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Infinite Regress of Recurring Questions and Answers

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INFINITE REGRESSES AND RECURRING QUESTIONS

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Abstract:

I examine a number of infinite regress arguments whose infinite regresses are presented or described in terms of recurring questions and answers in order to determine whether such recurring questions have any role in generating these infinite regresses, or in disqualifying the recurring answers. I argue that despite the existence of such infinite regress arguments and the suggestions of some philosophers, these recurring questions have no such roles. Some ways of handling these infinite regress arguments are then proposed.

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The infinite regress in *some* infinite regress arguments is presented or described in terms of recurring questions and answers. There are a few reasons why I want to examine the role of such recurring questions. First, they are sometimes used to capture the gist of an infinite regress argument. A case in point is Bradley's famous infinite regress argument against the reality of relations. Stout summarizes the argument's complex regress-generating component in the following way: (1) "In its simple form the whole point of the argument is contained in the *reiterated question*—What connects the relation and its terms?".1 Secondly, infinite regress arguments are typically presented in a very terse way, and so the mere fact of using or referring to recurring questions in such a compact context gives the impression that such questions have an important function. Thirdly, the comments of a few philosophers *suggest* that these questions do have a role to play in either the derivation of an infinite regress, or in the disqualification of the recurring answers. I will examine their comments and some examples in order to determine the roles of such questions. This discussion will then lead to a few suggestions regarding our handling of such infinite regress arguments.

Some philosophers believe that some infinite regresses are the result of recurring questions. Consider J.W. Dunne's comments.

> (2) Now, a series [i.e. a regress] may be brought to light as the result of a question. Someone might enquire, 'What was the origin of this man?', or a child learning arithmetic might set to work to discover what is the largest possible whole number. The answer to the first question has not yet been ascertained: the answer to the second can never be given. It will be seen, however, that the reply in each case *must* develop as a series of answers to a series of questions. In the first instance, we reply that the man is descended from his father; but *that* only *raises* the further and similar question, 'What was the origin of his father?'. In the second case the child will discover that 2 is a greater number than 1; but he is *compelled* to consider then whether there is not a number greater than 2—and so on to infinity. A question which can be answered *only at the cost of* asking another and similar question in this annoying fashion was called by the early philosophers, 'regressive', and the majority of them regarded such a 'regress to infinity' with absolute abhorrence.2

If the same kind of answer "only raises the further and similar question", and if a question "can be answered only at the cost of asking another and similar question", then, according to Dunne, a regress "may be brought to light as the result of a question". This language suggests that the questions have a role to play in the generation of the infinite regress. I can only say that it suggests such a role because the author could have meant by "brought to light" that the questions simply expose or accentuate the regress.

My second example comes from Jay Rosenberg. He describes an infinite regress argument advanced against a "Volitionist theory" of action. According to that theory, we are responsible for our voluntary acts. The regress begins when there is an attempt to explain what a voluntary act is. One answer is that a voluntary act(1) is one caused by an act(2) of will.

> (3) And now we can see where the infinite regress comes in. For the *same question*—[Is the act of will] voluntary or involuntary?—*arises* for these new acts of will, and, for the same reasons, it *must* receive the same *answer*. *It follows*, then that a voluntary act must be preceded by an infinite series of acts of will, each causing the act which follows it.

> [...] The [Volitionist] theory holds, [...] that the voluntariness of an act consists in its being caused by an act of will. But what we have now discovered is that not just any act of will is good enough. It must, in fact, be a *voluntary* act of will. And if this is so, we haven't been given an answer to our original question. We can only understand *this* answer if we already know what makes an act of will voluntary. But our question is, *What makes **any** act voluntary*? The *only course open to us* is to apply the theory again. When we do so, however, all we find is that we need yet another *voluntary* act of will. *The question does not go away.*[3]

Rosenberg does say in the first sentence that "the infinite regress comes in" *because* "the same question [...] arises, and [...] it must receive the same answer". Again this language suggests that recurring questions are involved in the derivation of an infinite regress.

