

Essence and Possibility in the Leibniz-Arnauld Correspondence

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Abstract:

Abstract: In the 1680s, Gottfried Leibniz and Antoine Arnauld engaged in a philosophically rich correspondence. One issue they discuss is modal metaphysics—questions concerning necessity, possibility, and essence. While Arnauld’s contributions to the correspondence are considered generally astute, his contributions on this issue have not always received a warm treatment. I argue that Arnauld’s criticisms of Leibniz are sophisticated and that Arnauld offers his own Cartesian account in its place. In particular, I argue that Arnauld offers an account of possibility that is actualist (only actual things exist), *modal* actualist (modality is irreducible) and essence-based (essences ground *de re* counterfactuals).

Body of paper:

In the late 1680s, Gottfried Leibniz and Antoine Arnauld exchanged a series of letters concerning an outline of what would become Leibniz’s *Discourse on Metaphysics*.¹ This correspondence has garnered much attention from scholars and rightly so; it is among the most philosophically rich set of texts from the 17th century. Yet the majority of scholarly interest in the correspondence has revolved around its impact on the development of and use for understanding Leibniz’s philosophy. Arnauld’s own contributions have received considerably less attention.² In this article, I consider one of Arnauld’s many contributions to the debate. Specifically, I focus on the exchange between Arnauld and Leibniz concerning modal metaphysics, that is, the theory of possibility, necessity, essence and God’s relation to each. Building on some recent work, I argue that in the correspondence Arnauld defends a sophisticated *essence-based modal actualism*. That is, I argue that Arnauld holds:

1. Everything that exists is actual (ontological actualism). [p.3]
2. The actual world is irreducibly modal; there is no reductive analysis of modality (*modal* actualism).
3. All true *de re* counterfactuals are grounded in the irreducibly modal essences of actually existing things (*essence-based modal actualism*).³

All three of these components of Arnauld’s view deserve comment. Ontological actualism is the thesis that everything that exists, actually exists. That is, no *pure possibilia* or merely possible beings exist. Actualism is usually contrasted with possibilism, or the view that in addition to actual things, there also exist merely possible things.⁴ *Modal* actualism is ontological actualism plus the thesis that modality is irreducible. Modality is irreducible just in case there is no reductive analysis of the modal to the non-modal. For example, a modal actualist might claim that a primitive feature of the world is ‘instantiability’. To be instantiable is to have the capacity to be instantiated and is a modal notion. If instantiability is a primitive, then the modal cannot be reduced to the non-modal.⁵ Finally, Arnauld’s actualism is essence-based in so far as it is actually existing essences that resist reduction and are the

ground of all true *de re* counterfactuals. So, on my view it is Arnauld's concept of 'essence' that does not reduce to anything more basic. All modal properties, for Arnauld, are grounded in the essence of the actually created thing and this essence is a modal entity.

The plan of the article is as follows. In Section 1, I set up the debate between Leibniz and Arnauld and suggest that Arnauld's response to Leibniz is best understood in three steps: a discussion of Arnauld's nature (which Arnauld equates with his essence), an argument against 'purely possible' substances, and finally Arnauld's positive account. In Section 2, I consider the account of Arnauld's nature he offers in the debate with Leibniz. In Section 3, I discuss Arnauld's objection to Leibniz's way of conceiving of God's creation and modality and his argument against 'purely possible' substances. In Section 4, relying on other works of Arnauld's, I argue that in the correspondence he articulates a sophisticated *essence-based modal actualism*.

1. The set up

In February of 1686, Leibniz sent an outline of what would become the *Discourse on Metaphysics* to Ernst von Hessen-Rheinfels in hopes of getting Arnauld's opinion of it.⁶ In Arnauld's first letter to Leibniz, he claims that the views expressed in Leibniz's outline are 'shocking' and 'frighten[ing].' Arnauld goes on to suggest that Leibniz abandon 'these metaphysical speculations which cannot be of any use to him or others' and that he should instead return to the Church in order to secure his salvation.⁷ Arnauld only offers one example of what he finds so objectionable in Leibniz's discourse, namely Leibniz's claim in the summary of article 13: [p.4]

[1] Since the individual concept of each person contains once for all everything that will ever happen to him, one sees in it *a priori* proofs or reasons for the truth of each event, or why one event has occurred rather than another (M 5/G II 12).

In this passage Leibniz expresses his commitment to the Complete Concept Theory of Substance. The Complete Concept Theory of Substance or CCS, can be defined as follows:

CCS: An entity is an individual substance if and only if its concept contains all and only the concepts of those entities that may be attributed to it.⁸

According to CCS, in order for an individual to be a substance, its concept must contain exactly all the concepts of those things that may be attributed to it. A plausible candidate for a substance on both Arnauld's and Leibniz's metaphysical system is Barack Obama. Obama's concept, according to CCS, contains all those concepts that can be attributed to him, including being a thinking thing and being the 44th President of the United States.

Arnauld offers the following objection to CCS:

[2] If that is so, God was free to create or not create Adam; but supposing he wished to create him, everything that has happened since and will ever happen to the human race was and is obliged to happen through a more than fatal necessity. For the individual concept of Adam contained the consequence that he would have so many children, and the individual concept of each of these children, everything that they would do and all the children they would have: and so on. There is therefore no more liberty in God regarding all that, supposing he wished to

create Adam, than in maintaining that God was free, supposing he wished to create me, not to create a nature capable of thought (M 9/G II 15).

Arnauld's concern is that if CCS is true, then everything that will ever happen to Adam follows with a fatal necessity. Given that God has decided to create Adam, everything that has happened since follows necessarily, and this is an unacceptable limitation on God's freedom. Arnauld's argument can be represented as the following argument in which premise 1 is assumed and reduced to absurdity:

1. Necessarily, 'if Adam exists, then a certain particular posterity follows' (e.g. Adam has x number of children, who each have x number of children, etc.).
 2. Necessarily, 'if God creates Adam, then a certain particular posterity follows'.
- Therefore, [p.5]
3. If God creates Adam, then God is not free with respect Adam's posterity.⁹

Arnauld regards 3 as an unacceptable limitation of God's freedom. Arnauld insists that premise 3 follows from premise 2, which follows from premise 1. Arnauld suggests that 1 follows from CCS. Thus, CCS results in an unacceptable limitation on God's freedom. In this letter Arnauld makes no argument for the truth of CCS entailing 1. However, Arnauld's concern seems to be that if CCS is true, then everything that will ever happen to Adam is contained in his concept. This includes Adam having particular children and particular experiences. If Adam's concept includes the concept of all of Adam's children, then his concept includes all of his children's children and so on. One can see that everything that ever happens in the actual world will be in Adam's concept, if for no other reason than its being true of Adam that he existed in the same world as, for example, Obama's being the 44th President. Thus, Adam's complete concept includes the concepts of the United States, Barack Obama and Joe Biden. So, if Adam exists then a certain particular posterity follows. If Adam's existence entails a certain posterity, then God's creating Adam entails a certain posterity. Arnauld argues, given that God has decided to create Adam, everything that has happened since follows necessarily and this is an unacceptable limitation on God's freedom.

