University of Alberta

Leibniz and Trans-world Identity

by

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A thesis submitted to the Faculty of Graduate Studies and Research
in partial fulfillment of the requirements for the degree of

Master of Arts

Department of Philosophy

Edmonton, Alberta

Fall 2007

Your file Votre référence
ISBN: 978-0-494-33119-4
Our file Notre référence
ISBN: 978-0-494-33119-4

Abstract:

In this thesis I argue that Leibniz could have accommodated trans-world identity within his system. My principle reason for arguing for trans-world identity is that permitting trans-world identity allows us to account for counterfactual freedom. That is, if trans-world identity is permitted in Leibniz's system we can say that 'One could have done X in this world just in case one did do X in another possible world.' Since Leibniz holds some views that seem irreconcilable with trans-world identity; the presence of these doctrines in his philosophical system seem to simply bar any possibility of trans-world identity. In order to provide a solution I argue for the position that the grounding of modal claims is God. Grounding our modal claims (including counterfactual free-will claims) in God the way I have suggested can help us evade many of the difficulties associated with TWI.

Table of Contents

Introduction

In general, the question of trans-world identity (TWI) is the question of whether or not individuals can be identified across possible worlds. The problem arises when we try to evaluate the truth or falsity of counterfactual statements about individuals; TWI is true of individuals if any counterfactual statements about individuals are true. Conversely, TWI is false if all counterfactual statements about individuals are false. Consider the following counterfactual statement: 'Jones could have won the race if Brown had not tripped him'. If it is true that Jones could have won the race if Brown had not tripped him, we say that there is a possible world in which Brown does not trip Jones and he does win the race. In this case, we can say that the Jones in the possible world in which he wins the race is identical to the Jones in the actual world, in as much as the counterfactual is uttered with recourse to the Jones in the actual world. If we were to say that the counterfactual is false of Jones, then the possible Jones and the actual Jones are not identical across worlds.

In the above case, the Jones in the actual world and the Jones in the possible world can be said to differ with respect to their properties: actual Jones has the property of not being a winner, while possible Jones has the property of being a winner. Understood this way, the problem of TWI seems to be a matter of identifying individuals by scrutinizing their properties. If TWI is denied, the inevitable conclusion is that "no object can exist in more than one possible world; this implies the outrageous view that – taking property in the broadest possible sense

– no object could have lacked any property that in fact it has."[1] This opens the door for a host of challenging questions: Can Jones exist in more than one world such that he has different properties in every world? Can he, say, have the property of being a winner in one and the property of not being a winner in another? Or perhaps, the property of being 5 feet tall in one world and 6 feet tall in another, or the property of being bald in one and the property of having a full head of hair in the other?

It is clear from the above that the question of TWI is a philosophically vexing one because it seems to split our intuitions about what constitutes a particular individual in two. For, the principal reason for denying TWI is that particulars with different properties can not be identical, while the principal reason for acceptance of TWI is the intuition that many properties of particulars are merely accidental properties not necessary ones. Thus, we cannot hold to the notion that properties are accidental while individuating particulars by using their properties. Therefore, to deny TWI we have to say that all of a particular individual's properties necessarily belong to that individual. To support TWI, we have either to find some essential property that is unique to the given particular individual across worlds or we have to revise our notion of what an individual is, so we can pick out the same individual across worlds, irrespective of the individual's properties in any world.

1 Plantinga, Alvin. *Transworld Identity or Worldbound Individuals,* 157.

Chapter 1

It is worth noting from the beginning that Leibniz denies the trans-world identity of individuals. The reasons for this denial of a concept that seems for some, myself included, completely intuitive, and perhaps necessary, will be the focus of this first chapter. As with much of Leibniz's philosophical system, the issue of trans-world identity (henceforth TWI) is bound up with the rest of his system, particularly with Leibniz's conception of God's notion of the individual. It is therefore necessary to discuss how Leibniz understood God's knowledge of the individual so that we see why he felt compelled to reject trans-world identity.

The Individual Notion

For Leibniz, God has a 'complete notion' of every individual in the world. That is to say, God knows everything that will ever happen to any individual and everything that has ever happened to that individual. In the "Discourse on Metaphysics", Leibniz gives us the example of Julius Caesar. He says, "Since Julius Caesar will become perpetual dictator and master of the Republic and will overthrow the freedom of the Romans, this action is contained in his notion, for assume that it is the nature of such a perfect notion of a subject to contain everything, so that the predicate is included in the subject, *ut possit inesse subjecto*."[2] Thus, for Leibniz, all the properties of an individual are contained within that individual's notion. This is a

2 Leibniz, *Discourse on Metaphysics*, In Ariew and Garber, 45.

way of saying that the individual notion is, in an important sense, constituted by these predicates such that if we have different predicates, we have different individual notions. Therefore, if Caesar had crossed the Rubicon even a minute earlier than he in fact did, he would not be Caesar, but another individual notion, another individual.

While the notion of the complete concept allows for Divine foreknowledge, it produces the unintuitive result that nothing could have been other than it is: all properties of an individual are necessary properties; there are no accidental properties. Understood in conjunction with human freedom, it seems that Adam, for example, necessarily had to eat the fruit offered by Eve. This is because in God's mind there is a list of properties that constitute the individual Adam, one of which is eating the apple proffered by Eve. The 'Adam' that did not take the apple is therefore another individual. This is problematic because it suggests that Adam could not have done otherwise. Now, if Adam could not have done otherwise, it is difficult to see how he could be free, since we typically understand freedom as being the possibility that one could have done otherwise; or at least we think that the concept of freedom entails this.

Now, even though God has a complete concept of every individual (possible and actual), not every individual will be actualized; that is, not all individuals will be in this, the best of all possible worlds unless these individuals are 'compossible' with each other. The term 'compossibility' here, is meant to convey a sort of coexistence that individuals must have in order to be in the same world, such that the existence

of two individuals in a world depends on their compossibility. Critically examined, however, the conditions under which two (or more) individuals possible in themselves might nevertheless be incompossible can only be made more cogent by an elucidation of the nature of relations in Leibniz's metaphysics. We will turn our attention to this in the next section. For now, let us limit ourselves to an exploration of the problem of incompossibility. Leibniz's doctrine that not all possibles are compossible arises out of his desire to avoid Spinozistic Necessitarianism. For Spinoza, every possibility was actualized, and all actuality was part of the unfolding of the one substance, i.e., God. Thus, for Spinoza God did not have his traditional role as a creator worthy of praise; for this to be so, his creation would have to be different and separate from himself. For if there are no unactualized possibles, then everything is necessary. If everything is necessary there is no role for God's choice in creation. It is this spinozism that Leibniz wanted to avoid. Thus, it was the desire to return to a praise-worthy God that led Leibniz to the doctrine of incompossibility. And his method is simple enough: he would show that the creation of the world is contingent, that God, if he wanted to, could have created another world. When asked why this world was created and not any other, the answer is to be that this world is the 'best of all possible worlds'. Now, while there may be divine aesthetic, moral and metaphysical considerations that make this actual world the best possible world, nevertheless, it is the notion of incompossibility that maintains the distinction between all possible worlds and the actual world. This is because individuals in one possible world will not be compossible with individuals in another, and since the

actual world is the best of all possible worlds, compossibility allows us to mark the boundaries between possibility and actuality.

It is probably for his theodicy that Leibniz is best known, and it is in his theodicy that we see the need for, or at least the origin of the complete individual notion. In his theodicy Leibniz wishes to establish two things: God is active in the creation of the world, and so he is not a Spinozistic sort of God; secondly, because of God's benevolence, the current world must be the best world possible even with all its evils. To support this latter claim, Leibniz must show that there are considerations that have entered God's plans in creating this world (rather than any other one of the infinite number of worlds available to him). Now, because God is able in a single stroke to see the infinite number of possible variations of individuals, and to separate the sets of individuals that are compossible from those sets of individuals that are incompossible, he is able thereby to sort the infinite sets of individuals into worlds. For example, there might be a Cain who is the son of Adam and the grandson of Noah. Since the possession of these two predicates by the same complete concept produces an impossible individual, we should conclude that when these predicates are separated there are at least two individuals, neither of which is impossible, that possess one of the two predicates. Thus, there appears a world in which there is an individual that is the Grandson of Noah and another in which there is someone who is the son of Adam. We can see from this example that the properties of each individual understood broadly are the means by which individuals are individuated by being distinguished from all other possible individuals as is

required by both Leibniz's nominalism and the identity of indiscernibles. Now because God is able to completely individuate each individual from every other individual in the infinite series by 'seeing' the differences between its properties and the properties of other individuals, it must be the case that each concept of an individual in God's mind must be complete with respect to its properties. In other words, God must have a complete concept of every individual.

Compossibility

Now, arguably, the two most distinctive elements in Leibniz's philosophy are the windowless monad and his doctrine of possible worlds. The defining thought of Leibniz's theodicy is that God chose from an infinite of possible worlds this one, this best of all possible worlds, to actualize. There are two things that the doctrine of possible worlds does for Leibniz: (i) it allows him to underpin his theodicy by saying that although there exists horrendous evil in this world, it is the best possible world that an omnipotent, omniscient and omnibenevolent God could choose, and (ii) it allows him to preserve the distinction between possibility and actuality by saying that possible worlds (possible states of affairs) reside in God's mind, while what is actual is that which God has brought into existence. The other distinctive element is the monad. In the philosophy of Leibniz a monad is a *metaphysical* atom, so monads (the basis of ultimate reality) should not be confused with physical atoms (the basis of physical reality), although they, in some respects, have similar roles. For example,

monads are simple entities so they have no parts, they are the basic metaphysical building blocks of everything.[3] In addition, what is true of a monad cannot be changed at all since everything that is true of a monad is internal to it. In Leibniz's words:

> There is no way of explaining how a monad can be altered or changed internally by some other creature, since one cannot transpose anything in it, nor can one conceive of any internal motion that can be excited, directed, augmented, or diminished within it, as can be done in composites, where there can be change among the parts. The monad has *no windows through which something can enter or leave* [my italics]. Accidents cannot be detached, nor can they go about outside of substances, as the sensible species of the scholastics once did. Thus, neither substance nor accidents can enter a monad from without.[4]

So the doctrine of possible worlds and the monad form the two pillars of much of Leibniz's philosophy, such that a possible world (including this, the best of all possible worlds) can be understood as an actualized set of monads, and the other possible worlds can likewise be understood as sets of unactualized monads.

Now, there is a strong sense in which the doctrine of possible worlds is an attempt to escape Spinozistic necessitarianisn. However, as distinctive and as important as they may be, there is a danger that these two doctrines together introduce an inconsistency into Leibniz's philosophy, which could be solved only by accepting necessitarianism; or so goes the allegation. The inconsistency is that the windowless monad suggests that there are no relations between created monads, no

3 Leibniz, *Monadology*, In Ariew and Garber, 213-214.
4 Ibid.

'inter-monadol' relations; there are, rather, just relations within monads, 'intra-monadol' relations. The doctrine of possible worlds, on the other hand, suggests that there are possible individuals and states of affairs that have not, are not and never will be actualized. This is a problem because if there are no relations between monads, the actualization of one monad cannot in any way depend upon another monad. If so, one logical possibility is that there is no reason why all monads cannot be actualized in one world, thereby actualizing all possible individuals and consequently, all possible worlds. This collapses all possible worlds into the actual world leading to necessitarianism of the spinozistic kind. Another consideration, which is just as damning, is Leibniz's principle of perfection whereby actualization of as much as possible (greater quantity of essence) is demanded to maximize net perfection. In what follows, then I will give an outline of the problem of compossibility and three general approaches to it. I focus on the solution of Jaako Hintikka, in which he supposes that Leibniz can make sense of compossibility if he is thought of as a relational realist who was trying to re-write the conception of relations.

