

# The Joker

by Sven Nilsen, 2021

*In this paper I discuss the idea of a mathematical universe where messages are not taken seriously.*

In the paper “Catuṣkoṭi Communication”<sup>[1]</sup>, Daniel Fischer and I discussed the idea of combining two mathematical universes, called The Normal and The Joker respectively, having different bias concerning error correction of messages.

- The Normal – a mathematical universe where messages are expected to be true
- The Joker – a mathematical universe where messages are expected to be false

Inside The Normal communication, one does not need to communicate that the next message is meant to be taken seriously, because this is the default mode of communication. When a joke is communicated, one can signify that it is a joke. Since jokes are rare, this does not lead to overhead.

Inside The Joker communication, one does not need to communicate that the next message is meant to be taken as a joke, because this is the default mode of communication. When something serious is communicated, one can signify that it is a serious message. Since serious messages are rare, this does not lead to overhead.

One can observe that The Normal and The Joker are kind of mirrors of each other. This mirror effect is also exploited in The Joker, by turning things that are obvious in The Normal into jokes.

For example:

$$1 + 1 = 3$$

This is a “joke” because in The Normal,  $1 + 1 = 2$ .

It is only possible to joke about it because everyone knows what it is really supposed to be.

However, the following is not a “joke”, because it is entirely non-obvious without using a calculator:

$$230909230 * 48998239 - 38982109217 = 11314106656736753$$

Since it could be interpreted seriously, one might think that there was an error. Either somebody forgot to signify that this is a serious calculation and made a mistake, or they made an mistake on purpose but is not able to communicate clearly that this is a joke.

The Joker is an important mathematical universe because ideas have to be “refined” in order to make jokes. When something is obviously false, it is a proof that there is something deeper beneath, beyond what is being communicated. The Joker can be used to point to something deeper in mathematics, when otherwise communicating using The Normal is insufficient to capture the essence of the idea.

Developing The Joker for some field of mathematics might be just as important as the field itself, because it contains a lot of valuable information about what the core ideas are of that field.

## References:

- [1] “Catuskoṭi Communication”  
Daniel Fischer, Sven Nilsen, 2021  
[https://github.com/advancedresearch/path\\_semantics/blob/master/papers-wip/catuskoti-communication.pdf](https://github.com/advancedresearch/path_semantics/blob/master/papers-wip/catuskoti-communication.pdf)