In an April 1686 letter, Leibniz defends his claim by offering an overview of his account of creation.¹⁰ According to Leibniz, in God's understanding there are an infinite number of possible worlds and God freely decides to create the best of all possible worlds.¹¹ For example, in the *Monadology*, Leibniz explains:

[3] Now, since there is an infinity of possible universes in God's ideas, and since only one of them can exist, there must be a sufficient reason for God's choice, a reason which determines him towards one thing rather than another (AG 220/G IV 615–616).

For Leibniz, possibilities are not dependent on the will of God.¹² Rather, God understands all of the possible universes that God could create. Adam, the actual Adam, exists in only this world. Additionally, there are 'an infinite number of Adams whose posterity would be different,' and that among 'these possible Adams...God has chosen just one who is precisely our Adam[.]'¹³ Leibniz's point is, roughly, that had God willed a different posterity for Adam, God would not have created the actual Adam. Instead, God would have created a different Adam with a different posterity. Thus, although the creation of any particular possible Adam entails a certain posterity, there are a presumably infinite number of other worlds with other possible Adams that God could have created.¹⁴ [p.6]

Arnauld responds in the May 1686 letter and states that he still has some problems with

Leibniz's account of an individual concept.¹⁵ In fact, Arnauld develops his argument for CCS entailing premise 1. This letter from Arnauld has not always received a warm treatment. R. C. Sleigh suggests that Arnauld's argument from CCS to premise 1 is 'a strange brew of premises about possible objects and concepts. Fortunately, the argument can be recast in coherent form, if we formulate it as an argument about concepts rather than possible objects.'¹⁶ G. H. R. Parkinson claims that Arnauld's 'objection is involved and obscurely expressed.'¹⁷ Finally, Catherine Wilson claims: 'Although [Arnauld] would like a strong interpretation of counterfactuals, his wish to preserve the freedom of God leads him to deny the existence of possible individuals, so that he inadvertently aligns himself with Spinoza, showing the danger of not reading books one doesn't like.'¹⁸ I shall argue in the next three sections that Arnauld's objections to Leibniz are best understood as culminating in Arnauld defending an essence-based modal actualist theory of possibility. Arnauld makes three arguments that inform his essence-based modal actualism: he argues that his nature includes 'only that which is such that I should no longer be me if it were not in me,' that there are no 'pure possibilities' (at least relative to created substances), and offers an account of possibility in terms of actual 'natures which [God] has created.'

2. Arnauld's nature

Arnauld offers his own account of the nature of an individual while arguing against Leibniz's conception of many possible Adams. Arnauld begins by arguing that it is impossible to conceive of many possible Adams. He relates conceiving of many possible Adams to conceiving of many possible varieties of himself. Arnauld claims:

[4] Besides, Sir, I do not know how by taking Adam as the example of a singular nature one can conceive of many possible Adams. It is as though I were to conceive of many possible varieties of myself [plusieurs *moi* possibles], which is certainly inconceivable. For I cannot think of myself without considering myself as a singular nature, so distinct from any other existing or possible that I can as little conceive of different varieties of myself as of a circle whose diameters are not all of equal length. The reason is that these different varieties of myself [divers *moi*] would all be distinct one from another, otherwise there would not be many of them. Thus one of these varieties of myself would necessarily not be me, which is manifestly a contradiction (M 29/G II 30/LR 97).

While this passage may at first seem confused, in order to offer an adequate account of it one must look at Arnauld's basic ontology. Arnauld's ontology is thoroughly Cartesian. Arnauld holds a substance-mode ontology and a [p.7] mind-body substance dualism. Arnauld describes the former distinction in the *Port Royal Logic*:¹⁹

[5] I call whatever is conceived as subsisting by itself and as the subject of everything conceived about it, a thing. It is otherwise called a substance.

I call a manner of a thing, or mode, or attribute, or quality, that which, conceived as in the thing and not able to subsist without it, determines it to be a certain way and causes it to be so named (B 30/OA 41 134/CG 46–47).

Arnauld holds that substances subsist by themselves and are the subject of everything conceived about them.²⁰ All the properties of the substance are conceived of as in the substance and their

existence depends on the substance. Arnauld holds that only two types of substances exist: minds and bodies. In the correspondence with Leibniz, for example, Arnauld claims: 'I am acquainted with only two kinds of substances, bodies and minds; and it is up to those who would claim that there are others to prove it to us.'²¹ Returning to the substance-mode ontology, Arnauld contrasts substances with modes, attributes and qualities. Although Arnauld considers modes, attributes and qualities together in passage 5, later in the *Logic* he makes an important distinction between modes and attributes. Modes are *contingent* properties of a substance while attributes are necessary properties of substance. Arnauld describes modes:

[6] A mode is that which can exist naturally only through a substance, and which is in no way necessarily connected to the idea of a thing, so that one can easily conceive the thing without conceiving the mode (B 43–44/OA 41 150/CG 64).

Modes are 'in' a substance and depend on that substance for their existence. Earlier in the *Logic*, Arnauld explains:

[7] It is the nature of a true mode that one can clearly and distinctly conceive the substance of which it is a mode without it, while not being able, conversely, to conceive the mode clearly without conceiving at the same time its relation to the substance (B 31/OA 41 135/CG 48).

Arnauld claims of 'true mode[s]' that one can clearly and distinctly conceive of the substance of which it is a mode without instantiating that particular mode, while not being able to conceive clearly of the mode without conceiving of its relation to the substance. Arnauld holds that for any substance S and particular mode M, S can exist while not instantiating M.

Attributes are distinguished into two categories: 'essential attributes' and 'attributes' simpliciter. Each substance has one essential attribute that constitutes the essence of the substance and is the attribute upon which all [p.8] modes and other attributes of that substance depend.²² The essential attribute of a mind is thinking, while the essential attribute of a body is extension. Attributes, other than the essential attribute, depend on the essential attribute of the substance, but are not the essential attribute. These 'generic attributes,' Arnauld claims, 'are merely attributes dependent on the primary attribute.'²³ Arnauld gives the example of 'divisibility.'²⁴ Extension is the only essential attribute of body, for example, yet all bodies are divisible (and also have shape, etc.).

Arnauld repeatedly defines the 'essential attribute' as 'the thing itself.'²⁵ For Arnauld, the essential attribute *just is* the thing itself. So, a mind just is its thought, while a body just is its extension. He offers an account in which the substance and its essential attribute are distinct only in reason. Arnauld develops this conception of an essential attribute in Book 1, Chapter 2 of the *Logic*:

[8] We should remark, however, that the mind, accustomed to knowing most things as modified since it knows them almost always by accidents or qualities that strike the senses, often divides the essence of the substance itself into two ideas, viewing one as subject and the other as mode. For example, although everything in God is God himself, this does not prevent us from conceiving him as an infinite being, regarding infinity as an attribute of God and being as the subject of this attribute. Thus a human being is often considered as the subject of humanity *habens humanitatem* [possessing humanity], and consequently as a modified thing.

