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# Engel's three laws of dialectic

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A reader asks, whether I know the origins of Engel's so called "three laws of Dialectics":

quantity changes to quality, opposites interpenetrate, and negation of negation.

I will first answer about possible sources of these laws in Hegel's logic and then criticize them as not satisfying.

1.

There is no place in Hegel I'm aware of that Hegel names these the three "laws of dialectic", sorry.

It is easy to find parallels of some place in Hegel's logic which might refer to these three "laws":

- a) quantity changes to quality: see Hegel's detailed remarks in the chapter on Measure (the last chapter in his 1st book of the "Logik", "Die Lehre vom Sein" = "Being").
- b) opposites interpenetrate: see Hegel's remark in his chapter on "Dasein", especially about "borders" and in his second book of the logic "Die Lehre vom Wesen" ("Essence").
- c) Negation of the negation: Hegel uses this expression sometimes (e.g. in paragraph 95 of his encyclopedia) for his third step of his triad, in some sense this is better than "synthesis". (But I think it is better to think of the third step first as negation of the negation, and then of the synthesis as an extra step: e.g. sophists: negation, Socrates: negation of the negation, Platon: synthesis)

2.

No problem with simplification, with making things easier, simple to understand. But Engels does not make it simple, he simply doesn't understand all, and he takes from Hegel's logic only a very little part, not even the most important things.

You quote the famous Nobel prize winning physicist Mr. Feynman with the saying, that everything turns out to be simpler than one thinks it is

An example to illustrate my point: what do you think would Mr. Feynman say about someone, who claims that there are "three laws of" Nature:

- matter attracts each other (or worse: all is interconnected)
- the speed of light is absolute (or worse: all is relative)
- organic entities replicate (or worse: all returns)

Engel's three laws of dialectics are in a similar position to Hegel's Logic as the above three "laws" are to modern science of Nature: they cover only some aspects, they are misleading especially as they don't go into details, leave their interpretation open to imagination, and OTOH therefore allow someone with good will to find something rational in them.

First you have to understand the full story, before you can simplify it. Engels did not. So I suggest to first try to read/understand Hegel before judging whether Engels did a good job, whether his simplification is appropriate. You may then simplify yourself.

You answer:

I'd be interested to hear your thoughts on this. You feel strongly that the 3 laws are not only over-simplified, but also misleading at best.

And close by asking me:

Where do you see the problem?

What strikes me first is that you insist of not having to look at Hegel's logic but you are content with Engels "three laws". If there were no other reasons, this alone makes me nervous.

In the sample of the given "three laws of nature", we may think of a person who learns something from them, and, if he is very bright, might reconstruct a whole lot of the parts of science the "laws" apply to out of them (with the help of his experience and wit).

However, wouldn't you think that this advantage is outweighed, when the same person therefore thinks that there is no need to look into the "real" science books, because he thinks he knows now everything, at least as so far it is important?

Aristotle once said that Philosophy (or the wish to have a closer look, to examine things and thoughts) comes when you start to wonder.

Kuhn's theory of scientific revolutions also fits in here nicely.

So what I think is important is, OTOH, to find theories which explain things to us (that's what we are all looking for, right?) and OTOH, not to stop too early with asking questions, neither to give up nor to be satisfied with the wrong answers.

Answers like "Man (or 'the world') is bad", "all is interconnected" etc might work everywhere, in every situation, but they make people stop thinking, they are satisfied just with the experience that their saying fits.

One thing you can ask yourself is: what do I learn from a saying, in what sense do I know more with it then before, how does it help me?

And if you find that it mainly helps you in the way described above, I suggest it is more a kind of "world view" than science.

So I ask you, in what way do the three laws in the way you read/interpret them do help?

Why should one know them? What is gained if one knows them? If something is *really*

indeed something quite self-evident, trivial and commonplace"

then why bother?

I guess that Engels, who in reality is thinking of Hegel and not of his own "laws" means that they are *not* trivial and commonplace, but it seems from you efforts that you think they are?

Let's look at them:

1. Everything is a unity of opposites

First: what do you (or Engels) mean by “opposites”, by “unity” and by “Everything”? (It is good when you have a sentence which at least let you ask a question, that means that it has the potential to let your spirit be alive, instead of making it asleep).

Then: is it true? Is really *everything* a unity of opposites? In what sense? How?