As we saw before, Leibniz fends off this slide into Spinozistic necessitarianism, by proposing that some monads are 'incompossible' with other monads. Monads that are incompossible cannot be simultaneously brought into existence by God. Monads that are compossible, however, can both be brought into existence by God. If this notion of compossibility works, Leibniz is able to maintain the distinction between the actual world and all possible worlds, because it will have

been the case that all the individuals that make up the possible worlds will be incompossible with the individuals in the actual world. It will also be the case that individuals in one possible world will not be compossible with individuals in another. Now, this last point might seem question-begging about TWI because it depends on the transitivity of compossibility and the denial of TWI for monads; for if monads did have TWI then it might be possible for one monad to be compossible with two or more other monads that are not compossible with each other. This would violate the transitivity of compossibility. It seems to me however; that we should put aside such worries because compossibility must be transitive; otherwise we cannot make sense of it as a possible means of dividing the possible from the actual. Thus, compossibility individuates possible worlds from each other and from the actual world. It is not hard to see how this allows for the possible worlds analysis that TWI is concerned with. This, of course, is if compossibility is able to do the work it is called to do.

There is a sense in which we are tempted to suppose that compossibility is just simple possibility. This however, would be a misunderstanding of the issue since compossibility is concerned with the "co-possibility" that two or more individuals can have. In addition, it simply would not be strong enough, since we start off with possible monads only. Using P to stand for 'it is possible'; the following symbolization shows the difference clearly.

$P(\exists x)\, Bx \;\&\; P(\exists x)\, Ax$

and

$P[(\exists x)\, Bx) \,\&\, (\exists x)\, Ax]$

The difference here is that the first proposition just states that two substances are possible. The latter states that these two substances are possible together. In the first, the two substances need not be logically dependent upon one another. In the former, it seems clear that they do. Consider the following two sentences:

1) there exists a father of everybody else
2) there exists the daughter of no one[5]

Notice that the conjunction of 1 and 2 is unproblematic as long as the modal quantifier is over each proposition separately. The conjunction is inconsistent however, when the modal quantifier is outside the entire sentence. That is, it is consistent to say 'it is possible there exists a father of everybody and it is possible that there exists the daughter of no one'. It is inconsistent to say 'it is possible there exists the father of everybody and there exists the daughter of no one'. Leibniz would say that 1 and 2 express properties of incompossible monads – God could not bring them into existence together given their predicates. Why God could not bring them into existence together, given there are no inter-monadol relations is the crux of the matter.

5 Hintikka, Jaako, *Leibniz on Plentitude, Relations and the 'Reign of Law'*. In Woolhouse, 190.

Solutions

There seem to be three general ways to approach this problem. The first way is to say that there must clearly be relations between monadic predicates (inter-monadol relations) so as to make some conjunctions inconsistent. The second way is to say that compossibility is a purely logical notion. That is, two contradictory monadic predicates cannot exist in the same world because it would bring about an inconsistency into the world. This is enough to stop God from bringing these monads into existence together. According to the second view there does not seem to be any need for inter-monadol relations, rather, the inconsistency is brought about by having contradictory monadic predicates in the same world; these relations obtain "... not between substances, but...between purely predicational facts about substances"[6] without robust properties to which they correspond.

The third way is to say that compossibility can only be solved with recourse to the considerations of God; considerations like the correspondence of all the perceptions of the individuals that would make up a world. According to this third way, incompossible sets of monads do not make for a good enough correspondence between the perceptions (or monadic predicates) of individuals, so God does not bring them into existence together. A position much like this is held by Donald Rutherford. He says, "...All and only those individuals are compossible that are

6 Rescher, Nicholas, *On Leibniz*, 73.

conceivable by God as connected (in the appropriate manner) within a single world."[7] The major difference between Rutherford's view and the others is that it moves the conditions for compossibility from the individuals to the preferences or considerations of God. However, as a result of making this shift, Rutherford's solution is much weaker than the other two.

Relational Realism: Hintikka's solution

Jaako Hintikka's solution takes the first way. Hintikka says there can be no solution to the problem of compossiblity unless we employ relational concepts. He says that Leibniz's distinction between the mere possibility of monadic predicates and their compossibility "...is without difference as long as relational concepts are not employed."[8] Hintikka holds this view against what I am going to call the 'logicalist solution' (solution number two above), which says that Leibniz attempted to reduce relational concepts to non-relational monadic predicates that do not explicitly refer to any other individuals. That solution can be exemplified as follows. Take the relation 'love'.

1) Paris loves Helen

which according to Hintikka, Leibniz paraphrases by use of the *eo ipso* ('by that very fact') operation as

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7 Rutherford, Donald, *Leibniz and the Rational Order of* Nature, 188.

8 Hintikka, Jaako, *Leibniz on Plentitude, Relations and the 'Reign of Law'*, In Woolhouse, 190.

2) Paris loves, *eo ipso* Helen is loved.[9]

The *eo ipso* relation is not used here to express entailment, but a weaker relation. That said, it is clear from 2 that Paris's loving does not have to entail Helen's being loved. That is, 'loves Helen' can be part of the complete concept of Paris and 'is loved by Paris' can be part of the complete concept of Helen. This reduction of relational concepts to non-relational concepts by the *eo ipso* is, according to Hintikka, the solution proposed by the like of Benson Mates and Nicholas Rescher.[10] It is fair to characterize the 'logicalist solution' endorsed by Mates and Rescher as a denial of relations – anti-realism with respect to genuine relations between individuals.

Hintikka rejects the 'Logicalist solution' on the grounds that Leibniz was not attempting to reduce relational concepts to non-relational monadic predicates, but that he was trying to eliminate relational statements. The idea here is that if Leibniz could eliminate relational statements such as 'Jonathan is taller than Michael', he could still retain a relational realism that would underpin his notion of compossibility since only inter-monadol relations can account for the incompossibility of inconsistent monadic predicates without having to use relational statements to express relational concepts. Thus, Hintikka's solution is that while relational statements such as $(\exists x)\, x\mathrm{B}y$ are simple enough, complex monadic predicates implicitly involving relations and are not explicitly relational in the form

9 Ibid., 191.
10 Ibid., 191, 194.

of $(\exists x)\ x\mathrm{B}y$, like those involved in a complete concept of an individual can be represented as the disjunction of conjunctions of a stock of monadic predicates. This allows there to be a matching of monadic predicates across individuals. Hintikka thinks this gives Leibniz the ability to express genuinely relational concepts without the use of relational statements. That is, he can say $\mathrm{Y}(a,c)$ & $\mathrm{X}(c,\mathrm{a})$ where X and Y and are subjects and *a* and *c* are predicates that can be matched up to give the relations without the use of relational statements. Thus, according to Hintikka's reading of Leibniz's project, Leibniz was engaged in a logical exercise: the re-writing of relational statements allows Leibniz to retain the complete individual concept without any predicates within the complete concept explicitly referring to other individuals (or the predicates making up these individuals); he was not denying relational predicates. Thus, Hintikka maintains a realism about relational predicates. So Hintikka is saying that Leibniz was a relational realist and that the only reason people think he was not is that he was trying to find a way of expressing relational concepts without the use of relational statements.

Monads and Relational Realism

The problem with Hintikka's solution, and all relational realist solutions for that matter, is that they seem to misconstrue the full difficulty of the problem. Leibniz's system is such that one adjustment to one aspect of it has resounding effects throughout the entire system. It seems to me that Hintikka's assertion that Leibniz was a relational realist is one such adjustment. Hintikka's solution looks to

give an account in which confusion over the problem of compossibility seems to be little more than a formal difficulty, a difficulty that would not be a problem for Leibniz had he possessed the tools of modern logic; had he the tools of modern logic Leibniz could have found a way of expressing relational concepts without the use of relational statements and thereby still retain a relational realism. So ultimately Hintikka thinks Leibniz was a relational realist. This seems to me to underestimate the metaphysical worries this claim introduces. Consider that if Leibniz were indeed a relational realist and that relational realism were the only way to account for compossibility, it becomes dubious whether he can hold on to the notion of the complete individual concept which girds his conception of a monad, or perhaps even more fundamentally, the containment notion of predication and truth.

This worry becomes more telling when we look at the nature of monads. Leibniz says that "The monads have no windows through which something can enter or leave. Accidents cannot be detached, nor can they go about outside substances..."[11] Further, Leibniz says in the letters to Arnauld that whatever properties are to be attributed to an individual, whether in the present or in the past, are to be predicated to one and the same subject; the predicate is in the subject. This suggests that all relational properties are predicated of the subject. On the face of it, it is hard to see how relations are anything above and beyond the predicates that are within the subject. So it looks as though Leibniz could not be a relational realist insofar as relational realism understands relations to be irreducible to predicates

11 Leibniz, *Monadology*, In Ariew and Garber, 12.

within the subject. The problem with the anti-realist solution and Rutherford's solution, as we will discuss later on, is that the anti-realist solution simply does not provide conditions that would allow for compossibility while Rutherford's solution just seems much too weak to be a viable account of compossibility because it reduces compossibility from being a property of the individuals, of the monads, to being a preference of God.

Now, consider the thesis that if he were a relational realist, Leibniz could not maintain the complete individual concept. For if he were a realist about relational concepts the individual concept would depend on, and be constituted by factors external to the individual, i.e., its relations to other individuals. For instance, 'betrayed Christ with a kiss' would not be in the complete concept of Judas, since, according to a relational realist account, the truth or falsity of this predication could only be evaluated with respect to the individual Christ. It seems then, that Hintikka's assertion that Leibniz is a relational realist creates problems with the complete individual concept. This, I think, is reason to believe that Hintikka's relational realist account solves the problem of compossibility only to open other difficulties.

The focus of the discussion so far has been the relational realist account of Jaako Hintikka, which suggests that the only way Leibniz could account for compossibility is to be a realist about relational concepts. Hintikka goes on further to say that logicalist approaches have misunderstood Leibniz's reductionist program: Leibniz was not attempting to eliminate relational concepts; he was only trying to eliminate relational statements. A worry with this approach is that while Hintikka's

relational realist account may solve the problem of compossibility, it introduces difficulties with the individual concept. That is, if a relational realism is adopted, it is difficult to see how Leibniz could maintain the doctrine of the complete individual concept which he needs to underpin much of his metaphysics, in particular that part which allows him to reject a TWI. Perhaps this is proof that "...so tightly woven is the fabric of his views that any attempt to trace one thread leads to entanglement in almost all the others."[12] Be that as it may, we really only have two choices: we can either accept relational realism (at least for some predicates), or we can reject relational realism and hold the thesis that there is a reduction of relational predicates to non-relational ones.

Individuals and Worlds

With all this is in mind, we might still ask, "what is it to say that the predicate is in the subject, except that the notion of the predicate is in some way included in the notion of the subject?"[13] That is, the predicate is included in the subject in a true proposition. So, if different predicates are included within the subject, we have a different subject, a new individual concept; this is due to the differences in the predicates included within the subject. Thus, individuals are differentiated with respect to the predicates included within their complete concepts, such that a change in the predicates contained within a concept does not mark a change in that concept, but a change from one individual to another. Consequently, on this view it seems to follow that there can be no strict identification of individuals

12 Schmitter, Amy, Review of *Leibniz and the Rational Order of Nature*, 542.
13 Leibniz, *Letters to Arnauld*, In Ariew and Garber, 73.

across worlds, since individuals, and indeed worlds, are individuated by the differences within each individual concept.

