

SECTION 4

THOUGHT EXPERIMENTS
IN PHILOSOPHY

METHOD OF IMAGINATIVE VARIATION IN PHENOMENOLOGY

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I

PHILOSOPHERS have often used thought experiments in support of their theses. Kant uses arguments which look like being such thought experiments. Towards the beginning of the *Transcendental Aesthetic*¹ of the *Critique of Pure Reason*, Kant asks us to remove from a given case of knowledge all that is due to understanding and its concepts—till we are left with nothing but an empirical intuition. Then he separates from this empirical intuition all that belongs to sensation, so that nothing remains but pure intuitions of (extension in) space and (duration in) time. These two then are due neither to thought nor to sensation.

This “separating” and “removing” are not real separation and real removing, but *thought* operations. I will be returning to questions about their precise nature later in this paper. For the present, it is interesting to note that Kant did not apparently consider this little thought experiment to be a satisfactory proof of his thesis that space and time are *a priori* intuitions, for immediately afterwards he proceeds to advance the more well-known metaphysical and transcendental “expositions” of space and, then, of time.

Even in course of the so-called “metaphysical” exposition, he gives us an argument—the second *Satz*, in each case—which has the flavor of inviting us to undertake a *Gedankenexperiment*. Space is a necessary and *a priori* representation, because: “We can never represent to ourselves the absence of space, though we can quite well think it as empty of objects.”² In the literature on Kant, one finds—as one would expect—three sorts of interpretations of what Kant is doing: a psychological, a logical, and an epistemic. I would rule out a reading which ascribes to Kant the view that the idea of space is logically necessary—such a view is utterly incompatible with his overall position about the matter. Other sorts of space, and other modes of intuition of which space (and time) are not forms, are indeed thinkable, but they are not true of our space or our sensibility. It is only on a logical reading that the Kantian argument would not amount to a *Gedankenexperiment*. Both the other readings—the psychological and the epistemic—leave this possibility open. These two readings would differ

only as to the nature and implications of this experiment, and also as to how precisely to interpret him so that the argument comes out at least plausible. There is no doubt, however, that Kant is asking us to follow him in checking something out. "Representing" for Kant means either "intuiting" or "thinking" or, as in our present case, "imagining" (for we are asked to represent the absence of something). So Kant appears to be asserting any of these four propositions

- (i) We cannot *think* the absence of space, just as we can *think* space empty of objects
- (ii) We cannot *imagine* the absence of space, just as we can *imagine* space empty of objects.
- (iii) We cannot *imagine* the absence of space, just as we can *think* space empty of objects.
- (iv) We cannot *think* the absence of space, just as we can *imagine* space empty of objects.

Of these four possibilities, (i) and (iv) cannot be what Kant is asserting—for on his view we can think of absence of space (and yet think of objects) insofar as we do think of things in themselves, and also of a possible (though not given to us) faculty of intellectual intuition. We cannot however *imagine* such absence of space, for our imagination is bound to our epistemic conditions. (ii) also cannot, in view of Kant's well known assertions to the effect that we cannot intuit (and so imagine) empty space, but we surely do think of empty space (as in pure geometry). Kant's position, then, must be (iii)—that although we can *think* of space as such (without thinking of any objects in it), we cannot *imagine* the absence of space (while continuing to think of perceptible objects). The fact that "represent" is being used in different senses in the two parts of the proposition threatens the argument with a concealed asymmetry, and so the point of the thought experiment.

The purpose of this excursion into Kant exegesis is not merely to emphasize that Kant was making use of some sort of thought experiments, but also to draw attention, as in the last paragraph, to the fact that any satisfactory explanation of what it is all about depends, to a great extent, upon getting clear about the relation between "imagining" and "thinking," and so between imaginary experiments and thought experiments—to which I will address myself in the concluding section of the paper.