In these cases the essential attribute, which is the thing itself, is taken for a mode because it is

conceived as in a subject. This is properly speaking an abstraction of substance, such as humanity, corporeality, and reason (B 31/OA 41 134–135/CG 47–48).

In the above passage, Arnauld discusses an abstraction from substance in which the mind divides the essence of substance into two ideas, treating one as the subject and the second as a mode. Arnauld uses God as an example. Often, when conceiving of God, Arnauld claims, we conceive of God as a being who has the property of being infinite. While it is true that God is infinite, it is not the case that God has the property of being infinite in such a way that God and being infinite are distinct. The distinction between God and God's infinity does not exist in God or *in re*. Rather, we can conceive of God as having the property of infinity in the subject, but only through an abstraction of substance. Similarly, when we think of a body *as* a thing or subject which has the property of being extended or a mind as a thing that has the property of thinking in such of way that body and extension or mind and thought are distinct, we are abstracting from the substance. It is not the case that the subject and the essence of a body are distinct *in re*, rather a body *just is* its extension and a mind *just is* its thought. So, the essential attribute is not a property at all, but the substance itself conceived of in a different way.²⁶

Arnauld adds to his account of essential attributes in a discussion of 'abstractions of the mind:' [p.9]

[9] That it is possible to consider a mode without reflecting distinctly on the substance of which it is a mode, provides an opportunity to explain what are called *abstractions of the mind*...The third way of conceiving things by abstraction takes place when, in the case of a single thing having different attributes, we think of one attribute without the other even though they differ only by a distinction of reason. Here is how this happens. Suppose, for example, I reflect that I am thinking, and, in consequence, that I am the I who thinks. In my idea of the I who thinks, I can consider a thinking thing without noticing that it is I, although in me the I and the one who thinks are one and the same thing. The idea I thereby conceive of a person who thinks can represent not only me but all other thinking persons (B 37–38/OA 41 141–143/CG 55–57).

Attributes of a substance, while identical *in re* are nonetheless merely conceptually distinct. So, there is only a conceptual distinction between a substance, its essential attribute, and its other attributes.

Finally, we are in a position to return to passage 4. When Arnauld claims he is a singular nature, he is asserting his view that he is a particular substance and being a particular substance *just is* being a particular nature. Given this conception of what it is to be Arnauld, if there are 'other Arnaulds' (whether actual or possible), then these other Arnaulds are distinct, both from one another and from Arnauld. This is because another Arnauld would be a different particular nature. As a particular nature, Arnauld is a distinct entity and is necessarily distinct not only from any other *actual* thing, but also from any alleged *merely possible* thing.

Arnauld continues his argument against 'many possible Adams' by applying the above line of argument about himself to what Leibniz says about Adam:

[10] Let me, Sir, now transfer to this version of myself what you say about Adam, and judge yourself whether that could be maintained. Amongst possible beings God found in his ideas many versions of myself, one of which possesses the predicates of having several children and being a doctor, and another of living in celibacy and being a theologian. And having decided to create the latter, the version of myself which now exists contains in its individual concept the

notion of living in celibacy and being a theologian, whereas the former would have contained in its individual concept that of being married and a doctor. Is it not clear that there would be no sense in this discourse: because since my self is necessarily a particular individual nature, which is the same thing as having a particular individual concept, it is as impossible to conceive of contradictory predicates in the individual concept of myself as to conceive of a variety of myself different from me. From this one must conclude, I think, that since it is impossible that I should not always have remained myself, whether I had married or lived in celibacy, the individual concept of myself contained neither of these two states; just as it is well to conclude: this square of marble is the same whether at rest or in motion; so neither rest nor motion is contained in its individual concept (M 29–30/G II 30).

Arnauld grants Leibniz his conception of God. God, prior to creating, surveys in God's understanding several possible Arnaulds, one of which has the property of being celibate, while another has the property of having children, and chooses to create one.²⁷ God chose to create the celibate Arnauld, who has celibacy in his complete concept. However, God could have chosen [p.10] to create an Arnauld who married, in which case being married would be a part of his complete concept. Arnauld argues that this is incoherent. In order to do so he identifies an individual's particular concept with that individual's particular nature and he claims that Arnauld is essentially a particular individual nature. Since Arnauld is essentially a particular individual nature, both possible Arnaulds must be the same actual Arnauld. Further, since Arnauld has argued that one's complete concept is one's nature, Arnauld now has both celibacy and being married in his complete concept. But, it is impossible to have contradictory properties in one individual concept (Arnauld seems to be treating these as contradictory properties). According to Arnauld, on Leibniz's suggestion, Arnauld's complete concept contains celibacy and being married. But Arnauld argues that both properties cannot be in his complete concept since they are contradictory.

Having established that both of those predicates cannot be in his complete concept, Arnauld goes on to argue that *neither* is. Since Arnauld would have remained Arnauld whether he had married or lived in celibacy, his individual concept cannot contain celibacy or being married. Arnauld then compares his properties of being married and being celibate to a square of marble being the same square of marble whether at rest or in motion; so neither rest nor motion is contained in its individual concept. This choice of analogy is informative. A square of marble is a paradigm case of an extended substance, and motion and rest are paradigm cases of modes of extended substance, that is of *ways* that squares of marble can *be*.²⁸ Arnauld is suggesting the same thing about himself, namely that he is a substance and being married or celibate are different modes of that substance, that is different *ways* that he can *be*. Arnauld is claiming that possibility talk about Arnauld is not talk about purely possible substances, but is talk about Arnauld himself.²⁹

Directly after having argued that neither celibacy nor being married is a part of his complete concept, he goes on to explain what *is* in his complete concept/individual nature:

[11] That is why, Sir, it seems to me that I must consider as contained in the individual concept of myself only that which is such that I should no longer be me if it were not in me: and that all that is to the contrary such that it could be or not be in me without my ceasing to be me, cannot be considered as being contained in my individual concept...That is my idea, which I think conforms to everything which has ever been believed by all the philosophers in the world (M 30/G II 30–31).

In this passage Arnauld claims that only the essential properties of Arnauld are a part of Arnauld's complete concept.³⁰

3. Against purely possible substances

Arnauld continues his attack on the heart of Leibniz's conception of God and the existence of 'purely possible substances.' Arnauld begins by [p.11] expressing concerns about doing philosophy from the perspective of God, which is epistemically cut off from created beings. Arnauld also expresses some concerns about the way God is commonly understood:

[12] For what do we know at present of God's knowledge? We are aware that he knows all things, and knows them all by a single and very simple act which is his essence (M 30–31/G II 31).

He adds: 'Can we conceive that whereas God's knowledge is his very essence, wholly necessary and immutable, he nevertheless knows an infinite number of things he might not have known' and 'the same holds true for his will, which is also his very essence.'³¹ In these passages, Arnauld is invoking his commitment to the Doctrine of Divine Simplicity.³² Having introduced God's simplicity, Arnauld continues:

[13] I also find many uncertainties in the way in which we normally represent God as acting. We imagine that before he willed the creation of the world he envisaged an infinite number of possible things amongst which he chose some and rejected others: many possible Adams, each with a great succession of people and events, with which he has an intrinsic connexion: and we suppose that the connexion of all of these other things with one of these possible Adams is quite like the connexion which we know the created Adam to have had with the whole of his posterity; which makes us think that this is one amongst all the possible Adams that God chose and that he did not want any of the others (M 31/G II 31).