All this follows from the idea that a world is an aggregate of individual concepts. That is, that the different possible worlds correspond to different sets of individual concepts. Consequently, if there are different individual concepts we have different individuals and different worlds, barring any possibility of TWI. This is so much so that it seems that to say that individuals can be the same across worlds amounts to saying that worlds can be identical, for there is a sense in which we might say worlds are just aggregates of individuals, and if there are genuine relations between these aggregates such that to be an individual is just to be related in some way to other individuals, then to say that an individual exists in more than one world is to say that all the requisite relations are instantiated, thus the worlds are the same. This point also follows from the identity of indiscernibles. This is because under this reading we see the predicates that constitute an individual concept as portraying the relations that individual concept shares with other individual concepts. Therefore, if there were to be TWI, it seems that it would require that all these possible worlds collapse into the actual world; thus there can be no TWI.

The alternative to this difficulty, however, does not seem to be much more attractive; for the alternative is just to consider every world as an aggregate of individual concepts that have no relations to each other. But this solution does not help us much either since it causes us to run into the problem of compossibility: if the world just is an aggregate of individuals, there is nothing to prevent

contradictory concepts from being brought into existence together; there should not be a problem if there are no relations between individual concepts. This alternative then, offers us no conditions by which compossibility is to work.

So it seems that for Leibniz there are going to have to be some relations, some basic relations that allow us to make aggregates into worlds. In fact we will find out later that under Leibniz's view, worlds may be more than aggregates of individuals in this sense, since some relations between individuals are not completely reducible to the properties of the individuals that compose them, or the relations between these individuals. For if they were, then worlds would be simple entities, no more than aggregates of individuals.

Faced with this dilemma, Leibniz takes the first horn; however, as we can see above, there are problems with the first approach, so whether he can take the first horn without running into the difficulty highlighted above is the question. Nevertheless, it seems to me that the second horn, because of its inability to give conditions for compossibility is going to be more costly for Leibniz than the first approach, so he is actually better off taking the first horn. So, for Leibniz, worlds are going to have to be more complex than mere aggregates of individuals, although it is the case that God comes to know the individuals as a complete concept by seeing all the connections within a world in the individual concept itself. This theme surfaces in Leibniz's discussion of monads in the "Monadology". There he says that each "windowless" monad is a "world onto itself", that each monad "reflects" the world of which it is part. A reasonable way to parse such statements is to say that Leibniz

is referring to some sort of relation between the concept of the individual and the predicates that are used for individuation. We need also to realize that some of these predicates are going to be relational in nature. Thus, it would seem that in order for every monad to express the world of which it is a part will require that, in some sense, all other relational predicates be understood and conceptualized with respect to the individual or monad. To fully grasp what it might mean for relational predicates to be conceptualized with respect to the individual it is necessary to wade into discussions about whether we ought to be relational nominalists by Leibniz's lights.

As we discussed in the section on Hintikka, many have taken the view that Leibniz thought that all relations could be reduced to subject-predicate form; that anything we can express in relational form can also be expressed as predicates attached to subjects[14]. So with Hintikka's criticism in mind let us take a closer look at this approach. Take again, for example, the relation 'love', it is supposed by proponents of what I will call the 'reducibility thesis' that Leibniz thought the proposition 'James loves Susan' can be just as adequately conveyed as a conjunction of the following subject-predicate pair: Susan (loved by James) & James (loves Susan). The claim here is that what we think to be a genuine relationship holding between James and Susan is really only an abstraction from the predicates belonging to the two subjects. Thus, Leibniz is said to want to reduce items of the form xRy to non-relational predicates of the form Fx & Py if F and P are understood to be the

14 Notable examples are Betrand Russell, Nicholas Rescher, G.H.R. Parkinson and Hide Ishiguro.

predicates of the subject *x* and *y* such that the relation R maybe abstracted. David Wong has called this abstraction of relations the 'ideality doctrine'; he maintains that "All relational propositions are logically equivalent to subject-predicate propositions containing relational predicates[15].

Notice that while there may be no genuine relations according to this view, there may be relational predicates. That is, while *x*R*y* maybe the wrong picture, because R a genuine relation that is, in some sense, outside the subject (call this 'inter-subjective') and between it and another, this does not exclude the possibility that there may be relational predicates in a relational proposition that reduce to subject-predicate form, for the predicates themselves maybe relational terms. But again consider the relation 'love'. While we may not be entitled to the proposition 'James loves Susan', understood as a conventional relational proposition, we are entitled to the conjunction of 'James (loves Susan)' and 'Susan (loved by James)'. The predicate 'love' attached to both James and Susan is relational, yet because it is only an 'intra-subjective' relational predicate it looks to be compatible with the ideality doctrine. This would seem to show that there are some relations that are not reducible – although re-writable – to subject-predicate form.

And so, it seems that the only way Leibniz can get compossibility off the ground is to accept that not all relations are reducible; for otherwise compossibility will collapse into the mere possibility of individuals if relations do not exist to offer additional constraints on joint existence. This is so because, narrowly understood,

15 Wong , David, *Leibniz's Theory of Relations*, 243.

"A set of individuals possible in themselves is compossible if and only if the supposition of their joint existence is consistent"[16]. However, recall that the problem with this narrow conception of compossibility is that it does not offer much by way of the conditions by which we are to know why two individuals possible in themselves might nevertheless, be incompossible. It is the search for this condition that led us to consider whether Leibniz is a realist about relations. For there looks to be no way (no condition) for the joint existence of individuals to be inconsistent if there are no genuine relations between individuals that compose a world. This is because if there are no relations between individuals, there is no reason to suspect that the existence of one individual could bar the existence of another, if this other individual is possible in itself (that is, if it is not a self contradictory individual). However, if there are relations between the individuals that compose a world, a viable account of compossibility starts to open up: we can say that some individual is incompossible with another individual if its introduction brings about an inconsistency to the world in which it is introduced by distorting the relations between that second individual and the world. We might call this account a '**global incompossibility**'. We can say then, that an individual is globally incompossible with another individual if the co-existence of these individuals brings about an inconsistency into the world of which they are part. This global incompossibility requires us to maintain that the world of which compossible individuals are part must be more than an aggregate of compossible individuals (compossibility

16 Rutherford, *Leibniz and the Rational Order of Nature*, 182.

narrowly construed), call such a world a **'world-context'**. A world-context is going to be the complete set of relations between the individuals that compose it. The reader will notice that in advancing global compossibility I have expressed my preference for one side of the compossibility debate; I have in fact stated that relations between individuals are needed in order to account for compossibility. I realize that my position is not without its difficulties; in particular the worry mentioned earlier that Leibniz then has no way of accounting for the complete concept of an individual. My reply to this worry is that under the relationalist approach Leibniz can still have the complete concept; we need only understand the complete concept of an individual as always occurring within a context and thus as expressing the world of which it is part, hence the need for a world-context. Granted this necessarily shifts our conception of the complete concept from a very atomistic one to a 'contextualized' one, but if we do away with relations and the conception of the individual they give us we cannot account for compossibility and if we cannot account for compossibility, we cannot account for Leibniz's distinction between the possible and the actual. Consequently, we are led to the sort of Spinozistic necessitarianism Leibniz so badly wishes to avoid. So it seems to me that the cost of giving up relational realism is greater than the cost of accepting it.

That said, I am not without evidence from the corpus of Leibniz's writings. The textual evidence for Leibniz's commitment to relations is in his doctrine of intrinsic denominations. On the face of it looks like an appeal to intrinsic denominations is a rejection of relations, but this would be mistaken; what I am

claiming is that one need not take it as so. I am suggesting that perhaps 'intrinsic' should not be read as 'non-relational'. According to Leibniz there are no purely extrinsic denominations; that is to say, there is no relation imposed upon an individual by some other individual that does not also bring about a change in the individual in question. Leibniz says for example, that "no one becomes a widower in India by the death of his wife in Europe unless a real change occurs in him"[17]. Now, there seem to be two ways to interpret this talk of extrinsic denomination, we may might say that talk of extrinsic denomination shows that some relations cannot be reduced to properties of individual, or we may argue the opposite, and say that the doctrine that there are no purely extrinsic denominations shows that whatever relations there are between individuals can be reduced to non-relational properties of these individuals.[18] Rutherford argues that the 'no purely extrinsic denominations' thesis suggests two things: a) there are no relations that come to be true of individuals, unless there is a real intrinsic change in the relata, and b) there is nothing more to saying that two things are related other than to say that they have certain intrinsic properties. Thus, Rutherford thinks that, strictly speaking, there are no relations; there are only intrinsic properties of individuals. So for Rutherford, when we look at filiation and fatherhood in Cain and Adam respectively, we are not looking at a relation between these two individuals, but at intrinsic properties of these individuals. According to Rutherford this is because the perceptions of each

17 As cited in Rutherford, *Leibniz and the Rational Order of Nature*, 183, but can be found in :*Die philosophischen Schriften von Gottfried Wilhelm Leibniz.* Ed. C. I. Gerhardt. 7 vols. Berlin: Weidmann, 1875-90; repr. Hildesheim: Georg Olms, 1978.

18 Donald Rutherford prefers the former while J.A. Cover, John O'leary Hawthorne, and Benson Mates argues for the latter thesis.

monad are completely determined by the individual's nature, so that each monad is in complete isolation from every other monad.

As we saw in the section on Hintikka, Rutherford's view is subject to some strong and interesting objections. That said, the following discussion picks up and advances themes we discussed in the section on Hintikka. One strong objection against Rutherford is made by Nicholas Rescher; he says that since each monad/individual expresses the whole world in itself, we cannot make a change in one monad without changing all the compossibility relationships within a world.[19] Rescher is saying here that because every individual is genuinely related to every other individual, a change in the individual is a change in the world. Along the same lines Benson Mates has argued that with the actualization of every individual, God has to actualize every individual that is compossible with it, and since all the predicates that relate to other monads are contained within its individual notion (i.e., the complete individual concept), it follows that God cannot bring any one individual into existence without also bringing into existence every other individual that is compossible with it.[20] Rutherford thinks he can evade both these worries by saying that the sense in which the monad expresses the world of which it is part is not that it expresses all other monads with which it is related, but instead expresses itself as an individual that would be compossible with the other monads in the world. Thus, all that matters is the correlation in their expressions; there is no further fact of

19 Rescher, Nicholas, *Leibniz: An Introduction to his* Philosophy, 59.
20 Mates, Benson, *The Philosophy of Leibniz: Metaphysics and Language*, 76-77.

the matter pertaining to their relatedness than this.[21] In this way the relations that ground compossibility are not going to be genuine relations, but merely 'resultant second-order truths' about the expressing monad. Rutherford concludes from this that it is not at all obvious that it is impossible for Adam to exist unless Cain did.

