someone whose heart and pulse are strong and normal, but whose brain has irreversibly ceased to function, still alive? What is the seat of life: the heart? or the brain? Questions like these, following the "either/or" pattern, invite answers, and there is an almost irresistible temptation to try to find them. Philosophy teachers sometimes engage their students in discussions of this kind, because they are invariably lively ones that "get the students thinking." It is seldom made clear that such thinking is in the nature of the case certain to end in failure. Sometimes, however, metaphysical wisdom begins not with finding an answer to a metaphysical question but with the realization that no answer exists, even, sometimes, to a question that is [I would say seems] perfectly clear and precise.

Of course, answers to such questions can always be invented, and indeed they always are. But as with all inventions, they differ according to the predilections, needs, and prejudices of their inventors. In the realm of metaphysics the competing inventors of answers then fall to wrangling over which answer is the "true" one, quite failing to realize that no one has discovered any truth at all. The answers are in fact nothing but rival fabrications.

Here man is, indeed, the measure of things, in precisely the sense Protagoras meant. Rival answers to questions of this nature can all be declared to be true, which is but another way of saying that none is objectively true. But as Protagoras insisted, some answers are nevertheless better than others; better, that is, in terms of their consequences. (Taylor 1983: 106-9)

The first thing to note is that Taylor's argument concerns only boundary cases. Thus man is not the measure of all things, but only of some boundary cases. Taylor agrees that there are "definite" answers in most cases. And just as there is usually no doubt whether it is raining in Chicago or not, or whether a certain person is in Wisconsin, so is there usually no doubt about whether a certain person is alive, or whether a certain human organization is a firm, or whether a certain firm is a corporation. The occasional and even frequent existence of rain, persons in Wisconsin, living persons, or of corporations is never in doubt here. Corporations may be inventions (artifacts), but they are not fabrications (fictions) any more than rain is. In fact, most corporations have far

more unity and coherence as individual things than rain does. The second thing to note is that we must charitably interpret Taylor here as finding vagueness only in our words and thought, and not in the real world; for as we shall see shortly, Taylor argues in the same book that vagueness is only in our words and thought, and not in the real world.

2. The ontological locus of vagueness

A complete analysis of the vagueness argument is not possible without a theory of the ontological locus of vagueness. That is, we must know where vagueness is really located: in the world, in language, or in thought. Perhaps it is in all three. Just as with vagueness's opposite number, the law of excluded middle, *quartum non datur*.

I think we must admit that vagueness is often found in our language and in our thought. Can anyone seriously doubt that our talk and our thinking is often vague? The only remaining question is whether vagueness is also located in reality, that is, in the world *as opposed to* language and thought. (There is an obvious sense in which language and thought *are* in the world, as opposed to imaginary languages and thoughts in a work of fiction. Even works of fiction are in the world, except perhaps for imaginary works of fiction. There are many works of fiction in bookstores.)

The simplest, most basic vagueness argument is that since corporations are vague, they are not real. Thus the argument clearly assumes that the locus of vagueness is *not* the world, since if vague things *were* in the world, then vague things *would* be real. The argument is indifferent as to whether the locus of vagueness, and therefore of corporations, is language or thought or both. For to say *either* that corporations exist only in language or that they exist only in thought is to say that they do not exist in the world (as opposed to language or thought). It is to say that they are ontological fictions. And that is all the argument is concerned to show.

It might be argued that since vagueness is the contradictory of logical determinacy, the ontological locus of both should be the same. For if we say that some corporations are vague and others more determinate, ordinarily we think of all of them as being out there in the world, as opposed to being mere manners of speaking or mere conceptions in our minds. One may argue by analogy here. Round and nonround are contradictories; therefore we would never say that round things are real but nonround things exist only in language or only in the mind. This is in the sense in which pink and nonpink meaningfully apply only to things having color, and (arithmetically) even and noneven meaningfully apply only to integers; there is also a sense in which all things without color are nonpink, and all non-integers are noneven. The only exception would be real and nonreal themselves; by definition, real things are in the (real) world and nonreal things are not. On this line of thinking, vagueness has its locus in the real world if and only if determinacy does. Granted, there is a point of diminishing returns to this argument. If something is vague enough, then it is not real; and this includes corporations. One may argue by analogy here as well. Some swimmers are better than others, but if someone swims badly enough, he is just not swimming. But this point of diminishing returns scarcely rises to the level of a serious objection. For anyone, even a

realist about corporations, can admit that much. More seriously, it might be objected that vagueness is not even a contrary, much less a contradictory, of logical determinacy. For everything is exactly what it is, and vague things are exactly what they are, just as logically determinate things are exactly what they are. I shall return to this paradoxical issue several times, most fully in the "My views" section.

Many philosophers find an asymmetry in the loci of vagueness and logical determinacy. Namely, they find vagueness in language and thought, but not in reality. Russell says,

There is a certain tendency in those who have realised that words are vague to infer that things also are vague....This seems to me precisely a case of the fallacy of verbalism-the fallacy that consists in mistaking the properties of words for the properties of things. Vagueness and precision alike are characteristics which can only belong to a representation, of which language is an example. They have to do with the relation between a representation and that which it represents. Apart from representation, whether cognitive or mechanical, there can be no such thing as vagueness or precision: things are what they are, and there is an end of it. Nothing is more or less what it is, or to a certain extent possessed of the **properties** which it possesses. (Russell 1923: 84-85, boldface emphasis mine)

What Russell is driving at seems clear and good. There is a clear sense in which only an attempt to represent or depict something can be vague or precise. But he seems to end by saying that things are exactly what they are, neither more nor less, i.e. not merely to some extent. And that seems to amount to saying that all things, as such, are precise. Or perhaps precise is not the word, since precision connotes representation. Rather, he seems to be saying that all things are logically determinate. But there is a caveat: a vague thing would be exactly as vague as it is. This is our paradoxical issue again, still to be discussed later. I will only mention now that properties, too, are exactly as they are.

Thus Russell's view is that things are exactly as they are, while vagueness and precision are found only in our logic, our language, and/or our thought. But confusingly, he says elsewhere in the paper that all our *percepts* or *sensations* are vague. Perhaps then he takes these as representations of perceptible things, and is no longer a logical fictionalist who holds that ordinary things are logically composed of temporal series of classes of sensed and unsensed sensibilia:

Stimuli which for various reasons we believe to be different produce in us indistinguishable sensations....And the vagueness of the knowledge derived from the senses infects all words in the definition of which there is a sensible element" (Russell 1923: 87)

I shall return to this topic shortly.

Taylor holds that reality is logically determinate, and it is our (words and) concepts that are vague. In a passage known to thousands of first-year students, Taylor says:

If I consider the world or any part of it at any particular moment, it seems that it is perfectly determinate in every detail. There is no vagueness, looseness, or ambiguity. There is, indeed, vagueness, and even error, in my conceptions of reality, but not in reality itself. A lilac bush, which surely has a certain exact number of blossoms, appears to me only to have many blossoms, and I do not know how many. Things seen in the distance appear of indefinite form, and often of a color and size that in fact they are not. Things near the border of my visual field seem to me vague and amorphous, and I can never even say exactly where that border itself is, it is so indefinite and vague. But all such indeterminateness resides solely in my conceptions and ideas; the world itself shares none of it. The sea, at any exact time and place, has exactly a certain salinity and temperature, and every grain of sand on its shore is exactly disposed with respect to all the others. The wind at any point in space has at any moment a certain direction and force, not more nor less. It does not matter whether these **properties and relations** are known to anyone. (Taylor 1983: 33; boldface emphasis mine)

The phrase I italicized is subtler than it may seem. *Clouds* are exactly what they are because they have exactly the properties they do. But their *properties* are as exactly what they are as well, and have exactly the (second-level) properties *they* do, regardless of whether we can exactly describe or exactly conceive of these properties. If we find clouds vague, it is because we take them to have vague properties. Thus vagueness is not only in our conception of the cloud, but also in our conception of its properties. Our conception of this cloud is vague in part because our conception of what it is to be a cloud is vague. This is important because one may take issue with Taylor's claim that the lilac bush has an exact number of blossoms. One may see a bud on the borderline of becoming a blossom. That may be because our perception is vague. But usually our perception is definite enough, and it is because our concepts of bud and of blossom are vague. We do not exactly know the properties of the lilac bush or its blossoms any more than we exactly know the lilac bush or its blossoms. Likewise for the borderline of a table or chair on the molecular or atomic level, for which Quine finds it in principle impossible even to *stipulate* an arbitrarily precise *convention* for exactly when we have a table (Quine 1981: 34-36). On his view, the ordinary notion of a table or of a chair is too vague even for that.

Taylor's view is traditional. As I say in my first book:

Suárez follows Aristotle, *Metaphysics*, book 4, text 4 and text 5, and book 10, text 11 in finding that "whatever beings exist in the actual order prior to mental activity are either really identical or are really diverse, as otherwise there would be a middle ground between 'the same' and 'other'..." (Suárez 1947: 22). This is a *reductio ad absurdum* of [irrealism] based on the law of excluded middle. (Suárez 1947: 16 17, 20, 22, 31, 35). (Dejnožka 2003: 29)

The reason for this traditional asymmetry of loci is that logical determinacy is viewed as a logically necessary condition of being an entity. The point of saying something is an entity only if it conforms to the law of excluded middle is precisely that this is what

makes it a logically determinate being. Here the factual version of the law is usually meant.

Once again, clouds and emotions are the ordinary counterexamples. One traditional reply to such counterexamples is atomism. Clouds and emotions are composed of determinate atoms, and appear to us as vague, either through perception or introspection, because our powers are too limited to perceive or introspect the atoms individually. To this it may be replied in turn that the atoms are real if and only if the clouds and emotions are real. Is a brick wall any more or less real than the bricks that compose it? Indeed, it is not uncommon to hold that there are different levels of world structure. And on the macro-level of ordinary, medium-sized real objects such as clouds, there may be much vagueness, even if on the micro-level of atoms, there is not. This is a logically consistent view. Compare a corporation and its constituent individual shareholders. How can a corporation be less real than the human constituents whose existence it often outlasts? This would violate the old scholastic principle that a whole contains at least as much reality as its parts contain, which seems trivially true, and not to involve the logical fallacy of composition. [FN3](#)

If Russell deviated from the traditional view that reality is logically determinate, the principal reason would be his view that appearances (1) are real, (2) are as they appear to be, (3) and appear to be vague. Many philosophers would take issue with (1), holding that appearances are not real, but *mere* phenomena or sense-data. The whole point of Husserl's bracketing or, for that matter, Descartes' method of radical doubt which inspired Husserl, is to set phenomena aside from any question of ontological reality. I resolve the dilemma by holding that even bracketed phenomena are real in the sense of not being nothing, and I argue elsewhere that this is just what Russell has in mind (my 2003: ch. 4). But insofar as Russell does not deviate from the traditional view, the reason is that for him the locus of vagueness and precision alike is in the relation of representation. Precision is a perfect representation, and vagueness is a less than perfect representation. For Russell, asking whether a *thing* is vague or precise would be like asking if the color pink is odd or even. It would be a category confusion. This is why Russell calls precision and vagueness not contradictories but contraries (Russell 1923: 89). For he holds nothing is both precise and vague, but he also holds that things, as opposed to representations, are neither vague nor precise, but logically determinate, i.e. conforming to the law of excluded middle, a law he defends as late as his 1940 *Inquiry* (Russell 1985: ch.20).

Quine agrees with Dummett that bivalence is "the hallmark of realism" on the basis of the following argument:

We stalwarts of two-valued logic...declare that it is either true or false that there was an odd number of blades of grass in Harvard Yard at the dawn of Commencement Day, 1903. The matter is undecidable [i.e. now that it is 1981], but we maintain that there is a fact of the matter. Similarly for countless similar trivialities. Similarly for more extravagant undecidables, such as whether there was a hydrogen atom within a meter of some remote point that we may specify by space-time coordinates. And similarly, on the mathematical side, for the

continuum hypothesis or the question of the existence of inaccessible cardinals. Bivalence is, as Dummett argues (pp. 145-165), the hallmark of realism. (Quine 1981: 32, citing Dummett 1978: 145-65)

This traditional view is deeply odd in one respect. For the traditional view is also that whatever is logically simple (indefinable) is real. But what if some simple things are vague? Are they unreal because bivalence fails for them, or are they real because they are simple? I do not know if the tradition ever noticed the possible tension between these views, since I do not know if traditional philosophers ever considered the logical possibility of a vague simple object.

Tradition holds that all fictional things are complex, thus implying that all simple things are real. Tradition holds that all fictional things, including dreamed and imaginary objects as well as works of literature, are logically composed out of simpler things. Indeed, a fiction is precisely a composition which fails to correspond to reality. Ontological fictions are fictions in precisely this sense. Descartes says in a famous passage,

[P]ainters, even when they study with the greatest skill to represent sirens and satyrs by forms the most strange and extraordinary, cannot give them natures which are entirely new, but merely make a certain medley of the members of different animals; or if their imagination is extravagant enough to invent something so novel that nothing similar has ever before been seen, and that then their work represents a thing purely fictitious and absolutely false, it is certain all the same that the colours of which this is composed are necessarily real. And for the same reason, although these general things, to wit, [a body], eyes, a head,, hands, and such like, may be imaginary, we are bound at the same time to confess that there are at least some other objects yet more simple and more universal, which are real and true; and of these just as in the same way as with certain real colours, all these images of things which dwell in our thoughts, whether true and real or false and fantastic, are formed. (Descartes 1969: 146).

This sort of view begins with Plato's theory of elements, if not earlier with the Greek atomists. Logical atomism is meant as a reconciliation of Parmenides with Heraclitus. Ontologically simple atoms are tiny packets of Parmenidean being, in the sense that they must be there for us to talk and think about the world at all. For Parmenides says we cannot speak or think about nothing, and everything else is composed of them. Changes in complex things composed of atoms is how the ancient atomists accommodate Heraclitus on the reality of change. Russell's logical fictions are composed of logical atoms; Russell accordingly deems change a logical fiction. In a famous section of *Philosophical Investigations*, Wittgenstein admits that his objects in his earlier *Tractatus Logico-Philosophicus* and Russell's logical atoms are basically Plato's elements (*Investigations* § 46).

