

Hypothesis and Community

Abstract

If we accept that the method of experimental natural science operates within the milieu of hypothetical cause and effect categorical judgement, then the question may be asked whether *wissenschaftlich* thought (ie "scientific" thought more broadly defined than is usual in the English use of this word) exists only within this milieu. This paper will approach this question via the table of categories in Kant's first critique (B106) where, in the third part "Of Relation", he makes a distinction between relations "Of Causality and Dependence (*cause and effect*)" and those "Of Community (reciprocity between agent and patient) [*der Gemeinschaft – Wechselwirkung zwischen dem Handelnden und Leidenden*]". In Kant's transcendental method, each category is related back to functions of judgement, likewise outlined in a table (B95) (a table which Kant says he will "place before the eyes" - *vor Augen stellen*). The *category* of cause and effect is related to hypothetical *judgement*; the *category* of community is related to disjunctive *judgement*.

The link between the category of *community* and *disjunctive judgement* is complex, Kant says, and he goes on to give a succinct and useful analysis of them:

Now in a *whole* which is made up of *things*.... one thing is not subordinated, as effect, to another, as cause if its existence, but, simultaneously and reciprocally, is co-ordinated with it, as cause of the determination of the other.... This is quite a different kind of connection from that which is found in the mere relation [*blossen Verhaeltnis*] of cause and effect... for in the latter relation the consequence does not in its turn reciprocally determine the ground

The paper will:

- compare this Kantian classical duality between "cause and effect" and "community" with Deleuze's championing of the stoic logic of cause and effect which (as he says in the second series of *Logic of Sense*) brings about "an entirely new cleavage of the causal relation"
- posit that architectural experimentation is destined to occur within the milieu of *reciprocity* rather than that of *hypothesis*, and indicate the possible implications of this

Gilles Deleuze announces in the preface to *Logic of Sense* that he is writing, or will write, not a philosophy, but a *novel*¹. The a-logic of the preface² is at work here; at once inside and outside the book itself, the preface as it were thickens the boarder between the inside and the outside of the work and at the same time complicates it in semi-reflexive manner by referring to the whole thing ("the book") of which it itself, as preface, both is and is not a part. Does, therefore, the "novel" which Deleuze announces that this book will be, include or *not* include a preface which itself announces that the novel will be a novel? Or shall we say (to raise the level – and it is all about the issue of logical levels, or, to use Russell's terminology, the issue of types³: how will the paradox of types be resolved?) that a novel is rather that device, that *machine*, which begins to put this question into play; a device for creating the event of this issue?

¹ "This book [*Logic of Sense*] is an attempt to develop a logical and psychological novel". Gilles Deleuze, *Logic of Sense*, xiv

² for which (in the context of architecture) see in particular Jacques Derrida's *Parergon* in *The Truth in Painting*; but then the paradox of the preface, of the thick boarder, of the issue as to the start or beginning (thus origin) of the work, is present throughout the whole of his work

³ see Bertand Russell, *Mathematical Logic as based on a Theory of Types*, 1908 (in *Logic and Knowledge*)

Later, within the body of Deleuze's "novel" itself⁴, we find this definition of the novel:

There is always a great deal of art involved in the grouping of symptoms, in the organisation of a *table* where a particular symptom is dissociated from another, juxtaposed to a third, and forms the new figure of a disorder or illness. Clinicians who are able to renew a symptomatological table produce a work of art... It seems, moreover, that an evaluation of symptoms might be achieved only through a *novel*.⁵

Now we could say that Kant, in his first critique, plays this role of the novelist or clinician who casts for us a new table - or in this case, an interconnected pair of tables - where the "symptoms" of pure concepts of the understanding [*reinen Verstandesbegriffe*] are laid out for us, presented or re-presented to us, or put before our eyes - "*vor Augen stellen*"⁶. This is done within the context of Kant's transcendental logic [*Der transzendentalen Logik*], forming the second part of the first book of the critique. What is this strange thing, the *transcendental*? Kant has already defined it:

I entitle *transcendental* all knowledge which is occupied not so much with objects as with the mode of our knowledge of objects in so far as this mode of knowledge is to be possible *a priori*.⁷