II

This brings me to the main topic as indicated by the title of this paper: namely the use of the method of imaginative variation (sometimes called "free variation," also "eidetic variation") in phenomenology. Insofar as the phenomenologist sought to describe the essence or essential structures of regions of phenomena, the method he employed was the method of imaginative variation. The domain whose essential structure is to be described may be material nature, works of art, moral experience, or, as was more

importantly the case, conscious experience itself. In any case, application of the method requires the following steps:³

- i. Start with an actual or imagined instance of the sort under consideration. This *arbitrarily* chosen example will serve as the model for projecting
- ii. an infinitely open multiplicity of variants upon it, which are to be produced in imagination voluntarily and arbitrarily.
- iii. As step ii proceeds, a unity, an invariant structure shows itself as that but for which the the example arbitrarily chosen as example (of the sort of thing under consideration) would not be thinkable as an example of its kind.

Note that the entire process takes place within the sphere of imagination. Although the particular case we start with may well be an actually existing and perceived thing of the sort, the process does not take off as long as we do not, by a change of attitude, mentally "transform" it into a merely possible exemplar of that type. Let me dwell upon this a little longer before passing on to the subsequent stages of the process.

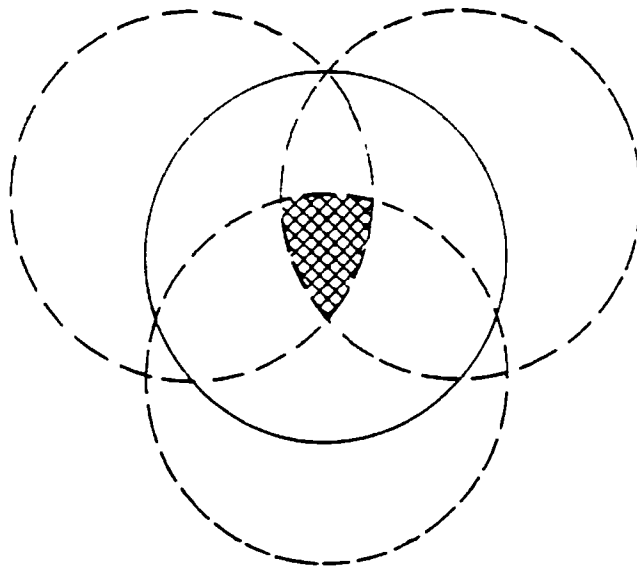
1. A thought-experiment properly so-called is not to be mistaken for a mental reproduction, reiteration, or anticipation of what is in fact a proper physical experiment. If instead of, or prior to, actually performing a physical experiment, an experimenter rehearses in his mind the steps of that experiment, he is not doing a thought experiment. He is thinking about, imagining or remembering—as the case may be—that physical experiment. A genuine thought-experiment—if our talk about thought-experiments is to be significant—must be a process which cannot be reiterated physically. Kant's procedure satisfies this requirement. We cannot really separate out the elements contributed by intellect (on his theory) from a concrete case of empirical cognition. We can only do so in thought. Likewise with Husserl's method of imaginative variation. If I start with an actually heard musical tone, with a view to ascertaining what must belong to musical tones essentially, I cannot really *alter* that tone to an imagined one—as the method requires me to do to begin with. But, by a change of attitude, I can focus only on its content, *think away* its actual existence here and now, and regard it as a possible musical tone. Or, to put it in another way, every real existent can *first* be regarded as an actualized possibility, and may *then* be considered merely as a possible and not as to its actuality.⁴ Such a change of attitude does nothing *real* to the real existent. But it does, for my thought, "transform it" into one pure possibility amongst other possibilities. Richard Zaner, in a striking locution, calls it "an act of possibilizing."⁵ There is an aspect to this act which needs to be emphasized. The exemplar is taken as any arbitrary case. The choice of the exemplar must be accompanied by the consciousness of its being chosen *arbitrarily*.⁶ Any other could also have been chosen. They are all of "equivalent substitutional value."⁷

2. So far with regard to step one. The next step consists in imagining variants of this exemplar, again arbitrarily and without regard to the real existence or non-existence of such variants. If Kant's method in the text cited was one of imaginative elimination, Husserl's is one of variation. We

may just not know what to eliminate. We may however imagine instances in which certain features of the exemplar are present in different degrees or intensities, or with a different spread, or perhaps are altogether absent. If we are out to determine the essence of human beings, we may imagine not only familiar variations in height, weight, color of the hair, eyes, and skin, but also—sheer-arbitrarily—such variants (à la Strawson) as one (human) person *having* three different bodies rather than one unique one as his own. Here also each variant is characterized by the feature “arbitrarily chosen”; or, rather, its imagination is a free operation. Since this process could be continued *ad libitum*, this arbitrariness of the variants considered makes it *reasonable* to stop the process at any point and take stock of the invariant structure that has emerged along the way.