If I am to determine whether recurring questions have any role to play in the derivation of an infinite regress, I must have a clear idea of what the regress is. Just as with most infinite regress arguments, both of the above examples fail to spell out clearly the first few steps. I will identify the steps of Rosenberg's regress and insert the appropriate questions among those steps.

> Given: There is a voluntary act(1).
> Question: What makes act(1) voluntary?
> Answer: Voluntary act(1) is caused by an act(2) of the will.
> Question: Is act(2) of will voluntary?
> Answer: Voluntary.
> Question: What makes act(2) of will voluntary?
> Answer: Voluntary act(2) (of will) is caused by an act(3) of the will.
> Question: Is act(3) of will voluntary?
> Answer: Voluntary.
> Question: What makes act(3) voluntary?
> Answer: Voluntary act(3) (of will) is caused by an act(4) of the will, *ad infinitum*.

So the first steps of the regress are, Voluntary act(1) is caused by voluntary act(2) of the will. & Voluntary act(2) (of will) is caused by voluntary act(3) of the will. & Voluntary act(3) (of will) is caused by voluntary act(4) of the

will, *ad infinitum*.

I will next argue that recurring questions do not generate this infinite regress. The first obvious response is that these questions do not entail their answers. For no contradiction results by raising any one of the questions and denying the next step of the regress. For example, there is no contradiction in raising any question having the form, "What makes act(n) voluntary?", and in denying any answer having the form, "Voluntary act(n) is caused by an act(n+1) of the will".

Secondly, an infinite regress is entailed only if each one of its infinitely many steps is entailed. The relation of entailment holds only among statements. Though a step of an infinite regress is a statement, no question is a statement, and so, no question can entail a step of a regress. So, an infinitely recurring question cannot entail the infinitely many steps of an infinite regress, and therefore cannot entail an infinite regress.[4]

Thirdly, if we grant that the recurring questions in an infinite regress argument are genuine, they do not restrict the possible range of correct or incorrect answers to a specific answer. Moreover, no respondent is logically constrained by a question to answer always with the same type of answer: the respondent can always answer differently.[5] For example, no one is logically constrained to respond to any question of the form, "What makes act(n) voluntary?", with an answer of the form, "Voluntary act(n) is caused by an act(n+1) of the will". But if an infinite regress of recurring questions and answers is to be generated, then, as illustrated in the regress of voluntary acts of will, the recurring answers must be of the same form. But since it is not the case that they must be of the same form, an infinite regress of recurring questions and answers is not generated.

If we feel logically compelled to respond with the same kind of answer to any recurring questions, and the answers form a regress constructed from a binary relation, as is the case in Rosenberg's example, it is because we implicitly assume a regress formula. A *regress formula* is any universal statement (or conjunction of universal statements) that in conjunction with a triggering statement generates by means of a recursive procedure a series of successive instantiations each one containing a new triggering statement and the next distinct step of a regress. A *triggering statement* is any statement that triggers an instantiation of a regress formula. In the Rosenberg example, we assume the conjunction of the regress formula "For any voluntary act(n), there is a voluntary act(n+1) of will, and act(n) is caused by act(n+1) of will" and a triggering statement of the form "There is a voluntary act(n)".[6] The conjunction entails the following instantiation containing a new triggering statement and the first step of the regress: "There is a voluntary act(2) of will; and voluntary act(1) is caused by a voluntary act(2) of will". The conjunction of this new triggering statement and the regress formula entails a second instantiation of the formula containing a new triggering statement and the second step of the regress: "There is a voluntary act(3) of will; and voluntary act(2) is caused by a voluntary act(3) of will". This logical process continues *ad infinitum*. In the example from Dunne, one is logically compelled to present the same kind of answer to endlessly recurring questions, "What is the origin of this man?", because one assumes the regress formula, "Every man originates from another man".