Arnauld directly questions Leibniz's conception of God and its compatibility with what Arnauld takes to be an appropriate conception of God and God's *modus operandi*. First, Arnauld addresses treating God as envisaging an infinity of possible worlds, and choosing to create one. This conception of God is hard to reconcile with Arnauld's conceptions of God's *modus operandi* and divine simplicity. If God consults God's understanding to discover all of the possible worlds and decides to create one, then, Arnauld argues, God must have distinct faculties or have attributes playing distinct roles in creation.

Arnauld then proceeds to the heart of his attack on 'purely possible substances.' Arnauld claims:

[14] But without insisting upon what I have already said, that taking Adam as an example of a singular nature, it is as impossible to conceive of many Adams as of many varieties of myself: I confess in good faith that I have no conception of these purely possible substances, that is to say the ones that God will never create. And I am very much inclined to think that they are figments of the imagination that we create, and that what we call possible, purely possible, substances, cannot be anything other than God's omnipotence, which being a pure act does not permit the existence in it of any possibility [*et que tout ce que nous appelons substances possibles, purement possibles, ne peut être autre chose que la toute-puissance de Dieu, qui étant un pur acte ne souffre point qu'il y ait en lui aucune possibilité*] (M 31/G II 31–32/LR 98).

[p.12] And after a discussion of how Arnauld prefers to understand possible substances (passage 18 below), he continues:

[15] But I am much mistaken if there is anyone who dares to say that he can conceive of a possible, purely possible, substance. For I am convinced in my own mind that although one talks so much of these purely possible substances, nonetheless one never conceives of any of them except according to the notion of one of those which God has created. One might therefore say, it seems to me, except for the things which God has created or is to create, there is no passive possibility but only an active and infinite potency (M 32/G II32).

In order to interpret this passage, it will be beneficial to make a distinction between *pure possibilia* and *pure possibilities*. Pure possibilia are objects (or worlds, persons, stuff, etc., henceforth: 'objects') that have being but do not actually exist. Pure possibilia are *mere possibilia* or *mere possible objects*. *Pure possibilities*, on the other hand, are those states of affairs that are possible (or impossible) logically independent of the will of God. Given that pure possibilities are states of affairs and pure possibilia are objects, these two concepts are distinct, at least conceptually.

Returning to passages 14 and 15, Arnauld critiques the very foundations of Leibniz's conception of God. In passage 14, Arnauld claims that '*these* purely possible substances' (emphasis mine) are figments of the imagination. As I read him, Arnauld is directly commenting on passage 13, and the purely possible substances to which he refers are an explicit reference to the possible substances Leibniz places in God's mind. When Arnauld argues against *these* purely possible substances, he should be read as questioning that there are in God's understanding possible substances that are never created, because given Arnauld's conception of God and divine simplicity, there can be no possibility independent of God's will, in God's understanding. So, there are no possible substances in the understanding of God prior to any volitional act by God.

Arnauld then makes another claim which may be opaque on the surface, namely that what we call 'possible, purely possible substances' are nothing 'other than God's omnipotence, which being a pure act does not permit the existence in it of any possibility.' The locution 'possible, purely possible substance' is more inclusive than Arnauld's prior concern with just those possible substances in God's understanding. In context, it becomes clear that Arnauld is continuing his direct argument against Leibniz's conception of God and its relation to possibility. I suggest that with his locution 'possible, purely possible substances' Arnauld means to be picking out all possible substances that are possible independent of God's will. That is, Arnauld aims to pick out any pure possibilities or states of affairs independent of God's free volitions that determine possibilities about substances. Thus, Arnauld expands his attack on Leibniz from those possible substances in God's understanding, to question *any* conception of possible substances according to [p.13] which, they are independent of the will of God. What Arnauld is taking aim at is Leibniz's conception of the relationship between God and possibility, and objecting to treating possibility (at least relative to created substances) as prior to God's volition. So, when Arnauld claims that 'possible, purely possible substances' are nothing 'other than God's omnipotence, which being a pure act does not permit the existence in it of any possibility,' I suggest we read Arnauld as denying pure possibilities, and claiming that what we call pure possibilities are simply God's omnipotence or total power. God could have created a married Arnauld, not because of some 'pure possibility' making it possible, but simply because God is omnipotent. We should not confuse this with states of affairs that are possible or impossible logically prior to the will of God. It does not follow, Arnauld would argue, from God's having the power to will an infinite number of

different things, that those things are possible *prior* to God's willing them (on my view, Arnauld would deny that God's being able to will x entails anything about the modal status of x).³³ Further, God's omnipotence is a pure act; God's omnipotence just is God's power, which just is God's understanding, which just is God. Arnauld claims that possibility cannot be grounded in God's essence or understanding.³⁴ God's essence, since it is pure act, is not the sort of entity that grounds possibilities; God's different faculties do not play different roles in God's action. In order to ground possibility in the essence of God the way that Leibniz tries to, one must conceive of God's faculties of will and understanding (and God's essence itself) in some way distinct and Arnauld denies that this is an appropriate way to conceive of God.

In a recent paper to which my interpretation is indebted, Alan Nelson offers a different interpretation of these passages. Nelson suggests that passages 14 and 15, when connected with a Cartesian backdrop, result in a 'strong argument against unactualized possibles in God's understanding (as Leibniz locates them...), or *anywhere else*' (emphasis mine).³⁵ Nelson offers the following reconstruction, treating Arnauld's argument as an argument against premise 1, proceeding on the assumption of 1 to an untenable conclusion:

1. Suppose that God has an idea, P , of something that is never actual.
 2. In God, willing, knowing, and creative activity are the same thing.
 3. God knows every idea that he has.
- Therefore,
4. For every idea God has, he wills that it be so, and similarly, for every idea he has his creative activity is exercised.
- Therefore, [p.14]
5. Every idea God has is of something he has created or will create.
- Therefore,
6. P is of a created, but never actual thing. In other words, it is of a thing God's creative power actively renders possible; it is of a purely possible thing, a thing whose mere possibility is created. (1 and 5)

Nelson argues that Arnauld would reject 6, since everything that exists falls into the categories of God and 'the things God creates, i.e. actual things.'³⁶ Since 6 is false, 1–5 entail 6, and 2–5 are true, 1 must be false. Thus, on Nelson's reading, Arnauld uses divine simplicity to argue for an actualist theory of possibility.

The disagreement between Nelson's reading and my own (with respect to this aspect of the correspondence) is as follows: Nelson treats Arnauld as using divine simplicity to argue against pure possibilities (I take Nelson's use of 'purely possible thing' in 6 to be a reference to what I have called pure possibilities). On my reading, Arnauld's discussion of God's *modus operandi* and divine simplicity is meant to undermine the existence of pure possibilities, not pure possibilities (although there is an overlap between the two). As I argue below, Arnauld's actualist account is then suggested as an alternative, although he makes no *direct* argument against pure possibilities. Nelson claims only that passages 14 and 15, 'when connected with the Cartesian background' take on a strong argument against pure possibilities generally, not that this is the precise argument Arnauld offers.³⁷ Nevertheless, Nelson's reconstruction has Arnauld using divine simplicity, at least in part, to argue against pure possibilities, while on my reading divine simplicity and God's *modus operandi* are only meant to undermine the existence of pure possibilities relative to created substances (which of course includes any pure possibilities grounded in the divine essence).

