Leibniz and Krikpe on Trans-World Identity

Elisabeta Sarca, Boston University

I. Leibniz against Trans-World Identity

For Leibniz, even though whatever happens to an individual substance is certain to happen (since everything is included in its notion), if the contrary were to occur, that would not be impossible in itself, but only *ex hypothesi*, given the actual sequence of events.[1] Of the infinitely many things whose opposites in themselves do not imply a contradiction (i.e., of infinitely many possible things), the one that will be true has more reason or is more perfect; God chooses the most perfect of all series of events and things (i.e., worlds) to bring to reality. Therefore, not all possibles attain existence, and there are infinitely many possible things which do not, have not, and will not exist. Leibniz saw this as his definitive strike against necessitarianism: if other things are possible, then what actually exists is not absolutely necessary.[2]

If, according to the Leibnizian PIN principle, the perfect notion of a thing contains all of its past, present, and future predicates, then how can the epistemological and logical distinction between necessary and contingent propositions account for the intuitive fact that, for example, Julius Caesar might have not crossed the Rubicon? In other words, how are alternative scenarios even intelligible? God chooses not between possible things or scattered events, but between complete series of things and events, from the beginning of time to eternity, so the complete notion of every thing contains not only its history and future, but also the entire history and future of its compossibles; thus it is contained in the notion of Julius Caesar that he crossed the Rubicon, that there was a Rubicon to cross, etc. Hence, one might draw the conclusion, and this is one of the main points of Arnauld's criticism, that it is a contradiction to suppose that Caesar could have not acted the way he did, which makes it, according to the principle of contradiction, a necessary truth that he did in fact cross the Rubicon. Leibniz' response is:

> [T]he whole universe with all its parts would be quite different and would have been different from the beginning, if the least thing in it had happened differently than it did. It does not follow from this that events are necessary, but rather that they are certain, given God's choice of this possible universe.[3]

Two major problems are connected with this response: accommodating the sense of human freedom and explaining trans-world identity. I will merely lay out the first, while trying to tackle the second in more detail. Because all the properties expressed by the predicates that apply to it are included in the notion of a human being, freedom of choice seems to be lost, since, for example, Caesar could not but cross the Rubicon. In the case of human freedom, a notion very dear to Leibniz, his distinction between necessity and certainty does not do the trick, as it arguably might in the case of divine freedom.[4] For humans, hypothetical necessity indeed excludes freedom of choice, at least in principle. The argument is as follows:

(i)   A $\rightarrow$ □ C. (Given the actual series, it is necessary that Caesar cross the Rubicon.)

(ii)   A. (The actual series is given.)

(iii)   (By *modus ponens*) □ C. (Necessarily, Caesar crossed the Rubicon.)

Leibniz' response concerns the practical connotations of the freedom of choice: even if theoretically we might say that in this particular series Caesar cannot but cross the Rubicon, when faced with the decision to cross the Rubicon, Caesar makes a real choice, as far as he is concerned, because he does not know which of the predicates is included in his notion. There is deliberation and there is a plurality of choices, but is there any spontaneity in his decision? Leibniz himself avers that spontaneity is a necessary ingredient of freedom, but he also says that, at least in principle, the reasons for Caesar's choice and its inclusion in his complete notion can be analyzed. This means that spontaneity would be imperiled, even granting our ignorance and limitations.[5]

What I would like to treat in more detail is the problem of trans-world identity, which is linked with the problem of freedom. When we make a choice between alternative scenarios, what is it that we take into consideration? Since we can truthfully predicate only one of the future things we are considering, what are the other things we have in mind? Do we have a glimpse into other possible worlds? But any given thing exists in only one world, because its notion contains all its predicates and mirrors its entire world. If the least thing were changed, everything would be changed, says Leibniz. If two worlds are different, then all things in them are different and it is impossible to peek into other worlds. Doesn't the notion of alternative scenarios become incomprehensible, and doesn't the notion of freedom, as a result, become moot, since the plurality of choices loses its meaning? Leibniz' response to this is to be found in *Letters to Arnauld*, where he addresses the issue of infinitely many possible Adams.[6] Admittedly, Leibniz does not believe in trans-world identity, but he does agree with the notion of several possible individuals slightly different from Adam, with whom the actual Adam would share some of his general predicates.

