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**Kant on Consciousness of Logical Laws: Making Logical Concepts
Distinct in Artificial Logic**
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§1 - Introduction

Logic: “the science of the rules of the understanding in general.” (A52/B76)
It is a “**self-cognition** of the understanding and of reason merely as to form.” (9:14)
We have a kind of privileged acquaintance sufficient for **scientific** knowledge.
How does this logical self-knowledge work?

In thinking and reasoning—and in assessing the thinking and reasoning of others—
Kant holds we both **already follow logic's laws** and expect others to do so.
Similar to other kinds of rules: grammar, etiquette, metaphysics, and morality.
In all of these cases, there is a sense in which I am conscious of these rules, without
necessarily being able to articulate them.
I want to examine Kant's description of this phenomenon, with the laws of PG logic.

Natural logic (*logica naturalis*): the collection of logical rules that implicitly govern
our everyday thinking and reasoning.
Artificial logic (*logica artificialis*): the presentation of these same rules in a
systematic science—pure general logic.

A concept is **clear** when: (i) one is aware that one has it and (ii) one can use it to
distinguish things that it applies to from things that it doesn't.
A concept is **distinct** when: (i) it is clear, and (ii) one is also aware of the rules
governing when it will apply to something and when it won't.

Now, the proposal I want to investigate has two parts. It holds that:
(1st) in our everyday assessments of thinking and reasoning according to the rules of
natural logic, we exhibit a **clear** consciousness of our concepts of the various
kinds of acts of thinking. That is, in these assessments we show that our
concepts of <concept>, <judgment>, and <inference> are clear.
(2nd) the task of pure general logic is to make these **clear** concepts **distinct**.

Although I'll spend most of my time on why this proposal is promising, in closing I
will briefly touch on why I suspect that it is ultimately incorrect.

§2 - Natural vs. Artificial logic

Artificial logic formulates rules already governing our thinking (natural logic):
Everything in the world happens according to rules[;] as we perceive this in the
corporeal world, so do we find it even in the employment of our own powers, although
we are not immediately conscious of the rules at all. We attain this employment
through mere attempts, and from these very attempts, e.g., teaching someone to speak
or to walk, we can derive the multitude of rules. [...] Every man observes the rules
before he can reduce them to formulas. Gradually, however, he attends to what he

does. The complex of all these rules is called *logica naturalis*. The science that expounds these rules systematically [is called *logica artificialis*. (24:790-791)

Lu-Adler: only the demonstrated rules of artificial logic serve as norms.

Mosser: rules of natural and artificial logic are the same. But “reflection on ‘natural’ logic provides a way of developing a systematic and rigorous ‘artificial’ logic.”

I agree with Mosser: no difference between the rules, or their normativity.

Lu-Adler: natural logic is not normative because it is not a canon.

It is not a canon, because it is not a doctrine or demonstrated critique.

And because it is not demonstrated, it is not properly speaking logic at all.

Still, pure general logic, as an artificial logic, presents **systematically** the very same rules that govern the common understanding—natural logic.

Natural ‘logic’ is neither properly a logic nor a canon because it lacks the requisite systematicity, not because its rules are different or not normative.

§3 – Clarity and distinctness

We make cognition more systematic—thus scientific—by making concepts distinct.

Three “degrees of consciousness” of representations (esp. intuitions and concepts):

(1st) An **obscure** representation is one that either one does not know one has, or one is only aware of **indirectly**, through an inference (7:135).

(2nd) Awareness or consciousness of a **clear** representation is **immediate**.

(3rd) A **distinct** representation is clear, and one is also aware of its parts. (Distinctness consists in clarity of the parts.)

Comparing a copper pot, a bronze statue, and an iron beam, I notice their metalness.

Because I am aware of the metalness they share, my **concept** <metal> is **clear**.

With such **clear** concepts, I can go on and recognize more instances, and through this concrete **ability** I manifest my clear consciousness of it.

My concept is **distinct** if I am also conscious of the other features in the concept: i.e., the features things must have, in virtue of which the concept applies to them.

E.g., my concept <metal> will be more distinct when within <metal> I think of: (1) solidity, (2) opaqueness, and (3) conductivity.

So a concept is distinct, when I can use it to pick out the things that fall under it, and also when I know *why* I use it to pick out those things and not others.

§4 – The analogy: artificial logic and making concepts distinct

In everyday natural reasoning, we have something like a clear grasp of logical laws.

We know how to assess the logicity of thoughts, just as clear concepts allow us to assess whether something falls under the concept or not.

In both we will be fallible—but by reflecting on the activity, we can make the principles governing it more distinct and *why* we do what we do clearer.

This allows us to **explain** our assessment of thoughts or our classification of things.