Further, Nelson's reconstruction of this passage relies on Arnauld's denying 6. I agree with Nelson that Arnauld would reject 6, although on my interpretation Arnauld would not claim of God that God *could not* actively render something possible. However, the main problem with this reading of the passage is that there is no indication in Arnauld's argument that he relies on anything like denying 6. Arnauld does not mention anywhere that God can only will actual substances. That Arnauld is using divine simplicity and his account of God's *modus operandi* to argue against pure possibilities whether they are in God's understanding or anywhere else independent of God's volition, and not pure possibilia, can be seen in two passages earlier in the correspondence: [p.15]

[16] It seems to me, after that one must still ask (and this is the source of my difficulty) if the connexion between these objects (namely, Adam on the one hand, and everything that was to happen to him and his posterity on the other) exists as such of itself, independently of all the free decrees of God, or if it was dependent on them...without [its being independent of them] I do not see how what you say can be true, 'that the individual concept of each person contains once for all everything that will ever happen to him' (M 27-28/G II 28-29).

In this passage Arnauld directly addresses whether connections between objects are independent of the decrees of God or depend on the decrees of God. Arnauld is attributing to Leibniz the claim that there are, independent of the free decrees of God, connections between the created Adam and all of the predicates that can truly be attributed to Adam. This is relevant to pure possibility because all the connections between Adam and other predicates are pure possibilities, that is, they are possibilities about Adam that are true independent of the will of God. Arnauld continues:

[17] It seems too that you insist on this last proviso; for I think you suppose that in the light of our understanding *possible things are possible prior to all the free decrees of God*: from which it follows that *what is contained in the concept of possible things is contained there independently of all the free decrees of God*. Now you suppose "that God found among possible things a possible Adam accompanied by particular individual circumstances, and that he possesses amongst other predicates also that of having in the course of time a particular posterity." Thus in your opinion there exists an intrinsic connexion, so to speak, independent of all God's free decrees, between this possible Adam and all the individuals comprising the whole of his posterity, and not only the people but in general everything that was to happen to them. Now this, Sir, is frankly, what I cannot understand. For it seems to me that according to you the possible Adam (whom God chose in preference to other possible Adams) was linked to all the selfsame posterity as the created Adam; since he is, in your opinion, so far as I can judge, merely the same Adam considered now as possible and now as created (emphasis mine, M 28/G II 29).

In passage 17, Arnauld explicitly attributes to Leibniz the view that possible things are possible prior to the free decrees of God. Arnauld then bases his criticism on this part of Leibniz's view. Whether possible things are possible prior to the free decrees of God is a question about pure possibilities. It is not a concern about what types of things these possible things are, but whether these possibilities are possible independent of the free decrees of God. The thesis at issue in this part of the correspondence is whether pure possibilities exist (states of affairs that are possible or impossible prior to the free decrees/will of God), not any direct concern with 'pure possibilia' (beings that exist, but lack actuality).

4. Arnauld's positive account

After denying the existence of any 'pure possibilities,' at least with respect to created substances, and thereby any account of possibility in virtue of them, Arnauld offers a positive account of possibility: [p.16]

[18] But one can conceive of possibilities in the natures which he [God] has created, because since they are not being itself by essence [*parce que n'étant pas l'être même par essence*], they are necessarily made up of potency and act, which allows me to conceive of them as possible, as I can also do with an infinite number of modifications which are in the power of these created natures, such as the thoughts of intelligent natures and the forms of extended substance (M 31–32/G II 32/LR 98).

Later, Arnauld adds:

[19] I find in myself the concept of an individual nature, since I find there the concept of myself. I have only to consult it, therefore, to know what is contained in this individual concept, as I have only to consult the specific concept of a sphere to know what is contained in it. Now, I have no other rule for that than to consider what is such that a sphere would no longer be a sphere if it did not possess it, such as having all the points of its circumference equidistant from the centre, or what would not cause the sphere to cease to be a sphere, such as being only one foot in diameter whereas another sphere might be ten or a hundred feet. On that evidence I decide that the former is contained in the specific concept of a sphere and that the latter, the question of having a larger or smaller diameter, is not contained therein. I apply the same rule to the individual concept of myself. I am assured that as long as I think, I am myself. For I cannot think that I do not exist, nor exist so that I be not myself. But I can think that I shall or shall not take a particular journey, while remaining very much assured that neither one nor the other will prevent my being myself. So I remain very much assured that neither one nor the other is included in the individual concept of myself (M 32–33/G II 32–33).

In these passages Arnauld directly invokes his essence-based modal actualism in his account of possibility.³⁸ Before considering these passages, however, it will be beneficial to develop Arnauld's account of substances and essential attributes introduced in Section 2. In fact, I would like to begin with a suggestion as to how to understand Arnauld's account, then consider passages from *On True and False Ideas* and the *Logic* to support this suggestion before returning to the Leibniz-Arnauld correspondence. I suggest that on Arnauld's account of substance and essence, substances are irreducible modal entities. As I argued in Section 2, when God creates a physical substance, God creates something that is not only essentially an extended thing, but just is its extension. Further, I suggest that we treat the essence, in this case being extended, as an irreducible aspect of the world. A body is not essentially extended because of any relation to any other bodies or to any merely possible bodies, but is extended intrinsically. The same is true of minds. When God creates a mind, God creates a thinking thing. A mind is essentially thinking, not in virtue of any external relation, but in virtue of its own being.

Each particular substance, simply insofar as it exists, has a modal profile. The modal profile of a substance is all of the properties that a substance has and *how* that substance has them (I use properties here in a loose sense so as to include generic attributes). There are four modal notions that are relevant [p.17] to the modal profile of a created thing: essentially, necessarily, possibly and

contingently. Thinking and extension are the only essential properties. These are properties that constitute the essence of something (which are in fact nothing but the thing itself). There are also properties that a substance has necessarily, but which are not considered the essence of the thing. These are attributes that all substances of a certain type must have, but which are not properly considered the essential attribute. Arnauld often uses divisibility and mobility as examples of this type of mode. Extension is the only essential attribute of body, yet all bodies are divisible and have mobility.³⁹ All bodies are divisible, for example, because divisibility is regarded as depending on (and is a way of) being extended. Thus, for Arnauld, some properties that an object must have if it is to exist are not the essence, but merely necessary properties (these 'attributes' are also only conceptually distinct from the substance itself, see passage 8 and the surrounding discussion above).