[Ich nenne alle Erkenntnis transzendental, die sich nicht sowohl mit Gegenstaenden, sondern mit unserer Erkenntnisart von Gegenstaenden, insofern diese a priori moeglich sein soll, ueberhaupt beschaeftigt.]

and he has particularly drawn our attention to it by remarking that the awareness of the nature of the transcendental "extends its influence over all that follows"⁸ [*die ihren Einfluss auf alle nachfolgenden Betrachtungen erstreckt, und die man wohl vor Augen haben muss*] - something which we must keep well and constantly before our eyes. We find here in the structure of the transcendental not a linear logic⁹, but rather a reflexive logic whereby knowledge is called upon not to march forward, nor to discover or recall that which lies beyond; but rather to turn back in a reflexive and reflective movement towards itself and consider itself, *as* knowledge and specifically *as a priori* knowledge. In this turning back of knowledge upon itself, knowledge will gain knowledge of grounding knowledge, of the *a priori*.

In setting out the pure concepts of the understanding [*reinen Verstandesbegriffe*] Kant operates - or gives himself to operate - according to a *single* grounding principle [*ihre Begriffe nach einem Prinzip aufzusuchen*] in order to ensure that this list or table of these concepts (or categories) is not merely cobbled together - as had previously been the case in philosophy, for instance with Aristotle:

For these concepts spring, pure and unmixed, out of the understanding which is an absolute unity; and must therefore be connected with each other according to one concept or idea.¹⁰

[weil sie aus dem Verstande, als absoluter Einheit, rein und unvermischt entspringen, und daher selbst nach einem Begriffe, oder Idee, unter sich zusammenhaegen muessen]

⁴ again, another a-logic, this time of the definition of the thing included within the thing which is being defined. The a-logic of the preface and the *mise-en-abyme* (to use Derrida's terminology) of the definition-internal-to-that-defined are both paradoxes analysed by Russell and resolved by means of the theory of types, which merely states that we "should not" set up situations where this paradoxes can arise. These too Russellian sets of paradoxes (or types of nonsense) are analysed by Deleuze in the eleventh series of *Logic of Sense*

⁵ Gilles Deleuze, *Logic of Sense*, 237. The emphasis is Deleuze's

⁶ Immanuel Kant, *Critique of Pure Reason*, trans NK Smith, 106. *Kritik der reinen Vernunft* B94.

⁷ *op cit*, 59. A11/B25

⁸ *op cit*, 96. A56/B80

⁹ ie, not a logic that would respect the theory of types

¹⁰ *op cit*, 104. A67/B92

What, then, is this one concept or idea around which all hangs? What is the grounding principle which will allow Kant to draw up the table in unequivocal and definitive fashion? - nothing less, we may say, than the idea and function of *unity*, or *the one*, itself. Again, it seems, a strange logic: Kant requires “a single principle” [*einem Prinzip*], a principle of unity which will allow him to give us the categories of understanding; and this principle of unity will be the function of unity as we find it in the understanding. Philosophy requires unity; and will be given unity by means of – unity. It seems that here, that which is to do the grounding is already implicated in that which is to be grounded.¹¹

The function of unity of the understanding is that by means of which things are brought together in judgements which create a unity amongst concepts and things. Kant therefore merely needs to describe the different types of judgement in order to outline his table, which we can set before our eyes as follows¹²:

1	
<i>Quantity of judgements</i>	
Universal	
Particular	
Singular	
2	3
<i>Quality</i>	<i>Relation</i>
Affirmative	Categorical
Negative	Hypothetical
Infinite	Disjunctive
4	
<i>Modality</i>	
Problematical	
Assertorical	
Apodeictical	
1. <i>Quantitaet der Urteile</i>	
Allgemeine	
Besondere	
Einzelne	
2. <i>Qualitaet</i>	3. <i>Relation</i>
Bejahende	Kategorische
Verneinende	Hypothetische
Unendliche	Disjunktive
4. <i>Modalitaet</i>	
Problematische	
Assertorische	
Apodiktische	

Now this table of *judgement* Kant can use to establish a rigorous table of *categories*. Whilst the table of judgement outlines the means of unifying representations in *judgements*, the table of categories outlines how our *intuitions* [*Anschauungen*] are unified. This table follows precisely in its form the table of judgement, because they both use the same unifying

¹¹ again, as implied by Russell’s theory of types. Kant wishes to grant us good, common sense. In order to do this, he must, perforce, remain outside the field of good, common sense; that is, outside the good , single direction (*sens*) implied by sense. Thus at key moments in his critique, he must do, implicitly and more or less illicitly, what Deleuze tells us that Carol is doing in *Alice through the looking glass*, and which Deleuze himself expends his book elucidating; namely, production of (good) sense from the movement and force of nonsense. (See especially series 12 of *Logic of Sense*.)