3. The third, and the final step, has two aspects which it would be helpful to state separately.

- (a) It appears as though in many cases the series of variants would, by itself, bring into focus a common core of features, properties, structure with regard to which the variants, arbitrarily fabricated, will achieve a *congruence*. Represented schematically, the situation would look like this:



If the circle with unbroken line is the original exemplar and the broken-line circles variants upon it, the shaded area at the center is the common core with regard to which they exhibit a congruence: It is the set of features constituting the *eidos* of the class under consideration.

- (b) The *eidos* may also be regarded as that which acts as the restraint upon the arbitrary variations. The variations, arbitrarily and freely undertaken, begin to exhibit a restraint, a necessity to which any variant is subject, if we are to continue to regard it as an exemplar of the sort under consideration. All those variations which are compatible with being still such exemplars show the congruence as in (a) above; all those variations which are not so compatible show that the requirements of the *eidos* have been overstepped. Suppose we are seeking to determine the *eidos* ϕ . In each case of a variant imagined, we ask “Is this a ϕ ?” till we reach a point where the negative answer is compelling. In that case, the *eidos* is in view by that very transgression.

III

Now that we have all the features of the method in its rudiments, we may consider some obvious problems about it. Some of them have been pointed out in the secondary literature, but some not. In trying to respond to these we may gain a better understanding of the underlying assumptions of the enterprise, and of its nature even as a method.

First of all, one wonders if there is as much difference between this method and the familiar inductive method⁸ as is supposed to be the case. One can support this concern by pointing (i) to the fallibility and corrigibility of the result, (ii) to the misleading nature of the requirement of "arbitrariness," and (iii) to a lack of significance of the question whether the examples surveyed are real or fictive. As to (i), it is undeniable that Husserl did make unnecessarily strong claims on behalf of the method, for example, that it yields an apodictic insight into an essence. But one has to concede that here, too, as in the case of method of any sort, one must distinguish between what the method is contrived to give knowledge of and whether, in any given case, this cognitive goal is successfully reached. No method is fool-proof and no cognitive claim is incorrigible. The essence is a transcendent reality—transcendent in the sense of being other than the mental process which aims at it. There is no *a priori* guarantee that every cognitive claim made by pursuing this or any other method will hit the target with unerring certainty. Various things may go wrong. One may start with a case that is not the right exemplar. One may give up the possibilities of permissible variation too early; one's power of imagining variants may come to its limits too quickly. (Just ask how many of us thought of the possibility, to which Strawson draws our attention, that my mental life may in fact be dependent, in three different manners, on three different bodies?) Or, even after rightly reaching such limits, one may still go wrong in focusing upon what features constitute the constraints on possible variations. No method can guarantee *a priori* that subjective defects of the investigator or unobserved objective impediments do not vitiate the result. *By intention*, however—and this is the point of the phenomenologists' exaggerated claims—in case an essence has been discovered, such discovery must be apodictic.

Conceding this defeasibility, however, should not lead us to say that there is no difference between the method of imaginative variation and induction. Induction is based upon examples which are actually existent cases. Imaginative variation, from the very beginning, is geared to what is possible. Each case, whether the initial paradigm or an arbitrary variant upon it, is a possibility. The concern is with the domain of possibilities, not with what is or is not actual.

Turning now to (ii), we may formulate the objection thus. A key feature of the method at each stage of its unfolding lies in *arbitrariness*. The

mathematical analogy here is not to be missed. There is no doubt that this analogy was present in Husserl's mind. He writes:

In his investigative thinking the geometer operates on the figure or model incomparably more in phantasy than in perception, and even more so does the "pure" geometer, i.e., the one who dispenses with algebraic methods. In phantasy, to be sure, he must make an effort to attain clear intuitions from which he is exempted by the sketch or model. But in actually sketching and constructing a model he is restricted; in phantasy he has incomparably more freedom reshaping at will the figures feigned, and in running through continuously modified possible shapings, thus in generating an immense number of new formations; a freedom opens up to him for the very first time an access to the expanses of essential possibilities with their infinite horizons of eidetic cognitions. For that reason the sketches normally come after the phantasy-constructions and the eidetically pure thinking done on the basis of the latter and serve chiefly to fix certain stages in the previously performed process, thereby making it easier to presentiate again. Even where one "ponders" while looking at the figure, the processes of thinking which follow are, with respect to their sensuous substratum, processes of phantasy the results of which fix the new lines in the figure. In its most universal features, the situation is no different for the phenomenologist who deals with reduced mental processes and their eidetically necessary correlates. There are also infinitely many eidetic phenomenological formations. He too can use the resource of originary givenness only to a limited extent. To be sure, in the mode of originary givenness he has at his free disposal all the chief types of perceptions and presentations as perceivable exemplifications for a phenomenology of perception, phantasy, memory, etc. In so far as the most universal essences are concerned, in the sphere of originariness he has at his command in the same way examples of judgments, deeming likely, feelings, and willings. However, of course he does not have examples for all possible particular formations any more than the geometer has sketches or models at his disposal for the infinitely many kinds of solids. Here, in any case, the freedom of eidetic research also necessarily demands operating in phantasy.⁹

Is the analogy with *pure* geometry perfectly sound? Is the idea of "arbitrariness" as securely productive of universality in philosophy, as it is in mathematics? Without entering into large problems indicated by these questionings, I will formulate only two of my anxieties. First, consider mathematical induction: In case whenever an arbitrary number n has a property p , its successor has also that property, every number has the property p . Although a *logical* proof of the principle is beyond my ability, this much seems to me clear: The relation of "successor" is constitutive of the domain of natural numbers. There is nothing like this—no generating relation *to begin with*—in the domain of things other than numbers: no relation by which from any arbitrary n (a human being, perceived or imagined) one could (in imagination) construct other humans. Note that in the case of arithmetic, such a rule is already available. In the case of our search for essences (of humans, if you like), we are *after* such a rule. From any arbitrary exemplar, with totally arbitrary phantasy variations (as long as the variants are to be called humans), the philosopher hopes to be able to isolate a rule of construction. For the essence is such a rule, as Kant most clearly saw:

"Der Begriff vom Hunde bedeutete eine Regel, nach welcher meine

Einbildungskraft die Gestalt eines vierfüßigen Tieres allgemein verzeichnen kann, ohne auf irgend ein einzige besondere Gestalt, die mir die Erfahrung darbietet..., eingeschränkt zu sein" (*Kr.d.r.V*, A 141). The point I am trying to make is, then, this: With regard to numbers, arbitrary choice of n is followed by construction according to a rule in accordance with a function generating n' ; *in the case of imaginative variation, imagination creatively, with a full consciousness of freedom, invents variants, while thinking looks for a secret rule underlying such creativity.*

What about geometry, which is what the Husserl text quoted is chiefly concerned with? The geometrician's free variation upon an arbitrary curve or figure, by the very nature of the subject matter, has to be *spatial*, so that there is already a defining restriction acknowledged to begin with. In the case of our philosophical search for essences, we still do not know—supposedly in our primitive innocence—whether, for example, having a body at all, or if having a body with two hands and two legs, is essential for being a human. In other words, we do not start with any definitional restriction upon the domain of variants. We are presumed to be starting with the procedure in complete freedom until it dawns upon us that our free operations were indeed free within a prescribed, though hitherto unrecognized, limit.

The point of these remarks has been to emphasize that the use of the mathematical notion of "arbitrary" indeed may be misleading. The philosophical method carries a greater burden when it promises that free imaginative fabrication will eventually lead to discovering an essence. Seeing this point may help us, as I will insist later in this paper, to appreciate what the method is in fact geared to achieve as contrasted with the claims, often exaggerated, made on its behalf.

For me, then, the method is not induction, even if the result is corrigible. There are, however, two other criticisms that have frequently been levelled against the method. Both are very pertinent. Thinking on them, we may be able to see our way towards a correct appreciation of what is going on. The first of these is that the method—if it is to work—must involve a vicious circularity. The second is that it involves commitment to psychologism of a sort.