Such a logical compulsion can arise even if an infinite regress argument only *alludes* to the recurrence of a question. Consider the following example.

> (4) If convention establishes the said validity, then we **need to ask the same question about** the validity of that very convention or "ordinary experience". If such an experience is accepted as valid, **what establishes its validity?** If another convention, then we have an infinite regress.[7]

The first step of the regress, convention(2) establishes the validity of convention(1), is an answer to the question

"What establishes the validity of convention1?". It is suggested that there then arises the question, "What establishes the validity of convention(2)?", and the next step of the regress is the answer: convention(3) establishes the validity of convention(2). One feels logically compelled to infer that the same kind of answer recurs to such recurring questions because one assumes a regress formula similar to the following: given a convention x, there is a convention y that establishes the validity of x.

Without a regress formula, none of the infinite regress arguments expressed in terms of recurring questions and answers would entail the intended infinite regresses. Regress formulas are thus necessary for the derivation of infinite regress of recurring questions and answers, and this is why we must assume them.

Sometimes the compulsion to give the same kind of answers that are part of an infinite regress arises because either the presupposition of infinitely recurring questions is a regress formula, or the presupposition and some assumptions in the context of the recurring questions together entail a regress formula. I will illustrate the latter with Aristotle's regress argument against the claim that the soul is infinitely divisible:

> (5) Some hold that the soul is divisible, and that we think with one part and desire with another. If, then, its nature admits of its being divided, what can it be that holds the parts together? Surely not the body; on the contrary it seems rather to be the soul that holds the body together; at any rate when the soul departs the body disintegrates and decays. If, then, there is something else which makes the soul one, this would have the best right to the name of soul, and we shall have to repeat for it the question: *Is it one or multipartite*? If it is one, why not at once admit that *the soul* is one? If it has parts, once more the question must be put: *What holds **its** parts together*?, and so on *ad infinitum*.8

The endless recurrence of the question, "What holds *its* [i.e. the divisible soul's] parts together?", presupposes that (1) whenever a soul[S] is divisible[D], its parts are held together by something else, in other words, something else unifies[U] the soul: $(x)(Sx \& Dx \supset (Ey)(yUx))$. There are three other assumptions in the context of the two recurring questions that contribute to the derivation of a regress formula. The claim that (2) if something else "makes the [divisible] soul one, this would have the best right to the name 'soul'", and the tacit assumption that (3) anything that has the best right to the name "soul" is a soul, together entail that, if this "something else" makes the divisible soul one, it is a soul. The third assumption is that (4) all souls are divisible. From the conjunction of (1), the statement entailed by (2) and (3), and (4), there follows the regress formula that "If soul x is divisible, there is another divisible soul y that unifies x": $(x)(Sx \& Dx \supset (Ey)(Sy \& Dy \& yUx))$.9

I have argued that endlessly recurring questions are not logically involved in the derivation of an infinite regress. Next I want to consider whether endlessly recurring questions disqualify proposed answers in an infinite regress argument presented or analyzed in terms of recurring questions and answers.

It does not take much reflection to realize that there is no such disqualification. For endlessly recurring questions do not eliminate the possibility that each answer is correct. For example, a child can persistently ask, "Why?", despite each satisfactory answer. There are also some serious problems with the belief that endlessly repeated questions of the same type suffice to disqualify proposed answers. For if it were true, its truth could not be proven: any advanced support for the belief would be disqualified by recurring questions of the form, "What justifies this support?". The belief is also self-refuting or self-nullifying. For any proposed explanation of the meaning of that claim would be disqualified by recurring questions of the form, "What is the meaning of this meaning?". Hence, that belief would be meaningless, and a meaningless statement cannot be true.

Since recurring questions do not disqualify answers, then whenever philosophers present such questions as having such a disqualifying function, we must look elsewhere in order to determine what disqualifies recurring answers. I will illustrate this with two examples.