Russell sides with tradition insofar as he holds that whatever is logically simple is real. I quote from my first book:

[R]ussell's 'no entity without identity' has a root in the past. Frege and Russell alike were influenced by Leibniz. Russell's deepest lesson from Leibniz was the dictum, *Quodlibet ens est unum*, and the biconditional of which it is part, *Ens et unum convertuntur*. Russell says in *The Philosophy of Leibniz*:

[start quote] "Where there are only beings by aggregation," Leibniz says, "there are not even real beings. For every being by aggregation presupposes beings endowed with a true unity, since it only derives its reality from that of those of which it is composed, so that it will have none at all if every component is again a being by aggregation."...What is not truly one being, is not truly a being [for Leibniz]. (PL 103-5; see 71) [end quote]

The dictum's influence may not be obvious. Russell does not include the dictum among Leibniz's five "principal premises," or even mention it in his account of Leibniz in *A History of Western Philosophy*. Thus Russell may appear not to consider the dictum important even to Leibniz. In his own philosophy, Russell sometimes denies that there must be simples if there are complexes, and affirms both that complexity is presented and that presentations must be real. These views come close respectively to denying that beings by aggregation derive their being from beings that are truly one, and affirming that beings by aggregation are real. Leibniz's dictum cannot even be significantly stated for Russell or Frege. For if every item is one ('is a unit' for Frege), then it cannot be informative to say that there is one such-and-such. I appeal, therefore, to *Principia* itself. Russell says:

[start quote] In the case of descriptions, it was possible to prove that they are incomplete symbols. In the case of classes, we do not know of any equally definite proof, though arguments of more or less cogency can be elicited from the ancient problem of the One and the Many.*

*Briefly, these arguments reduce to the following: If there is such an object as a class, it must be in some sense one object. Yet it is...of classes that many can be predicated. Hence, if we admit classes as objects, we must suppose that the same object can be both one and many, which seems impossible. (PM 72) [end quote]

This 'more or less cogent' argument's first premise openly states *Quodlibet ens est unum*: "If there is such an object as a class, it must in some sense be one object." I also cite Russell's letter of January 1, 1906 to Philip Jourdain. Russell says:

[start quote] What was wrong was assuming individuals which have no being....I now extend this to all classes. The error seems to me to lie in supposing that many entities ever combine to form one new entity. (Russell 1973a: 68) [end quote]

Here Russell endorses *Ens et unum convertuntur*. *Quodlibet ens est unum* is implied by the second sentence, and its converse is implied by the first sentence.

Ens et unum convertuntur is the ontological power behind the logical throne of Russell's atomism. It explains Russell's lifelong tendency to equate the real both with the simple and with what is empirically given as one thing. Conversely, it explains his rejection of classes as fictitious or unreal. In short, the dictum explains Russell's modified realism, on which some identities are real and others are conceptual. Where Occam's razor is the negative epistemic root, *Ens et unum convertuntur* is the positive ontological root of Russell's rejection of the old classes as many and classes as one. It is the positive reason for his eliminative solution of "perhaps even the fundamental problem of philosophy."

The lesson was not just from Leibniz. Leibniz found "Plato's profoundest philosophy...in the *Parmenides*" (Cornford 1939: vi). Again, Russell read Plato's *Parmenides* in early 1899 (Griffin 1991: 335 n.16), just a year before his book on Leibniz was published (Griffin 1995).

Geach says that in *Ens et unum convertuntur*, it makes no sense to view the two transcendental terms as logically convertible or intersubstitutable *salva veritate*, much less to define or explain being as one; what was meant is only that the two terms "turn together, like a train of gear wheels" (Geach 1973: 287-88). I wholly grant that Geach is right about the classical Latin meaning of *convertuntur*. But the real question is *why* the two terms turn together. Is it a mere coincidence? Is it, perhaps, some sort of a pre-established ontological harmony? Aristotle says, "That 'unity' has in some sense the same meaning as that of 'being' is clear" (*Metaphysics* 1054a10-15). I suggest that is why being and unity turn together. (my 2003: 184-86)

The 1914-18 Russell's logical fictionalism is precisely that all logically complex things described by descriptions (as opposed to facts described by statements) are logical fictions, with the epistemic caveat that no logically complex thing is *known* to correspond with anything in reality, so that we need not *assume* such a correspondence. (The epistemic caveat is Russell's version of Occam's razor.) Russell holds that what is simple is what is ultimately real, and that our progressively deeper stages of logical analysis of ordinary things are ontologically committed only to the simplest things, i.e. to the things admitted as the ultimate constituents in the ultimate analysis. Russell says that sense-data, which are really indivisible because if we attend to parts or aspects of them, they cease to be and their parts or aspects come into being as our new sense-data (Russell 1971: 114-15; see 168), "have the most complete and absolute and perfect reality that anything can have" (Russell 1971: 274).

To sum up these points, we may say that (1) what is simple is real, (2) what is complex is either real or fiction, but (3) what is fiction can only be complex. A thing is a fiction in the ordinary sense if and only if it is a representation and it is false; it is the falsity that implies complexity. Of course, for a logical fictionalist like the 1914-18 Russell, a thing is a logical fiction if and only if it is complex. The 1914-18 Russell differs from traditional philosophers only in finding *every* complex thing to be a logical fiction, even ordinary things ordinarily considered to be real, such as tables and chairs. This departs too far from the ordinary use of "fiction" for me. For me, a complex brick wall is as real

as its constituent bricks. Therefore I would define a thing as a logical (ontological) fiction if and only if it is unreal; the unreality implies complexity. I doubt we can describe an unreal simple, so I doubt we can use Russell's theory of descriptions to escape the traditional view. For how could we describe an unreal simple hue or timbre? For Russell, to describe them would virtually be to name them. Of course, for Russell a logically proper name cannot describe; but the descriptive term "red" in the description "the red sense-datum I am having now" must name the simple (indefinable) real universal the simple (really indivisible) *sense-datum* is described as having; and for Russell, we cannot name nothing, nor can we be acquainted with a simple descriptive universal except by empirical acquaintance with a real sense-datum.

It seems to me that in a showdown between the traditional view that what is simple is real, and the traditional view that what is real is logically determinate, the first view is deeper and therefore should win. For all terms and their definitions are traditionally, and I think logically, prior to all statements composed out of terms, including very general statements such as the law of excluded middle. (In traditional logic, statements are logically composed of terms, and arguments are logically composed of statements.) This deepens the question whether there are or logically can be vague simple things.

But even if some ontologically simple (really indivisible) things are vague, and real because they are simple, it does not follow from *this* that corporations are real. To show that corporations are real on *this* line of argument, we would need to show that corporations are ontologically simple. And on the face of it, even without knowing the best definition of "corporation," there is no doubt that corporations are very complex. And on the face of it, they are real in just the way all other complex real things are real. They are real in the same ordinary sense in which everyday brick walls are real as opposed to dreamed or imagined or fictional brick walls. Russell would deem corporations logical fictions, but only because he would deem everything complex a logical fiction, even a brick wall.

Butchvarov holds that both reality and our concepts are logically determinate, and only our words are vague. He says:

It may be remarked in this connection that the greater is the extent to which general terms are used in accordance with family resemblances, the wider is the gap between thought and language. For, even if our uses of words can, our *concepts* cannot be understood in terms of family resemblances, assuming that by a concept we mean a principle of recognition, or, generally, of classification. An indeterminate network of family resemblances cannot constitute such a principle. This is why the more obvious it is that a certain word (e.g., "game") is used in accordance with family resemblances, the less willing we are to speak of a concept (e.g., of the concept of game), to use the word for serious [e.g., scientific] classificatory purposes, to speak of *recognizing* something as an object of the application of the word (e.g., as a game). Similar remarks may be made regarding so-called vague and inexact predicates, the existence of which is sometimes taken to be a reason for denying the law of excluded middle. Words (or their uses) may be vague or inexact, and sometimes the application of a word to something may

be neither correct nor incorrect....If there are cases in which the application of the word "blue" is indeterminate, this shows that there is no one concept expressed by the word, not that there is an indeterminate concept. Unlike a word, a concept must either clearly apply to a given thing or clearly fail to apply to it; just as a property must either belong to a given thing or fail to belong to it, even though the corresponding predicate may, in some cases, neither clearly apply nor clearly fail to apply. We must not lose sight of the enormous difference between language, on the one hand, and thought and the world, on the other. (Butchvarov 1979: 186-87)

I think there is much truth in this valuable passage, especially in its last sentence. But many questions arise. Are there, or can there be, words which are as exact as concepts because they each express a single concept? If not, why not? Why can we not simply name concepts in the same way Russell names universals? Are there any concepts we cannot acquire except by the aid of language, e.g., logical or mathematical concepts, or other concepts of imperceptible things such as space, time, God, or sub-atomic events? Are there any legal or religious concepts? Surely there must be, if we are to explain vague legal or religious terms as terms each used to express indefinitely many legal or religious concepts. Can we always tell the difference between concepts, such as that of the shade of blue I see now and that of the shade of blue I saw ten minutes ago? (Studies show that we do not remember any very exact shades more than a few minutes.) Can we always tell the difference between a concept and other mental items? Are some mental items more conceptual than others? How often is our thinking as purely conceptual as it would be if we only applied concepts in Butchvarov's sense? Are not resemblances themselves concepts? While we admittedly must engage in conceptual thought in order to improve the vagueness of our language--we must think about what our terms mean, and about whether they do or ought to apply to various things, and why--do we not also often use already relatively precise language to improve the vagueness of our thought? Is that not a main reason for developing a scientific language or formal calculus, namely, to prevent our lapsing into vague logical, mathematical, or scientific intuitions by replacing thoughts with rote, mechanical calculations which enshrine our best conceptual thinking?

It may be argued that anything that is logically determinate is real because no unreal things are logically determinate. (This leaves room for vague real things, which would be excluded by the converse view that anything that is real is logically determinate.) It is a common view that nonexistents do not conform to the law of excluded middle (factual version) because they only have the properties they are conceived or described as having. For example, if we do not conceive of Santa Claus either as having a heart condition or as not having one, then he does not either have a heart condition or not have one; for Santa has no reality independently of our conception of him (Butchvarov 1979: 84; see 101-5). One might then conclude that being logically determinate is a logically sufficient condition of being real, since all unreal things logically must fail to conform to that law, due to their lacking reality independently of how we think or talk about them. One objection might be that properties divide into positive and negative, and it is more appropriate to say that the only *positive* properties fictions have are the ones they are conceived or described as having, and all the rest of their properties are

negative. For example, if having a heart condition is a positive property, we do not conceive of Santa either as having a heart condition or as not having one, then he does *not* have a heart condition (compare Butchvarov 1979: 102-3). In this way, Santa would be logically determinate after all. But the reply to the objection would be that then Santa has no positive birthday, size, shape, height, or weight at all. A second reply is that it is not always easy to distinguish positive from negative properties. Consider Frege's example that immortal (is not mortal) is the same as lives forever. There is also (more or less) Descartes' example of infinite (is not limited) and total, whole, or absolute. Limit itself is a negative meaning not going further; unlimited is actually a double negative, and the double negation should cancel out into a positive. A second objection is due to Leibniz. Briefly, various principles of Leibniz, notably the principle of sufficient reason and the doctrine of the complete notion of the individual, entail that every possible object in every possible world conforms to the law of excluded middle. For all possible worlds must differ from each other in some way, as must all possible objects differ from each other in some way. There will be indefinitely many Santas in indefinitely many worlds, each differing by at least one property from each other one. Each is in effect a different (objectual) way Santa logically could be actual. Some will have heart conditions, others not. Due to our limitations, we will not be able to distinguish the actual world via its unique properties from indefinitely many other possible worlds which are just like it as far as our knowledge of the actual world goes. A third objection, very compatible with Leibniz but not dependent on his specific principles, is that even if we are too limited to conceive of a merely possible object as conforming to excluded middle in full detail, God, or a god, could. For a god, the fact that a merely possible object has no reality independent of his conception of it would be no bar to its being conceived as conforming to excluded middle in some specific, infinitely detailed way. Indeed, for Leibniz, the possible worlds are logically determinate ideas in God's mind, and God chooses to create the best possible world as the actual world. A fourth objection is that even we limited humans can conceive of a possible object as having generic properties as well as specific properties. And we can *generically* conceive of a possible object as conforming to the law of excluded middle without conceiving, and without being able to conceive, of how it *specifically* does so. Butchvarov does not discuss these last three objections, perhaps because he does not take Leibniz's principles (or, for that matter, the existence of God) seriously. But I think there is much to discuss here.

3. Defining vagueness

Several considerations suggest that vagueness is indefinable. First, how could *vagueness* admit of definition? Is not to define to make precise? Second, how could a definition of vagueness avoid circularity? For example, we might say that something is vague if and only if it is *not clear*; but something is clear if and only if it is *not vague*. Third, no one seems to understand what vagueness is without having been presented with examples of it. Admittedly, this means vagueness can be ostensively defined; but the question here is whether vagueness can be theoretically defined. That is, can we state what vagueness is in an informative, non-circular way? That a theoretical definition must not be vague (or at least not vaguer than the subject-matter permits),

ambiguous, or circular was required long ago by Aristotle; and surely no one disagrees with that.

As we saw, Russell does not locate either vagueness or precision in things, but in representations of things. Consistently with this, he defines vagueness as a property of some representations. He does so by first defining precision or accuracy as a one-one correspondence of terms and the relations among terms in a representing structure and a represented structure (Russell 1923: 89). He then says,

Per contra, a representation is *vague* when the relation of the representing system to the represented system is not one-one, but one-many. For example, a photograph which is so smudged that it might equally represent Brown or Jones is vague. (Russell 1923: 89)

I think this is excellent as a logical definition of vague structures or systems. It captures Quine's insight that a term is vague just in case there is more than one conceptual defining or delimiting of a thing that satisfies it (see Quine 1981: 34). But there is a Quinean objection nonetheless. Namely, Russell's definition is not needed for (is not a necessary condition of), and (therefore) fails to state, either of the two senses of "vague" which Quine describes. Again, Quine says,

Commonly a general term true of physical objects will be vague in two ways: as to the several boundaries of all its objects and as to the inclusion or exclusion of marginal objects. Thus take the general term 'mountain': it is vague on the score of how much terrain to reckon into each of the indisputable mountains, and it is vague on the score of what lesser eminences to count as mountains at all. To a less degree 'organism' has both sorts of vagueness....

The first of the two ways in which 'mountain' is vague causes an indeterminacy of count: it is not clear when to declare a saddle to be in the middle of one [indisputable] mountain and when between two [indisputable] mountains. The issue makes all the difference between one [indisputable] mountain and two. (Quine 1975: 126)

If anything, Russell's definition states a third main sense of "vague." Nor does Russell's sense underlie or explain either of Quine's. That is because the second and deeper problem with Russell's definition is that it defines vagueness only in cases involving complexity. This is all it even attempts to do. On this definition, simple things cannot be vague. But Quine's two senses of "vague" can apply to simple fuzzy phenomena, and do not require complexity of representation. But the best, deepest, and most general definition of "vague" is as meaning 'not logically determinate', i.e. 'not conforming to the law of excluded middle'. This may be called logical vagueness. Of course, the nine sub-versions of the law of excluded middle which we defined earlier make this definition ambiguous; but then they are merely different versions to be used as appropriate to the context or occasion.