The third aspect of a modal profile is those properties or modes that an object has possibly – its 'possible modes'. These are all the different ways that a substance could be. Intuitively, these are properties that depend on and imply, but do not follow from, an object's essence (though as I argue below, their *possibility* does follow from the substance's essence). For example, every particular body could be round because being round is a way of being an extended thing, but something can be extended without being round.⁴⁰ Treating the substance-mode distinction along the lines of a determinable-determinate distinction is informative.⁴¹ A body *just is* a determinable extension that can take on any number (likely infinite) of different determinate shapes, sizes, etc. It is true of the actual determinable substance that there are a potentially infinite number of determinate ways that it can be. All of these determinate ways that a substance can be are what I am calling possible modes. What is central to this component of the modal profile of a substance is that these 'possibilities' are grounded in and inhere in the substance itself. The possible modes a substance has are not ways that a substance can be because of the relation the substance has to other substances, because of our conceptual ability to understand the substance with different modes, or because of a substance-independent ontological/logical fact. Instead, they are true of the substance itself because they inhere in the substance. What it is to be an extended thing, for Arnauld, *just is* to be a determinable extended thing with certain determinate intrinsic possibilities; to be an extended thing is to be a determinable entity capable of existing in any number of determinate ways. So, this account does not posit a new ontic category of 'merely possible modes' into Arnauld's ontology thereby violating his strict substance-mode ontology and substance dualism. For Arnauld, all that God creates are substance (minds and bodies) and these substances have modes. In addition to creating substances, God does not create 'possible modes.' Rather, these 'possible modes' are grounded in and inhere in the created substance and its essence.⁴² [p.18]

Finally, in addition to essential, necessary and possible properties, a substance also has certain properties contingently. Contingent modes of a substance are a proper subset of the possible modes of a substance, namely those possible modes of a substance that it instantiates at any given time. There is an important distinction between those properties that a substance has essentially, necessarily and possibly on the one hand and those properties that a substance has contingently on the other. The properties that an object has essentially, necessarily and possibly all inhere in and depend only on the essence of the substance. An extended body, in virtue of being an extended body, is essentially extended, necessarily divisible, and possibly square. What it is for God to create an extended body *just is* for God to create an entity with a certain modal profile relative to the properties it has essentially, necessarily and possibly. So, one can 'reduce' the modal properties of substances to that substance's essence. But, since an essence is a modal notion, the modal properties of a substance do *not* reduce to non-modal properties of a substance (or to the non-modal properties of anything). In addition to those properties that follow from the essence of an individual substance, there are

modes that a body has contingently. The contingent modes a body has do not follow from the essence of the substance alone (*qua* contingent modes). The contingent modes of a substance depend on the actual contingent features of the world and the contingent facts of its particular creation. All of the contingent modes of a substance are a part of the essence of the substance *qua* possible mode, but not *qua* contingent mode. For example, God could have created a particular extended body as round and that property would be contingent. From there, this extended body's shape would change on account of its causal interaction with other bodies. On the conception of a modal profile I am suggesting, an adequate idea of the substance would include all of its essential, necessary and possible modes. An adequate idea (see, for example, Arnauld's *Fourth Objections to Descartes' Meditations*) is a complete conception of the thing in question.⁴³ Indeed, on the account I am defending, an adequate idea of the nature of extension *is* an idea of all of the substance's essential properties, necessary properties and possible modes. The contingent modes are a proper subset of the possible modes, namely those possible modes that that substance instantiates at any given time.

The account I have sketched above is one in which substances are irreducibly modal entities. The properties that a substance has essentially, necessarily and possibly can be reduced to and are grounded in/inhere in the essence of the substance in question. The essence of a substance, either being a thinking thing or being an extended thing, is, for Arnauld at least, a modal notion. Substances are irreducibly modal because the modal properties of a substance cannot be reduced to *non-modal* properties of a substance.⁴⁴ Arnauld never offers an explicit account like the one sketched above, yet he often suggests it. As I argue below, this is the view he offers in his correspondence with [p.19] Leibniz, namely in passages 18 and 19. Arnauld also suggests a view of this type in many passages in another work of his, *On True and False Ideas (VFI)*, written in response to Nicolas Malebranche's theory of ideas. For example, Arnauld claims:

[20] *Whatever is contained in the true idea of a thing (i.e., in the clear perception which we have it) can be affirmed of it with truth.* It must be God who gave us an invincible inclination to accept it and to take it as the foundation of all human certainty (K 30–31/OA 38 210).⁴⁵

The principle cited in this passage, namely the Clear and Distinct Idea Principle (CDIP), also appears as the first axiom in Book IV, Chapter 7 of the *Logic*:

CDIP: Everything contained in the clear and distinct idea of a thing can truthfully be affirmed of it (B 250/OA 41 381/CG 321).⁴⁶

Prior to his assertion of CDIP in *VFI*, Arnauld claims in reflecting on our clear and distinct idea of a substance that we are '*seeing the properties of things in their ideas* [*voir les propriétés des choses dans leurs idées*].' He continues: '*seeing, in the idea of extension that it must be* [*doit être*] *divisible and mobile; seeing in the idea of mind, that it must be* [*doit être*] *a substance really distinct from extended substance.*'⁴⁷ According to Arnauld, we can '*see*' the properties of the substance. For example, one can conceive or '*see*' in the idea of a body that it *must be* divisible and mobile. Given CDIP, we can truly predicate these properties of an extended body. Indeed, Arnauld claims that these *are* properties of the things in question (*voir les propriétés des choses*) and not simply that we can understand the substance to have *counterfactually* these features. While Arnauld does not directly address possible modes in this passage, the same account would apply to these types of modes. Just as it is contained in the idea of a body that it *must be* divisible, it is contained in the idea of a body that it *could be* square. In fact, Arnauld introduces a modal notion into the clear and distinct idea of a body by claiming of a body that it *must be* divisible. Arnauld could have claimed that it is contained in the clear

and distinct idea of a body that it *is* divisible and mobile, but instead claimed of a body that it *must be* divisible and mobile. Similarly, I want to suggest, it is grounded in the essence of a particular mind that it has the power to think an infinite number of different thoughts and it follows from the idea of a body that it could have an infinite number of different shapes and these different ways of being are possible modes.

Arnauld suggests this in other passages from *VFI* as well. In Chapter XXIV, for example, he claims:

[21] Our mind cannot comprehend *all the shapes* of which matter is capable. But that does not prevent it from knowing matter by a clear idea. Therefore, we do not need to comprehend *all* [p.20] *the modifications* of which an object *is capable* in order to know it through a clear idea (K 147/ OA 38 326, emphasis mine).

The context of this passage is Arnauld defending the claim that clear and distinct ideas need not be complete, e.g., that one need not know every property of a body to have a clear and distinct idea of a body. Arnauld claims that we need not know *all* the shapes of which matter is capable to know it by a clear idea, suggesting that we know at least *some* of the shapes of which matter is capable. Arnauld at least suggests that the different modifications of which an object is capable are intrinsic properties of the substance in this passage as they are a capacity of the substance. And finally, in passage 7, Arnauld claims that we can clearly and distinctly conceive of a substance without conceiving any particular mode, thus implying that we can clearly and distinctly conceive the substance with possible modes. It is true of each *actual substance* that there are an infinite number of modifications it could have, e.g., making a certain judgment, thinking a certain thought or having a certain shape.