¹² Kant, *op cit*, 107, A70/B95

function of judgement in the understanding. The table of categories can be laid before our eyes as follows¹³:

<p><i>1 Of Quantity</i></p> <p>Unity</p> <p>Plurality</p> <p>Totality</p>	<p><i>2 Of Quality</i></p> <p>Reality</p> <p>Negation</p> <p>Limitation</p>
<p><i>3 Of Relation</i></p> <p>Of Inherence and Subsistence (substantia et accidentia)</p> <p>Of Causality and Dependence (cause and effect)</p> <p>Of Community (reciprocity between the agent and patient)</p>	
<p><i>4 Of Modality</i></p> <p>Possibility--Impossibility</p> <p>Existence--Non-existence</p> <p>Necessity--Contingence</p>	

1. *Der Quantitaet:*

Einheit
 Vielheit
 Allheit.

2. *Der Qualitaet:*

Realitaet
 Negation
 Limitation

3. *Der Relation:*

der Inhaerenz und Subsistenz(substantia et accidentia)
 der Kausalitaet und Dependenz (Ursache und Wirkung)
 der Gemeinschaft (Wechselwirkung
 zwischen dem Handelnden und Leidenden).

4. *Der Modalitaet*

Moeglichkeit - Unmoeglichkeit
 Dasein - Nichtsein
 Notwendigkeit - Zufaelligkeit.

I wish to focus here particularly on the category of relation. As we can see, Kant makes a distinction - according with the logic of the function of unity - within the category of relation, between the relation of *cause and effect* [*Ursache und Wirkung* – in the table of categories] and the relation of Community [*der Gemeinschaft*], which he characterises as the reciprocity between agent and patient [*Wechselwirkung zwischen dem Handelnden und Leidenden*]. These two distinctions in the table of categories coincide with the distinction between on the one hand *hypothetical* judgements and on the other *disjunctive* judgements in the preceding table of judgements. Hypothetical [*Hypothetische*] judgements are those which relate to the categories of cause and effect; disjunctive [*Disjunktive*] judgements are those which relate to the category of community.

This connection, however, is more difficult to grasp than those between the other elements of the tables:

In the case of the category of community, its accordance with the form of a disjunctive judgment... is not as evident as in the case of the other judgments. To gain assurance that they do actually accord, we must observe that in all disjunctive judgments the sphere (that is, the multiplicity which is contained in any one judgment) is represented as a whole divided into parts, and that since no one of them can be contained under any other, they are thought as co-ordinated with, not subordinated to, each other, and so as determining each other, *not in one direction only*, as in a series, but reciprocally, as in an aggregate.... Now in a whole which

¹³ *op cit*, 113 A80/B106

is made up of things, a similar combination is being thought; for one thing is not subordinated, as effect, to another, as cause of its existence, but, simultaneously and reciprocally, is co-ordinated with it, as cause of the determination of the other..... This is a quite different kind of connection from that which is found in the mere relation of cause to effect (of ground to consequence), for in the latter relation the consequence does not in its turn reciprocally determine the ground, and therefore does not constitute with it a whole – thus the world, for instance, does not with its Creator serve to constitute a whole.¹⁴ (my emphasis)

[Von einer einzigen Kategorie, naemlich der der Gemeinschaft, die unter dem dritten Titel befindlich ist, ist die Uebereinstimmung mit der in der Tafel der Logischen Funktionen ihm korrespondierenden Form eines disjunktiven Urteils nicht so in die Augen fallend, als bei den uebrigen.