Quine's two senses of "vague" and Russell's definition of "vague" are three sub-categories of logical vagueness. There is no reason to think that they exhaust the scope of logical vagueness any more than red, blue, and green-- or even all the known colors-- exhaust the scope of color. Thus Quine and Russell alike have lost sight of the core meaning of "vague" rather badly, and Russell especially so.

Even supposing that the locus of vagueness is representational relations, surely some representational relations can be both simple and vague. Indeed, for the 1914-18 Russell, a logically proper name always denotes a simple particular, a sense-datum; and he holds that there is always some vagueness in sensation.

Russell says all sensations or percepts are vague. This includes colors and sounds. And Where colors divide into hue, brightness, and saturation, and sounds into timbre, pitch, and loudness, this also includes hues and timbres. And surely hues and timbres are logically simple. They cannot be defined without circularity. Surely this is why, even though Russell says that all sensations are vague, he also says that all sensations are real.

Consider, as a counterexample to Russell's definition of vagueness, a nameable fuzzy red phenomenal spot which has no parts, not even vaguely discernible parts. Since it has no parts, no one-one correlation of its parts to the elements of a complex representation of the spot is possible. Thus Russell's definition fails. Indeed, he seems to have set up his definition deliberately to apply only to complex things.

Much depends here on what counts as a part, and what counts as simple, i.e. as having no parts or constituents. We need not think of parts literally; we may also speak of logical parts. Arguably, even our fuzzy red phenomenal spot with no discernible divisions into interior regions has at least four logical constituents: the properties of being fuzzy, red, phenomenal, and a spot. These are not real parts like wheels in a clock. The spot cannot be disassembled into a pile of properties. But the properties are different from each other. We can single out each of them in thought. They can be distributed differently across different phenomena. But even here I think no one would say we have a precise representation of the spot. For indefinitely many obviously different fuzzy red phenomenal spots would satisfy the complex description "fuzzy red phenomenal spot." Russell's definition would still fail to tell us what precision is, because it is too broad. It classifies as fully precise a complex description which is anything but precise. Likewise for fuzzily complex spots. For there are indefinitely many fuzzily complex spots as well.

Consider now a fuzzily complex spot. I mean a fuzzy phenomenal spot which does have at least vaguely discernible parts, either fuzzy sub-spots of various colors that blur into each other, or as logical parts, some (perhaps vague) formula or a complex but vague scheme of composition involving a plurality of degrees of color or of fuzziness across the area of the spot. Since there is no determinate number of spot parts, here too no one-one correlation of parts to representational elements is possible. Ironically, the most precise representation of the spot would be a description of it as having no determinate parts to represent by representational elements. Or perhaps that is a one-one correlation

in the sense of a zero-zero correlation. Or perhaps a vague description would be the most precise description. The best we could say of Russell's definition is that it has no clear application or non-application to fuzzily complex spots.

Suppose I see a fuzzy red spot with a single fuzzy brownish spot in the middle. The description in the previous sentence corresponds one-one in its descriptive parts with the parts of the sense-datum. Yet no one could say it is a precise description. For we could not use the sentence to distinguish my spot from indefinitely many others which are obviously different from mine, though all are fuzzy red spots with a single fuzzy brown spot in the middle.

Here there is also a vicious infinite regress problem with Russell's definition. For a one-one correspondence is precise only if the parts are precise. Yet the definition fails to apply to simple parts. (If red is not simple, then hue, brightness, and saturation arguably are.) And either there are simple parts or there is a vicious regress of parts. But surely there can be no *presented* infinite regress of parts in a visual sense-datum. We are too limited in our capacity to be presented with parts in a visual sense-datum.

Do these counterexamples imply that the law of excluded middle is false? Are they counterexamples to that law as well as to Russell's definition? No, not if we take the law to be about things and their properties. Even a fuzzy red phenomenal spot with a fuzzy brownish sub-spot near the middle has exactly the properties it has. Remember that properties too, are exactly as they are, and it is our names for them and our conceptions of them that are vague. The fuzzy red spot is exactly as fuzzy as it is. Its degree of fuzziness, so to speak, is exact in itself, only we cannot assign it an exact degree in our language or thought. Thus the propertial version of the law of excluded middle is logically true after all.

In fact, Russell can use this way out. For he can name presented universals with logically proper names, then use those names to describe spots as having those universals. Simply name the exact appearance a certain fuzzy red spot with a fuzzy brownish sub-spot has, "visual property #127." Either the spot has it or it has not. In fact, it has it, and perhaps no other spot does. We can then proceed to a totally precise one-one correlation using this spot and this property as the two parts, and the sentence "Spot *s* has property #127." We can even baptize with logically proper sub-names the brown spot near the middle and the (exact!) spatial relationship of the middle spot to the whole spot, say as "sub-spot #346" and "containment relationship #562."

The later Russell also has another way out which is not well known. He says that a three-valued logic is both "possible" and interesting." cite. Thus he could admit three-valued logic to deal with language and thought and reserve two-valued logic for the world as opposed to language and thought. Here it may be worth expounding Russell in some detail. If I may quote from my first book:

Russell has a rich and sophisticated theory of vagueness with three levels. On the metaphysical level, vagueness is as real as anything can be. For sense-data or percepts are vague, and they are as real as anything can be. On the

epistemological level, all data are vague (MAL 88; the notion of a datum is epistemic). All three bases of knowledge are vague: "(1) faint perception, (2) uncertain memory, (3) dim awareness of logical connection" (HK 393-94). Understanding vagueness is basic to understanding inductive logic (HK 335-44, 380-98). On the level of logical analysis, Russell says, "All ostensive definitions, and therefore all definitions, are somewhat vague" (HK 424). Logical analysis in science and philosophy is devoted to diminishing vagueness as much as possible (HK 424). Russell offers a formal method for deriving exact concepts from vague data (IMT 103-7). Russell's term for sharp identity conditions is "logical smoothness." Logical smoothness belongs not to real events, but to logical constructions. Russell makes all this abundantly clear (MAL 87-88; PLA 179-81; AMA 319; POM xi; IMT 57, 98, 103-7, 119, 315; HK 61-63, 67, 86, 98, 146-48, 186-88, 225-26, 238, 260-61, 393-95, 424, 497; LK 329, 338)....As for spatiotemporal extent, Russell admits "quasi-equality" and "quasi-transitiveness" as fuzzy relations in *The Analysis of Matter*, in the chapter entitled "Measurement."

Bart Kosko hails Russell as a major precursor of fuzzy logic. I entirely agree with Kosko's portrait of Russell's views on vagueness as double-aspected. That fuzzy logic is an applied logic and not a formal logic fits nicely into Kosko's double-aspected portrait. Russell's black-and-white formal logic tries to eliminate fuzziness from the world (Kosko 1993: 288). But as to the real world and our knowledge of it, Russell insists, "Everything is vague..." (PLA 180; quoted by Kosko 1993: 121). Russell says "all words outside logic and mathematics are vague: there are objects to which they are definitely applicable, and objects to which they are definitely inapplicable, but there are (or at least may be) intermediate objects concerning which we are uncertain whether they are applicable or not" (HK 497; see 146-48, 424). In fact, vague statements need have no truth-value (IMT 320). "Russell used the term 'vagueness' to describe multivalence" (Kosko 1993: 19). "Charles Peirce and Bertrand Russell and other logicians had used [the term "vague"] to describe what we now call 'fuzzy'" (Kosko 1993: 137). Thus the inventor of fuzzy sets, Lotfi Zadeh, "called 'fuzzy' what Bertrand Russell and Jan Lukasiewicz and Max Black and others had called 'vague' or 'multivalued'" (Kosko 1993: 143; see 148). Again, Russell finds three-valued logic both "possible" and extremely interesting (Russell 1989a: 681-82). Indeed, Russell says, "I do not think there is anything wrong with two-valued logic, nor yet with three-valued logic. Each is appropriate for its own class of problems" (Russell 1969: 135). If Russell did not endorse Zadeh's fuzzy logic as well, surely that is because Zadeh invented it when Russell was in his mid-nineties and had long ago stopped following the latest developments in logic. Also, Zadeh's logic was not well received until several years after Russell's death.

Kosko's portrait of Russell as double-aspected on vagueness and sharpness is confirmed by Russell himself: "This problem derives its difficulty from the attempt to accommodate to the roughness and vagueness of the real world some system possessing the logical clearness and exactitude of pure mathematics" (MAL 87). This is Russell's modernization of the two-tiered

Platonic world of flux and forms, which modernized in turn the older Heraclitean world of fire and law. Formal systems recall law and forms. For Russell, fuzzy logic would cope more directly with fire or flux. Just as with Plato, if not also Heraclitus, sharp and stable identity conditions belong to the world of form, while rough identity conditions belong to the world of fleeting and vague particulars. (my 2003: 211-12)

The 1923 Russell's view in "Vagueness" finds vagueness even in logic and mathematics. There is no doubt that our ordinary logical and mathematical words and conceptions are vague and confused. That is why children need years to learn arithmetic, why humanity needed millennia to develop a useful symbology for arithmetic (Arabic notation), and why logicians and mathematicians even today disagree on so many things. We cannot as yet even prove or disprove Goldbach's conjecture that every even number is the sum of two primes. Thus the simple term "every even number" is vague, since we do not know whether the predicate "is the sum of two primes" applies or not. All our terms in logic and mathematics are vague in this sense, and our efforts to substitute more precise ones are just as experimental as our attempts at rigor in any natural science. Here "experiment" does not mean 'empirical test'; it means the more general 'try it and see if it works'. Perhaps logical and mathematical concepts are the clearest ones we have; but for all that, no one has been able to see a solution to Russell's paradox that has met with universal acceptance in the way " $1 + 1 = 2$ " has, or to prove or disprove Goldbach's conjecture.

The 1923 Russell compares the vagueness of our knowledge to the physical law that the more distant an appearance from a thing, the vaguer the appearance is. Russell says, "When I speak of 'appearances' I am speaking of something purely physical-the sort of thing, in fact, that, if it is visual, can be photographed" (Russell 1923: 91). And Russell deems vague sense-data to be physical objects in the real physical world. Russell's main statement of this view is in his 1921 *The Analysis of Mind*, but even as early as 1914, he deemed sense-data to be physically real in the relevant essays in *Mysticism and Logic*. Thus Russell is committed to deeming simple fuzzy sense-data, which are counterexamples to his definition of "vague," as physically real. Nor does this sit well with his endorsement of the law of excluded middle from *Principles of Mathematics* and *Principia Mathematica* to the *Inquiry*.

Russell admits Poincaré is right that we may be given three simple particulars, say three hue-particulars, A, B, and C, such that we cannot distinguish A from B, nor B from C, but can distinguish A from C. This strikes me as in effect a formal proof that simple, real sense-data can be vague. For we cannot tell all their properties merely by sensing them. On the other hand, perhaps this is instead a formal proof that there are no simple vague things. For Russell says that Poincaré's example proves that there must be some hidden reality in A, B, and/or C that we are not given, which their appearance therefore does not represent. (Here Russell cleaves to his view that the locus of vagueness is in the representation relation.) But then, if every vague thing is subject to Poincaré's point, then no vague thing is simple, since there is always some hidden complexity. This contradicts the ontological status of sensed simple particulars. For the 1914-18 Russell, they are real phenomena which are as they appear to be, so that if they appear to be

simple, then they are simple. As far as I can see, Russell never sees this dilemma in his theory, much less a way out of it. Note also that his sense-data do not represent, but logically compose, ordinary physical things. To quote from my first book:

What about the identity of the 1940 Russell's qualities? It seems to be just given in acquaintance for qualities with which we are acquainted. But the 1914 Russell admitted a problem with sense-data which surely applies to the new qualities as well:

When we are considering the actual data of sensation in this connection, it is important to realise that two sense-data may be, and must sometimes be, really different when we cannot perceive any difference between them. An old but conclusive reason for believing this was emphasized by Poincaré. In all cases of sense-data capable of gradual change, we may find one sense-datum indistinguishable from another, and that other indistinguishable from a third, while yet the first and third are easily distinguishable. (KEW 112-13) Of course it seems easier to admit hidden differences in sense-data than in qualities, even though the 1912 Russell's sense-data included colors and the 1940 Russell's qualities are particulars. But the problem does emerge, namely as the question, Which quality does the second bundle really contain? The recurrence of the problem should be no surprise, since noticed qualities (and bundles) *are* the 1940 Russell's sense-data. But hidden qualities are indistinguishable from each other, and are therefore subject to the later Russell's own arguments (1)-(4) against instances. The 1940 Russell does not notice this dilemma. (my 2003: 164)

And:

[This] elicits the important principle that a percept may have parts which are not percepts, so that the structure of a percept may be only discoverable by inference" (AMA 281)....

Russell never says that we completely know sense-data with which we are acquainted, but only that we "have a...complete understanding of the name" (PLA 202). In fact he says we *never* fully know the data with which we are acquainted; what we lack is full propositional knowledge of facts about them (KEW 110-14). This may explain why we can only theoretically distinguish interpretation in a datum from its sensation-core (KEW 58; IMT 119, 124; HK 167-79). But it does not help here. What are these propositions we do not know about our data--propositions that they have indistinguishable but different parts? Russell's solution is to admit nonmental parts of mental percepts (AMA 282; see HK 201-3), or at least parts one can notice later (HK 302). (my 2003: 202)

And:

In the *Inquiry*, Russell treats Poincaré's problem as an instance of a problem of vagueness afflicting "all empirical concepts" (IMT 105). He finds "inexactness essential" to "the fundamental empirical concept of indistinguishability" (IMT

106). Later he explains a vague perception as one that "does not allow so many inferences as some other perception would allow" (IMT 158). The Poincaré problem is indeed one of inability to infer. (my 2003: 204)

Russell also discusses the distinction between intensive magnitude and extensive magnitude as applying to the real world. For Russell, an extensive magnitude is a magnitude is measurable, i.e. that can be divided into measurable parts (though metaphysically speaking no magnitude is really divisible into separated parts), and an intensive magnitude is a magnitude that is not extensive (Russell 1964: 182). The distinction is stated somewhat differently by Kant, and is perhaps stated earlier as well. Kant says, "I entitle a magnitude extensive when the representation of the parts makes possible, and therefore necessarily precedes, the representation of the whole" (Kant 1965: 198 (B 203); Russell 1964: 177 briefly discusses Kant). Kant finds all units of space and time, and therefore all appearances of the world, extensive magnitudes, but finds that mere sensations are intensive magnitudes that can increase, and can decrease until they cease to be, but not by gaining or losing anything that can possibly be regarded as a part (Kant 1965: 198-99, 202 (B 203-4, 208)). But many would find intensive magnitudes in the real world. Keynes (1921) finds that most probabilities worth talking about cannot be assigned determinate numerical values. Raz (1986) finds that most ethical values worth discussing are incommensurable. Thus at least for Keynes and Raz, the most important probabilities and ethical values in life are intensive magnitudes, and many would agree. For a detailed discussion of Raz and Russell on incommensurables, see my (2004a); I will merely note that for Russell, a magnitude is extensive if its parts can be placed in one-one correspondence with units of measurement. We may say that for Russell, a magnitude is extensive if it can be precisely measured. If so, then to say a thing is vague is to say its magnitude is intensive. Russell's prime example of intensive magnitude, happiness or pleasure (Russell 1964: 176), is fatal to the "hedonistic calculus" of some utilitarians (Russell 1964: 177), though I think not to utilitarianism itself, since utilitarianism need not require a strict calculus of pleasures and pains. Russell allows that on *Kant's* view, "all intensive magnitudes become theoretically capable of measurement" because for Kant, an increase in intensive magnitude is also an increase in the reality of a thing, so that two instances of the same magnitude, taken together, are twice as real as either alone. Thus a child made equally happy by two chocolate drops can be said by Kant to be in reality twice as happy as it would have been if it had eaten only one chocolate drop, even though happiness as such is not strictly measurable (Russell 1964: 177).