At this point one must be careful in comparing the Leibnizian notion of possible worlds with the present day versions of that notion. B. Mates observes a number of differences between the two conceptions: first, for Leibniz, possible worlds are made up of individual concepts, not things (there are no non-existent individuals), whereas the modern conception of possible worlds, as used in modal logic, for example, allows for individuals in possible worlds, which means that possible worlds exist in some sense.[7] Second, following Russell's observation, and as a direct consequence of the previous point, for Leibniz, propositions are true "of" possible words, not "in" them (as in the modern view). Third, trans-world identity is untenable for Leibniz, for the reasons showed, whereas trans-world identity is one of the key concepts for explaining possibility in the modern conception. B. Mates' contention is that the reason Leibniz was committed to the rejection of the notion of trans-world identity is that he did not want to commit himself to essentialism. There is a rather puzzling commentary by R. M. Adams, who agrees with M. Wilson in conceding that Leibniz would admit that there is trans-world identity, but only for God.[8] What they mean is that, according to Leibniz' definition of the complete concept of God, he is the only thing whose existence is included in its concept, so he will have to exist, with his complete concept, in every possible world. It is questionable, though, whether their argument stands, if we take into account the fact that God, for Leibniz, is not *in* any world (rather, all worlds are in God's mind as theoretical possibilities). But perhaps we could modify the claim in the spirit of Russell's distinction and say that for Leibniz God's existence is true *of* every possible world, even though we are not any longer talking about trans-world identity per se. It is, nonetheless, an important claim to make, as it will serve against the possible objection that there is nothing to prevent us from imagining a possible world in which there is a different God, who decrees according to, say, the principle of the worst.

II. Kripke's View of Trans-World Identity and Essentialism

The main idea against which Kripke sets out to argue in *Identity and Necessity* is that of the possibility of contingent identity statements.[9] First, this notion is based on the traditional double distinction: between necessary and contingent statements and between a priori and a posteriori statements. Traditionally, these distinctions were seen as co-extensive but Kripke takes the view that they are in fact completely separate, one being metaphysical and the other epistemological.

It has been argued that certain identity statements are a posteriori and therefore contingent. For example, statements such as "The Morning Star is the Evening Star" or "Cicero is Tully" are indeed statements of identity, but since their truth is discovered only after empirical investigation (a posteriori), it was concluded that they could have turned out to be false and thus that they are

contingent. Kripke's contention is that there are no contingent identity statements, on grounds that every identity claim, once established as true, is necessarily true. His argument is as follows:

(1) $(x)(y)[(x = y) \rightarrow (Fx \rightarrow Fy)]$.

The first premise is Leibniz' law of the substitutivity of identicals: for any objects x and y, if they are identical, then whatever property F that x has, y has that property as well.

(2) $(x) \square(x = x)$.

The second premise asserts that every object has the property of necessarily being identical with itself. If we substitute this very property for F in (1), we obtain the preliminary conclusion:

(3) $(x)(y)\{(x = y) \rightarrow [\square(x = x) \rightarrow \square(x = y)]\}$.

Since we know by (2) that the antecedent of the second conditional in (3) is always true, we can drop it and we obtain the final conclusion:

(4) $(x)(y)[(x = y) \rightarrow \square(x = y)]$.

This means that for every two objects x and y, if they are identical, then they are necessarily so and, as a result, there can be no contingent identity statements.[10] Leibniz would readily agree with this view, since for him identities are the paradigm of necessary statements, which are defined as statements demonstrably reducible to identities. But, apparently, this has been seen by many of Kripke's contemporaries as highly counter-intuitive, since it was widely accepted that identity statements of the form "The first Postmaster General of the United States is the inventor of bifocals" could have turned out not to be true and are therefore contingent.

An important and well-known distinction Kripke introduces is one between a rigid designator and a non-rigid designator. For a quick reminder: a rigid designator is defined as one that picks out the same object in any possible world (or in any counterfactual situation). For example, "Benjamin Franklin" is a rigid designator, since there is no possible situation in which this expression could have picked out somebody else.[11] Non-rigid designators, on the other hand, are expressions that pick out a certain object, but one could imagine a situation in which they picked out a different object. For example, "the inventor of bifocals" picks out Benjamin Franklin, but it is quite possible that somebody else, maybe Spinoza, invented bifocals. The person that is actually,

with our present understanding of language, picked out by a non-rigid designator does not have to be the same person that is picked out by the same expression in a counterfactual situation. As we saw earlier, this would also be agreeable to Leibniz, since he admits that the predicate "the first man" could be truthfully attached to infinitely many persons in different worlds. Names are rigid designators, while descriptions usually are non-rigid designators.[12]