First, about the alleged circularity, the method requires that at some point in my imaginatively fabricating variants, I must be able to say, "This is *not* any longer a φ ." The feature, then, whose elimination or variation beyond a certain range makes me say so, must be (within that range) essentially connected with φ or one of φ 's essential features. But how can I say, "This is not any longer φ ," unless I have already an acquaintance with what something must be like in order to be counted as a φ or what something must lack in order to be ruled out from being a φ . For someone who has no idea of what is a φ (except for the exemplar chosen by stipulation), it is not clear whether such a deviant variant is or is not to be counted as a φ . The point of the objection, then, is that a successful application of the method for the purpose of *discovering* an essence presupposes a famil-

ilarity with that essence—even if such familiarity is vague and prereflective. The method then is not a method of discovery, but one of clarification of what we already are familiar with.

As far as I am able to see into the matter, I think that this is an irrefutable objection, and its lesson, as just stated, is important. The method of imaginative variation is not a method of discovery, unless the sense of “discovery” is considerably weakened. We do not proceed from ignorance to knowledge. We rather proceed from a nascent unclarified acquaintance to an explicit, clarified, well-defined formulation. But what is it that we were familiar with and now clarify and raise to explicit consciousness? Is it an essence? or, is it a meaning? My contention is: It is better to construe the method of imaginative variation as a method of clarifying the sense rather than as one of discovering an essence. To the difference between these two construals I will return after briefly dealing with the charge of psychologism.

The charge of psychologism, simply stated, amounts to this: The method assumes that what is possible must be imaginable, and what is unimaginable must be impossible. It is obvious that what was not imaginable at one time is pretty well imaginable now, and it is not unreasonable to hope that many things, unimaginable now, will be imaginable sometime in the future. This suggests that the predicate “imaginable” should always be “imaginable by _____ at time _____.” The predicates “possible” and “impossible” do not seem to call for such modifiers. To these and such criticisms I will offer three answers. In the first place, “unimaginable” in the above argument means either simply impracticable or outside the reaches of practicability or “unimaginable with respect to its practicability” or just “regarded as implausible.” In any case, imaginability (or its opposite) is construed in relation to the real circumstances obtaining or perceived to be obtaining. What we are concerned with in the method of imaginative variation is imaginability apart from the question of realizability under perceived real conditions, that is, imaginability *per se*, as a pure possibility, in any possible world, as the contemporary locution goes. So, we can say that the ancients could very well imagine the earth’s being a sphere but they just could not imagine it *to be the case*, or *how* it could be the case.

Even if this be granted, it may be replied, what guarantee is there that all purely possible variants can be imagined by any and every investigator? To this, I will retort (and this is my second answer): True, but that only shows that what an investigator regards as essence by too hastily delimiting the range of possible variations, is just not the true essence. When, however, other variants are found to be imaginable, the earlier result would need to be revised—revised precisely on the ground of imaginability or its opposite. As I said earlier in this paper, a method does not guarantee

indefeasibility. No scientific method assures that its application is guarantee of the incorrigibility of its result.

Finally, I would even argue that in the long run there is a viable concept of possibility whose elaboration requires appeal to the subjective, epistemic acts through which it, that is, this concept, is *constituted*. No one is saying—not the phenomenologist—that either “logical possibility” or “physical possibility” should be explicated in psychological terms. If that was the implication, psychologism would have been an unanswerable charge. What is called “essential” or “eidetic” possibility is explicated in terms of imaginability. The essence may be regarded in two different ways: metaphysically, as the hidden reality behind the appearances (the essence of water = H₂O), or phenomenologically, as the law of possible appearances. It is essence in the latter sense, the *eidos*, which is determined by imaginability.

I cannot here develop this notion of essential possibility. But it should be emphasized that even this eidetic possibility is not being *reduced to* imaginability. Rather, imaginability and its limits are being used to find out what is eidetically possible or not. This exemplifies the more general phenomenological principle that subjective acts intend objectivities, that there is an essential correlation between types of objectivities and types of subjective acts through which those objectivities are disclosed.