Corporations have intensive magnitude in Russell's sense. For we cannot say a corporation is twice as big merely because it doubles its shareholders, or its financial assets, or its production plants. There is no direct logical relationship between the size of a corporation and the size or number of its constituents, since its constituents are of radically different sorts. In this respect, a corporation is very unlike a heap of sand or a head of hair. But corporations have extensive magnitude in Kant's sense, since corporations appear in space and time.

4. The sorites paradox (problem of the heap)

The problem of the heap is an ancient logical puzzle about logical determinacy. Nobody has ever solved it to everyone's satisfaction.

The puzzle is this. Removing grains one by one from a heap of sand, or hairs one by one from a man's head, at what point is there no longer a heap, or at what point is there now a bald man? If everything is logically determinate, then a logically determinate point of transition exists; but what or where is it?

In my view, the problem is basic to the vagueness problem about corporate entity, but its solution is not. Thus we need not propose a solution here. In fact, the truth is that heaps of sand or hair on a man's head are further counterexamples to the vagueness argument. For they are unquestionably real, and, if anything, even more real than clouds or emotions. And the sorites problem proves that they are vague; their vague transitional points are their vague boundaries. Thus for our purposes, we need offer no solution to the paradox. Regardless of the solution, or even if there is no solution, heaps of sand and hair on a head refute the vagueness argument by being both vague and real. Note that at every given stage of removal of grains or hairs, the heap or head can be precisely represented on Russell's definition, since at every stage there is a determinate number of grains of sand or hairs remaining. Thus Russell's definition of vagueness is of no help here. We need instead to look to Quine on mountains-to-nonmountains (Quine's second sense of "vague"), and to Russell on intensive magnitudes. Sand heaps and heads of hair have intensive magnitude in Russell's sense, though not in Kant's sense, since they appear in space and time.

The problem of the heap never involves denying that the *heap of sand* or the *head of hair* are real. The problem is only that there seems to be no fact of the matter described by certain statements purporting to assert at what exact *transitional point* there no longer is a heap, or at what exact point the man becomes bald (Field 2003). There is no such transitional point there in the world. It exists only in language or in our minds. It is unreal, an ontological fiction. But the corporation does not correspond to the transitional point. The corporation corresponds to the real heap of sand or head of hair from which the transition begins. If one denies the reality of corporations based on the problem of the heap, then one is logically committed to denying the reality of the heap of sand and head of hair as well, on pain of being logically inconsistent. I am not sure this is where corporate irrealists want to go, or know they are going.

Hairs and sand grains have quite determinate natures. They have molecular composition. Hair is so determinate that it allows DNA identification. The only question is why there is no logically determinate point at which there no longer is a *head* or hair or a *heap* of sand. Again, corporations correspond to heads and heaps, not to hairs or grains, nor to transitional points. No one has ever questioned, with respect to the problem of the heap, whether the heads or heaps exist. The problem starts from their existence and only asks if there is a determinate point at which they cease to exist. Of course, the problem can be inverted so it ends when they exist and asks only if there is a determinate point at which they start to exist. The sorites paradox exists in both

directions; and in both directions we have counterexamples to the vagueness argument. Indeed, the sorites paradox demonstrates that real heaps of sand and heads of hair have logically indeterminate boundaries with respect to decreases in the number of their constituents. Thus some writers have got the relationship of the sorites paradox to the problem of vagueness and reality backwards.

The problem of the heap typically concerns things in the physical world, things which no ordinary person would deny are real or have natures, such as sand and hair. And it is the problem of the heap which is logically at the bottom of the problem of how much change or many changes are needed before a corporation ceases to be a corporation. Of course, the problem can be raised about fictional objects as well. We might write a story about a fictional detective with a head of 100,000 hairs and ask when he would become bald if the hairs were removed one by one. But this does not detract from my point.

Does this paradox apply to corporations? Of course it does. If you start with a corporation and take away officers, shareholders, assets, corporate functions, and internal relationships one by one, at what point do you no longer have a corporation? There is no determinate point of transition. Yet if anything, corporations are even more real than heaps of sand and heads of hair. They are complex things, not mere piles or agglomerations. I think piles and agglomerations are entities, but they are not far from mere sets of things as opposed to things.

A heap of sand is not a mere set of grains. It is characterized by unity of spatiotemporal location, and owing to the friction of the grains, by a weak gravitational unity. Nor is a head of hair a mere set of hairs. It is too is characterized by unity of spatiotemporal location, and though each hair grows independently of the rest, there is a regional unity caused by the genetic program for growing hair. The unity of a heap of sand or head of hair is so weak it is tempting not to speak of them as entities. They are on the vague borderline between entities and mere sets. But even if they are not entities, they exist. And successful corporations have far more unity than that. Corporations are not on the borderline. They are not mere agglomerations, but interactive systems. On the face of it, they are artifacts far more analogous to living organisms than to heaps of sand or even heads of hair, much less to mere arbitrary sets.

Not only is it not the corporation but the transition point which is so vague as to be unreal, but among corporations, we look first and foremost to the clearest paradigms of corporations to examine what a corporation is and whether it is real. Quine says:

Vagueness does not perturb the truth values of the usual sentences in which vague words occur. Typical truths about organisms are true by virtue of certain unmistakable organisms independently of any rulings on vira, embryos, slime, mold, and cud. (Quine 1975: 128)

It would be intellectual madness to single out the vaguest examples of corporations, so vague we are not even certain if they are corporations, in order to tell what corporations are or whether they are real.

At the same time, as Russell says,

It would be a great mistake to suppose that vague knowledge must be false. On the contrary, a vague belief has a much better chance of being true than a precise one, because there are more possible facts that would verify it. If I believe that so-and-so is tall, I am more likely to be right than if I believe that his height is between 6ft. 2in. and 6ft. 3in. (Russell 1923: 91)

Thus when I say "Exxon is a real corporation," using "corporation" in an ordinary legal sense, the very vagueness of my statement makes it *more* likely to be true that Exxon is a real corporation than if I impose some arbitrary precise definition of "corporation." There is an important distinction here between *de facto* and *de jure* corporations.

It is unnecessary for our purposes here, but I will solve the sorites paradox anyway. Is it not obvious that the paradox arises merely because the terms or concepts *heap* and *bald* are vague? The problem of the heap would not arise in Frege's formal notation because no concept-name can be admitted as referring unless it is logically determinate.

Russell and Quine solve the paradox of the heap merely by noting that it exists due to the vagueness of our ordinary terms. Russell says:

This, of course, is the answer to the old puzzle about the man who went bald. It is supposed that at first he was not bald, that he lost his hairs one by one, and that in the end he was bald; therefore, it is argued, there must have been one hair the loss of which converted him into a bald man. This, of course, is absurd. Baldness is a vague conception; some men are certainly bald, some are certainly not bald, while between them there are men of whom it is not true to say they must either be bald or not bald. The law of excluded middle is true when precise symbols are employed, but it is not true when symbols are vague, as, in fact, all symbols are. (Russell 1923: 85-86; see Quine 1981: 33)

Russell goes on to argue that even purely logical symbols are vague because they can only be defined in terms of "true" and "false," and these latter words are primarily understood in terms of statements involving empirical experience, to which our logical apparatus is added as a logical superstructure. Russell reminds us that our ordinary, pre-philosophical use of logical words is vague, and while formal logics attempt to eliminate this vagueness as much as they can, they are tied in the end to empirical experience insofar as the words "true" and "false" are so tied (Russell 1923: 87-89).

5. Levels of vagueness and the fallacy of composition

I now return as promised to the paradoxical issue, Are vague things logically determinate, since vague things are exactly as they are? (I shall discuss the issue more completely in section 8.) Here we would do well to follow the old scholastic adage, When faced with an apparent contradiction, look for a distinction. For this paradoxical issue raises first and foremost the question, Are there different predicative levels of

vagueness and/or logical determinacy? In particular, can we in some sense predicate logical determinateness of logical vagueness?

On my view that corporations are real artifacts, Quine's discussion of vagueness in *Word and Object* includes an especially relevant remark about artifacts. Quine says,

Good purposes are often served by not tampering with vagueness. Vagueness is not incompatible with precision. As Richards has remarked, a painter with a limited palette can achieve more precise representations by thinning and combining his colors than a mosaic worker can achieve with his limited variety of tiles, and the skillful superimposing of vaguenesses has similar advantages over the fitting together of precise technical terms. (Quine 1975: 127, citing Richards 1936: 48ff, 57ff, 69)

Quine and Richards are saying that a painter can achieve more precision, say with muddy water colors, than a mosaic worker using sharply defined tiles. That is, a group of vague things taken together logically can achieve more precision than a group of precise things. (Of course, it is also logically possible for the opposite to be true in some instances). This is an instance of what is called the fallacy of composition. The fallacy is to infer that because the parts of a whole all have a certain property, the whole has that property too. Here the instance of the fallacy is to infer that because the parts of a whole are all vague, the whole is vague too, or at least vaguer than a whole composed of determinate parts. The fallacy of composition is also a fallacy of type-levels of predications of vagueness or definiteness. The type-levels are also part-whole levels of composition. But the basic idea is very simple and ordinary. Everyone can understand how a water color by a master can be a stunning depiction of the intricate subtleties of a scene or face, while a mosaic by a child can be almost unintelligible as a representation of anything very specific.

Whether Quine and/or Richards mean this as a logical point or a causal point, I think there are both a logical point and a causal point here. The causal point is illustrated by the engineering successes of fuzzy logic, which has achieved precisions never achieved before, such as stabilizing a helicopter which has lost a rotor blade, or making a 100 mph train stop within an inch or two of the platform's edge. The basis of such precise effects is the causal application of control mechanisms using "fuzzy patch" technology. But there is also a logical point in that "precising definitions" can start from vague notions and eventually achieve more precision than notions that were initially more precise. Such definitions *replace* initial vague conceptions with more definite ones.

Spinoza uses an analogy to causal precising to illustrate logical precising. His analogy is that of using raw materials of nature to fashion crude tools, crude tools to construct more precise tools, and precise tools to construct extremely precise tools. Spinoza uses the analogy to combat the argument for general skepticism that any method for finding truth needs a higher-level method for determining whether the first level is reliable, leading to a vicious infinite regress of methods, or else a truth which needs no method to be confirmed. Spinoza is arguing that just as there is no vicious infinite regress of tools needed to make the tools we actually have, so there is no vicious regress of

intellectual methods needed to develop the methods we do (Spinoza 1958: 10-11). With tools, we have the causal development of precise tools out of raw materials. With methods, we have the logical development of precise intellectual methods out of ordinary conceptions. One may extend the analogy to human groups as well. Human groups developed from pre-human groups, and eventually developed many sub-groups of a more definite and specialized nature, including corporations. Surely many business enterprises of five thousand years ago were vaguer than the legal corporations of today.

Corporations, too, have different part-whole levels of organization, some of which logically can be vaguer than others. A "water color" corporation as a whole may be quite definite, but its list of constituent shareholders vague owners and its assets shady indeed. In fact, *many* details might be vague about a firm, *including* the point at which it would cease to be a firm; yet the firm as a whole may clearly be a corporation as opposed to a partnership. Or conversely, all details might be definite about a "mosaic corporation," but its organization might be so unclear, we cannot tell whether it is even a firm at all.

It is logically possible that there are many levels of the world's organization, ranging from the deep indeterminacy of quantum physics through the mosaic definiteness of atoms to the vagueness of our ordinary perceptions and feelings. Levels of predications of vagueness would correspond to the world's structure of levels of properties.

Is "everything is a matter of degree" itself a matter of degree, or a determinate thesis? If the latter, then the view is self-defeating when it is applied to itself. Or does the thesis involve a violation of type-levels when it is applied to itself? This apparent contradiction, too, is best resolved by looking for a distinction. If the thesis is determinate, then it is false that everything is vague where "everything" means everything on every type-level. But it may still be true that everything is vague where "everything" means everything on the lowest type-level, i.e., the level of things in the world.

A final point on this topic. Vague artifacts include more than just Impressionist paintings or musical performances. We often create *purely physical* vague artifacts, such as chemical fogs, loud noises, and mud patches. Of course, paintings and musical performances are physical too; but they are not sorts of things some instances of which naturally occur (in the sense of being unartificed), such as fogs, noises, and mud patches. And as I note in my (2003), artificial unities can be stronger and in that sense more real than natural unities. Consider superglue. Then consider corporations which last for centuries, which is far longer than many more natural human groupings. This brings us to our next topic.

6. Agency, artifacts, and essence

My view in "Corporate Entity" (2004) is that a corporation is real because it is an artifact whose constituents typically include real people as well as real assets, as well as intangibles such as credit and goodwill.

Sartre is famous for rejecting the view that we have natures or essences because we make or choose who we are. This is rather different from Quine's more technical arguments about the relativity of what we call the essence of a thing to our description of that thing. But Sartre is more directly relevant than Quine to my view that corporations are real artifacts, because we make or choose our artifacts, much as we make or choose who we are. I do not know what Sartre has to say about artifacts. But it seems to me that things must have a certain essential pliability, not to say a certain indefinite set of amorphous potentialities, for us to make or mould them into artifacts as we please. There are always limitations, of course. *Mutatis mutandis* for corporations. We may say that a corporation's shareholders, officers, and assets are like the logs that compose a cabin, or the various sorts of parts that compose an automobile.

In *Investigations*, Wittgenstein argues, or at least tries to document by examples, that there are no essences, only "family resemblances." The key metaphor is the various uses of the word "game." There seems to be no one feature all games literally have in common, but only a variety of uses of the word "game" which have what Wittgenstein calls "family resemblances" (see *Investigations* §§ 65-77, 83). The key critical question has been, how much like the word "game" are words like "water," "chemical," "cloud," or "firm"? Perhaps not much at all. In fact, words like "game" are generally avoided as unhelpful, when it comes to serious attempts to describe reality. That theoretical definitions are to avoid using ambiguous language is a requirement stated by Aristotle.