In *Naming and Necessity*, Kripke argues against the view (which he attributes to Frege and Russell) that names are, in fact, abbreviated descriptions, and against Searle's cluster-of-descriptions theory of names.[13] According to Kripke, the first view is that names are not rigid designators in the sense used here, because they do not point to an object directly, but by means of a description. A sign (the name) has a sense (rendered by a description) and that sense has, or does not have, a referent (the actual object). There is no direct correlation between the sign and the object: the sign must first signify something in order for us to identify the object. Now, what does it mean for a name to have a sense? Does it mean, as Kripke suggests, that it is a disguised description? For example, does the name "Benjamin Franklin" mean "the man who did such-and-such things" or "with such-and-such physical characteristics"? If that is the case, would we say, with Leibniz, that the same name refers to something else if the man in question happened not to do the thing described, or happened to have a different hair color? Indeed, if Leibniz were to speak of the "sense" of a name, he would say that it is precisely the complete notion of the thing named by it, i.e., everything that can be predicated truthfully of the object in question. For Kripke, this would be absurd. Should we then accept the cluster-of-descriptions theory of names, which suggests that a name's referent is given by the object that fits most of the descriptions associated with that name? Thus, if Benjamin Franklin had had a different hair color, or if he hadn't invented the bifocals, the name would still point to him, because he would still fit most of the other descriptions associated with it. But then, what if he lacked most of the other properties? What if he was never interested in science and he looked completely different from the man we now call Benjamin Franklin? Would we say that he wasn't Benjamin Franklin? Would then naming be a matter of degree?

Kripke's solution lies in the notion of "essential properties," defined as properties without which an object would not be the object it is.[14] Of course, self-identity and existence are included among these, but that, says Kripke, is a trivial observation; he is concerned with other essential properties. They are such that, "this object has to have them if it exists at all" and "if an object did not have it [them], it would not be this object."[15] The Leibnizian view, of course, is that all properties of an object are essential to it, and without any one of them, no matter how seemingly unimportant, the object would not be what it is. It is important to note, though, that for Leibniz essential properties are not equivalent to necessary properties, but are only hypothetically necessary. For Kripke, essential properties are the ones that ensure trans-world identity, and they are necessary

in the sense that they belong to the object in every possible world in which it exists. It can be argued that for Kripke they present a kind of hypothetical necessity as well, since they depend on the existence of the object, in the same way as they do in Leibniz. The two views would have only the metaphysical difference that in the one, objects can appear in only one world, whereas in the other, it is possible for an object to exist in more than one possible world.

To illustrate his point, Kripke takes the example of a wooden lectern in front of him, eventually hinting at the idea that *origin* is the one providing essential properties, since the only case cited in which we wouldn't call this lectern, this lectern, is the one when from the beginning we set out to make the lectern from something different, so it had a different point of origin.[16] He applies this criterion also to human beings: Benjamin Franklin could have not invented the bifocals, and he could have not had blue eyes and silky hair, but he could not have been born from different parents. Moreover, in order to speak about the *same* person, and not his siblings, he could not have been born from different reproductive cells of his parents, and that is his essential property, or, at least, one of them.

One could argue that, in view of the genetic information contained in the reproductive cells of his parents, if it is essential for him to have been the product of those particular cells, then it is essential for him to have the physical (and, more controversially, the basic psychological) features that are embedded as genetic code in the respective cells. Therefore, it may not be contingent that he had blue eyes and silky hair (if he did) and even that he had an interest in the sciences. These considerations seem only to increase the difficulty of determining which of the properties of an object are essential, if it has any essential properties at all, but this, of course, does not rule out the theory of essential properties. In fact, all it does is blur the distinction between essential and contingent or non-essential properties.[17]

It should be now clear that the Kripkean argument of essentialism from origin, if applied recursively, could have as a logical consequence a position very close to the Leibnizian view of possible worlds: if every thing extracts its essential properties from its origin, then we can see how the entire world is essentially the way it is from its origin, and every little thing, every little property can be thus accounted for; this leads to the idea that all properties are essential to a thing and if the least thing were different, its entire world would be different from the beginning: Benjamin Franklin's parents would themselves have to be essentially who they are, through their origin, therefore his grandparents must have originated from the specific cells of his great-grandparents and so on. The Kripkean trans-world identity is now just about as possible as the Leibnizian one.