Returning to passages 18 and 19, I think that we can see, with his ontology in the background, that Arnauld is offering an interesting alternative to Leibniz's 'possible worlds' approach to modality. In passage 18, Arnauld claims that one can 'conceive of possibilities in the natures that he has created' and that an 'infinite number of modifications' are 'in the power of these created natures.' These substances are 'made up of potency and act [*elles sont nécessairement composées de puissance et d'acte.*]⁴⁸ Arnauld is claiming that the substance itself grounds all of the possible properties it could instantiate. As argued in Section 2, Arnauld identifies a substance's nature with its complete concept. In passage 18, then, Arnauld claims that a substance's possible properties can be conceived of in the nature or complete concept of the substance, and implies that it is an intrinsic feature of the substance as this potency composes or makes up (*composées*) the substance. Here Arnauld claims that the possible properties that substances do not instantiate, but could instantiate, are grounded in the fundamentally modal nature of the entity in question. Consider a particular soul and a particular thought that has never occurred (perhaps with some complicated mathematical content). In Arnauld's terminology, this is a possible mode of the mind that is never instantiated. This possible mode is not a pure possibility, nor is it a thing. It is possibly precisely because that particular substance could be that way and that particular substance could be that way because of an intrinsic property that inheres in the substance.

In passage 19, Arnauld develops this discussion and applies it directly to his essence. He claims that he finds within himself the concept of himself. Earlier, Arnauld equated a particular individual concept with a particular individual nature. When Arnauld asserts that he can find his concept within himself, he is claiming he knows his essence. Arnauld claims that he is [p.21] assured that so long as he thinks, he will be himself, and other properties, like taking a particular journey, are accidental to

him. This amounts to a sophisticated essence-based modal actualism. According to Arnauld, when God creates the world, God creates substance. These substances are modal entities since they are entities with irreducibly modal features. Arnauld refuses to reduce modality to anything more primitive. God creates 'Arnauld' who is essentially a thinking thing. It also follows from Arnauld's essence that he is 'possibly celibate' and 'possibly married.' Arnauld is also contingently celibate. Arnauld is an actualist because all that exists are actual things. He is a modal actualist because the actual world is composed of fundamentally modal things, namely created substances. And finally, he is an *essence-based* modal actualist, because essences are what resist reduction and ground *de re* counterfactuals.

In this article I have argued that in the Leibniz-Arnauld correspondence Arnauld defended an essence-based modal actualism. Not only is this reading of Arnauld preferable because it best fits the text, it is also a view that could be developed into a plausible view in its own right. While I cannot defend this claim here, Arnauld's actualism, when divorced from its theological motivations and with several important augmentations, could serve as a foundation for a plausible view that deserves to be considered in contemporary debates concerning modal metaphysics.⁴⁹

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NOTES

¹ Primary text abbreviations throughout are as follows:

Antoine Arnauld

B: and Pierre Nicole, *Logic or the Art of Thinking*, J. Vance Buroker, trans. Cambridge: Cambridge University Press, 1996.

CG: and Pierre Nicole, *La Logique ou l'art de penser*, P. Clair and F. Girbal, eds. Paris: J. Vrin. 1981.

K: *On True and False Ideas*, E. Kremer, trans. Lewiston, NY: The Edwin Mellen Press, 1990. OA: *Oeuvres de Messire Antoine Arnauld*, 43 vols. Paris: Sigismond D'Arnay, 1775–1783.

René Descartes

AT: *Oeuvres de Descartes*, 11 vols., C. Adam and P. Tannery, trans. Paris: J Vrin., 1974–1989. CSM: *The Philosophical Writings of Descartes*, 2 vols., J. Cottingham, R. Stoothoff and D. Murdoch, trans. Cambridge: Cambridge University Press, 1984–1985.

Gottfried Leibniz

AG: *Philosophical Essays*, R. Ariew and D. Garber, eds. and trans. Indianapolis, IN: Hackett, 1989.

G: *Die philosophischen Schriften von G. W. Leibniz*, 7 vols., C.I. Gerhardt, ed. Berlin: Weidman, 1875–1890.

M: *The Leibniz-Arnauld Correspondence*, H.T. Mason, trans. New York: Manchester University Press, 1967. [p.22]

LR Leibniz: *Discours de Métaphysique et Correspondance avec Arnauld*, G. Le Roy, ed. Paris: J Vrin, 1957.

² Notable exceptions include Nelson, 1993; Scribano, 1996; and Schmaltz, 2002, pp. 163–166.

³ Arnauld's view, I think, is somewhat similar to a view recently defended by Kit Fine. See Fine, 1994a and 1994b.

⁴ There are two different types of possibilism: classical possibilism and Lewisian possibilism. Classical possibilism is the view that there is an important ontic distinction between *being* on the one hand and

actuality on the other. All things exist or have being, but only a proper subset of things that have being have actuality or actually exist. Those things which have being but do not actually exist are *mere possibilia* or *merely possible objects*. Relative to possible worlds, classical possibilism is the view that there exist merely possible worlds. So, when one makes a modal claim and one quantifies over possible worlds, some of these possible worlds (all of the non-actual worlds) are worlds that have being and exist but do not actually exist. The paradigm example of a classical possibilist is Leibniz. Leibniz's view will be treated in more detail in Section 2, but briefly, Leibniz holds that God understands all the possible worlds that God could create and chooses to create the best of all possible worlds. All of the worlds that God chose not to create exist in God's understanding. The second form of possibilism is *Lewisian possibilism* (see Lewis, 1979, 1986; and Bricker, 2008). This view's main proponent is David Lewis. Lewis argues that all possible worlds are equally real. All objects which exist in these worlds all equally exist. Each possible world is concrete and a spatiotemporal unity. According to Lewis "'actual" is indexical ... it depends for its reference on the circumstances of utterance' (1979, p. 184). So, on Lewis' picture all possible worlds exist and have the same sort of existence and 'actuality' refers indexically. When I utter 'the actual world' I am referring to the world we all inhabit, but when an equally real individual in another equally real world utters 'the actual world' that utterance refers to the world she inhabits. Lewisian possibilism is different from classical possibilism insofar as classical possibilism treats actual things and possible things as metaphysically different types of things, while Lewisian possibilism treats all actual things and possible things as the same kind of thing and denies any metaphysical distinction between actual and possible worlds/objects.

⁵ For this helpful way of setting out this type of actualism, see Loux, 1979, pp. 48–49. See also Plantinga, 1979; Stalnaker, 1979; and Sider, 2003.

⁶ For Ernst von Hessen-Rheinfels' role in the correspondence, see Sleight, 1990, ch. 2.

⁷ M 9–10/G II 15–16.

⁸ This definition of CCS is from Sleight, 1990, p. 10.

⁹ This interpretation of the argument is essentially Sleight's (1990, p. 59).

¹⁰ Leibniz also argues that Arnauld has confused hypothetical necessity with absolute necessity (M 13/G II 18). Leibniz suggests that one must not confuse 'what God is free to do absolutely and what he has obliged himself to do by virtue of certain decisions already taken' (M 13/G II 18). According to Leibniz, Arnauld's objection errs in so far as it 'separates God's acts of will one from another, yet they are all interrelated' (M 14/G II 18–19).