The Wittgenstein literature is huge, and it is hard to say how realist or irrealist Wittgenstein really is. I suggest in my (2003: ch. 7) that there are many issues concerning whether and in what way the later Wittgenstein is a realist or an irrealist.

The single best purely physical-to-corporate analogy I can think of is as simple as a potter's wheel. We start with a relatively indeterminate muddy lump of wet clay, proceed to shape several parts with definition and clarity, bake them in the kiln, then join the parts together into a teapot with handle, spout, and lid. At no stage is the material used significantly more real than at any other. It always conforms to the laws of physics. It has mass and shape at every point in time, even if the initial shape is less determinate than the final. Compare the development of a corporation from an initial group of amateurs, with considerable vagueness in the group's initial conception, into a finely honed organization working together with considerable precision. At no point is the group significantly more real than at any other. It still conforms to the psychological laws of human nature, including agency and some degree of choice. It has motivation and cooperation at every point in time, even if the initial activity is less determinate than the final. In my view, people's willingness or desire to act in accordance with a nexus of contracts is precisely the ontological glue that binds them and their assets into a firm. But that the teapot is held together by the glue of efficient causation, while the human group is held together by a blend of efficient causation (the agents have bodies) and final causation (intended goal) makes no difference to the general comparison. After all, impersonal causation and personal agency are alike in being species of *power or cause*. And the genus power or cause is in turn a kind of (temporal) *change*. (If there is another kind of change, it would be uncaused (truly random or aleatoric) change; *quartum non datur*). The teapot and the corporation are even more alike in belonging to the

subspecies *tending to remain the same through change*, or *tending to resist dissolution*. (The other subspecies of power or cause would be power to generate and power to corrupt, as opposed to power to maintain the same level of unification or integration of parts.) In fact, the teapot and the corporation even more alike than that. For they are both artifacts as opposed to natural things. Their generation is through agency (final causation). Their maintenance and their corruption can be either through agency or through natural causes. Either a zealot or an earthquake can destroy a teapot or a corporation. These are all very plain, common-sensical Aristotelian classifications.

Where for a complex thing to exist is for it to have the power to hold together, i.e., to resist dissolution or corruption, and where the more power to remain unified a thing has, the more real the thing is, it only remains to note, as my slight improvement on Aristotle, that many artifacts are more real than many natural things. Compare the Eiffel Tower to a flower, or the United States Navy to a family of mice. In this sense, to be real is not to be good or beautiful, but it is to have the power to endure. Nor therefore would I claim this sense of "real" to be the whole truth about the nature of reality, or about the use of the word "real." But I do claim it is the appropriate sense for saying the corporations are real entities. And vagueness, at least within certain extreme limits (we must be able to distinguish corporations from teapots), has nothing to do with it.

A discussion of the teleological character of firms would be incomplete without at least a brief discussion of the moral and modal aspects of firms. Teleology or final cause belongs to psychology, while efficient cause belongs to physics. But in general we do not aim to create and continue firms merely for their own sake, but for the sake of some other end or ends which we value as good; and this belongs to ethics. Perhaps firms are human artifacts held together by the psychological glue of motives and desires. But are they also ethical entities held together by the moral glue of rights and responsibilities? And where a moral obligation is a moral necessity, and where a moral right is a moral possibility, are firms held together by the modal glue of necessity and possibility?

These questions are highly esoteric. I can only sketch the main issues here. First, then, the locus of moral and modal features are arguably in language or thought. Hume and Kant agree that we perceive the sun and the warm stone, but we do not perceive the sun causing the stone to be warm. Efficient cause, of course, is physical necessity. So to speak, we perceive the fact of the stone's warmth, but not the necessity of its warmth. Gilbert Ryle says we do not perceive moral qualities either. A benign face need not belong to a benign person. Ryle's example is that a thief has no perceptible thief-quality. He may have a furtive expression, and he may be found taking something from a home late at night, but whether he is a thief depends broadly speaking on our social institutions and the context of the taking. It may be his own home and his own thing. Or it may be an abandoned home and an abandoned thing. This may be taken to support and explain Hume's contention that "is" never implies "ought," i.e., fact never implies value. It may also be taken to explain John Searle's counterexample to Hume, that in appropriate social circumstances, the fact that I say "I promise to pay you five dollars" may logically (intuitively, if not formally) imply that I have a moral duty to pay you five dollars. In any case, the argument would be that relationships of moral necessity cannot bind the persons in a firm (or in any other organization) into a moral entity, since

bindings must be actual, and obligations are not part of what *is*; they are what *ought* to be. Thinking otherwise is categorially confused, on this objection. And rights, or moral possibilities, are not part of what *is* either; they are what morally *could* be. Things are even worse when we look more generally to modalities. If we hold with David Lewis that possible worlds are real, we must admit infinitely many worlds besides the actual, and we must admit that there are things that do not actually exist. But if we hold with Russell that the modalities can be eliminatively analyzed away as themselves not existing, still less can they serve as existing ties that bind firms into existing entities.

Even more briefly, my views are these. I have argued elsewhere that moral properties do exist (my 2005a). And while I wrote an entire book on Russell's eliminative analysis of modalities (my 1999), what Russell regards as elimination I regard as reduction, and even as construction (my 2003: 235-36). Also, moral and modal features are functions that map arguments onto values; and even if they are not truth-functional, they may be quantified over in a neo-Fregean logic. (For that matter, Frege appears to admit duties as objective in "The Thought.") Also, we ordinarily speak of ethical (or unethical) institutions, or of organizations that have ethical aspects; and it is the ordinary understanding that moral considerations are part of what bind at least some human groups together-- not just churches and humane societies, but all morally significant human groups. That said, my *primary* argument that firms are real is that they are human artifacts with human constituents bound together with human *psychological* glue, where psychological motives and desires are part of what is. As such, I admit it is possible that some firms are not bound together by *moral* glue in any significant sense. But even prudence is a virtue, and groups that form out of prudence are therefore bound by *ethical*-- if not moral-- glue. For that matter, material goods are goods, even if they are not the highest goods. Thus a corporation that people form due only to their lowly desire for material wealth still has, strictly speaking, an ethical final cause. Even criminal firms aim at what the criminals consider to be good. In that very general sense, perhaps Aristotle is right that all people (and groups) aim for the good. In any case, I think values do exist as final causes. Insofar as we have ends or goals, there is a very ordinary sense in which values exist and bind precisely because they are what ought to be, or would be good to be. Of course, the existence of firms is logically contingent, and would seem to be morally contingent as well. That is, I think we are under no moral duty either to create firms or not to create them. Nonetheless, given that firms do exist as human institutions, they are morally bound together by moral duties into moral institutions, at least teleologically speaking. It remains to add that where property is a bundle of rights, the rights and responsibilities that constitute the structure of a firm as an ethical institution logically include those rights which constitute its assets as its property.

7. Philosophers, jurists, and economists talk of reality

When economists talk about analyzing corporations in terms of ontologies, domains, and ontological commitments, which is basically Quine's theory of ontological analysis, I am not sure how seriously to take them. Do they really know what they are saying in Quinean terms, or is this merely the latest pseudo-philosophical jargon? I am not sure I

see much of Quine in them beyond a casual use of his verbiage. For one thing, Quine and Russell admit stages or levels of analysis, and the analyses offered by economists of corporations strike me as initial stages, not ultimate stages, on which alone Quine or Russell would be committed to entities. (I differ from Quine and Russell in admitting entities on every level, by a rather literal analogy to a brick wall's being as real as the bricks and cement that compose it; see my 2003.) But the economists never move to deeper logical stages. They skip about on the economic surface of things. Secondly, Quine and Russell also admit that there are or can be empirically equivalent alternative ontological analyses of the same thing; like Carnap, they therefore see and endorse the inherent liberality, open-mindedness, and pluralism of possible analyses in logical analysis (see my 2005c). But the economists always seem to plump for their theory as right and all the rest as wrong. Either reason alone is sufficient for us to deny that the economists are using Quine's theory of analysis with any scientific or ontological seriousness at all, however useful the jargon may seem to the economists for their own kind of discussion. This brings us to a third reason to question how serious their talk is. These are technical terms, and technical terms need to be carefully explained. But the jurists and economists never or almost never attempt to explain their use or adaptation of Quine, and I can scarcely see how they can presuppose that their intended audience already knows Quine. Indeed, if they did explain it, then everyone would see that their analyses are mere initial stages of analysis at best, and not to be preferred to any empirically equivalent analyses except on pragmatic grounds.

It seems that legal and economic talk of reality and fiction are of no interest to the ontologist, who is interested in literal reality. But then why should jurists and economists find any interest in ontological talk of reality? As Wittgenstein might say, are not their language-games all right? Surely the answer is that economics and even law have, and purport to have, some interest in reflecting reality, even if, as Plato says, law is only the shadow of justice. Surely jurists' and economists' talking about the legal and economic things as fictions would be the best way to reflect the reality of those things if and only if the legal and economic things really are fictions as far as philosophy is concerned. That is, when we talk about ordinary legal realities and ordinary economic realities, fictions may be the best devices to talk about them, but only if logical construction of ordinary things into logical fictions is the best approach in metaphysics generally, or if there is some special reason for thinking in metaphysics that legal and economic things in particular are unreal. Otherwise I think jurists and economists are obliged to explain why they find it helpful or useful to talk of firms as fictions within their disciplines, if firms are real as far as philosophy is concerned, and if law and economics are best when they reflect realities. Of course, despite all my talk of tradition, there is no single, monolithic theory philosophy offers, but only different theories by different philosophers. [FN4](#)

8. An empirical argument for vague real things

The argument is that the stunning success of fuzzy logic at prediction and control of various phenomena is best explained by the existence of fuzzy things on the appropriate level of the world's physical structure. This is just the same as arguing that the success

of quantum mechanics is best explained by the existence of indeterminate things on the appropriate level of microstructure.

Fuzzy logic is not a formal logic, but a type of practical engineering programming. The basic notion is that of a "patch" or rough control device. In effect, instead of saying "add detergent at 79 degrees F," the patch might say "add detergent when the water is warm." After setting up the initial patches, we then go through a period of experimental adjustment of the patches until they are achieving the results we want. The argument that probably vague things are real at the corresponding level of the world's structure would be that otherwise fuzzy logic probably would not be so remarkably (and often uniquely) successful at prediction and control. This sort of argument is often called inference to the best explanation. While the argument is pragmatic in a plain sense, one need not be a pragmatist to offer it. That is, one not have a pragmatic theory of knowledge, meaning, or truth in order to accept such inferences to the best explanation.

Assuming that this type of argument is successful for quantum mechanics and for fuzzy logic, it arguably also applies to economic theory of the firm by analogy. This would involve constructing a "rough patch" model of a firm for purposes of predicting and understanding its behavior, and to that extent mapping its probable reality. In effect, the corporate charter is the model, differing from the quantum physics model only in being teleological (final cause instead of efficient cause). As more purely physical artifacts, helicopters and washing machines would be intermediate, with engineering diagrams as models which are teleological qua designs but mechanistic qua predictive devices.

Granted, inference to the best scientific explanation is a merely probabilistic argument based on our current theoretical understanding of empirically observed events. Such arguments are always open to the possibility that our theory of those events may change someday, with a new determinate theory underlying and explaining the merits of our present fuzzy or indeterminate theories. Thus while such arguments may be plausible in the light of current science, they must be taken with a grain of salt. And on a still deeper level, they arguably have nothing to offer against positions such as idealism or logical constructionism. But this is a subtle point, since within Quine's framework, which makes even traditional metaphysical theories into deep but ultimately empirical scientific theories, idealism and logical constructionism are poor, primitive, early efforts at science, while fuzzy logic and quantum mechanics are advanced and successful twentieth century science and/or technology. This suggests by analogy that theory of corporate fictionalism is in effect a regression to primitive science, while fuzzy theory of corporate realism is more recent and sophisticated science, insofar as it has predictive success. [FN5](#)

9. My theory of vagueness and reality

Again, I accept the Russell-Quine resolution of the sorites paradox. The paradox exists merely because the term in question is vague. [FN6](#)

A logically vague property, predicate, or concept is one that violates the corresponding version of the law of excluded middle. If the law of excluded middle is true of ideally precise language or thought, then we may say the law is a true ideal. The law is also arguably true if its locus is the real world, since I think we must concede that whatever is in the world is exactly what and as it is. These three loci- ideal language, ideal thought, and the world- are mutually consistent. Indeed, in philosophy, an ideal language or system of thought is precisely one that precisely describes the world. It follows that terms like "sand heap" and "head of hair" are not terms of an ideal language. But the world is exactly as it is and includes exactly what it does, including whatever we vaguely refer to and vaguely think of as sand heaps and heads of hair.

I believe the key point to understanding how even vague things are exactly as they are is that it is not only our language and conceptions of things, but also our language and conceptions of the **properties** of things, that are vague. Even our conception of what it is to be a property, i.e. our conception of the property of being a property, is vague. In this, there is nothing against the view, which I take to be logically true, that things exactly as they are, and their properties are exactly as they are. It is only to say that we do not *know* of every property whether or not it is exemplified by the property of being a property. For example, we do not know whether properties are real entities, or merely conceptual, or merely nominal. (And this is just to say we do not know whether realism, conceptualism, or nominalism is the true theory with respect to properties.)

When Russell says that even the laws of logic (and their semantic principles) are vague because our conceptions of truth and falsehood are rooted in vague, ordinary empirical applications, he commits what C. D. Broad would call the genetic fallacy, i.e. the fallacy of assuming that in a later stage of the existence of a thing, it retains the properties it had at an earlier stage, covertly if not overtly (Broad 1968: 11-15). The truth is that the truth-values and the logical connectives are or ought to be regimented together so as to determine each other. The earlier vague applications are just that--questions of application of the formal scheme to the world of experience.

The world is logically determinate, and so is our logic if adequately done. But our logic provides only the logical form of an ideal language. We have a full ideal language only if our descriptive terms are as logically determinate as our logical terms; but our descriptions are usually vague. I speak monolithically as if we had a single logic. In fact logicians have developed hundreds of different logical systems, many of which are or logically can be made logically determinate; of course, the multi-valent logics with indeterminate truth-values cannot be.