In view of these considerations, these two apparently opposite views can be seen as uncannily similar, or at least as having similar consequences with respect to trans-world identity. What I hope to have shown is that, if we view the distinction between necessity and contingency in

Leibnizian terms, we are prone to run into the difficulty of explaining trans-world identity: if, with Leibniz, we reject it, his idea of counter-factual possibles, on which he bases his rejection of necessitarianism, becomes unintelligible; if, with Kripke, we accept it, we seem to be led to accept some kind of essentialism, from which position it would, again, be very difficult to reject necessitarianism. Perhaps one solution would have been for Leibniz to have abandoned the Predicate-In-Notion principle, but then the resulting metaphysical picture would be very different indeed from what Leibniz had in mind – this move would have deleterious effects on important portions of his philosophy, and it is implausible that he would be ready to sacrifice them. Another solution might be for Kripke to abandon his object-essentialism, but then he would have to find an alternative to possible-worlds (or possible-scenarios) semantics to account for modal claims. However, without the concept of trans-world identity it is, in his view, difficult, if not impossible, to explain the very notion of possibility.

Notes

<hr>

[1] For example, it is contained in the notion of Julius Caesar that he crossed the Rubicon. It would thus be impossible for him not to have crossed it – not impossible in the absolute sense, since failure to cross the Rubicon does not imply a contradiction, but impossible *ex hypothesi*, i.e., under the assumption that this particular series of events is the actual one. If one were to carry out the demonstration, Leibniz says, one would be able to show the complete reasons for Caesar's actions, and why they are included in his notion, but would not thereby show that the contrary implies a contradiction. I will return to this issue later in the paper, after making the connection with Leibniz' conception of possible worlds and freedom.

[2] Two questions arise, concerning Leibniz' notion of possibility, extended discussion of which must be foregone, given the limited space I have in this paper. The first is with regard to the connection between the notion of possibility and the notion of conceivability. Leibniz seems to have equated the two, or at least he seems to have taken conceivability to provide sufficient grounds for possibility. In principle, there is nothing to prevent a certain state of affairs to be necessarily in a certain way, while we imagine it to be different. The second question concerns the notion of possibility, i.e., what exactly does it mean for something to be possible. Two aspects of this question I find especially important:

(a) Since everything is tightly interconnected, if one thing is changed, then there will be some contradiction somewhere in the world. Furthermore, if one predicate is changed, then the subject is changed and with it the entire world, therefore it is not really conceivable that *Caesar* did not cross the Rubicon.

(b) The second aspect of the meaning of possibility is one that was mentioned earlier and concerns the distinction between logical and metaphysical possibility and the adequacy of logical possibility to account for the rejection of metaphysical necessity. If it is certain that God himself will choose the best of all the infinitely many possible series, does it make any sense to talk about the possibility of the other, less perfect, ones? Since they have *no chance* to ever be actual, they are not proper candidates for reality, i.e., they are not real possibilities.

[3] G. W. Leibniz, *Philosophical Essays*, eds. Roger Ariew and Daniel Garber (Indianapolis: Hackett, 1999) 73.

[4] Leibniz argues, problematically as it may be, that the actual world is not a given for God.

[5] This is a much broader problem than the one I set discuss in this paper, since it deals with the very notion of the meaning and possibility of freedom in general. I shall therefore leave it open.

[6] Leibniz, *Philosophical Essays*, 72: "I have said that all human events can be deduced not simply by assuming the creation of a vague Adam, but by assuming the creation of an Adam determined with

respect to all these circumstances, chosen from among an infinity of possible Adams. […] [B]ut when speaking of several Adams, I was not taking Adam as a determinate individual. […] [W]hen 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." This description is very similar to David Lewis' notion of an individual's counterparts in other possible worlds.

[7] Benson Mates, *The Philosophy of Leibniz: Metaphysics and Language*, (New York: Oxford UP, 1986) 137. This interpretation is also supported by Parkinson in *The Cambridge Companion to Leibniz,* 1995.

[8] Robert M. Adams, *Leibniz: Determinist, Theist, Idealist*, (New York: Oxford UP, 1994) 55.

[9] Saul Kripke, *Identity and Necessity*, in *Contemporary Analytic Philosophy*, ed. James Baillie (Upper Saddle River, NJ: Prentice Hall, 1997) 400-22.

[10] Kripke, *Identity and Necessity*, 400.

[11] It is important to note that what we ask is whether anybody else could have been the man that actually was Benjamin Franklin, and not whether anybody else could have had that name, nor whether Benjamin Franklin could have been a different type of person than he actually was. Kripke asks whether what we actually "designate" with the name "Benjamin Franklin," with our present understanding of language, or, in Leibniz' terms, in the actual series, could have been another person, and the answer, for both Kripke and Leibniz, is negative. According to Kripke, the person that is picked out by that name could have had a completely different kind of life, but since the name is a rigid designator, whatever it picks out must be the same object in all the situations in which it could figure. This would also be agreeable to Leibniz, because for him a name "rigidly" picks out an object in only one possible world.