Hume's language in one particular infinite regress argument *suggests* that recurring questions do disqualify answers. He uses that argument to attempt to establish that the ultimate connection of causes and effects has "no just foundation".10

> (6) It shall therefore be allow'd for a moment, that the production of one object by another in any one instance implies a power; and that this power is connected with its effect. But it having been already prov'd, that the power lies not in the sensible qualities of the cause; and there being nothing but the sensible qualities present to us; I ask, why in other instances you presume that the same power still exists, merely upon the appearance of these qualities? Your appeal to past experience decides nothing in the present case; and at the utmost can only prove, that that very object, which produc'd any other, was at that very instant endow'd with such a power; but can never prove, that the same power must continue in the same object or collection of sensible qualities; much less, that a like power is always conjoin'd with like sensible qualities. Shou'd it be said, that we have experience, that the same power continues united with the same object, and that like objects are endow'd with like powers, I wou'd renew my question, *why from this experience we form any conclusion beyond those past instances, of which we have had experience.* If you answer this question in the same manner as the preceding, *your answer gives still occasion to a new question of the same kind, even **in infinitum***; *which clearly proves, that the foregoing reasoning had no just foundation.*
>
> Thus not only our reason fails us in the discovery of the *ultimate connexion* of causes and effects, but even after experience has inform'd us of their *constant conjunction,* 'tis impossible for us to satisfy ourselves by our reason, why we shou'd extend that experience beyond those particular instances, which have fallen under our observation.11

The language in italics suggests that it is the endlessly recurring questions that disqualify the recurring answers in which one appeals to experience. Rather, they are disqualified by Hume's claim that it has already been "prov'd, that the power lies not in the sensible qualities of the cause; and there being nothing but the sensible qualities present to us; [... consequently] Your appeal to past experience decides nothing in the present case". It thus follows that past experience "can never prove, that the same power must continue in the same object or collection of sensible qualities; much less, that a like power is always conjoin'd with like sensible qualities".

Rosenberg also thinks that recurring questions disqualify proposed answers to those questions but, just as with Hume's example, it is something other than the recurring questions that does the disqualifying. Consider again the example of the Volitionist theory of action. According to Rosenberg, a recurring question of the form, "What makes act(n) voluntary?", "disqualifies the proposed answers as answers, *for* something [a statement] qualifies as an answer to a question *only if* one can understand it [the statement] without already knowing the answer to the question".12 Since one cannot understand the answer ("Voluntary act(n) is caused by a voluntary act(n+1)") without knowing the answer to the question "What makes an act voluntary?", the answer is disqualified as an answer. Disqualification occurs because the answer uses the very concept (that of a voluntary act) that it is supposed to explain, so that the explanation it gives is circular. And it is this defect that disqualifies the answer as

an answer, not the recurring questions.13

If recurring questions do not disqualify their answers, are they at least a sign that there is a defect in the answers? The preceding examples suggest this role for recurring questions in infinite regress arguments. However, some answers for recurring questions do not have any defect. Consider the following examples.

The first one only hints that the same type of question recurs.

> (7) If one argues in a metalanguage that a theory is consistent, "[t]hen we *may ask whether the metalinguistic theory in which the proof is given is consistent*. Thus, the attempt to formalize all proofs of consistency leads [...] to an infinite regress."14

The successive answers will be, theory T2 proves that theory T1 is consistent; T3 proves that T2 is consistent, and so on. Each one of these answers is satisfactory.

In my second example, Plato alludes to an infinite regress by means of successive questions.

> (8) A man is a friend, we said, to the medical art for the sake of health. We did.
> Is he a friend to health too? To be sure he is.
> For the sake of something? Yes.
> For the sake of something, then, to which he is friendly, if this, too, is to follow our previous admission? Certainly.
> But is he not again a friend to that thing for the sake of some other thing to which he is a friend? Yes.
> Can we possibly help, then, being weary of going on in this manner [...]? *Lysis* (219b-c).15

The form of the recurring question in this passage is, "For the sake of what is x a friend of z?", and the form of the recurring answers is "For the sake of z to which x is a friend". Again there is nothing defective about these answers.