There are two main challenges to the view that the (or a) locus of the law of excluded middle is the world. The first is from philosophers of change and/or identity-indifference philosophers such as Heraclitus, Hegel, Bergson, and Whitehead. If change is the ultimate reality, then in some sense, it seems arguably true that things both are and are not the same. Heraclitus says we step and do not step into the same river. But I think most philosophers have treated this insight as a call for disambiguation. Aside from the atomists, for whom atoms of river water remain the same even as the river they compose changes, the main traditional disambiguation is Aristotle's theory of an

ordinary substance as having both essential (unchanging) and accidental (changing) properties. It would take us too far afield to discuss the merits of such theories. It is enough to say that corporations are obviously composed of some real constituents, if not changeless atoms; and they also arguably have both essential and accidental features. For example, they essentially exist in time and essentially include people, and accidentally earn a profit. Furthermore, even a change is exactly what it is, and in that identititative sense is determinate and true.

The second and perhaps more serious challenge is that laws of logic do not say anything about the world, but are empty tautologies. The chief argument for this comes from the logical positivists, for whom any significant statement about the world must be such that there can be possible empirical evidence either for or against it. But there is no conceivable evidence that could count against the truth of such laws. Of course, logical positivism is self-defeating. There is no possible empirical evidence either for or against the view that any significant statement about the world must be such that there can be possible empirical evidence either for or against it. Of course, long before the twentieth century movement of logical positivism, the law of identity, $A = A$, had been criticized for centuries as a paradigm of an empty tautology, simply repeating the subject as the predicate. Wittgenstein is eloquent in criticizing that law, virtually comparing it to tracing our finger around the edge of a thing (*Investigations* §§ 215-217); but Hegel is eloquent as well, calling it a night in which all cows are black (Hegel 1967: 79; see xix). Perhaps the most embarrassing thing is that the semantic principle that corresponds to the law of identity seems even more trivial: always use the same name to express the same sense and (therefore) refer to the same referent. Frege explains the difference between such trivially true identity statements and true informative identity statements in terms of the senses expressed by their subject-terms. Namely, a true informative identity statement is one whose (different) subject-terms express different senses but refer to the same object. Nonetheless, Frege, Russell, the early Wittgenstein, and Bergmann all argue that the world itself has logical form; and for Frege " $a = a$ " is well-formed even if it is trivial. The theory of logical form is too deep to discuss here.

Russell's definition of vagueness invites disambiguation by introducing further distinctions. Let us say he is right that representational vagueness and representational precision apply only to relationships of representation. Let us say his definitions of vagueness and precision succeed in stating what complex representational vagueness and complex representational precision are. I would then add that simple representational vagueness and simple representational precision are indefinable. I would also add that we have ordinary concepts of real vagueness and real determinacy. That is because we ordinarily, pre-philosophically take the vague clouds and mists we see to be not percepts or representations of something else, but real things in themselves. And this makes it intelligible and logically possible to speak of vague but real things. But if the laws of excluded middle and of bivalence are true, presumably they are logically true, and logically necessary. Thus the mere logical possibility of vague real things seems to falsify those laws.

I return to the paradoxical issue that vague things are exactly as they are. One possible resolution is this. We might distinguish among logical laws as follows. Vagueness is

nonconformance to the law of excluded middle. But things being exactly as they are is conformance to the law of identity. Perhaps a vague thing can falsify the law of excluded middle by being vague, yet conform to the law of identity by being exactly as it is. In pursuance of this suggested resolution of the paradox, I shall now sketch a theory on which the law of identity applies to everything in the world, but the law of excluded middle does not. This is not my actual theory, since I believe both laws apply to the world.

The sketch is as follows. (A warning: even though the terms "real" and "ontological" are often used synonymously or almost synonymously, I shall use them to mark the distinction I wish to draw; so that we must carefully attend to the definitions of the terms, and not rely on their usual meanings.) We assume that everything conforms to the law of identity. Then we define *real determinacy* as conformance to the law of identity. Thus everything, even a vague cloud is really determinate, since even a cloud is what it is. And if it is true that 'entity if and only identity', then it follows on our view that 'vague entity if and only if vague identity'. I define really vague as 'not really determinate'. Thus nothing in the world is really vague, since everything is really determinate. But in the ordinary sense of "vague," clouds are vague, not determinate. As before, we define *logical determinacy* as conformance to the law of excluded middle, and define logical vagueness as failure to so conform. Then we may simply say that a cloud is logically vague but really determinate. But how is it possible for a cloud to be like that? I think we may and must admit that there is an indefinable sort of presented or presentable *ontological vagueness* which things like clouds and emotions, and even simple things like vague hues and vague timbres, have. Ontological vagueness itself, as well as ontologically vague things, are really determinate in that they are exactly as they are. Clouds, hues, and timbres do not represent anything, certainly not when they are considered in themselves. Thus ontological vagueness is opposed not to representational precision, but to ontological clearness or definiteness-- in a word, to ontological determinacy. Ontological vagueness is opposed to ontological determinacy, real vagueness is opposed to real determinacy, and logical vagueness is opposed to logical determinacy. On this sketch of things, ontological vagueness is the ontological ground of logical vagueness. That is, ontological vagueness is the ground of the falsehood of the law of excluded middle. That even ontological vague things are exactly as they are is the ground of the truth of the law of identity. Again, as I have introduced these terms, there is ontological vagueness, and therefore there is logical vagueness, but there can be no such thing as real vagueness.

The idea behind these definitions is simple. Perhaps an example may help. Take a cloud. Assume it is vague and real. Now, even a vague thing is exactly what it is, namely, vague. Insofar as it is exactly what it is, it is really determinate. That is, it conforms to the law of identity. But insofar it is a vague thing, I say it is ontologically vague. That is, it is a counterexample to the law of excluded middle. Since all things are as they are, all things are really determinate. But since only some things are vague as opposed to clear or definite, only some things are ontologically vague. This concludes the sketch. Again, the sketch is not my actual view.

The sketch is fine as far as it goes, but I reject it because I hold that the law of excluded middle applies to the world after all. Again, the key point to understanding why the properial version of the law of excluded middle must be true is that **properties** as well as things are exactly as they are, so that things must either have nor not have exactly the properties they have, regardless of how well we describe or conceive of those properties and things in language or thought. Russell and Taylor both seem to grasp this, as my boldface emphases suggest, though I think I may be the first to make the point (and the argument for the logically necessary truth of the properial version of the law) fully explicit. Thus in my actual view, things are exactly as they are not merely because they are identical with themselves, but also because they have exactly the properties they have-- including whatever ontological vagueness or ontologically vague properties they have. Thus the proper resolution of the paradoxical is not the distinction between the law of identity and the law of excluded middle, which work hand in hand, but between those two laws on the one hand and ontological (or perhaps better, phenomenologically presented) vagueness on the other. This latter distinction is not a conflict but a resolution because of the key point about properties. Any tension devolves to the limitations of language and thought to represent properties and things exactly as they are, including exactly the vaguenesses they have.

Thus the chief difference between the sketch and the view I accept is this. In the sketch, ontologically vague things are counterexamples to the law of excluded middle, while on the view I accept, they are not. Why are they not counterexamples to that law? How is it possible? Did we not define vague things as things that fail to conform to that law? These questions are already answered in the previous paragraph. We defined logical vagueness as failure to conform to the law of excluded middle. And on our understanding of ontological vagueness as indefinable but perceptible, ontologically vague things conform to that law because even they have exactly the properties they do. But the reader may feel an explanation is still owed. My explanation is this. Our descriptions and concepts can and often do, but logically need not, affect our perceptions. If we use "baptismal" or ostensibly defined descriptions or concepts, they reflect the properties of the ostended things exactly as they are. Because they apply perfectly, they logically need not affect our perceptions of things. But in order to preserve continuity in our language or conceptual scheme, we generally wish to apply descriptions or concepts we have already acquired, based on our past experience. But such new applications logically need not be perfect matches; usually they are not. And when we perceive new things through the medium of old descriptions or concepts, the match can be perceptibly either very close or not very close. When the match is very close, we not only correctly speak and think of the thing as a clear and definite example of an F, but we veridically perceive it as a clear and definite example of F, because it *is* a clear and definite example of F. But when the match is not very close, we speak of, think of, and veridically perceive the new thing as vague, because it really *is* vague, since it is *not* a very good exemplar of our old description or concept. Nor is this to make the ontological locus of such perceptible vagueness language or thought. For it is *veridically* perceptible vagueness. Often there is some real blurriness or fuzziness there in the thing to be perceived, which we cannot define in terms of any of our existing descriptions or concepts. Even though we can introduce a new primitive description or concept that fits it perfectly, we generally do not, because we wish to retain continuity

of language and thought, and because the new description or concept is generally unhelpful beyond the immediate situation at hand. Ontological vagueness is just such veridically perceptible vagueness as opposed to veridically perceptible clearness or definiteness. Thus there are examples, even paradigms, which allow ontological vagueness to be at least ostensibly defined, if not verbally defined. Because every new one is never exactly the same as the last, a cloud, an emotion, or a fuzzy red spot with a fuzzy brown spot near the middle are all paradigms of ontological vagueness. Yet these paradigms all have exactly the properties they do, so they all conform to the law of excluded middle. Indeed, we logically can describe them all as so conforming, if we wish to be introducing new primitive descriptions or concepts all the time. One *may*, of course, hold that such ontologically vague things are fictions having merely linguistic being or conceptual being, thus denying that there are any ontologically vague things in reality. But that is not my view. Clouds, emotions, and fuzzy red spots are all examples, even paradigms, of ordinary real things, as opposed to dreamed, hallucinated, or imaginary clouds or emotions. Phenomenal red spots, of course, can be dreamed or hallucinated. But then it is really the case that there are dreams and hallucinations in the world. People dream, people really hallucinate, and there is really visual content to their dreams and hallucinations. Surely phenomenal spots are as real as our emotions. And are not corporations, even vaguely defined ones, at least as real as ephemeral clouds, fleeting emotions, and momentary phenomenal spots?

One might object that our previous descriptions or concepts are logical constituents of ontological vagueness, along with the real things that are perceived to be vague because of the properties they are veridically perceived to have. The objection would be that vague things are therefore emergent entities, i.e. logical hybrids that cannot be found strictly or purely in language, thought, *or* the world. My reply is that old descriptions or concepts are not logical constituents of ontologically vague things. I used them to introduce or explain the notion of ontological vagueness, but not to define it. They are like a ladder one can cast away after one has climbed up it. I mean by ontological vagueness the sort of blurriness or fuzziness typically perceptible in things when we find that our old descriptions or concepts do not apply very well. This sort of blurriness or fuzziness is in clouds and our emotions long before we form our first descriptions or concepts. Indeed, babies may perceive more ontological vagueness than we adults do, since we often tend to ignore it outside of philosophical or scientific discussions, or more generally when definiteness is not important.

We may intelligibly speak of real determinacy and of ontological determinacy, but not of real precision or of ontological precision, unless "precision" is used in the sense of a precise gem cut or precise performance of (nonrepresentational) music. I think the word "precise" is ambiguous in that it applies to representations in one sense, and to artifacts in another. Not all representations in Russell's sense are artifacts: words are artifacts, but percepts are not. And not all artifacts are representations: novels are representations, but precisely cut gems are not. Corporations are artifacts, but are not representations of anything. Thus they cannot be fictions even though they are complex, insofar as only (complex) representations can be fictions.

A representation is precise if its constituents correspond one-one with the constituents of the thing it represents, and the structural relationships are the same. Conversely, an artifact is precise if its constituents correspond one-one with the constituents of its representation, and the structural relationships are the same-- where its representation is its maker's conception prior to making the artifact-- in Aristotelian terms, its final cause. For example, a precisely cut gem is one which mirrors the plan of the cut. Even an improvisational cut can mirror the standard of quality planned for the improvisation.

The question of the relationship between the law of excluded middle and the law of identity is difficult. There is no direct relationship of implication. Neither entails that the other is. All the law of excluded middle entails is that every thing is either identical with itself or not. And the law of identity is only about the one property of being self-identical, and is not about any of the other properties a thing has or does not have. This concerns the propertial version of the law of excluded middle.

One might try to argue that there is an indirect or mediated logical relationship between the law of excluded middle and the law of identity, meaning a relationship based on auxiliary principles. Two such principles might be (i) the identity of indiscernibles and (ii) the indiscernibility of identicals. (i) is that if for any property F, if a has F if and only if b has F, then $a = b$. That is, things having all properties in common are identical. (i) is highly controversial. [FN7](#) (ii) is that if $a = b$, then for any property F, if a has F then b has F). That is, things that are identical have all properties in common. (ii) is generally taken to be trivially true. Now, if both (i) and (ii) are true, then $a = b$ if and only if a has all and only the same properties as b. Then we can define identity as indiscernibility, as Leibniz does, or at least explain identity as indiscernibility, as Frege does. [FN8](#) This might lead one to suppose that if (i) and (ii) are true, then the law of excluded middle is true if and only if the law of identity is true.

But by itself, (ii) implies only that whatever properties a thing has, any thing identical to that thing also has. And this is logically consistent with the law of excluded middle's being false. Suppose that a has property F, does not have property G, and neither has nor fails to have property H, since a is vague and indeterminate with respect to property H. Suppose also that $a = b$. It follows from these two suppositions that b has property F, does not have property G, and neither has nor fails to have property H, since b is vague and indeterminate with respect to property H. Thus a has all and only the properties b has. But neither a nor b has nor does not have H, so that the law of excluded middle is false on these suppositions. And the law of excluded middle remains false even if we take $a = a$ as an instance of $a = b$, on the very same suppositions. Consider a by itself as being self-identical, being F, not being G, and not definitely being either H or not-H.

Likewise for (i). By itself, (i) says only that for whatever properties a has, if b has all and only the same properties, then $a = b$. Suppose that a has property F, does not have property G, and neither has nor fails to have property H, since a is vague and indeterminate with respect to property H. Suppose that exactly the same is true of b, and that this is the whole story on a's and b's properties. On (i), it follows that $a = b$, since a and b are indiscernible. Yet the law of excluded middle is false on these suppositions.

It follows from these considerations that (i) and (ii) can both be true, yet the law of excluded middle be false. For our suppositions were the same in both cases. But then assuming (i) and (ii) as true does nothing to help derive the law of excluded middle from the law of identity. In effect, our suppositions describe a counterexample to the thesis that if (i) and (ii), then the law of identity if and only if the law of excluded middle.

We might try to remedy this by assuming a further Leibnizian principle. We may call (iii) the principle that every thing has a complete notion. (iii) is that every thing has its own unique complete set of properties, or if you please, that no two things ever differ merely by being two things (*solo numero*), but at least one of the things always has some property the other lacks. Thus the argument is now that if (i), (ii), and (iii) are true, then the law of excluded middle is true if and only if the law of identity is true. But this gets us no farther than we were. (iii) is logically equivalent to (i), and is merely another way of saying (i). For on our suppositions, a still neither has nor does not have H, yet we may suppose that only a (and this includes any b identical to a) has F, lacks G, and neither has nor does not have H. Thus even (iii) is consistent with the law of excluded middle's being false.