With respect to the 'completeness' of a world, it seems to me that both these views lead to, for the most part, the same conclusion. If we take the first way, we find that the irreducible external relations between individuals unite individuals into a world thereby giving us an explanation of compossibility by showing that since the individuals are related externally, the relation makes it such that the *relata* be jointly possible so as to satisfy the relation. If we take the latter way, we find that even if relational predicates are reduced to non-relational properties of these individuals, these non-relational properties must, at least, be expressed with respect to a spatial or temporal context. For example we might say that instead of saying 'A is to the left of B', 'A has the property of being located at Cartesian coordinates <1,2> and B has the property of being located at coordinates <1,3>' but notice that while it looks like we have successfully reduced the relation 'to the left of' we have only supposed a sort of substratum in which we introduce the individuals, we have not expressed the substratum itself as something derivable from the individuals themselves; which seems to be what we would need to do if we were to complete the reduction. In any event, both the interpretations lead us to the conclusion that a world is really going to need something that binds the individuals within it in some way, and it is not clear

21 Rutherford, *Rational Order of Nature*, 187.

to me how this 'tie that binds' is to be understood without the use of relational concepts, that is, genuinely irreducible ones. It is also important to notice that when brought to bear on the problem of TWI, relational talk and the 'completeness' of a world play a big role in whether or not we should expect Leibniz to take up TWI or reject it.

Thus Leibniz seems to be in difficult straits: whatever account of compossibility Leibniz produces cannot be one that requires relational realism, lest it be too strong, and it cannot be one that eschews any relations between individuals, lest there seem to not be any conceivable way of accounting for compossibility. And so it looks to me that Leibniz's attempts to reduce relational concept to non-relational properties of individuals is going to be circular, at least for spatial relations. My solution to this problem has not been to offer such a middling account of compossibility. Rather I offer the notion of global compossibility as an account of compossibility that utilizes relations between individuals situated within a context, a world-context; my reasons for choosing to go with relations is that the price of acceding to relations between objects is less than the cost of rejecting relations.

Since the principal reason for acceding to relations between individuals is to avoid the Spinozistic necessitarianism that Leibniz wishes to avoid, we will see in the next chapter that these worries can be expressed in terms of Leibniz's philosophical logic, particularly the question of the intensional verses the extensional interpretation of propositions. Taking this journey into Leibniz's philosophical logic will allow us to see how the corpus of issues surrounding TWI has its origin with

Leibniz's theory of truth.

Chapter 2

The Logic of TWI

In the section to follow, I will outline the general issues behind TWI in more detail in light of Leibniz's philosophical logic. I will first give a motivation of TWI from the evaluation of the truth or falsity of counterfactual propositions involving individuals; I will argue that our intuition to assert either TWI or its denial is parasitic on our conception of the relationship between the subject of a proposition and its predicates. I suggest that extensional and intensional interpretations of propositions generate different conceptions of the nature of the concept, and this has a great influence on Leibniz's conception of the concept: the extensional interpretation produces a picture in which the subject is understood in terms of the extensions of its predicates; so according to the extensional interpretation predicates behave like functions, while the intensional interpretation, on the other hand, produces a picture in which the concept of the predicate is contained within the concept of the subject of the proposition. I suggest that the latter was what Leibniz meant to convey by the notion of the complete concept: that is, that the predicate is contained within the subject.

TWI, Extensional and Intensional Interpretation of Propositions

The issue of TWI arises when we try to evaluate the truth or falsity of counterfactual statements about individuals; there is TWI of individuals if any counterfactual statements about individuals are true. Conversely, there is no TWI if all counterfactual statements about individuals are false. Consider the following counterfactual Statement: 'Johnny could have been a contender for the championship if Mario had not made him throw the fight'. If it is true that Johnny could have been a contender if Mario had not made him throw the fight, we say that there is a possible world in which Mario does not make Johnny throw the fight and he does become a contender. In this case, we can say that the Johnny in the possible world in which he wins the fight, is identical to the Johnny in the actual world, in as much as the counterfactual is uttered with recourse to the Johnny in the actual world. If we were to say that the counterfactual is false of Johnny, then the possible Johnny and the actual Johnny are not identical across worlds.

But what is the underlying reason for rejecting the truth of the counterfactual in the case in which Johnny in the actual world (@), is not identical to Johnny in the possible world where he is a contender (let w* stand for this possible world)? Naturally, we are disposed to say that Johnny could not have been a contender (the counterfactual is false) because the Johnny in w*is another individual who just happens to be very similar to the Johnny in @. We might think this is the case because we think that individuation of the 'Johnnies' is done with recourse to the cluster of extensional predicates we can attribute to each. That is, the very fact that

w* Johnny has the predicates 'is a contender' and 'won the fight' and @ Johnny has the negation of these predicates, i.e., ~ (is a contender) & ~ (won the fight), is enough to individuate them. After all, we might ask, how else do we individuate individuals if not by considering propositions true or false of them? Under this view, the truth or falsity of the propositions depends on relations between the extensions of the terms used in the proposition[22]. For example, the positive universal 'all humans are animals' extensionally interpreted, says that the set of humans is an element in the set of all animals. Thus, the set 'human' is contained within the extension of animals. Interpreted intensionally, the positive universal says that the concept 'animals' is contained within the concept 'humans' because not enough predicates are included within the proposition. This is in contrast to the extensional account where 'human' is an element in the set of all animals, and the proposition containing 'human' and 'animals' is a statement expressing one of the sets to which 'human' belongs; the sentence cannot be taken to express the concept 'human' – not even partially.

Furthermore, there is a sense in which under the extensional account, 'human' can be expressed as the intersection of many other sets as opposed to just being an element of some sets to which 'human' belongs, and the intersections of the sets with which 'human' can be identified seem endless, thus, we can never arrive at a complete extensional account of an individual concept. Notice that under the extensional approach, 'human' seems to be constituted by the sets it ranges over. For

22 Adams, Robert, *Leibniz: Determinist, Theist, Idealist*, 54.

instance, propositions like 'humans are rational animals' express 'humans' as the intersection of the set of all rational things and the set of all animals; 'human' might also be expressed as an intersection of the set of all spiritual things and the set of all physical things, etc., any description that picks out the individual so referred will do. Thus it seems that under the extensional approach, subjects have to be expressed as either elements of, or as subsets of an infinite number of classes. As result of the externally referential nature of the extensional interpretation of propositions, the subject of the proposition (understood under the extensional approach as an extension) is always dependent upon external factors for its meaning.

I suggest one reason why the extensional interpretation of proposition might have been undesirable for Leibniz is that if the concept of the subject is constituted by its class relations with external factors, it looks to be that God would have had to actualize all the pertinent external factors (sets) in order for concepts of subjects to have their meaning. Now, because of the externally dependent nature of the extensional interpretation, all sets needed fully to convey the concept of a subject would have to be actualized by God; now, we might say that for some subjects God would have to actualize at most, two individuals. For example, to make the sentence 'a human is a rational animal' true, God needs only to bring one irrational creature into existence and one rational creature into existence, thus fulfilling the externally referential criterion of the extensional interpretation (as long as the rational creature is a human being). There are two ways to reply to this worry. The first is to point out that God has still had to actualize the class needed to evaluate the truth or falsity of

the proposition 'a human is a rational animal' because God has actualized the set of irrational animals'; it is simply the case that it has only one member. In any event, God has still had to actualize as class of things external to the subject of the proposition so that the subject can be made sense of.

The second way to answer this worry is to ask what it even means for God to have a concept of things, under the extensional interpretation, if God does not conceive of the things as being embedded within a world. Indeed, to rely on counterfactual considerations would be to surreptitiously rely on a notion of meaning that is really intentional. For it seems to be the case that God would have to actualize the entire world to which the subject is part if a proposition involving it is externally referential. More strongly, it becomes difficult to even cash out how God has a concept before creating anything. Now, there is room here for the objection that God does not have to actualize all these individuals, he would only have to consider what would happen if these individuals were actualized; so God just has to have a model in his mind of the individuals in question. Let's call this the *model theoretic* objection. The problem with the model theoretic objection is that it does not show how these models are any different from possible worlds, since possible worlds are also just groups of individuals that God has not actualized. So if there is no difference between possible worlds and models, models do no explanatory work. In addition, the invocation of models like the invocation of counterfactual considerations, of which possible worlds are representations, implies a reliance on a notion of meaning that is intentional. So at best the model theoretic objection makes

no difference, and at worst it gives good grounds for accepting an intentional notion of meaning. Thus, for every subject of a proposition (Extensionally interpreted), God has to actualize every set that the proposition refers to and every set that makes this set conceivable *ad nauseam* until an entire world is created; and so it seems that every individual God conceives of will carry with it an entire external world. This is a form of necessitarianism insofar as God must necessarily create the world in which a particular individual is situated. It also seems to reduce the number of possible worlds. For instance, it doesn't seem that God could conceive of a world in which there is only one individual since that individual would make no sense without an entire world to give content to its truth claims. Also, under the extensional interpretation of propositions, there will be inter-conceptual relations because the world (where 'world' is understood to be a set of concepts) of which an individual is part serves to make it contentful.

This is in stark contrast with the intensional interpretation of propositions. The intensional interpretation of propositions is internally referential insofar as the concept of the predicate is contained within the concept of the subject, so every proposition expresses a complete concept. Now, if God had an internally referential interpretation of propositions, an individual appears in God's mind as already being complete, as a concept. World-building then, would be a matter of actualizing already complete individual concepts without actualizing any external classes to help make sense of subjects. This, I suggest, might have been the genesis of Leibniz's metaphysical views about monads. Leibniz's metaphysics could not have arisen if he

held to an extensional interpretation of propositions since propositions would be extensionally referential. Metaphysically considered, extensional interpretations produce a picture in which a subject/individual is only complete inasmuch as the world that makes the concept of the individual contentful is actualized. An intensional interpretation, however, gives rise to a metaphysics in which each individual is internally complete; there is no need to actualize a state of affairs in which this individual is situated into, God can actualize that individual and that individual alone. In Leibniz's words each monad is a world onto itself.

TWI in Leibniz

Having an intensional interpretation of propositions led Leibniz to derive the notion of the complete concept of an individual such that an individual is internally contentful (meaningful) – not needing reference to outside classes. This is again, the notion of the complete concept of an individual. That said, the problem of TWI in Leibniz seems to arise because of the complete concept of the individual. If we look at the problem of TWI from the viewpoint of the individual concept, we realize, as did Arnauld, that this conception leads to some worries about the counterfactual dependence of the individual. Arnauld says:

> 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 infer: this block of marble is there same whether it be at rest or be moved;

therefore neither rest nor motion is contained in its individual concept.[23]

The distinction that Arnauld makes here between the predicates being contained within the individual or being contained within the concept of the individual is an important distinction to keep in mind for the question of TWI[24]; in some ways it is correct to say that it really starts off much of the discussion. The idea here is that if an individual's predicates are contained within the individual concept as opposed to the individual (the individual here is taken to be complete), then one could not have done otherwise, or been otherwise than he in fact is in the actual world, and if these counterfactuals are evaluated with recourse to possible worlds, there can be no identity of individuals across worlds. Arnauld's point there is that the common intuition is that most predicates are, in some sense, merely accidental properties of individuals; they are not constitutive of the individual's essence. Notice, that this view is located between two extremes: the extreme that (i) predicates constitute an individual by situating that individual within a world in the extensional sense, and (ii) the extreme that predicates constitute an individual in the sense of the intensional interpretation of propositions.