[12] With the exception of descriptions of the sort "the square root of 25," which pick out the same object in any possible counterfactual situation, and are therefore rigid, in Kripke's sense (*Identity and Necessity*, 406). Regarding this, Leibniz would say that mathematical truths are necessary, because they can be demonstrably reduced to identities. But what about mathematical objects? Does the notion of the number five include all of its properties? Yes, and they are, arguably, the same in every possible world. Does the notion of the number five mirror every world in which it exists? The answer would have to be positive since the number five does not exist in any world for Leibniz, who rejects the reality of abstract objects.

[13] Saul Kripke, *Naming and Necessity* (Cambridge: Harvard UP, 2001) 58-59 and 74-75.

[14] Kripke, *Identity and Necessity*, 411.

[15] Kripke, *Identity and Necessity*, 411. In footnote 12 Kripke notes that even though these formulations are equivalent formally: $\Box[(\exists x)(x = a) \rightarrow Fa]$ is equivalent to $\Box(x)[\sim Fx \rightarrow \sim(x = a)]$, the latter is

more seductive for modal logic, given its suitability for use in the possible worlds model: it gives a necessary, even if not sufficient, criterion for trans-world identification (420-21).

[16] Kripke, *Identity and Necessity*, 411-12. He addresses the possibility that we find out that the lectern we thought was made of wood is in fact made of ice and his solution is given by pointing out that in establishing essential properties we use a *modus ponens* argument like this:

$P \rightarrow \Box P$

P

Therefore, $\Box P$

(If the lectern is not made of ice, then it is necessary that it is not made of ice. The lectern is not made of ice. Therefore, it is necessary that the lectern is not made of ice.) If the lectern were in fact made of ice (but we didn't know it), that doesn't prove the argument invalid: it just makes one of the premises false.

[17] Kripke's essentialism differs from the traditional, Aristotelian one because while Aristotle talks about essential properties of kinds of things (what makes a thing the type of thing it is – man, table, donkey or lectern), Kripke talks about essential properties that make a thing the very thing it is. Therefore, Quine's paradox of the cyclist mathematician in *Word and Object* (Cambridge, MA: MIT P, 1960) 199, while it raises an interesting question, does not apply to Kripke's type of essentialism. The paradox is as follows: it is an essential property of a cyclist to be two-legged and it is a contingent property of his to be rational. It is an essential property of a mathematician to be rational and it a contingent property of his to be two-legged. If we have an individual who has both "eccentricities," mathematics and cycling, which of these properties count amongst her essential properties and which amongst her contingent ones? It seems that it all depends on how we talk about objects: the essential properties of the cyclist mathematician, taken as an object, are, in Kripke's view, the ones without which we wouldn't identify her as the person she is (e.g., having originated from the particular cells of her parents), regardless of whether she can ride a bike or is drawn to the wonders of mathematics. But if we identify her as a mathematician and a cyclist, we are already into the domain of necessity *de dicto*, and not that of necessity *de re*. We are ultimately compelled by language to say that it is necessary that a mathematician be a rational being, in the same way we are compelled by language to say that it is necessary that all brothers be male and in the same way we would be compelled by language to say that it is necessary that the lectern in this room be in this room, but it would be quite extreme to claim that it is a necessary property of the lectern in question. Kripke refers to necessary (essential) properties of objects, and while it is not free from difficulties, his view remains, I believe, untouched by Quine's critique.

Bibliography

Adams, Robert M. *Leibniz: Determinist, Theist, Idealist.* New York: Oxford UP, 1994.

Ishiguro, Hide. *Leibniz's Philosophy of Logic and Language.* Ithaca, NY: Cornell UP, 1972.

Jolley, Nicholas. Ed. *The Cambridge Companion to Leibniz.* Cambridge: Cambridge UP, 1995.

Kripke, Saul. *Identity and Necessity.* In *Contemporary Analytic Philosophy.* Ed. James Baillie. Upper Saddle River, NJ: Prentice Hall, 1997.

Kripke, Saul. *Naming and Necessity.* Cambridge, MA: Harvard UP, 2001.

Leibniz, G. W. *Philosophical Essays.* Eds. Roger Ariew & Daniel Garber. Indianapolis: Hackett, 1999.

Mates, Benson. *The Philosophy of Leibniz: Metaphysics and Language.* New York: Oxford UP, 1986.

Quine, Willard van Orman. *Word and Object.* Cambridge, MA: MIT P, 1960.

Rescher, Nicholas. *The Philosophy of Leibniz.* Englewood Cliffs, NJ: Prentice-Hall, 1967.

Russell, Bertrand. *A Critical Exposition of the Philosophy of Leibniz.* London: George Allen & Unwin, 1967.