For my third example, recall the second one given in this paper. The question "What was the origin of this man?" The successive answers are, man(1) originates from man(2), man(2) originates from man(3), man(3) originates from man(4), and so on. For my final example, recall the fifth example in which Aristotle discusses the unity of the soul. There is nothing defective in the successive answers, soul(2) unifies soul(1), soul(3) unifies soul(2), soul(4) unifies soul(3), and so on.

The examples of infinite regress arguments that are presented in terms of recurring questions lead me to an important distinction. I have shown that in some cases it is each recurring answer that is in itself unacceptable. In Hume's example each repeated answer has been rejected by the same prior argument; in Rosenberg's example each answer is circular. But in other cases each answer is in itself acceptable. But if each answer is acceptable, then it seems that, if there is a problem, it is the totality of all these answers in an infinite regress that leads to the problem. This distinction is important because it is only in the latter case that it is necessary to investigate the generation of an infinite regress and its (assumed) viciousness.

Even though I have shown that recurring questions are not logically involved in the generation of infinite regresses,

they can nevertheless be useful. Compare each of the following questions to the regress formula that generates the infinite regress which misleadingly appears to be generated by the endless recurrence of each question.

(a) What is the origin of this man?

Every man originates from another man.

(b) What makes act_n (of will) voluntary? Is $act_{(n+1)}$ voluntary?

For any voluntary act(n), there is a voluntary act(n+1) of will, and act(n) is caused by act(n+1) of will".[16]

(c) What establishes its convention's validity?

Given convention x, there is a convention y that establishes the validity of x.

(d) Is the soul one or multipartite? What holds the soul's parts together?

If soul x is divisible, there is another divisible soul y that unifies x (or that holds the parts of x together).

(e) Is the metalinguistic theory in which a proof is given consistent?

For each metalinguistic theory x there is another metalinguistic theory y that proves x to be consistent.

(f) For the sake of what is x is friend of y?

If x is a friend of y, then there is a z, x is a friend of y for the sake of z, and x is a friend of z.

As the preceding examples illustrate, these questions could be useful because their content and form can suggest aspects of the regress formula.

What practical suggestions can we draw from my investigation of some infinite regress arguments that are presented in terms of recurring questions? When evaluating someone else's argument, we should determine whether each recurring answer is in itself intended to be acceptable or unacceptable. If each answer is *in itself* acceptable, then we must determine whether the intended regress of recurring answers is in fact entailed; in such cases we can make use of the "recurring" questions to identify some part of the regress formula; and we must also determine whether the infinite regress is vicious. However, if each recurring answer is in itself unacceptable, then there is no need to concern ourselves with an infinite regress of recurring answers; but we do have to evaluate the argument(s) showing that each recurring answer is unacceptable.

When presenting our own infinite regress arguments, we should attempt to be more explicit. If any answer of a certain type is unacceptable in a given context, we should simply prove this point and avoid the language that misleadingly suggests that we are using an infinite regress argument. If each answer is acceptable, but their conjunction forms an infinite regress that is vicious (e.g. the regress entails a false or unacceptable statement), it would be simpler and clearer to avoid the language of recurring questions and answer, but instead to state our regress formula, and to justify explicitly why we believe that the infinite regress is vicious.

Let me summarize the main point of this paper. I have given examples of some philosophers whose language

suggests that recurring questions are somehow involved in the generation of an infinite regress. I have argued that such questions are not thus involved. However, I have illustrated that they can suggest some parts of a regress formula. I have attempted to explain that our false impression that recuring questions are logically relevant rests on our tacit use of regress formulas. In some cases a regress formula can be constructed from a presupposition of recurring questions and other assumptions in the context of the questions. I have argued that endlessly recurring questions do not disqualify any answers; illustrated how recurring questions can appear to be used to disqualify answers; showed that not all recurring questions are a sign that their answers are defective; and proposed some practical suggestions for evaluating these arguments, or for presenting them ourselves.