Notice, however, that neither of these extremes gives us what Arnauld

23 Ibid., 53.

24 It is interesting to note that the rejection of TWI supposes relational realism. It supposes relational realism because predicates could only be true or false of an individual in a different world if that individual is genuinely related to the other states of affairs in that world. This suggests that any relational realist account must suppose that predicats are contained within the individual and not the individual concept, this is why solutions like Hintikka's to the problem of compossibility do not seem to work. This is in contrast to the acceptance of TWI which seems to suppose an anti-realist account.

proposes: the extensional interpretation cannot provide it because the individual is constituted by states of affairs that are indexed to the world of which the individual is part. The intensional interpretation cannot provide it either, because it gives a picture of a complete concept (in which every predicate is constitutive of the concept, or at least one that contains as much predicates as are required to differentiate it from other possible individuals) and according to the notion of the complete concept, as such, counterfactual states must be part (constitutive) of another complete concept, although this other concept might be very similar to the individual indexed to the actual world. Thus, the individual could not have been other than it is. If, however, the predicates are contained within the individual (that is, if all the predicates are not constitutive of the individual), as Arnauld suggests, then TWI is possible, since we would then have the same individual, with different counterfactual propositions being true of that individual in every possible world in which that individual exists. This is in contrast to the view that if the predicates are constitutive of the concept of the individual, we could not have TWI because the truth value of every differing proposition would mean a new individual, making impossible the identity of individuals across worlds. The difference here is that for Arnauld, a great many of the properties of an individual are going to be accidental ones, and for Leibniz all properties of an individual will seem to be necessary ones. And so Arnauld seems to think that the individual is something other than the things (perhaps all the things) predicated of it. Thus, insofar as Leibniz holds the notion of a complete concept, he could not endorse TWI.

In reply to the kind of worries Arnauld raises, Leibniz says that the complete concept of an individual may be chosen from a family of similar possible concepts. Leibniz says,

> When one considers in Adam, as part of his predicates, for example that he is the first man, set in a garden of pleasure, from whose side God fashioned a woman, and similar things conceived *sub ratione generalitatis,* [my italics] in a general way (that is to say, without naming Eve, Paradise and other circumstances that fix individuality), and when one calls Adam the person to whom these predicates are attributed, all this is not sufficient to determine the individual, for there can be an infinity of Adams, that is, an infinity of possible persons, different from one another, whom this fits.[25]

This passage suggests that if Leibniz accepts TWI at all, he accepts it only insofar as the complete concepts of these individuals are part of the family of possible persons (complete concepts) which is individuated from other families by a similarity of description. Hence, Leibniz's term 'vague Adams'. The notion of a vague Adam allows Leibniz to say that some predicates of these Adams can be used to determine whether these individual concepts belong in the family of 'Adams' as opposed to the family of 'Josephs', for example. However, we are only able to do this as long as we do not include in these determining predicates, the complete concepts that are part of these descriptions, otherwise each of these possible Adams collapses into the @ Adam. For instance, we must not include in the concept of a garden, that description that pertains to the garden of paradise that the @ Adam was put into, namely, the

25 Leibniz, *Letters to Arnauld*, In Ariew and Garber, 72.

Garden of Eden. This follows for the other predicates that point out the @ Adam and differentiate him from all the other possible Adams.

Thus, the vague description is able to provide us a level of similarity with which to locate the family of Adams without determining a complete concept, since once we fix a certain cluster of descriptions as being the Adam we mean to speak of, we have already picked an Adam that is indexed to a certain world. Now, once a determining Adam is picked, we cannot identify that Adam with any Adam in any other of the possible worlds since their complete concepts will be different. We can, nevertheless, identify that Adam with the family of Adams; and so Leibniz is saying that as soon as we start fixing the predicates of a possible Adam we 'concretize' that possible Adam into an individual indexed to a world, i.e., a complete concept. This follows because extensionally understood, for every individual concept, there is a world that correspond to that concept so as to make it contentful/meaningful.

We might notice that while Leibniz's possible Adams belong to the family of Adams because of the similarity given them by a vague description, the similarity criterion will always, in some sense, be an arbitrary one. That is to say, unless Leibniz says there is some essential quality that makes these possible Adams members of the family of Adams, as opposed to the family of Josephs or Cains, individuation of these families in terms of similarity will always seem to be a matter of degree. Since it is a matter of degree, there is no principled reason why we say that a possible Adam is different from a possible Joseph.[26] This is especially true if

26 We will see later on that because of concerns similar to this, David Lewis, whom also rejects TWI, will have to use the identity of laws in order to find two individuals that bear a counterpart

there is an infinity of possible Adams; that is, individuals in this family could be so dissimilar from each other that we would not be able to tell the difference between a member of the family of Adams and a member of the family of Josephs. Of course, we could say that for some individual to be considered an Adam, it must be the first man, that is, to point out one description as being essential for something to be an Adam. This would be something like a 'primary description' view in which some descriptions are considered necessary and sufficient conditions for being admitted into the family of Adams. But in that case, we should just define Adam as being the first man, and the fact that there are possible Adams as evidence of the counterfactual identity of the complete concept Adam.

Understood this way, it is difficult to see why Leibniz does not hold TWI. For it seems strange to say that this Adam, this first man, could not have declined the fruit proffered by Eve. However, Leibniz's doctrine of conceptual containment would say that the complete concepts are different and that they therefore represent different individuals. It follows then, according to this doctrine that insofar as they are complete individuals there cannot be TWI between them. This is an important intersection between the denial of TWI and the free-will of individuals. Simply put, it seems to be the case that Leibniz's conceptual containment theory of truth and the rejection of TWI are intertwined. That is, nothing more can be true of an individual than what is already in their complete concept, but in order for TWI to be true the complete concept of an individual has to include more truths about the individual

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relation to one and other.

than is included in their complete concept in this world.

Chapter 3

Free-will in Leibniz's system

All of this might give one the impression that Leibniz does not have an account of free-will, but this would be a mistaken impression. In order to give Leibniz the most charitable reading on this subject, it is necessary to take a look at some of the ways in which Leibniz can account for free-will within his system without appealing to TWI. Again, the importance of the question of free-will in the philosophy of Leibniz cannot be overlooked, for just as God is praise-worthy because of his ability to choose freely so too must human beings be free to do as they will, otherwise human actions cannot be evaluated with respect to their moral content: we cannot say Sister Teresa was good, or that Nero was evil, unless their respective actions were brought about by their own wills or at least contingent matters of fact about these individuals. But again, this is easier said than done in Leibniz's systems, since, in his system, God understands all there is to be known about the individual because the complete concept of the person in question is open to the knowledge of God. Thus, in the very concept of what it means for something to be Judas Iscariot is the predicate 'betrays his master with a kiss'; and so it seems appropriate to say that Judas must betray his master otherwise he is simply not Judas. [27]

27 A response to this might be to say, "Well, I suppose if God just finds the concept of Judas in His head, Judas cannot blame God for the fact that he is as he is, after all, God just actualized what he finds to be in his mind, he didn't create it; So Judas could only blame God for having created

It is not difficult to see how the conceptual containment theory of truth raises a problem for the conventional understanding of free-will whereby an individual is free if and only if they could have done otherwise; but if the conceptual containment theory of truth is true, then Judas (or anyone for that matter) clearly could not have done otherwise. Thus, we arrive at the conclusion that no one can be free. We should note that this lack of freedom is not due to some thesis about divine foreknowledge undercutting the freedom of mortals; freedom here is undercut by the fact that the individual simply could not have been any different. Indeed, Wellington was destined to defeat Napoleon at the battle of Waterloo in the most rigid sense of the term 'destined'. So as long as we hold onto the notion that free-will only comes about when we could have done otherwise, no one could ever be free in this sense.

The first Leibnizian solution to the problem of free-will is to suggest that the sort of freedom Leibniz is looking for is a freedom that is based on his distinction between necessity for the complete concept and necessity of simple predicates that make up the complete concept. The difference here is that the former is concerned with the necessity of a proposition insofar as it is constitutive of the complete concept, while the latter is concerned with whether what is contained within the complete concept is necessary in itself. Letting '□' stand for 'it is necessary', Leibniz says that it does not follow from $\Box(p \rightarrow q)$ that $\Box p \rightarrow \Box q$ or even that $p \rightarrow \Box q$.[28]

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him." But that of course that means there is something beyond God, and perhaps that also means every concept actualized will have the predicate 'created by God'. But this seems to lead to the conclusion that God is the author of evil, and I am sure Leibniz would most certaintly not desire this result. Evidence for this is his criticicism of Descartes's thesis that God can do everything, even go against the laws of logic. But one need not go there to find out his dislike of this alternative, the preservation of God from blame is the aim of the *Theodicy*.

28 Leibniz, *Letter to Coste, on Human Freedom*, In Ariew and Garber, 193-194.

Thus, Leibniz thought that the scope of the necessity operator makes the vital difference. When using this formulization to understand how it is individuals can be free, let the antecedent stand for the complete concept. Take for example the complete concept of Adam. One of the predicates in his complete concept reads 'eats apple proffered by Eve'; we might also read it as follows: '**If** the Adam of *this world* is, proffered the apple by Eve **then** he will eat the apple.' Now, while it is necessary that this proposition be a necessary one lest Adam fail to be Adam, it does not follow from this that Adam's being proffered the apple by Eve is itself something that is necessary singularly. Nor does it follow that Adam's eating the apple is necessary in itself. On the contrary, the modal operator '□' only applies over the entailment as a whole. Now, this necessity is, of course, not a strict necessity, but is necessary only as part of the complete concept of Adam, necessary only as part of a complete concept that God brings into existence.

And so the account of freedom that we get from Leibniz is going to be based on the contingency within the complete concept, since while it is necessary that the entailment holds insofar as it doing so helps constitute the complete concept of the individual in question, it is dependent on God's actualization of this particular complete concept. Consequently, it would not follow then that either the consequent or the antecedent of the entailment could be necessary in themselves. Thus, we obtain the result that while the entailment is necessary in this sense the two parts are contingent, allowing us to arrive at a spot in which we could squeeze out a semblance of freedom, a freedom based on the contingency of God's creation of a

particular complete concept. From the above we see that Leibniz gets free-will into his system by relying on a notion of contingency that he gets from the distinction he makes between the necessity of the complete concept and the necessity of the predications that constitute the complete concept. As is, however, this simple story of contingency only scratches the surface of a number of possible interpretations of how, exactly, we are to think of this contingency.

Infinite Resolution

Leibniz's doctrine of infinite resolution is an attempt to formulate contingency by saying that there are some predicates that are more closely tied to the complete concept of an individual than others. We might say that some predicates are more complete than others. The idea here is that we are free because some of our predicates are not necessary. Leibniz says he arrived at this solution by turning his attention to the analysis of the infinite; he began to see that the same can be done with complete concepts as well. Leibniz defines an absolutely necessary proposition as one "which can be resolved into identical propositions, or, whose opposite implies a contradiction"[29]. Leibniz's idea is that demonstrability and necessity can be linked by showing that a necessary truth can be resolved into identical propositions by substituting a defined term with a part of a definition that was always a part, although a latent or non-salient part of the definition. In *De Libertate*, Leibniz provides a mathematical example of this:

29 As cited in Carriero, *Leibniz on Infinite Resolution and Intra-mundane Contingency. Part One: Infinite Resolution*, 11.