In the end, I think the only remedy is to assume that the law of excluded middle is true to begin with, so as to preclude our supposing that a neither has nor does not have H. The elegant way to do that is to build the law of excluded middle into our complete notion principle, so that for us, a notion of a thing is not complete unless it specifies of every property whether the thing has that property or not. And this is what Leibniz intends his complete notion principle to be. Call this principle (iii)-mod, and the notion the *logically exhaustive notion principle*.

The argument is now that if (i), (ii), and (iii)-mod are true, then the law of excluded middle is true if and only if the law of identity is true. But the argument begs the question. It assumes that the law of excluded middle is true as part of assuming (iii)-mod. If we do not assume that law, then our hypothetical example about properties F, G, and H shows that things logically need not have a complete notion. Even worse, suppose H is the property of self-identity, and thing a satisfies (i), (ii), and (iii)-mod by *not* having H. Then the law of identity is still false.

Let us more fully examine the relationships among the laws of bivalence, excluded middle, and identity. Where the scope of bivalence is all possible statements, the laws of bivalence and excluded middle are logically equivalent. The law of identity does not strictly follow from the law of excluded middle as an instance, nor from the law of bivalence, not even when they are conjoined with the law of noncontradiction. For the laws of bivalence, of excluded middle, and of noncontradiction are all formally satisfied by assigning *falsehood* to "a is identical with a" and *truth* to "It is not the case that a is identical with a." For a formal contradiction is a statement of the form "B and not-B," and "It is not the case that a is identical with a" is *not* a statement of that form. But if we admit "It is not the case that a is identical with a" as an informal contradiction in some sense, then we can say that the law of identity informally follows from the laws of bivalence and of noncontradiction. Similarly for "a is not identical with a," which is not

a formal contradiction either. On this understanding of things, the law of noncontradiction can be interpreted as requiring two things. First, it *formally* requires us to assign different truth-values to "a is identical with a" and "It is not the case that a is identical with a." Second, it *informally* requires us to assign *falsehood* to "It is not the case that a is identical with a," and to "a is not identical with a." This goes beyond anything the law of excluded middle tells us. Excluded middle by itself never tells us which object has which property, but only that for any property, an object either has it or has not. This includes even the property of self-identity. But it is an informal understanding of noncontradiction, not of excluded middle. We have now found a direct logical relationship, but it is between the law of identity and an informally understood law of noncontradiction. That all objects must be self-identical on pain of informal contradiction *satisfies* the law of excluded middle with respect to the property of self-identity; but the law of excluded middle has nothing to do with *arriving at* that thesis. Nor does the law of bivalence.

The result of our analysis is that there is no logical relationship, either direct or indirect, between the law of excluded middle and the law of identity. We could find no indirect logical relationship based on assuming the most relevant Leibnizian principles. But the chief problem is that the law of excluded middle is perfectly satisfied if every thing is either self-identical or not. Therefore the definition of real determinateness in terms of the law of identity in the sketch is not even logically equivalent to its definition in terms of the law of excluded middle in my actual theory. This is good, because it increases subtlety in the alternatives. My actual theory is better than the sketch because vagueness versus determinacy as we basically understand it has everything to do with excluded middle and nothing to do with self-identity. Even vague things are self-identical! But Russell, Taylor, and the rest of have properties in mind when we say that things are exactly as they are; we mean that not merely that things are self-identical, but that they have exactly the properties they do. Even ontologically vague (phenomenologically or veridically perceptibly vague real) things are also really, i.e. logically, determinate, thanks to the key point about properties. The ontological locus of the law of excluded middle is only in the world, and in perfectly precise or ideal languages or systems of thought.

My conclusion is that *mutatis mutandis*, whether a corporation is vaguely or precisely constituted by its artificers, it can be (and is in fact) intelligibly and truly said to be real. It emerges from our discussion that Wittgenstein is badly mistaken on vagueness and determinacy (*Investigations* §§ 81-125), though I think there is also some merit in his discussion. By brushing off logical determinacy as a quixotic theoretical ideal, Wittgenstein overlooks that even vague properties in the real world are exactly as they are. Thus he misses the paradoxical issue completely. Nor can this be a trivial matter, if so much logical and dialectical discussion is required. The end result may appear to be trivial, but if I may slightly modify Taylor, philosophy does not often pretend to be practical.

10. The quantification and mathematization of firms in economics

The most salient feature of economics today is its use of mathematical techniques to analyze quantifications of economic phenomena ranging in complexity from the smallest micro-events to the largest macro-trends. It is indisputable today that this is foundational to economics as a science. Indeed, all science strives for the quantification and mathematization of phenomena. It is the contention of this dissertation that there is not only conceptual intelligibility but systematic predictive and explanatory utility in quantification of the mid-level events known as firms. Here, despite some variety of versions in the literature, there are exactly two most basic options: either the firm is an entity, in which case it can be a value of variables in the mathematical logic of the science of businesses, or it is not, in which case it cannot be a value of variables in economic science. I shall argue that it is not only of great pragmatic utility to quantify over firms, but not doing so is scarcely possible for reasons of simplicity and conservatism. In briefest terms, the argument is that all the variants of fictionalism replace talk of firms with indefinitely many firm constituents and their interrelationships which are constantly in flux even as the firm remains one and the same both in legal and, interrelatedly, in predictive-explanatory terms.

Indeed, to a great extent the questions of entityhood and utility coalesce. For in science, assuming the basic intelligibility of the posit, we posit theoretical entities precisely because it is efficacious to do so for reasons of systematic utility in prediction and explanation of economic phenomena. That is, I hold that for systematic reasons, firms are basic to the "ontology" of business, by which I mean the formulation of appropriate values of variables for the quantification and thereby the mathematization of business.

It might be objected that firms are vague and therefore cannot even be quantified, much less mathematicized. My reply is that insofar as that is so, this merely calls for the appropriate sort of quantification, namely, uncertainty logic, also known as many-valued logic. On the practical side, there is probability theory and there is fuzzy logic, which is applied vagueness logic. The mathematization of business uncertainties is very common today.

It might be objected that firms cannot be mathematicized because they are primarily agential and only secondarily causal, insofar as the agential constituents wish to cause certain effects through the nonhuman constituents, and insofar as the firm is an agent in the derivative sense that its legitimate human assets act through it. My reply is that insofar as this is so, this merely calls for the appropriate sorts of mathematization, namely game theory and decision theory in which firms as well as human individuals are the game players and deciders (agents). Such applications are very common today.

The most basic formal aspects are fairly simple, and rest on pragmatic grounds of convenience and utility in clarifying and systematizing economic theory. Ontological commitment is formally done in what is called quantificational logic. If firms are entities, that means they are allowable as values of variables in statements quantified with "Some" ("There exists") and "All" or "Any." Firms as entities will also be logical subjects of monadic (one-place) predicates, as in "This firm is a corporation." They will

also be logical subjects of polyadic (relational) predicates, as in "Firm a entered into a contract with firm b," or "The firm fired half of its employees"). To say we have to make an ontological commitment to firms is the same as to say we have to admit them as entities in our theory. Now, why should we have to do that?

There are two broad questions to explore. The first is simply what is the best way to understand the ordinary phenomenon of a firm, or what is the best way to analyze it in theory. This is explanation in the sense of analysis of what a firm really is. No prediction is involved. This is what we have largely been doing in this book. The second broad question is one that many economists would like better. Is positing firms as entities scientifically useful in economics? Is it useful or helpful for predicting and explaining the (world or national or local) economy as a whole if we admit firms as entities over and above their constituents? Is positing firms. That is, is our scientific theory of the world (or national or local) economy better if we admit firms as entities over and above their constituents?

Let us consider the first broad question first. Obviously, in order to quantify over firms so as to make an ontological commitment to firms, firms must exist. They must be real. What is it for a firm to be real? I think that a firm must have at least five kinds of reality if we are to consider them to be real. (1) A firm must exist in the sense of not being nothing. (2) A firm must be actual as opposed to being merely conceptual, linguistic, or otherwise fictitious. (3) A firm must be identifiable in the sense of being able to be singled out and also re-identified in thought and/or perception. (4) A firm must possess sufficient internal unity to be considered one thing. (5) A firm must belong to the causal order in the efficient sense of cause (physical cause) and in the teleological sense (agential cause). It must be able to act and to be acted upon in ways that can be explained at least in theory and that admit at least of some minimal degree of probability. Beyond that there are some requirements that arguably do not rise to the level of being kinds of reality, though many philosophers might consider them to be kinds of reality as well. (6) A firm normally must be durable, or able to persist through time. (7) The existence of a firm must be logically contingent. (8) The existence of a firm must be empirical as opposed to being logical, merely conceptual, or metaphysical in the transcendental sense. That is, the statement that a firm exists must be synthetic a posteriori, not analytic (logical or conceptual) or synthetic a priori (metaphysical in the transcendental sense). (9) Firms must be empirical. That is, even if they are not perceptible themselves, at least the reasons for positing them must be broadly empirical, by analogy to positing theoretical entities in physics or chemistry. I am confident that this book has already established that all nine requirements are satisfied. But it may be well to discuss each of the nine in turn briefly so as to summarize what this book aims at showing. Indeed, I think we may all agree that *if* a firm *were* an entity, it would have to be the sort of entity that satisfies all nine requirements. And I think that if firms *do* satisfy all nine requirements, there is no question but that they *are* entities. That is, the nine conditions are jointly the necessary and sufficient condition of firms' being entities.

First, for anything to be an entity, it must exist. In this most fundamental Parmenidean sense of being, to be is not to be nothing.

Second, following Descartes, Leibniz and many others, for anything to be a real entity, it must not be a merely conceptual or linguistic or fictitious entity. That is, an entity is real only if it exists or can exist independently of our knowledge or language. Logical independence is generally meant, but causal independence may be meant as well.

Third, to be real is to be identifiable indefinitely many times in thought or perception. This requirement has been made famous by Quine's slogan "no entity without identity." Something that is private, fleeting, and nonrecurrent even in memory is not real in this sense. For such a momentary object can be singled out only once. But this requirement arguably does not imply that real things must have significant duration in time, or even that they need to exist in time at all. For the number two can be identified in indefinitely many ways, e.g., as the sum of one plus one, or as the number of moons of Mars.

Fourth, to be is to be one thing. Leibniz emphasizes the medieval *quodlibet ens est unum* (whatever is, is one) and *ens et unum convertuntur* (being and unity are intersubstitutable *salva analycitate*). Russell says in *The Philosophy of Leibniz*:

"Where there are only beings by aggregation," Leibniz says, "there are not even real beings. For every being by aggregation presupposes beings endowed with a true unity, since it only derives its reality from that of those of which it is composed, so that it will have none at all if every component is again a being by aggregation."...What is not truly one being, is not truly a being [for Leibniz]. (Russell 1937: 103–5; see 71)

Aristotle says, "That 'unity' has in some sense the same meaning as that of 'being' is clear..." (*Metaphysics* 1054a10–15). That is, to be many may be to be many entities, but it cannot be to be one entity, on pain of contradiction: if it is one, it is not many, If it is many, it is not one. This is why fictionalists are fictionalists. For them a firm is an aggregate; it is not one thing but many.

Fifth, Plato says that to be is to have power (*Sophist* 247e, 248c). It is part of our ordinary conception of reality that a thing that can have no influence on anything is a nullity. The number two, though real in the first four senses we have discussed, is not real in this sense, and traditionally, abstract entities such as numbers have been considered less real than concrete entities such as rocks and flowers for this reason. But this kind of reality admits of far more degrees than the simple abstract-concrete dichotomy suggests. All abstract entities are equally unreal in this fifth sense, since all are equally lacking in power. But among concrete entities, there are indefinitely many degrees of concrete reality. For the stronger the causal power, the stronger the reality of the thing. Note once again, there are two broad kinds of power, efficient (physical) and teleological (agential). In one sense, these two kinds of power are incommensurable, since they are categorially different. In a second sense, efficient trumps teleological, since an agent who chooses among alternatives cannot violate physical law. In a third sense, teleological power can be greater than efficient, since an agent can bring about events that would otherwise never have happened in the physical world. I am speaking on the level of common sense; I am well aware of the old problems of free will and determinism and of mind-body dualism.

Piles of wood and heaps of sand usually preserve some identity over time and often can be re-identified as the same pile or heap over many years, as well as retaining roughly the same gravitational and frictional properties over many years, but arguably this is not enough for them to count as entities. Indeed, it might not always be the *kind* of relationship. The sheer *degree* of the relationship may be enough to count something as an entity in extreme cases, even if the *kind* of relationship does not normally produce an entity. We count the Earth as an entity even though it is held together only by gravity (better, gravitational relationships), simply because it and the gravity are so massive, stable, and enduring.

As to firms, which are artifacts, we look both to teleological glue and to efficient glue. More specifically, we look to forms of legal and economic glue, both teleological and efficient. As to economic glue, I refer the reader to the works of David Gindis (2007, 2007a). Gindis fleshes out the legal-ontological skeleton of entity theory into a genuinely economic corporate entity through a fresh, insightful interpretation of the ontological "glue" that binds a firm into an entity. He sees it as consisting of indefinitely many possible blends of indefinitely many specific kinds of economic glue-- blends that can bind human and nonhuman assets into a spatiotemporally scattered thing that is in theory (and often in practice) far more powerfully self-integrated and durable than any of its constituents, even as it satisfies a certain abstract legal form (which is or can be itself a form of glue by force of law). Indeed, he has a gift for sensing the nuances and sheer variety of possible blends of economic glue.

Economic glue puts the firm in the realm of the causal-agential, the logically contingent, and the empirical, as opposed to synthetic a priori metaphysical speculation. Thus entity theory belongs to economic science, not to economic philosophy, and involves an ontological commitment any economist qua economist may make.

My conclusion as to the first broad question is that firms satisfy all nine requirements of being real entities. Of course, the full argument occupies much of this book.