Notes

1. G.F. Stout, "Self-contradictions in the Concept of Relation", *Proceedings of the Aristotelian Society*, N.S. Vol 2 (1902) pp. 1-14.

2. J.W. Dunne, *The Serial Universe* (London: The Scientific Book Club, 1942) pp. 25-26.

3. J. Rosenberg, *The Practice of Philosophy. A Handbook for Beginners* (Englewood Cliffs, N.J.: 1978) p. 49, my bold letters and italics. There is a second edition (1984) of his book. I shall refer only to the first edition because his arguments are more developed in that edition.

4. One could attempt to avoid the preceding two objections by claiming that recurring questions can generate an infinite regress *without* entailing the steps of the regress. However, such a manoeuvre simply invites a request for a description of such a generation, and it is not clear whether such a description could ever be provided.

5. Whether the respondent is the same person as the questioner is irrelevant, for this does not affect the absence of these logical constraints.

6. This analysis is confirmed by John Locke's discussion of the same regress, for he derives the same regress formula *without* making use of any recurring questions. "[T]o make a man free [...] by making the action of willing depend on his will, there must be another antecedent will, to determine the acts of this will, and another to determine that, and so on in infinitum: for wherever one stops, the actions of the last will cannot be free." *An Essay Concerning Human Understanding* (New York: Dover Publications, 1959) Book 2, Chapter 21, section 23, p. 326.

7. Bhasarvajna, *Nyayabhusana*, in *Encyclopedia of Indian Philosophy*, ed. K.H. Potter (Princeton, N.J.: Princeton U.P., 1977) p. 416, my emphasis.

8. *On the soul*, 411b5-13, my emphasis.

9. An infinite regress would be entailed *only if* this formula prevented the recurrence of any term in the intended regress of souls successively unifying each other. However, it is not obvious that this formula blocks all possible such recurrences in this abstract context. For given the relations, "y holds x together" and "y unifies x ", it seems possible for some things to hold each other mutually. For example, if strings hold the perforated leaves of a book

together, it is also the case that those leaves hold the strings together, otherwise there would just be loose strings. I am certainly not excluding the possibility of other interpretations of these relations in this context would block all possible recurrences of a term along the intended regress.

If there were an infinite regress it would be vicious. Aristotle says that whatever makes the soul unified would have the *best* right to the name of "soul". If there is an infinite regress, there would be infinitely many souls, and thus none would have the best right to be called the soul. And this would appear to be inconsistent with Aristotle's belief that something does have that right . Thus, the regress formula is rejected. The explanation of the viciousness does not require any reference to the recurring questions. This is to be expected because viciousness is established only by statements, and questions, unless rhetorical in nature, are not statements.

10. *Treatise on Human Nature*, 2nd ed., edited by P.H. Nidditch (Oxford: Clarendon Press, 1978) p.91.

11. *Ibid*., my emphasis. The quotations in the remainder of this paragraph are from this passage.

12. *Ibid*., p. 49, my emphasis.

13. A comparable example is the fourth one given in this paper. The question "What establishes the validity of this convention?" recurs if the convention's validity is established by another convention. The answer uses the concept (validity) that it is supposed to explain, and this circularity disqualifies the answer as an answer.

14. Merrilee H. Salmon, "Consistency Proofs for Applied Mathematics" in *Hans Reichenbach: Logical Empiricist*, ed. Wesley C. Salmon (Boston, London: Reidel Publishing Co. 1979) p. 626, my emphasis.

15. *The Collected Dialogues*, eds. Edith Hamilton, Huntington Cairns (Princeton, N.J.: Princeton U.P., 1980) p.163.

16. I derived the regress formula for this example even though there was no need to do so in order to explain why we feel compelled to believe that there is an infinite regress—even if there is no logical need for an infinite regress to show that the recurring answers are unacceptable.