Definitions: senary = a number which can be divided by 6
duodenary = a number which can be divided by 12
Now, to show that a duodenary is a senary
Analysis of left side of the definition:
A duodenary is a number that is divisible by 12 (follows from the definition)
A duodenary is twice divisible by two and once divisible by three (According to Leibniz this so because the prime factors of a duodenary, that is, 12 = 2*2*3)
A number which is twice divisible by 2 and once divisible by three is once divisible by two and once divisible by three.
A duodenary is once divisible by two and once divisible by three (Again, because the prime factors of 6 = 2*3)
Analysis of right side:

i) A senary is a number that is divisible by 6 (follows from the definition)
ii) Every number that is once divisible by two and once divisible by three is a senary[30]

Thus, Leibniz arrives at the conclusion that a duodenary is a senary because there is an identity between (iv) of the left side and (ii) of the right side. Furthermore, we have shown, according to Leibniz, that the proposition "A duodenary is a senary" is a necessary truth since we have substituted definitions and have arrived at an identity. We have also shown that the idea of a senary is included in the concept of a duodenary. This is analogous to how the predicate is included in the subject in a true proposition. Now, this is only the case for absolute necessities; for contingent necessities it is not the case that we will find an identity in any step of the analysis; thus, the analysis continues on indefinitely. This is not to suggest that there is no sense in which the predicate is included in the subject, but that the identity will be reached after an infinite number of steps. This is analogous to

30 Leibniz, *On Freedom*, In Ariew and Garber, 96.

irrational numbers such as the ratio of a circumference of a circle to its diameter; just as ratios like π can not be fully grasped by us because of the finitude of our minds, but can be grasped only by God, who alone can go through an infinite series in a single act of his mind, and can by so doing see the reason for the truth of the number so too only God can see the reason for contingent truths by completing the infinite analysis. So Leibniz is not denying that what seems contingent is contingent, only that such contingent truths are not covered by containment.

Thus, the predicates attached to our complete concepts that are not necessary are contingent; God could have made us with other predicates, so freedom here is going to be cashed out in terms of contingency within the complete concept. For Leibniz, the problem of how it is something could be contingent, how the actuality of the best of all possible worlds could be contingent and not necessary is the problem that the doctrine of infinite resolution or demonstration is supposed to solve. According to Leibniz, the difference between necessary and contingent truths lies in the fact that the former has a finite demonstration, while the latter has an infinite demonstration; that is to say, an infinite number of steps to prove the truth of the proposition to be proved. In his words,

> And here is uncovered the inner distinction between necessary and contingent truths, which no one will easily understand unless he has some tincture of mathematics – namely, that in necessary propositions one arrives, by an analysis continued to some point , at an identical equation (and this very thing is to demonstrate a truth in geometrical rigor); but in contingent propositions the analysis proceeds to infinity by reason of reason, so that indeed one never has a full demonstration,

> although there is always, underneath, a reason for the truth, even if it is perfectly understood only by God, who alone goes through an infinite series in one act of the mind.[31]

The idea here is that the identity for a necessary proposition can be arrived at by showing that there is a point at which the demonstration of the proposition is ended, while the demonstration for a contingent truth is never completed, even though there is a reason for it, since contingent truths are just as possible as necessary truths. For example, suppose that we wish to prove that every natural number *n* has the property φ, but in order to do so we must prove that 1, 2, 3 etc. have the property φ. Of course this is a task that can never be completed since the members of the set of natural numbers are infinite. The task can only be completed by "God who alone goes through an infinite series in one act of the mind". Now, for Leibniz, while God can go through an infinite series in one act of the mind, it is not correct to say that God finishes the series; that is, if we construe 'finishing' as God providing a demonstration of a fact requiring an infinite analysis. Again this provides the distinction between necessary and contingent truths: the difference is a logical one even for God.[32] Therefore, a necessary truth is one that, given the laws of logic, can be demonstrated. Contingent truths, on the other hand, can never be demonstrated in this way because they require appeal to propositions that are themselves grounded in other propositions *ad infinitum*.

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31 As cited in Adams, Robert, *Leibniz's Theory of Contingency*, In Hooker, 257.

32 This is not to say that the difference is only logical; for there might also be a metaphysical distinction between necessary and contingent truths; however, for our purposes we will look only at the logical differences.

Quasi-Counterpart Theories of contingency

Noting Leibniz's rejection of TWI, some commentators have suggested that Leibniz held something like a counterpart theory and have argued that he attempted to provide an account of counterfactual freedom in this way. Since these theories utilize the general idea of a counterpart theory, but modify it to Leibniz's system I have called these theories 'quasi-Counterpart' theories. For instance, Hide Ishiguro[33] thinks that Caesar crossing the Rubicon is contingent if it is the case that there is another complete concept that is like the actual Caesar in every respect until faced with 'Rubicon-crossing'. On this basis, other predications are only possible. In any event, the difference is that the actual Caesar crosses the Rubicon, while the other complete concept does not. Of course, even one predicate different is enough to make a different individual and so this solution seems to fall into the same problem as counter-part theory. To be sure, Ishiguro may argue that this solution avoids the pitfalls of counter-part theory because conventionally understood counter-parts are actual individuals, but the individuals in Leibniz's possible world semantics are only possible, and so what actually happens to one individual is possible for another provided the two individuals are similar enough. We might reply, however, that possibility can only carry over in this way if it is the same person, in that possible world who does otherwise. Thus, that these individuals are only possible is only a necessary condition, not a sufficient one, to ensure that the sort of 'metaphysical import' needed in such modal claims is carried.

33 Ishiguro, Hide, *Leibniz's philosophy of Logic and Language*, 123.

Ishiguro is not the only one that thinks Leibniz is using a rudimentary counterpart theory to ground the truth of modal claims, John O'Leary-Hawthorne and J.A. Cover[34] think there is evidence of Leibniz's use of counterparts in his talk of 'the family of Adams'. O'Leary and Cover are, however, interested in linking infinite analysis with the counterpart-theoretic devices they think to be at work. They say that we should simply allow Leibniz's infinite analysis doctrine to choose which possible individuals will be counted as counterparts of a this-worldly individual. So an individual C* is a counterpart of an individual C **iff** C* is only proven to be different from C via an application of infinite analysis; thus, only if they differ in one respect. So for example C and C* share all the same predicates except for the situation in which C is F and C* is not-F, and the possession of F by C or C* is ascertained only by an application of the infinite analysis doctrine, C and C* may, however, have exactly the same finitely provable properties of C. In this case C* can be a counterpart of C.

The problem with O'Leary and Cover's account is that it leaves unclear the question of how the inclusion of infinite analysis in a counter-part theoretic explanation of modal claims can be assessed. It is just not clear how the fact that some difference between would be counterparts can only be gotten at by an infinite analysis enables the counterpart relation to carry the sort of metaphysical import needed to assess the modal claims we are concerned with. Because O'Leary and

34 Cover, J.A. and John O'Leary-Hawthorne, *Substance and Individuation in Leibniz*, 116-120. In addition O'Leary and Cover point out that Fabrizio Mondadori also thinks that Leibniz was a sort of counter-part theorist.

Cover do not offer a response to this worry, I offer this as a possible response. O'Leary and Cover might suggest that infinite analysis allows there to be the difference needed to allow for the counterpart relation, yet because the difference requires an infinite analysis, which only God can carry out, we arrive at the identity that is needed in order for the metaphysical import to carry. The problem is that this reply equates our epistemic limitations about the nature of the complete concept with the contingency that is required for freedom. For, it does not seem right to suppose that because I do not know what my complete concept 'looks like' once it is completely unfolded, (that is to say, I do not know all that can be truly predicated of it) in no way entails that the complete concept could have been other than it will be when completely unfolded. That is to say, future states of the complete concept are contingent if they could have been other than they are going to be. Another way of expressing this point is to insist that an individual is free only if they are free in God's eyes. For if God, by an application of infinite analysis – which only he is able to carry out – is able to find out that all facts about the complete concept are in fact necessarily true of that concept, and that because of this the complete concept could not have been other than it is, then it seems that the individual to whom the complete concept belongs cannot be free. Therefore if the individual is not free from God's point of view (which is the only point of view that seems to matter), it is hard to see how they could be free from our point of view. Generally speaking, there are problems with counter-part theoretic account of the sorts of modal claims needed to underpin counterfactual freedom.

Counter-part theory and miracles

In as much as counter-part theory may be said to be a good substitution for trans-world identity, some might suggest that the modal claims that support further claims about the freedom of world-bound individuals may be underpinned by a counter-part theoretic semantics. According to this account, instead of saying that one could have done otherwise in this world because one did do otherwise in another world, we can say that one did otherwise just in case one's counter-part did otherwise in another possible world. This is, of course, just a necessary consequence of a modal realism that still wants to explain this-worldly metaphysical quandaries; this is because according to the counter-part theorist, the counter-part relation is not identity since all the possible worlds are vague. The question then is what would seem to be the relationship between counter-part theory and miracles; especially miracles of the type described by David Lewis. The short answer is that the connection between counter-parts and miracles becomes evident when we attempt to analyze counterfactuals (modal claims about human actions).

To better grasp this, let us look at how a counterpart theorist like David Lewis would have us analyze counterfactual propositions. According to the counterpart theory, what makes the modal claim 'Johnny could have won the fight.' true is the fact that there exists a world in which a counterpart of Johnny wins the fight. Now, the world in which we are to look to for the grounding of this claim is the closest possible world, and intuitively there is no closer world than one with the same natural laws and the same history up until the point at which Johnny wins the

fight. We are now left with the task of showing how it is that two worlds that have the exact same laws and the same history can come to have different outcomes to the fight. We might call this 'the problem of branching'. In order to explain how it is that two worlds can come to branch in this way, Lewis maintains that the event that marks the first change of history between the two worlds is the result of a miracle, in the sense that the laws of the world were momentarily broken. Thus, while there is a connection between counterpart theory and Lewisian miracles, it is not the presence of miracles that generate counterpart theory; rather, miracles are an outgrowth of the attempt to ground the truth of modal claims on a counterpart semantics.

But to most, these miracles are unsatisfactory for several reasons. For one, as a way of grounding free-will they do not seem to do the job for this-worldly accounts as well as accounts that have to do with grounding the truth of these modal claims on possible worlds (call these 'world-indexed' cases). For world-indexed cases, miracles do not seem intuitively to do the job of grounding our free-will claims because miracles are a violation of the physical laws of the world in which they occur. The question then is how it is that freedom can be had when one is not within the causal chain of a world; this seems to be no better than supposing that our free-will is the result of random processes that have no connection to antecedent facts about the world. And so on this first reading there is little reason to suppose that miracles provide us the freedom we need.

The preceding response seems to work in dispelling the notion that miracles could provide free-will in world-indexed cases. But what about the project of

distilling free-will by using the counterpart relations; that is, saying that one could have done otherwise in @ iff their counterpart did do otherwise in some other possible world. It seems to me that the preceding line when applied in this way will not work either since there cannot be any 'metaphysical import' of one individual for another if these individuals are counterparts of each other. I mean to say that if two individuals are both actual (under the counterpart theory these individuals must be actual since counterparts arise in those systems in which 'actual' is relative to a world), there is no sense in which what is metaphysically true or false of one can have any bearing on what is metaphysical true or false of another.

Imagine that unbeknownst to you, you have a twin living somewhere in upstate New York, suppose further that by some strange confluence of the cosmos, your twin chooses a Coke every time you choose a Pepsi; that is, every time you are in a situation in which you have to choose between a Coke and a Pepsi, your twin just so happens to be in the same situation, except that where he or she chooses a Coke, you choose a Pepsi. Now, is there any way that your twin's choosing a Coke has any bearing on your choosing a Pepsi? Clearly not, the two choices are absolutely metaphysically independent. Your twin's choice of a Coke is not a truth-maker for the freedom of your choice of a Pepsi. This is because you and your twin, however similar you may be to each other, are both actual individuals. Likewise, in accounts that attempt to access the truth or falsity of this-worldly modal claims using the counterpart relation, there can be no metaphysical import of one individual for their counterpart, no matter how similar the counterparts are. Again, this is because

both the individual and his or her counterpart are actual. The lesson to be learned here is that actuality cancels out the metaphysical import of modal claims.

