Wax On – Wax Off

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The way of the hero: "wax on – wax off … and you will shine one day!" – Isn't it *such* a sweet thought.

—Not *The Karate Kid*

Abstract

Understanding the structure of logic defies the narcissistic delusion that the human brain can do *fabulous and wondrous things*™, which is particulary and painfully false.
Or as a dear relative phrased it:

> Well, they say "You can lead a horse to the water …", but *these* people – they do not just **not drink** – they turn around and *shit* in the water. At least by the time they reach their master's degreee, they have slowly come to realize that they don't know *shit* – that all their ideas are *shit* – and that they need to behave accordingly.

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1 A Tautology To Prove a Paradox

I know, that I *cannot* know.

—Neither Socrates nor Kant

Hypothesis: The vast desert of NAND is utterly incomprehensible.

Let there be proof, let $\neg$ be NOT, $\wedge$ be AND, $\vee$ be OR, $\rightarrow$ be IF, $\uparrow$ be NAND, as defined by the following excerpt of the truth tables for binary truth functions:

			f^2_{12}	f^2_{10}		f^2_1	f^2_7	f^2_{13}	f^2_{14}		$f^2_1(a)$	$f^2_7(b)$	$f^2_{12}(c)$	$f^2_{13}(d)$
p	q		$\neg p$	$\neg q$		$\wedge$	$\vee$	$\rightarrow$	$\uparrow$		$\neg(p \uparrow q)$	$\neg p \uparrow \neg q$	$p \uparrow p$	$\neg p \vee q$
0	0		1	1		0	0	1	1		0	0	1	1
0	1		1	0		0	1	1	1		0	1	1	1
1	0		0	1		0	1	0	1		0	1	0	0
1	1		0	0		1	1	1	0		1	1	0	1

Henceforth the compound phrase

When the cock crows on the heap,
the weather will change
or it will just keep. (1.1)

defined by its atomic member statements

$$\begin{aligned} p &= \text{the cock is crowing on the heap,} \\ q &= \text{the weather is changing,} \\ \neg q &= \text{the weather is keeping,} \end{aligned}$$

gives rise to the symbolic representation

$$p \to q \vee \neg q. \tag{1.2}$$

With a couple of well-known simple laws, namely

$$\begin{aligned} p \wedge q &= \neg(p \uparrow q), & (a) \\ p \vee q &= \neg p \uparrow \neg q, & (b) \\ \neg p &= p \uparrow p, & (c) \\ p \to q &= \neg p \vee q, & (d) \\ \neg(p \vee q) &= \neg p \wedge \neg q, & (e) \end{aligned} \tag{1.3}$$

proved by full induction over the truth tables, formula (1.2) is transformed to

$$\begin{aligned} & p \to (q \vee \neg q) && |(d) \\ = \; & \neg p \vee (q \vee \neg q) && |(b) \\ = \; & p \uparrow \neg(q \vee \neg q) && |(e) \\ = \; & p \uparrow (\neg q \wedge q) && |(a) \\ = \; & p \uparrow \neg(\neg q \uparrow q) && |(c) \\ = \; & p \uparrow \neg((q \uparrow q) \uparrow q) && |(c) \\ = \; & p \uparrow (((q \uparrow q) \uparrow q) \uparrow ((q \uparrow q) \uparrow q)). \end{aligned} \tag{1.4}$$

Replacing NAND expressions with different language constructs

$$\begin{aligned} & p \quad \text{is incompatible with} \quad q, && (f) \\ & p \quad \text{is mutually exclusive with} \quad q, && (g) \\ & \text{the fact that} \quad p \quad \text{cannot coexist with the fact that} \quad q, && (h) \\ & p \quad \text{conflicts with} \quad q, && (i) \end{aligned} \tag{1.5}$$

for each parenthesized level, assigned to the deepest innermost level first, formula (1.4) translates to

```
        [the cock is crowing on the heap]
conflicts with (
        the fact that (
                ( [the weather is changing] is incompatible with [the weather is changing] )
            is mutually exclusive with
                [the weather is changing])
        cannot coexist with the fact that (
                ( [the weather is changing] is incompatible with [the weather is changing] )
            is mutually exclusive with
                [the weather is changing]))).
```

(1.6)

Although parentheses are kept as structural support, even providing indentation for clarification, the statement's translated form (1.6) still makes the issue at hand utterly confusing, if not completely incomprehensible for a human brain.

So, while the human brain is able to **produce** such *fabulous and wondrous things*, it is not capable of **understanding** such *fabulous and wondrous things*, which would have been truely *fabulous and wondrous*. But this is not the case. Therefore humans are basically on the same level as monkeys randomly typing on typewriters, producing all of Shakespeare's works eventually ■.

To the unsuspecting eye the phrasing of the NAND statement (1.6) may appear as a complete denial – even asserting ultimate falsehood – although it is in fact – just like its original form (1.1) – always true.

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