And improving and refining both, we make them more **systematic** and **scientific**.

Further, in both cases, the difference between the levels of consciousness is a matter of how we represent the **rules** governing our use of a thought.

With **concepts** (<metal>) it is our consciousness of their content or meaning (*Inhalt*) (<solidity>, <opaqueness>, etc.) that makes them **clear** or **distinct**.

This content fixes the nature of the concept itself and the relationship it stands in to other concepts (E.g., a genus of <bronze> but a species of <body>).

But with the rules of **logic**, it is our consciousness of the generic rules governing all thoughts that differentiates whether the logic is **natural** or **artificial**.

These rules are **independent** of the **specific content** of any given thought.

Instead they dictate how any representation of the same kind combines with others.

E.g., take the **concept** <metal>. I can use it in **judgments** and **inferences**:

I can judge 'this metal is heavy,' and if I know heavy things fall, then I can infer from this that 'this metal will fall.'

So, although one aspect of my abilities in having a concept depends on its **specific content**, another aspect of my abilities stems from **its nature** as a concept.

These **generic abilities** come along with having any thought—concept, judgment, or inference—and are the basis of both natural and artificial logic.

We develop our natural logic into an artificial science when we explicitly formulate these rules and grasp their systematic interconnections.

§5 – The disanalogy: where we should stop.

I begin to worry about the analogy if we try to understand pure general logic as making the concepts <concept>, <judgment>, and <inference> distinct.

Still there are reasons to think Kant held something like this view:

In everyday reasoning, we seem to exhibit a **clear** consciousness of <concept>, <judgment>, and <inference>, since we know **how to use concepts**, etc.

E.g., we know how to use <metal> in judgments and inferences, so have a clear grasp of it **as a concept**, and so our concept <concept> seems to be **clear**.

Just as we have a clear concept of <metal> when we use it to **distinguish** metals and **use** them appropriately, it seems <concept> will be clear when we can **distinguish** concepts from other thoughts and **use** them appropriately.

Similarly, just as we make <metal> more **distinct** when we judge that 'metals are opaque,' we seem to make <concept> more **distinct** when we judge that 'concepts can serve as predicates for possible judgments.'

In each we make **explicit** the rules governing <metal> or <concept> respectively.

I hesitate over the suggestion, however, because Kant:

(a) rarely speaks of concepts of kinds of cognitions (e.g. <concept>, etc.), and

(b) does not describe pure general logic as making **such concepts** distinct.

I suspect this is because he does not think of <concept>, etc. as concepts proper.

Concepts proper are cognitions, with both a **form** and a **material**: an **object** the concept is about and a "way in which we cognize the object" (9:33).

The 'concept' <concept> does not indicate an **object** in the proper sense, but only a **form** or way that we can cognize objects.

Thus, it indicates an element (a **form**) in cognitions & concepts, but is not itself one.

Reply to Lu-Adler

These are great passages, and I've really enjoyed having an opportunity to think about them further. Through these, Lu-Adler has nicely brought out how on my interpretation, Kant is developing the Leibniz-Wolff position further.

The crux of the difference in our readings came out at the end of Lu-Adler's comments: she reads Kant's "applied logic" as the *Critique's* version of natural logic, while "pure logic" is the *Critique's* artificial logic. I take these to be **orthogonal**.

In addition to natural & artificial logics, Kant will distinguish:

Pure logic: *a priori*, necessary, objective rules for how we ought to think.

Applied logic: empirical, contingent, subjective rules for how we happen to think.

Overall I take the kinds of contrasts Kant is making in the passages Lu-Adler cites (i.e. her §2.1-2.2) to concern the distinction between pure and applied logic.

I take the pure/applied and natural/artificial distinctions to be **orthogonal** to one another: there will be natural and artificial branches of both pure and applied logics. In the talk, I had in mind pure natural and artificial logic, but I see no reason to think the considerations I was offering wouldn't also apply to applied logic.

Lu-Adler cites a number of passages from the pre-critical Blomberg lecture notes. In these, Kant is not distinguishing pure and artificial or natural and applied logics.

In some of Kant's later writing he draws both distinctions, but even here he does seem to closely align natural and applied logic with empirical principles, which suggests that he is not separating them as much as he should. (9:17-18; 24:608-609)

But I think we can see Kant **needs to draw both distinctions** if we reflect on the passages where he claims artificial logic just is the systematic reflected version of natural logic: the only way this can be true, is if the principles of the relevant natural logic are ultimately pure (24:790-791; 24:693-694, 696-698; 24:503; 24:608-609; 24:798; 24:316-317; 9:17-18; R1628 & R1629, 16:44-50; R1579, 16:18-19, etc.).