As mentioned above, all this talk of miracles really arises when we start thinking about the 'branching' of worlds. A world line is said to branch from another world line at the point at which the history of two worlds bifurcate. For issues of freedom and modality there are two ways to view this bifurcation of worlds; we can distinguish between **branching** and **divergence**. In branching, there is one initial spatiotemporal segment; the initial segment is continued by two or more different futures. Thus branching gives us the picture of a single world with a single past and many possible futures one of which will be actualized. In divergence, two or more worlds have two or more identical initial spatiotemporal segments that run parallel to one and other until some point at which their paths diverge. The latter interpretation lends itself to two further interpretations: (i) we can say that these worlds have the same laws, or (ii) we can say that they have different laws. Interpretation (i) leads us back to the talk of miracles, for if the laws of the worlds are the same we are led to ask what the cause of the divergence is.

The answer, to be sure, is that this breaking of the laws is a miraculous occurrence. One worry we might have about the dependence of this account on miracles is the worry of which world that miracle occurs in; is it the actual world or a counterpart world? To a modal realist like Lewis – who believes 'actual' is a term relative to a world – it would seem that the world in which a miracle occurs will always be the counterpart of the world of which one is a part. So if all the laws of

this world determine me to choose Coke over Pepsi, and yet I am still free to have chosen Pepsi over Coke if some counterpart of mine in a sufficiently similar world (and the most similar world will be the one with the same laws) chooses Pepsi, from my point of view, the choice of my counterpart is a miracle, but of course from my counterpart's point of view my choice of a Coke is the result of a miracle. In which world does the breach of laws occur, the actual world or the counterpart's world?

To be sure, we can say that the breach of laws cannot occur in this world, but it occurs in the counterpart world, but what happens in the counterpart world is only a violation of the laws of this world when we compare the counterpart world to this world. But if this reasoning is right, what it says must also be true of the counterpart world. Now, if it is true that laws of a world are only broken when we compare worlds, the only reasonable conclusion to draw, or so it seems to me, is to say that no world ever has the same laws as another; every world is held together by different laws. Why not suppose that every possible world has different laws that cause it to 'branch' whenever it does? But furthermore, surely this is not really branching, merely an unfolding of the history that world was determined to since its beginning by the laws that hold at that particular world. And so there is no need to posit miracles to explain branching. To be sure, we might still say the laws can remain identical across at least some worlds provided we allow there to be a difference between laws and starting conditions. According to this view, we can say that the differences among worlds with different starting conditions are not due to the laws, but to actions of the laws on different initial starting conditions. But what, it might

be asked, accounts for the divergence in the future? The answer to this question is that the initial segments of the worlds were identical, until the 'dormant' laws responsible for the change in the world became active.

Considering that for Leibniz possible worlds are just possible and not actual, and that therefore 'actual' is not an indexical term, it seems to me that it is a mistake to suppose Leibniz was a counter-part theorist. It is also difficult to see how the counter-part relation can satisfy the needs of counterfactual freedom. For these reasons, counter-part theoretic explanations should be ruled out as viable accounts of counterfactual freedom. One valuable lesson that the investigation of counterpart theories gives us is that our intuitions about actuality have a great deal to do with what we will accept as a viable account of counterfactual freedom; that is, whether possible worlds are actual or merely possible affects the metaphysical implications that can be drawn from them. This should, of course, not be surprising, since the invocation of possible worlds is an attempt to clear up this-worldly metaphysical problems. In any event, we have seen so far that counterpart theories simply cannot do the job and that an account of counterfactual freedom that does do the job is going to have to be one in which possibilities are just possibilities: it must reject the Lewisian picture. Now, it might very well be that the inability of counterpart theories to do the deep explanatory work just shows that these accounts are incomplete, not flatly wrong. Be that as it may, until counterpart theories can do this deep explanatory work, there is no reason to accept them as viable accounts of counterfactual freedom.

Chapter 4

Trans-world Identity and Diachronic Identity

We have seen in the preceding that TWI is important because it seems to be the most clear-cut way of accounting for counterfactual freedom; this however is not the only motivation for TWI. In this chapter I offer the argument that the issue of TWI is much closer to metaphysical issues in this world than we often realize; the this-worldly problem that TWI is close to is the issue of diachronic identity. The thrust of my reasoning is that if one's objection to TWI is that there can clearly be no TWI because we are talking about individuals in other worlds, we then have no reason to think that there is diachronic identity, since diachronic identity can be easily construed as the problem of TWI indexed to times within a world, so if we accept diachronic identity, we must accept TWI. Traditional debates between proponents of TWI and those who reject it eventually come to a stalemate because they collapse into debates regarding the nature of what is an essential as opposed to what is an accidental property of an object.

This state of affairs produces dismal prospects for coming up with a consistent and convincing story about the possibility of TWI. In part, this is bound to be the case because identity, properly understood, is always going to be between an object and itself, therefore, strictly speaking, there is no way an object can be the same with another object in another world. This, in my view, leaves no way for the

proponent of TWI to maintain her position; nor does she have to because in the most intuitive sense, identity truly is between a thing and itself. The strict notion of identity I am speaking of here is 'sameness' of individuals; it is this sameness that cannot be the identity we are looking for in advocating TWI. Thus there can be no identity between a thing and another thing as long as these are two different things, and so no way to argue for a traditional conception of identity, if sameness is what we take the traditional conception of TWI to be based on. This might come across as question-begging, but I want to make clear that TWI should not be understood as 'real' identity but as identity of the sort we think holds in cases of Diachronic identity. By so doing I want to argue that this realization provides strong reasons for advocating TWI and that the problems faced by a traditional conception of TWI should not be a problem for this new conception of TWI.

So, there looks to be no way of arguing for a traditional conception of TWI, but to show that issues in TWI are closer to issues in DI, and that because of this proximity we ought to feel as strongly pro-TWI as we do about Diachronic identity. Or at least, if we recognize DI as worthy of debate we should think the same of TWI. The argument here is that if there is a much closer connection between TWI and diachronic identity than we often assume, there is little reason why we should not desire TWI as much as we do diachronic identity. That said, the question of diachronic identity in traditional metaphysics is strongly analogous to TWI. And I would argue that this analogy does not amount to merely asserting that reasons for acceding to a particular theory in one field are reasons for acceding to a particular

theory in the other, lest consistency of views be violated, but that depending on which theory one accedes to, one will have to either be a proponent of TWI or reject it. Thus, I will argue in this chapter that not only is TWI close to DI insofar as they both deal with the question of the individual, but that there is a very real sense in which they are the same issue.

There are two preliminary differences between TWI and diachronic identity: first, we might realize that diachronic identity deals with persons who are presupposed to be within a world, thus diachronic identity has to do with problems of identity within a world; TWI, on the other hand, deals with the notion that individuals can exist in more than one world, thus it presupposes the notion that individuals are indexed to worlds. Keeping in mind these two differences, the argument from analogy focuses on the crossroads between TWI and diachronic identity. That said, it is helpful to discuss exactly what the similarities are between TWI and diachronic identity (henceforth, DI). In DI we are concerned with identity of an individual from moment to moment. The difficulty here is to show how the individual can be one and the same individual from time to time even though the individual has different properties from time to time. The rub is that moments have no (metaphysical) connections between them, nothing invariant within the moments that would give us good reason to believe there is no problem of DI.

In an effort to solve this problem, philosophers have come up with two main solutions. The first answer seems to serve the most intuitive conception we have of the individual and its interaction with time; this can be referred to as 'three-

dimensionalism' (3-D). Three-dimensionalism is the thesis that an object (an individual) endures through time; that as the object moves through different instances of time it 'picks up' different properties. Thus, 3-Dimensionalism gives us a picture in which the three spatial dimensions of an object move through time. So as a starting assumption 3-Dimensionalism holds that an object is something other than its properties. It is not difficult to see that 3-Dimensionalism is analogous to TWI insofar as TWI also holds that the individual is more than (or at least is not fully captured by) its properties at different worlds. The question for the 3-Dimensionalist who denies TWI is what the difference is between making identity claims between objects in different worlds and making identity claims across different times: just as the object picks up different properties as it moves through time why can the individual not pick up different properties as it moves through different worlds? Without a suitable answer to this question any 3-Dimensionalist should be a proponent of TWI.

The other major camp is four-dimensionalism (hence forth 4-D). It is the thesis that an object 'perdures'; that the fourth dimension, time, is 'built' into the object such that an object has a temporal part. In this way the 4-Dimensionalist evades the diachronic identity question. The 4-Dimensionalist does this by saying that since time is built into the object, the object/individual should be understood as the entire 'space-time' worm; what a 3-dimensionalist would take to be the object at a particular time would be thought of as merely a stage of a greater space-time worm that is properly understood as the object. Analogously, the modal equivalent of 4-

Dimensionalism must be a denial of TWI, for TWI is positing an identity of sorts between individuals in different worlds; the problem is that the 4-Dimensionalist would see these individuals as 'stages' of the same 'trans-world' worm, thus only this object – the worm – is identical to itself but none of its stages are identical. In this respect, 4-Dimensionalism is consistent with a rejection of TWI.

I am not the first to notice this analogy between TWI and DI; David Lewis, one of the more prominent 4-Dimensionalists also saw this analogy. Now, although Lewis rejects the standard interpretation of TWI, which states that an individual may exist in more than one world, he does think there is a sort of trans-world identity of individuals across worlds if we conceive of the individual differently. Lewis thinks that if we envision individuals as trans-world objects that range across many worlds, we can say that individuals exist in more than one world and are never 'wholly present' at any one of these worlds. The connection with diachronic identity should be made clear by the use of terms like 'wholly present at' for just as four-dimensionalists argue that the individual is a 'space-time worm'[35], we might say that Lewis thinks the individual is a 'trans-world worm' that has parts at worlds, but is itself never wholly present at a world. His reasons for thinking so are not, however, based on any idea of a genuine relationship between the parts of the individual, but on Lewis's conception of mereological summation. Thus, for Lewis, trans-world individuals exist, but their doing so should not be of much interest. As a further testament to the relation between issues in modality and issues in diachronic identity,

35 Sider, Ted, *Four* Dimensionalism, 53.

Lewis's reasons for thinking that mereological summation can get us trans-world worms depends on the ontology of objects in a world since trans-world individuals are themselves going to be just mereological sums of world-bound individuals.

The Argument from Vagueness against TWI: Lewis

It is important to note that in keeping with Lewis's aim of arguing for modal realism, Lewis argues for unrestricted composition for the purpose of denying the existence of trans-world individuals as they are conventionally understood; that is, as individuals that are wholly present at whatever worlds in which they exist. Lewis argues that such individuals are impossible in the sense that, if we maintain that these trans-world individuals are objects understood to be so, together with the proviso that restricted composition is true, then these trans-world individuals can only be individuals **iff** they are not trans-world individuals.[36] Thus, we are led to the conclusion that trans-world individuals as conventionally construed are impossible entities. Lewis maintains however, that trans-world individuals do exist, but they exist only as the mereological composites of world bound objects. That is, objects in say, W_{34} thorough to W_{80} can be said to comprise a trans-world object that will not be wholly present at any one of the worlds, although its parts can, of course, be thought of as also being part of the world in which they exist. We might notice that this 'trans-world worm' is analogous to the four dimensionalist space-time worm that is used as a resolution to the problem of identity from time to time within a world. This

36 Lewis, David, *On the Plurality of Worlds*, 211.

insight points to interesting connections between four-dimensionalism, unrestricted composition, and a rejection of the conventional understanding of trans-world identity. Perhaps, if one is a four dimensionalist, there are strong reasons to reject a conventional understanding of trans-world individuals, and even more compelling reasons to become an advocate of unrestricted composition.