We turn now to the second broad question as to why we should admit firms as entities in economics: Is it useful or helpful for predicting and explaining the (world or national or local) economy as a whole if we admit firms as entities over and above their constituents? This is in part a trick question for two reasons. First, as we all know, due to the vagueness and complexity of the human phenomena it studies, economics is not very good at predicting anything in the first place. Second and relatedly, the issues of firm theory are not purely economical even in scientific terms, since firms are part of human society as a whole, and the prediction and explanation of the behavior of firms cannot be understood in terms of economics in any very narrow sense. Legal systems and economies influence each other, and very indirectly philosophical theories enter the nexus of mutual influence as well. Indeed, legal systems generally define what the various types of firms are. That is to say, to the extent that philosophical and more specifically legal entity theories are operant in the law, this greatly shapes what firms are and how they work, so that you cannot fully understand or predict how they work without understanding the (legal) laws that govern their behavior. But if we are right in our analysis of firms as being entities, we would expect them to act as entities through agential or causal influences, and we would expect to be unable fully to explain or predict economic phenomena *without* admitting them as values of our formal scientific-

predictive theory. This is where holism and emergentism come in on the scientific level. Firms are holistic entities composed of their constituents, and there should be some economic laws that are logically or at least pragmatically or conveniently statable as *only* as relations whose relata include firms. Here we might content ourselves with a few good examples that are common-sensical and/or in the economic literature. Certainly talk of firms is far simpler and more convenient, just as talk of countries is, as opposed to talk of their constituents. It is a commonplace in analytic philosophy that, say, "Country A declared war on country B" simply cannot be analyzed out in terms of constituents, because there are indefinitely many ways their constituents could be complexly related so as to make the sentence true, and we could not even think of them all, much less state them all. Here there is a very definite comparison to philosophy of hard sciences like physics. Russell, Carnap, and other in the early 20th century, tried to analyze physics in terms of sense-data or in terms of micro-physical states. But it was soon noted that because talk about how one and the same chair or table could act or be acted on in various possible or hypothetical situations would have to be analyzed in terms of indefinitely many ways indefinitely many sense-data or micro-states could be interrelated, we could never achieve a complete, determinate analysis of even so simple a statement as "The chair is brown" or "The chair was damaged by the fire." Instead of being true or false, they would be analyzed as incomplete, endless analyses without a determinate truth-value. We could not even state a simple prediction that a chair would be burned by a fire because we could never finish writing or uttering the sentence. Similarly for "Firm a bought building b." There are all kinds of ways the constituents could have existed or interacted for the sentence to be true. Therefore the sentence cannot mean or state or even imply such an analysis, since the analysis could never be completed, hence could never be expressed as a sentence having a determinate truth-value. But such examples, basic as they are, may sound like just more philosophy to many economists. And in a sense they are right. This is just applying philosophy of science to economics much as it has been applied to physics. Perhaps a more ordinary, merely scientific comparison would be this. Let us suppose, *per impossibile* and merely for the sake of argument, that in fact we can completely analyze "Firm a bought building b" in terms of their constituents and their constituents' relationships, and therefore can state predictions equally well using either the original sentence or the very long statement of its analysis. Compare that to the difference between Ptolemy and Copernicus, and to that between Einstein and Newton. Ptolemy predicts planetary motion just as well as Copernicus. But Ptolemy is terribly complicated with epicycles of retrograde motion, and the heliocentric theory is far simpler. To say Copernicus' theory is scientifically superior is simply to make an inference to the best explanation as being the simplest explanation, a superior organization of the data merely because it is simpler. As to Einstein and Newton, Einstein uses Riemannian space (positive curvature) and Newton uses Euclidean (intuitively flat) space. The two geometries are interdefinable, since a Euclidean sphere's surface has positive curvature, and Riemannian space (if I remember Nagel correctly) has longitudinal great arcs which would define Euclidean flat planes. That means prediction that can be stated using either geometry can be rewritten using the other. But what Einstein says simply would be horrible to state in Euclidean terms. So, simply on the basis of parsimony (Occam's razor if you please), we infer that Einstein's theory is probably true. By parity of reason, we should infer that entity theory of the firm is probably true, if there is anything

scientific about economic theory at all, concerning economies advanced enough to have what we ordinarily call firms. Even that might seem too philosophical, but maybe we can find some non-firm examples in plain old economic theory that would illustrate the point as well as Copernicus or Einstein--and from within economics itself. Then we would be just "doing as the economists do" concerning other subjects. These examples cannot be firms without begging the question (unless you want to show that plain economists have directly come to this conclusion concerning firms), but to be analogous to firms on the key respect of resemblance, they need to be examples of complex phenomena which can be viewed either as whole things in their own right or as complexes of simpler things. That shouldn't be too hard, at least in the sense that every economic phenomenon is either complex or simple, and all the bigger ones will be complex. Just look at any economic law at all, look to the values of its variables, and ask are these values simple or complex. I suggest that virtually always they can be thought of as complex. Then just ask how easy it would be to restate those same laws rewriting them in terms of the constituents of those complex phenomenal and the constituents' relationships. I suggest that in virtually every case, the laws will become so complex and unwieldy as to be virtually unworkable. And the more abstract the law, the more complex its restatement would be in terms of nuts and bolts constituents. Thus in Quinean terms, all deeper economic theory is best understood, and pragmatically speaking can only be easily understood, as positing entities over and above individual people, dollar bills, or widgets. *Voilà!* Entity theory of the firm turns out to be very much like all deeper or more abstract economic theory has been all along, right under the noses of the anti-entity theorists. One of the main tasks of philosophers is to articulate and thereby bring into people's consciousness what has been in front of us all along, but few if any have been aware of.

Just take any economic theory at random, such as Marx's theory of labor value. What a deeply complex phenomenon, labor! "Smith builds a widget." How many ways could he have built the widget? Indefinitely many! He could have hammered this first, sanded that later. Do we really want to do without the simple relational predicate "builds"? -- Can we do without it? Smith and the widget are very complex too. The widget could have bolts from store s or from store t. It could have been glued instead. It could be painted green. Even worse is "value."

The second broad question is a trick question for two deeper reasons as well. First, the question is partly history of economics. Formalizing the ontological commitments of economic theories as Russell or Quine would is new. In practical terms, this book is a prolegomenon, a promissory note to future work. I think the trend is just beginning to show. Formal regimentation is what it is. Its immediate utility is to provide clarity and consistency, and above all, formal rigor in proof. The future benefits for economics should be much the same as the benefits have been for logic, mathematics, and physics. Second and more deeply, what is economics, and what should it be? Should the foundations of economics be studied by economists? Reasonable economists can differ on these questions. I prefer the traditional European model of education, on which professionals in any field should know something of the logical (not to say philosophical) foundations of their field. More bluntly, logical formalization is no substitute for substantive work--without that there would be nothing to formalize. But it

is how we clean house. Granted, not every mathematician or physicist formalizes even today. But formalization is like leaven; even a little raises the bread. There is no need for everyone to formalize. Again, the task of formalizing our ontological commitments is the task of expressly articulating and thereby bringing to consciousness what we have been doing in our theories all along, but relatively inarticulately and semi-consciously. Do economists want to remain relatively inarticulate and semi-conscious about the ontological commitments of their own theories? If even mathematicians thought for centuries that they could get away with doing substantive work without formalizing it and were shown to be wrong, what chance do economists have of getting away with it? Frege is the bellwether, ringing in the change for mathematics. Frege, arguably the greatest logician since Aristotle, says it best:

After deserting for a time the old Euclidean standards of rigour, mathematics is now returning to them, and even making efforts to go beyond them. In arithmetic, if only because many of its methods and concepts originated in India, it has been the tradition to reason less strictly than in geometry, which was in the main developed by the Greeks. The discovery of higher analysis only served to confirm this tendency; for considerable, almost insuperable, difficulties stood in the way of any rigorous treatment of these subjects, while at the same time small reward seemed likely for the efforts expended in overcoming them. Later efforts, however, have shown more and more clearly that in mathematics a mere moral conviction, supported by a mass of successful applications, is not good enough. Proof is now demanded of many things that formerly passed as self-evident. Again and again the limits to the validity of a proposition have been in this way established for the first time. The concepts of function, of continuity, of limit and of infinity have been shown to stand in need of sharper definition. Negative and irrational numbers, which had long since been admitted into science, have had to submit to a closer scrutiny of their credentials.

In all directions these same ideals can be seen at work--rigour of proof, precise delimitation of extent of validity, and as a means to this, sharp definition of concept.

...Euclid gives proofs of many things which anyone would concede him without question. And it was when men refused to be satisfied even with Euclid's standards of rigour that they were led to the enquiries set in train by the Axiom of Parallels.

Thus our movement in favour of all possible rigour has already outstripped in many directions the demand originally raised, while the demand has itself continually grown in scope and urgency.

The aim of proof is, in fact, not merely to place the truth of a proposition beyond all doubt, but also to afford us insight into the dependence of truths upon one another. After we have convinced ourselves that a boulder is immovable, there remains the further question, what is it that supports it so securely? The further we pursue these enquiries, the fewer become the primitive truths to which we

reduce everything; and this simplification is in itself a goal worth pursuing. But there may even be justification for a further hope: if, by examining the simplest cases, we can bring to light what mankind has there done by instinct, and can extract from such procedures what is universally valid in them, may we not thus arrive at general methods for forming concepts and establishing principles which will be applicable also in more complicated case? (Frege 1974: 1-2)

It is worth noting that Frege says this as a mathematician to other mathematicians. He does not consider this to be a philosophical issue. This is shown by the fact that he immediately goes on to say, "Philosophical motives too have prompted me to enquiries of this kind" (Frege 1974: 3). But what of the firm? Is it not obvious that firms are all around us? Is it not obvious what they are to everyone? Perhaps they are similar in that respect to numbers. Consider replacing "number" with "firm" and "mathematicians" with "economists" in what Frege says about the logical analysis of numbers:

Questions like these catch even mathematicians for that matter, or most of them, unprepared with any satisfactory answer. Yet is it not a scandal that our science should be so unclear about the first and foremost among its objects, and one which is apparently so simple? Small hope, then, that we shall be able to say what number is. If a concept fundamental to a mighty science gives difficulties, then it is surely an imperative task to investigate it more closely until those difficulties are overcome....

Many people will be sure to think this not worth the trouble. Naturally, they suppose, this concept is adequately dealt with in the elementary textbooks, where the matter is settled once and for all. Who can believe that he has anything further still to learn on so simple a matter? So free from all difficulty is the concept of positive whole number held to be, that an account of it fit for children can be both scientific and exhaustive; and that every schoolboy, without any further reflexion or acquaintance with what others have thought, knows all there is to know about it. The first prerequisite for learning is thus utterly lacking--I mean, the knowledge that we do not know. The result is that we still rest content with the crudest of views, even though since HERBART'S day a better doctrine has been available. (Frege 1974: II-III)

Whither economics?

Notes

FN1. Compare the ancient saying, "The pagan peasant believes in all gods, the pagan philosopher laughs at all gods, and the pagan magistrate makes use of all gods." Emergentists believe in all corporations, reductionists laugh at all corporations, and legislators, judges, and businessmen make use of all corporations.

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FN2. Following Bertrand Russell, a structure is a set of relations. More precisely, I speak of instantiated structures as entities. Russell would deem them facts. I am deeming them complex wholes. But facts and complex wholes are distinct only in reason.

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FN3. Descartes is best interpreted as having this principle in mind when he says, "Now it is evident by the natural light [i.e. by logical intuition of logical truth] that there must be at least as much reality in the efficient and total cause as in its effect" (Descartes 1969: 162), since he goes on to speak of formal or eminent containment. This principle is the basis of his argument in *Meditation* 3 that God must exist as the most perfectly real being, since God would contain everything, including the 'objective reality' of our idea of Him as the most perfectly real being, and would be in that sense the 'formal cause' of the reality of everything. Whether his argument succeeds depends not merely on the scholastic principle, but on his application of it to God and to ideas.

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FN4. Some jurists propose a "nexus of contracts" theory as a fictionalist theory of the firm. Speaking as one of Bergmann's students, this is humorous to me. In ontological analysis, a nexus is what binds an entity's constituents together into an entity. Bergmann says:

Qualities, then, need nexus to connect or tie them into ordinary things. A nexus does not need a further entity to tie it to what it ties, otherwise we would have entered upon an infinite regress. That is Bradley's famous argument, which I take to be familiar. This difference between qualities and nexus is so profound that it concerns the ontologist. It is, as one says, categorial. (Bergmann 1967: 9)

Bergmann's argument, and his ontology in general, are based on the very plausible argument that there is a difference in the way the world is if a statement about the world is true, from the way the world would be if the statement were false; but a difference in the world can only amount to the presence or absence of some entity or entities. In the

case of qualities, given two spots and the color red, and the fact that only one spot is red, there must be some entity that makes that spot red, i.e. unites or binds that spot to red as opposed to the other spot; and that entity is the nexus. Since this is a general categorial argument, a corporate nexus would be the same. Its ontological function is to ground the fact that this asset and this corporate officer belong to this corporation.

Of course, jurists and economists can assign the term "nexus" any meaning they wish; but if they wish to engage in ontology, at least they should know how ontologists use the term. Bergmann's nexus theory is, of course, highly controversial.

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FN5. My description of fuzzy logic and examples of its engineering applications are due to Kosko (1993).

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FN6. Hyde (2004) surveys six main alternative types of solution to the paradox. For a list of online literature on vagueness, see <http://www.btinternet.com/~justi.n.needle/articles.htm>. Field (2003) is a good example of unnecessary sophistication.

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FN7. Among other things, Leibniz bases his acceptance of (ii) on the principle of sufficient reason, another highly controversial thesis, that there is always a reason why things are as they are. For him different things are always different things because at least one of them has at least one property the other does not; that is the sufficient reason of their difference. The controversiality of the principle of sufficient reason alone makes it difficult to determine whether (ii) is true; and this is just one of the issues. Another issue is this. One may think (ii) must be true because there could not be, say, 100 oranges with exactly the same properties, including their spatiotemporal properties, i.e. occupying the same space-time position. But others argue that spatiotemporal properties are not really properties of things per se, but relational. But are there not relational properties? Then as a third issue, there are some "mirror" counterexamples such as Max Black's possible world containing only two iron spheres that mirror each other in all their properties, including spatiotemporal relations; for example, they are the same distance from each other (Black 1952).

Butchvarov says:

But the fact is that neither the indiscernibility of identicals nor the identity of indiscernibles is a part of the concept of identity, of what we mean by "identity." And the reason for this is not that we find discernible identicals or nonidentical indiscernibles inconceivable but that (1) we may apply the concept of indiscernibility only on the basis of the applicability of the concept of identity, that is, identity is the criterion of indiscernibility, and (2) we apply the concept of identity without appealing to the indiscernibility of the objects of its application.

The concept of identity is a primitive concept, as of course it must be if our account of it as the most fundamental element of our conceptual apparatus is correct. That of indiscernibility has a trivial definition [as having all properties in common, in the broad sense of "property" Butchvarov explains earlier].

We enforce the indiscernibility of what we have already judged to be identicals; we do not discover it. And we do not determine that they are identical by determining that they are indiscernible....We have no independent means of establishing [indiscernibility], e.g. by enumeration of properties (which might be infinite in number), nor do we ever attempt to do so. (Butchvarov 1979: 65-66)

This is not an argument that (ii) is true, but it is a valuable account of how we are constrained to use the concepts concerned. To think that this is an argument that (ii) is true is to confuse "It is impossible for us to see that (ii) is false" with "We see that it is impossible that (ii) is false." I think Butchvarov would agree with me on this, since he agrees with me that his position is only analogous to realism (see Dejnožka 2005).

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FN8. Frege holds that identity is technically undefinable, since every definition is a stipulated identity, so that the very act of definition presupposes identity.

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