It seems the saying suggest that a) everything is made out of parts and b) these parts are in a certain relation to each other, opposition.

But what kind of opposition? Could we have a sample please? Here jumps in Jack and helps us:

No object can hold together without a force bonding its elements

So what would be the opposites and what the unity? Are the elements the opposites and the “bonding force the unity”? Or are the elements on the one hand and the bounding force on the other hand the opposites and the object as a whole the unity (hint: the later sounds more dialectical to me )?

You specify:

gravity for the solar system, nails or glue for a wooden structure, electromagnetism for atoms.

But in what sense are these interrelated?

Sample a) (solar system) and c) (atoms) seem to suggest to me that here really the parts and the binding force do belong together.

But compared to that, nails or glue (see the word “or”) are not in the same sense needed for a “wooden structure”, e.g. you can make a wooden structure out of pieces of wood with knots also or just by carving them with a knife in a way that they fit together.

So just thinking of “elements and force” is not enough, we see that depending on the subject we apply our dialectical “law”, we receive different results. And we are well advised not to stop here but to have a closer look: in what way do gravity and our solar system belong together? Is it possible to have gravity without our solar system - seems so. Solar system without gravity - not.

And how about the atoms and electro magnetism? Correct me if I'm wrong, but as far as I know electro-magnetism plays more a role in physical chemistry than in atomar physics. In atomar physics you have electromagnetism between the electron and the positron, but within the atomic kernel itself, you have other forces (which I don't know how to name in English). So we have not only one but two opposites: a) Electron and Positron, bound by electromagnetic, and then b) the Positrons and Neutrons themselves, bound by other force.

Also, the solar system constitutes out of Sun and several different planets and then the planets might have different moons etc.

The funny thing is that here, your “law” only works one way: *after* you know everything relevant, you can put it in the form of your “law”.

But before you did know these facts, from your “law” alone, you could not know any of these facts and it could also not help you finding them.

So this reminds me more of the attributes one usually gives formal logic: you can put every thought in the forms of formal logics, but it doesn't help you to think, to find the sentences (and part of sentences) formal logic will then gladly connect. So all the real work is done by real thinking (which I happen to call dialectical, but that is a pleonasm in my use of the word), not by the universal applicable but mostly empty formal logic.. (it is not really false, but it doesn't help where you really would need it).

So, what would a *real* dialectic teach you here?

Well, how do you generate these different categories you use here, how you move in your thoughts from one to the other, how to criticize the given categories etc. It teaches you to think for yourself.

I will finish more constructively by giving you indeed some quick hints how to improve “dialectical thinking” in a way that you better find opposites which you then can unify, so that you can be happy with your first law:

a)

When you use a word, a concept, in order to use it, you will give it a border. Your word will exclude other words, which it doesn't mean. So here, within this border we already have something like a unity of being and nonbeing,

positive and negative, we have within the border a negative, which belongs positively to the subject (“determinate is to negate”, says Spinoza).

We can use this for our thoughts: e.g. in what sense is the border appropriate? Wouldn't other borders fit better? Is the border necessary the way it is?

How about “border cases”? etc.

No beginning of a dialectical process without borders. Because without borders, there is nothing to transfer, to overcome.

Hegel calls the part of the mind which draws borders the “Verstand”. Mind is used in that sense when new age literature criticizes it. But it is necessary for the following steps.

b)

It is always helpful to look for the unity in difference and difference unity. Because, the ultimate differences which belong together are of course unity and difference themselves.

They are also implied, our thinking does work like this:

An advertisement says: “especially useful” and you ask yourself: why do they need to say that? Probably it is not as useful as something where the use is obvious?

You see twins and you immediately look for their difference. Or you see two very different people together and you ask yourself what they might have in common.

So this is already done automatically by our thinking. But it may be very helpful when you apply it yourself in situations where only difference or only unity/common are obvious.

This will help you to look sharper and to find the non-obvious.

So all this is explained in great detail in the science of logic.

A last remark: one of the main advantages of the "science of logic" is that it is dialectical itself, so it teaches you to think dialectical just by reading it (and thinking with it along your reading), so it is self-reflexive, the "laws" it teaches are that universal that they also apply to the science of logic. That can't be said about Engel's three laws: neither are they dialectical in themselves (they are not developed out of each other, they are also not shown in their necessity, you have to take them or leave them), nor can they meaningfully be applied to themselves (that again shows that they are not dialectical and of not much real use).