In order to argue against the traditional conception of trans-world individuals, Lewis presents an argument based on the vagueness of restricted composition, the view that unrestricted composition is false, and that we can have mereological composition that allows us to retain ordinary objects. To begin his argument from vagueness Lewis gives us four *desiderata* by which we might normally judge when objects can form other objects: these are *similarity* (the summands must contrast more with their surrounding environments than they do with each other), *proximity* (the summands must be sufficiently adjacent to one another), *attachment* (they must form a sufficiently cohesive whole), *systemic harmony* (the extent to which the summands act jointly)[37]. Now, if these are *desiderata* for mereological summation, it stands to reason that they would also be necessary criteria for any account of trans-world identity that supposes that trans-world individuals are possible **iff** they are thought of as objects whose parts reside in different worlds. However, since the bulk of queer objects produced by unrestricted composition do not satisfy all four of these criteria, the proponent of restricted or naïve composition is in a position to reject queer objects and unrestricted

37 Ibid.

composition. Furthermore, if unrestricted composition is rejected with regard to the question of composition within a world; trans-world composition could be restricted as well. But Lewis argues restricted composition cannot be in harmony with our intuitions about cases of composition in this world; therefore, a rejection of trans-world identity of the Lewisian sort would be "unmotivated and gratuitous"[38]. And so for Lewis, restricted composition with respect to this world composition is the only way to account for TWI of the traditional sort.

38 Ibid., 212.

Chapter 5

Actuality and TWI

We have seen that an account of TWI that relies on a comparison of the individuals found within a given possible world-context cannot give us an account of how TWI is possible; this is because each given world-context is complete onto itself, and thus any individual within one world-context cannot be identical to an individual within another world-context. This is because i) the properties of individuals change from world-context to world-context and ii) the world context is such that all the individuals within a given world-context have irreducible relations between them. All this makes the prospects for TWI dismal. After all, strictly speaking, identity is only between a thing and itself and an object is understood to be constituted by all its properties; this seems to make TWI *prima facie* impossible. Or so goes the traditional approach.

But for Leibniz, this does not have to be the end of the road; he could have held on to TWI within his system. The key to unlocking how Leibniz might have given an account of TWI that would most easily flesh out and underpin his conception of contingency and necessity is not to scrutinize individuals embodied within world-contexts in search of some hidden essential property to bind these individuals together in the hopes of proving a metaphysical identity. Rather, the account of TWI we need and that will not be at odds with Leibniz's system is going

to be one that is based on Leibniz's conception of God and actuality. That is, in Leibniz's system it is hard to see why he denied TWI for individuals embedded within a world-context, yet permitted it for God. For Leibniz God is at least a trans-world individual; God exists in every possible world-context. This has been suggested by Robert Adams, who says:

> Margaret Wilson has argued convincingly ... that it is a mistake to ascribe to Leibniz a counterpart-theoretical account of possibility and necessity *de re* in terms of alternative possible Adams, alternative possible Caesars ..., and so forth.... He [Leibniz] seems to be committed ... by the doctrine of God's necessary existence, to the view that it would have been the same God that created whatever possible world was created.[39]

The idea here is that since Leibniz used the ontological argument to account for the necessary existence of God, that is, the God whose necessary concept contains the predicate 'actualized the best possible world', that this same God would have been the one that created other worlds. Thus, there must be TWI for God since for Leibniz the ontological argument proves the existence of God. The hidden premise here seems to be that the ontological argument proves the existence of – at most – one being to whom necessary existence is ascribed; thus, a possible scenario in which God creates a world other than this one is one in which this same perfect being just has other things true of it. Therefore there must be TWI for God.

This argument, at least as it stands, has some problems as Robert Sleigh has

39 Adams, Robert, *Leibniz: Determinist, Theist, Idealist*, 55.

rightly pointed out.[40] Sleigh says that while the ontological argument is utilized by Leibniz to establish the compossibility of the Divine perfections and that they entail necessary existence, Leibniz did not take the ontological argument to prove that the complete concept of God has necessary existence. This is because if the complete concept 'C' of our God was to necessarily exist then it becomes a necessary truth that this, the best of all possible worlds, is created by God. The problem is that this result flys in the face of Leibniz's view that while the best of all possible worlds is one in the same with the actual world that it is, nevertheless, a contingent matter of fact that the best of all possible worlds is actualized by God. In Sleigh's words, "...Leibniz would agree that the complete individual concept of the perfect being that is actual contains the property of creating Adam, but deny that the ontological argument proves that that concept is instantiated."[41]

Incorporating Sleigh's observation we should say that Leibniz need not hold that the concept of the actual God is necessarily instantiated. How to do this, given that Leibniz uses the ontological argument to prove the existence of God, requires us to divorce God from possible contexts. I mean to say that we should not think of Leibniz's God as being located within a particular world-context; for only in a world-context could we make predications about what God did. We should instead realize that the decrees of God make world-contexts. Thus, when we speak of a world-context we should think of that world-context as being an actual or possible

40 Sleigh, Robert, *Leibniz on Freedom and Necessity: Critical Notice of Robert Adams, Leibniz: Determinist, Theist, and Idealist*, 271.
41 Ibid.

decree of God. From this we understand that a world-context is actual because God makes a particular actual decree to bring that world-context into actuality; thus it is best to speak of the creation of a world as the decree of God bringing a world into actuality, actuality is not something built into the nature of a world-context, it is distinct from the world context because God is distinct from the world-context and he is actual, he might even in some sense be synonymous with actuality or at least responsible for it somehow. This is how God is a trans-world individual. Having established this, we can say that a world-context is a state that actuality can be in; and so when we make modal claims we should understand these as claims about the 'stuff', the substance of actuality, call this the 'substantivist theory of actuality'. Under the substantivist theory modal claims are going to have truth values because the same 'actuality stuff' is used to make the different world contexts. So when evaluating modal claims, we start by looking at actuality, and then we move to look at possible world-contexts as states that actuality could have been, as possible states of actuality – permutations of actuality. For purposes of TWI, since God is a trans-world individual of sorts, because he defines what actuality in some sense is, what enables God to be (actuality) is also outside and is enabling of world-contexts. Now if actuality is the same across world-contexts, then when we make modal claims about individuals within any one of these world-contexts, we are making claims about actuality, not the individual (which is properly understood as a set of properties; there is no reason to speak of identity between predicates within a world-context, let alone between world contexts).

There is a problem with the substantivist account that arises as soon as we ask what allows us to differentiate between one individual and another as satisfying the description of an individual that is a trans-world instantiation of an actual individual. That is to say, if TWI is understood to be true because the actuality substance is the same and is used to make different individuals, how do we rule out one individual and accept another as a trans-world instantiation. For instance, suppose you are presented with a world-context in which you had the choice of either a dog or a human being as an instantiation of yourself in that world-context. The question, of course, is what rules out the dog as a trans-world instantiation if the modal claims are being made about actuality? A Leibnizian solution to this problem is to use the vague description of an individual to determine what in another world-context qualifies as an instantiation of a this-worldly individual. That is, a description of an individual brought about in a general way. This vague description ensures that we obtain an identity between an individual in one world-context and an individual in another world-context because they both satisfy a vague description/general description common to them both. Thus, when it comes to the task of evaluating whether an individual in some world-context is the instantiation of an individual in the actual world-context, we just have to look to see if this individual satisfies the same vague/general description as the individual in this world. Now, since our starting point is always this, the actual world-context, our general descriptions are going to be derived from individuals in this world. The individuals in other world-context that satisfy the same general description as an

actual individual can be called 'archetypes' of these actual individuals. I do not intend to use the archetype relation as a one way mapping between actual individuals and individuals in other world contexts, I only mean to say that all individuals, no matter the world-context, that satisfy the same general description are archetypes of each other. From here we can evaluate the worlds in which these vague descriptions are satisfied.

At this point, however, we run into the worry that this approach is not exactly Leibnizian since Leibniz himself says that "all this [the general description] is not sufficient to determine the individual, for there can be an infinity of Adams, that is, an infinity of possible persons, different from one another, whom this fits." This ensures that the individuality of Adam is not fixed since these possible persons are not the particular individual Adam. Therefore general descriptions cannot work. What this worry fails to realize is that this general description does not need to fix the concrete individual Adam, since that individual will always be understood within a particular world-context; rather, the general description needs to pick up precisely the infinite number of different individual Adams. For, with the premise that actuality is the medium of trans-world identity we can understand the "infinity of possible persons" as providing the cases needed to establish counterfactual freedom for the particular individual Adam who is embedded within this world-context, and who of course also satisfies the general description of the individual Adam.

Conclusion

The purpose of this thesis has been to argue that we should accept TWI. I brought in the philosophy of Leibniz as the most systematic and compelling argument to date against TWI. That said, I take myself to have shown that Leibniz starts off with many of the same philosophical inclinations as myself, and yet concludes with the rejection of TWI. So having shown that starting from the same philosophical inclinations as Leibniz we need not also reject TWI, it is not clear that TWI should be dismissed as swiftly as it often is in contemporary metaphysics. That said, in the preceding we have ventured on a journey through some difficult, interesting and deeply related issues in the philosophy of Leibniz. We started out the discussion with compossibility and the conditions that were needed in order for it to obtain, and from there we moved to talking about the nature of the complete concept and its relationship to the external world. From there we moved to discuss the logic of counterfactual claims in chapter 2. Throughout this discussion the aim has been to understand how TWI is affected by all of these issues. Thus in this paper I have attempted to understand what sorts of considerations affect TWI for the purposes of ascertaining the status of free-will claims made with recourse to possible worlds. My chief reason for arguing for TWI has been that it is the most intuitively palatable way of accounting for the logic of our free-will claims.

By way of motivation for TWI, I have presented an argument from analogy between TWI and DI, stating that depending on one's preferred theory of DI, one is

in a position to either reject or accept TWI. I argued that since DI can be construed as the problem of TWI indexed to a particular world, if we accept DI (or at least see its importance) we ought also to accept TWI. More strongly, I argued that this analogy is not merely asserting that reasons for acceding to a particular theory in one field are reasons for acceding to a particlar theory in the other, but that depending on which theory one adheres to, one will have to either reject or accept TWI. Thus, I argued that there is a very real sense in which TWI and DI are the same issue. This is because in diachronic identity we are concerned with the existence of individuals in different times and in TWI we are concerned with the existence of individuals in different worlds. So we find ourselves in a position to ask, why do we allow for identity of individuals from time to time and have trouble accepting TWI? What is the essential difference between TWI and Diachronic identity, and what is its bearing on TWI? In chapter 4 of the thesis we investigated the nature of this analogy. Again, all of this serves to provide reasons for thinking of TWI as an issue worthy of our attention. Thus, it seems to me that not only is it sensible to accept TWI, but that some of our metaphysical sensibilities require us to do so, not the least of which are our intuitions about free-will.

In advancing TWI, I have not offered a defence of it based on a supposed sameness between individuals residing in different possible worlds. Nor have I offered a theory that attempts to establish some essential quality of individuals that might ground the identity claims needed for counterfactual freedom. In fact, I have argued that these kinds of theories cannot do the work of accounting for TWI.

Seeing that these theories do not work I have presented an alternative that grounds the modal claims not on the qualities of the individual itself, but on the 'substance of actuality' which I view as being, in an important sense, synonymous with God. Ultimately then, I have argued for the position that the grounding of modal claims is God. Grounding our modal claims (including counterfactual free-will claims) in God the way I have suggested can help us evade many of the difficulties associated with TWI.

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