IV

A few concluding remarks:

1. For a thought experiment to be a genuine thought experiment, it must *not* be a mental rehearsal or mental anticipation of a possible physical experiment.
2. Nor is a genuine thought experiment a chain of reasoning of the familiar, even if counterfactual, sort: “What if A were the case? Of course, B. What if B? Of course C. And so on and on.”
3. A genuine thought experiment has to be an imaginative reconstruction of experience, of imaginative “transformation” of realities into fictional possibilities, in order to test hypotheses.
4. With regard to this last point, I would like to add the following remark. I have earlier referred to Strawson’s imaginative variants. In contemporary philosophy, especially with the increasing interest in the idea of possible worlds, there is an enormous use of the idea of pure possibilities in determining relevant essences or invariants across possible worlds. One, for example, asks: What variations in the properties of (actual) Socrates are compatible with the person remaining Socrates? Imagine our Socrates as not being short and snubnosed. Shall we still call him Socrates?¹⁰ There is no doubt that this sort of questioning precisely is what Husserl suggested we do in order to arrive at an essence. But he did not restrict the questioning to the

question of the essence of an individual. He also used a similar questioning to determine if the relation between two essences *A* and *B* is simply contingent coexistence or a necessary unity. In any case, search for essences has to proceed via possible worlds. There is, however, a difference in emphasis in the use the phenomenologists make of the method and the use the contemporary analytical philosophers make. For the analytic philosophers the possible is what is conceivable, what is conceivable is what is compatible with, "compatibility" being defined purely logically. For the phenomenologist, the relevant sense of "possible" is not "conceivable" (in the logical sense), not merely empty, symbolically thinkable, but also *imaginable*, that is, capable of being presented in an intuitive manner. This restriction makes many of the possibilities taken seriously by many philosophers seem rather weird. Recall the fanciful possibilities that come up in discussions of personal identity. They are fanciful, but are they all *imaginable*?

5. Finally, I would like to distinguish—as I hinted at earlier—between construing the method as one of discovery of essences and construing it as one of clarification of meanings. I prefer the latter construal in view of the charge of circularity. Couldn't one say that although one has a prereflective *understanding* of what "man" or "work of art" means, this understanding receives a more precise delimitation and intuitive filling through the above described procedure of imaginative variation—so that the concept can be fixed and the boundaries of its application circumscribed? But couldn't one also say—as Levin does—that there is, prior to the methodical investigation, "a vague...shadow knowledge of the essence, a rough-and-ready empirical typicality," an "as yet transcendently unclarified typicality, the merest intimation of the authentic essence"?¹¹ Out of this empirical typicality, the genuine essence is constituted by the eidetic variation.

Since both the construals are possible, there must be an intimate relation, in spite of the distinction, between the phenomenological concepts of essence and meaning. But this is a large problem outside the scope of the present paper.

6. From what I have said about the method of imaginative variation, it should be apparent that an essence (or essential relationship) is discovered at the very moment the series of variants encounters a resistance. But we have also seen that the resistance, the impossibility of further variations along the same lines, is determined by the prior understanding of the sense, or by the prior, implicit grasp of what the essence could be. If one keeps these two sides of the situation in mind, one may be able to understand why Husserl wanted to use both the realistic locution of "discovery," and the anti-realistic locution of "constitution." The implication is that the very same process which claims to "discover" the essence, is also the process by which that essence is

brought into being. The essence is fixed by the very same *decision* which prohibits any further variant along that line. If further inquiry shows the legitimacy of admitting still more radical variants, we shall locate the essence elsewhere, constitute it anew, revise our prior claim to discovery, and replace it by a new claim.

POSTSCRIPT

In course of his comments on this paper, Professor Richard Gale has raised a number of important objections against the method of eidetic variation, to *some* of which I will briefly reply.

The term "thought experiment" does not, as a matter of fact, have any "ordinary extension," and, even as used in the context of the physical sciences, it has conflicting uses. The stipulation, then, that a "genuine" thought experiment, in philosophy at least, must be a process which cannot be reiterated physically, is neither unduly restrictive nor conflicting with ordinary usage. What is pertinent is that the question of its physical realizability is just irrelevant as to its philosophical significance. If *this* much of relaxation of my original requirement would ease some of the anxiety, I would go along.