Um sich dieser Uebereinstimmung zu versichern, muss man bemerken: dass in allen disjunktiven Urteilen die Sphaere (die Menge alles dessen, was unter ihm enthalten ist) als ein Ganzes in Teile (die untergeordneten Begriffe) geteilt vorgestellt wird, und, weil einer nicht unter dem anderen enthalten sein kann, sie als einander koordiniert, nicht subordiniert, so dass sie einander nicht einseitig, wie in einer Reihe, sondern wechselseitig, wie in einem Aggregat, bestimmen (wenn ein Glied der Einteilung gesetzt wird, alle uebrige ausgeschlossen werden, und so umgekehrt), gedacht werden.

Nun wird eine aehnliche Verknuepfung in einem Ganzen der Dinge gedacht, da nicht eines, als Wirkung, dem anderen, als Ursache seines Daseins, untergeordnet, sondern zugleich und wechselseitig als Ursache in Ansehung der Bestimmung der anderen beigeordnet wird, (z.B. in einem Koerper, dessen Teile einander wechselseitig ziehen, und auch widerstehen,) welches eine ganz andere Art der Verknuepfung ist, als die, so im bloen Verhaetnis der Ursache zur Wirkung (des Grundes zur Folge) angetroffen wird, in welchem die Folge nicht wechselseitig wiederum den Grund bestimmt, und darum mit diesem (wie der Weltschoepfer mit der Welt) nicht ein Ganzes ausmacht.]

Having drawn, with Kant, the distinction between these two types of judgement – hypothetical and disjunctive – and these two types of categorical relation – cause and effect and reciprocity – we are in a position to frame a series of questions about what the nature of experimentation within the discipline of architecture might be, and how this might relate to either the natural sciences or other realms of endeavour where experimentation occurs. If we accept that the method of experimental natural science operates within the milieu of hypothetical cause and effect categorical judgement, then, having had Kant's table laid out for us, the question may be asked whether *wissenschaftlich* thought (ie "scientific" thought more broadly defined than is usual in the English use of this word) exists only within this milieu.

In particular, we should note the implications of Kant's statement about the relationship between the World and its creator [*der Weltschoepfer*]. This relationship is one of *cause* and *effect*. It is such a relation because there is a simple, single and direct movement between the Creator and what he creates. There is, to use terminology from the eleventh series of Deleuze's *Logic of Sense*, the *good* sense (or direction – *sens* in French) of a movement from the Creator to that which he creates – the world. The movement is good and simple because, precisely, there is:

- *no* reciprocity
- *no* reflection or reflexion back from the World to the Creator
- *no* breaking of the rules of the Theory of Types
- *no* problematic of the preface (to which we alluded at the outset)
- *no* paradox of the inclusion of what is to be defined within that which does the defining
- *no* transcendental relationship

¹⁴ *op cit* 117, B112-113

As Kant says, in the relation of cause and effect, and in the relation of the creator to the world, there is the mere relation of *ground* to *consequence*; there is no reciprocal relation back whereby the consequence affects the ground. That, after all, is clearly the meaning of God, the Godhead, the one who can say (as in the Old Testament): I am who I am. The meaning of "God" is: the one who is pure ground, and not consequence.

But conversely, the consequence of this is as follows:

- whenever we attempt to apply a logic of cause and effect; whenever we attempt a hypothetical judgement, we are placing ourselves in the position of God

and, further:

- whenever we attempt to apply the hypothetical judgement of cause and effect, we are placing ourselves outside the milieu of that of which we are making a judgement. This follows from Kant's point that God and the World do not together make a *whole*; unlike disjunctive judgements of Community and reciprocity, which operate within whole realms, the relation of cause and effect effects a radical split between the two parts of the judgements and places them in entirely different worlds, since the consequence perforce does not return to affect (or effect) the ground

In the light of this, the claims I wish to posit here, for architectural thought, are as follows:

- a strong definition of experimental science – in whatever field this science will operate – starts from the causal relation. What the experiment aims to do, primarily, is to separate out the consequence from the ground in order to ensure that the *consequence can on no account* reciprocally affect the ground. As soon as that happens, we no longer have an experiment, strongly defined. This can be inductively verified, for instance, if we consider the nature of drug testing, where the double blind statistical experiment ensures that the expectations of both the patient and the doctor do not reciprocate back onto either of them and thereby affect the outcome¹⁵. But we can also verify it in any other realm of human thought which has taken the natural sciences as its model. For instance, art or architectural history, which were established by positing a set of objects of study (works of art or architecture) in such a way that the studying was essentially *experimental* in nature; that is, non-reciprocal, non-communal, in the sense that the study of the object would never come, of itself, to reciprocate back onto that object and affect (or effect) its character
- by contrast, thinking about architecture *per se* can *never* constructively occur within the hypothetical field of cause and effect. Architecture is essentially concerned not with an analog of the relationship between God and the World, but is rather concerned with a *whole* within which there are reciprocal and communal relations. Always, within any thought of architecture, within any discussion which wishes to remain faithful to its intrinsic nature, there will be a reciprocal relation between that which is to be thought about and that which does the thinking. This applies not only in circumstances where we wish to discuss, say, the poetic nature of our discipline – a circumstance where this reciprocity may perhaps easily be granted. It *also* obtains in circumstances where we wish to discuss topics regarded as technological or scientific in nature. As an example: issues surrounding sustainability are most often framed merely in terms of the qualities of the objects making up buildings (eg a certain quantity of insulation; a certain capacity for on-site carbon-neutral energy generation) as if the solution to these physical problems is the solution to sustainability. In fact, the issues of

¹⁵ thus the double blind experiment can never come to terms with the placebo effect, which is precisely not an effect (in Kantian terms) by reciprocation or relation of community. We might say, therefore, that if medical science insists on maintaining the cause and effect relationship as its standard of explanation, then such phenomena as placebo (including homeopathy, which from its history is clearly related to the placebo effect – answering as it does the question: how can we implement the placebo effect when the trick is to engender *faith in healing* in the recipient?) will always slip from its grasp

sustainability must also be considered within the reciprocal and communal field which includes the community and persons who act with the physical objects which can be abstracted, if we wish, from the whole within which this reciprocity operates

- we would therefore, for architectural thought, need to reframe, in a different table of symptoms, the notion of experimentation. We must think it outside the notion of cause and effect. Perhaps, then, experimentation would come to be called something else: but the name does not matter. Conversely, it is unhelpful to give architecture experimentation the name of "creation" if, for all that, we retain within this term the cause and effect relation of the Godhead to the isolated world it has created. We must, in other words, destroy the notion of *ground*; yes, there are consequences; but, we may say analogously to Deleuze, there are *only* consequences endlessly circulating in a complex community of reciprocal relations

Architecture thus thought is, I would posit, essentially eventful. It is eventful because the event is the place where this complex community of reciprocal relations occurs. And in this sense we can, to conclude, outline in brief another "table of symptoms" to which Deleuze points in *Logic of Sense*. What he does in the second series of that "novel" is to outline a stoic *disjunctive* logic which, as he says, brings about "an entirely new cleavage of the causal relation"¹⁶. He posits, with the Stoics:

- on the one hand, bodies with their "physical qualities" and "the corresponding states of affairs"¹⁷, which have a relation of cause between each other. The peculiarity of the stoic cleavage is that such bodies *only* have a causal relationship between each other; they have no relation of *effect* with each other
- what, then, do they cause, if not each other? They cause, says Deleuze, things – non-beings, in fact – of an "entirely different nature"¹⁸. These non-beings are *events*, which in turn never have a relationship of cause either amongst themselves or with bodies

Now in citing, briefly, this *other* cleavage of the causal relation my intention is *not* to mark a Deleuzian counter-point to Kant (as is often done) but rather to end without a conclusion regarding the experimental in architecture. Kant's notion of reciprocal relations, as contrasted to cause and effect, does *not* provide us with a definitive answer to the nature of architecture or the most appropriate way in which it may be thought. It is merely one table of symptoms, one *novel*, which can be used eventfully. There are other tables, too, such as the stoic one¹⁹ which Deleuze describes; ones which operate according to a different register, and which cannot necessarily be reduced to the other or subsumed together under a common concept or unity. This in turn, I would suggest, points to another possibility for experimentation beyond the thought of "the one", beyond the thought of identity and unity; and it may indeed be that the disavowal of "the one" is the locus of a truly experimental experiment.

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¹⁶ Gilles Deleuze, *Logic of Sense*, 6

¹⁷ *op cit* 4

¹⁸ *ibid*

¹⁹ or indeed the Epicurean one, which also formulates "another cleavage of causality", *op cit* 6