¹¹ See Laerke, 2007, for a good discussion of the development of Leibniz's view of possibilia.

¹² *Discourse II*, AG 36/G IV 427–428.

¹³ M 16/G II 20.

¹⁴ Cf. Stencil, 2013, sect. 6. Arnauld would not be satisfied with Leibniz's response due to its limiting of God's power. See Nadler, 1995.

¹⁵ Arnauld agrees with Leibniz that one must distinguish absolute and hypothetical necessity and that one should not separate God's volitions, but claims that this does not resolve his difficulty (M 26–27/G II 27–28).

¹⁶ Sleight, 1990, p. 59. This passage is pointed to by Nelson (1993, p. 676).

¹⁷ Parkinson, 1967, p. xix. This passage is pointed to by Nelson (1993, p. 676).

¹⁸ Wilson, 1989, p. 93. [p.23]

¹⁹ Arnauld wrote the *Port Royal Logic* with co-author Pierre Nicole.

²⁰ Created substances do depend on God for their continued existence.

²¹ M 134/G II 107. See also, Stencil, 2013, sect. 2, for a similar discussion of Arnauld's basic ontology.

²² B 41/OA 41 147/CG 61.

²³ B 41/OA 41 147/CG 61.

²⁴ B 41/OA 41 147/CG 61; see also B 43–44/OA 41 150/CG 64.

²⁵ B 31/OA 41 135/CG 47; B 41/OA 41 147/CG 61.

²⁶ This discussion of Arnauld is indebted to a series of papers by Lawrence Nolan on *Descartes'* conception of attributes. See, Nolan, 1997a, 1997b and 1998.

²⁷ My interpretation of this argument is similar to and indebted to Nelson's (1993, pp. 681–682). Nelson interprets the argument as follows:

1. Arnauld #37 has celibacy in his complete concept.
2. Arnauld #5 has parenthood in his complete concept.
3. Arnauld #37 and Arnauld #5 are both none other than Arnauld.
4. Arnauld's complete concept contains both celibacy and parenthood.

But, 4 involves a contradiction in Cartesian philosophy, therefore, the individual concept of Arnauld contains neither celibacy nor parenthood.

²⁸ In fact, Arnauld uses 'every body is in motion or at rest' as an example of opposing accidents (modes) in the *Logic*, B 124/OA 41 241/CG 161–162.

²⁹ This is attributed to Arnauld in Nelson, 1993, p. 682.

³⁰ Cf. Carraud, 1996, pp. 101–102.

³¹ M 31/G II 31.

³² Although Nelson does not cite these passages, he suggests interpreting the letter in view of this doctrine, (1993, pp. 685–688).

³³ For discussions of Descartes, the Creation Doctrine and its relation to modality to which this article is indebted, see Kaufman (2002), where he argues that for Descartes, it being true that God could have willed that 'not-p' is consistent with it not being possible that 'not-p' (p. 26); Bennett, 1994; and Nelson and Cuning, 1999.

³⁴ Although I cannot develop the point here, on my view Arnauld holds Descartes' famous view that God freely created the eternal truths. As I read the exchange with Leibniz, this doctrine is in the background of Arnauld's discussion. For a good discussion of this issue see: Nadler, 2008; Schmaltz, 2002, sect. 1.2; Moreau, 1999, ch. 6; Kremer, 1996; Faye, 2005; Ndiaye, 1991, pp. 323–358, 1996; and Carraud, 1996.

³⁵ Nelson, 1993, p. 687.

³⁶ Nelson, 1993, p. 688.

³⁷ Nelson, 1993, p. 687.

³⁸ Nelson suggests that Arnauld defends an actualist theory of possibility (pp. 682–683) and is introducing counterfactual possibility through the notion of a power. Those things that are possible for a substance are things that are not repugnant to the concept of said thing, (1993, p. 685). Nelson seems to treat Arnauld as holding that our conceptual faculties are what constitute what is possible for a thing, whereas I hold that it is entirely mind-independent (and inheres in the substance) and our conceptual faculties are such that we can conceive of many of the possible modes of substance, but not all.

³⁹ B 41/OA 41 147/CG 61, and B 43–44/OA 41 150/CG 64.

⁴⁰ B 41/OA 41 147/CG 60–61.

⁴¹ See, for example, Nolan (1997a, p. 129), and Ott (2009, pp. 44–49), who make this suggestion for Descartes.

⁴² On Arnauld’s ontology, modes are contingent properties of substance (see, for example, passages 6 and 7). What I am calling ‘possible modes’ are not contingent properties of substance. If a substance has the possible mode ‘being square’ such that it is an intrinsic feature of the substance that it could be square, then it is a necessary feature of the substance that it [p.24] could be square. Indeed, it is my view that the totality of all of a substance’s possible modes is an attribute of the substance (and thereby only conceptually distinct from the essence of the substance). Yet, it seems that calling these features of substances possible modes has at least two reasons in its favor. First, it is quite convenient to refer each *particular* property that a substance could instantiate as opposed to the total set and (more importantly) second, the ‘possible modes’ are all of the *possible* contingent properties that that substance could instantiate.

⁴³ CSM II 143/AT VII 203.

⁴⁴ One might argue that Arnauld is not properly read as denying a reductive analysis of modality on account of the fact that the modal properties of a substance *do reduce* to something non-modal, namely the substance’s essence. I resist this reading because Arnauld’s account of substance is an account wherein the substance is fundamentally *thinking* or *extension*, not simply in a descriptive sense, but in the sense that minds *must* think and bodies *must* be extended and a substance is fundamentally an entity which is *capable* of existing in a number of different ways and so is a modal entity (see passage 21, for example).

⁴⁵ See also Descartes’ *Second Replies*, Definition II: ‘When we say that something is *contained in the nature or concept* of a thing, this is the same as saying that it is true of that thing, or that it can be asserted of that thing’ (CSM II 114/AT VII 162).

⁴⁶ Nelson, 1993, p. 690.

⁴⁷ K 30/OA 38 209.

⁴⁸ M 31–32/G II 32/LR 98.

⁴⁹ I would like to thank Mark Anderson, Colin Chamberlain, Joshua Dipaolo, Holly Kantin, Marcy Lascano, John Martin, Samuel Newlands, Peter Nichols, Mike Pelletti, Mark Pickering, Tad Robinson, Tad Schmaltz, Dennis Stampe, Peter Vranas, Aaron Wells and audiences at the Midwest Seminar in Early Modern Philosophy (University of Chicago), Midsouth Philosophy Conference (University of Memphis), Atlantic Canada Seminar in Early Modern Philosophy (Dalhousie University), the University of Wisconsin, the University of North Florida, Marquette University, Utah Valley University, the University of Utah and especially Steven Nadler, Alan Nelson and Alan Sidelle for comments and/or helpful discussion on earlier drafts of this article. Some of the research for this article was completed while on fellowship at the Center for Philosophy of Religion at the University of Notre Dame and I would like to thank them for their support.

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