More important is the objection that the emphasis on imagination, as opposed to thinking, leads to a solipsism that cuts the researcher (the imaginer) from the community of enquirers. To this, and other related objections, I will reply by insisting on four points. In the first place, to imagine a thing (such as a multiply-bodied person) is not to entertain an image (à la Sartre); it is rather to have the thing *intuitively* present even when it is in reality absent. One imagines the thing and in articulating it describes the thing being imagined rather than the image (if there is any such) in the mind. Secondly, if in the case of perceptible things such as physical objects, it might appear that imagining variations is really having appropriate sensory images (contrary to what has just been said), that is not so in the case of abstract entities such as numbers, moral values, legal rights, and logical relations. Even with regard to these, there is an important distinction between empty talk and talk that is backed by intuitive "filling" or evidence. In other words, certain descriptions "make sense"—in a sense that is more than being merely consistent and permissible (by the syntax and semantics of the language). In the case of numbers, for example, imaginative variation amounts to, not imagining variations (in the restricted sense of sensory, inner representation), but *constructing* variations (in the sense of "construction" appropriate to the domain under consideration). Thirdly, one would still want to rule out lots of purely fictional use of *merely empty* descriptions. (Recall such *stories* as a person *A*, at a certain stage of his biography, becoming two persons *A'* and *A''*, both continuous with *A* and claiming to be *A*.) Finally, since there is no appeal to the privacy of the investigator's inner life, what is or is not imaginable may, indeed must, be decided by a community of investigators.

Finally, I want to make a few remarks regarding the objection that the

phenomenological essence (discovered by the method under consideration) is completely cut off from the scientific essence. By "possibilizing" things, it deprives them of their relations (including causal interactions) to other things; it lets this essence stand isolated from the worldly context. However plausible such a consequence may appear to be, closer examination would show that it does not follow from the phenomenological method. Let us suppose that we are seeking to ascertain the essence of a material object. Running through possible variations, one would find not only that a material object needs to be extended but also needs to causally interact with its surrounding world. Thus it would seem—and Husserl recognized this—that to be causally efficacious belongs to the essential constitution of material objects. It may likewise belong to the essence of persons—as ascertainable by a similar method of variation—that a person must enter into a relational (social, moral, legal) structure.

While there is no gazing at an isolated thing with its isolated essence, it must however be added that the phenomenological essence (for the determination of which the method under consideration is suitable) is not the scientific essence. In the phenomenological sense, the essence of water is not H₂O. The phenomenological essence is the invariant law of phenomena, not a hidden structure behind the phenomenal appearances.

NOTES

1. *Critique of Pure Reason*, A22-B36.
2. *Ibid.*, A24-B38/9.
3. Edmund Husserl, *Experience and Judgment*, ed. and tr. by James S. Churchill and Karl Ameriks (Evanston: Northwestern University Press, 1973), p. 387.
4. Aaron Gurwitsch, *Studies in Phenomenology and Psychology* (Evanston: Northwestern University Press, 1966), p. 383.
5. R. M. Zaner, "Examples and Possibles," *Research in Phenomenology*, vol. 3 (1973), pp. 29-43.
6. Cf. Susanne Bachelard, *A Study of Husserl's Formal and Transcendental Logic*, ed. by L. E. Embree (Evanston: Northwestern University Press, 1968), p. 177.
7. D. M. Levin, "Induction and Husserl's Theory of Eidetic Variation," *Philosophy and Phenomenological Research*, vol. 29 (1968), pp. 01-15.
8. This is argued forcefully by Levin in the paper cited in footnote 7 above and also in his book, *Reason and Evidence in Husserl's Phenomenology* (Evanston: Northwestern University Press, 1970).
9. Edmund Husserl, *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie*, Erstes Buch, ed. by W. Biemel (Hague: M. Nijhoff, 1950 (Husserliana, Bd III)), pp. 162-63.
10. Cp., e.g., R. M. Chisholm, "Identity Through Possible Worlds: Some Questions," in M. J. Loux (ed.), *The Possible and the Actual: Readings in the Metaphysics of Modality* (Ithaca and London: Cornell University Press, 1979).
11. David Levin, *Reason and Evidence in Husserl's Phenomenology*, pp. 184, 192-93.