The Infinite Problem in Categorization, Rules

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The infinite problem is a three-layered conjecture that attempts to diagnose a fatal flaw in the process of categorization of the infinitely diverse natural world. It exists in three stages: the damming necessity for a category to either apply to everything or nothing, the infinite number of exceptions warranting an impossible number of categories or special cases, and the necessary yet unattainably small precision at the border between categories. These impossibilities are the core reason why many debates or collaborations are in vain—they attempt to attain infinite precision of rule or category not possible by the reasons defined in this essay.

If a rule were to be created, the only way to ensure equal and whole success of that rule would be to uniformly apply that rule to every individual, or to not apply the rule at all. To be truly uniform and disciplined, a rule or category must apply to everything equally, but most rules cannot work this way, needing to be tailored to the individual. This is the “all-or-nothing” idea that deters many people from creating rules in the first place, as they know the process of tailoring a rule system is exponentially more complex. If this idea is abandoned, and we go ahead with attempting to fit rules to reality, an endless dance with perfection is entered, as the rules will need sculpting to an impossible level of precision. There are two levels to this precision’s impossibility: the two deeper levels of the infinite problem.

At the surface, attempting to categorize a natural outcome primarily is hampered by the existence of numerous exceptions or special cases. Especially in certain environments (mental and hypothetical environments, less in physical environments) where there is a truly infinite spectrum

(or denominated infinite spectrum) of outcomes, there are an infinite number of spaces for a category to occupy, and therefore an infinite number of categories is necessary to perfectly describe the infinite variation from case to case. Furthermore, it is important to note that in the hypothetical scenario someone succeeds at reaching an infinite number of categories, they will have just recreated the infinite spectrum that existed in the first place.

At its core, categorization also fails due to the infinite precision necessary between categories. The idea of "drawing the line" permeates western debate, describing the idea of a turning point at which a case transforms from good to bad, left to right, or, more generally, from one category to the other. This "line" requires an infinite level of precision, however, and therefore cannot be attained. Most attempt to create a "grey area" to get around this issue, but it still persists; the point at which a category crosses into the grey area is still undefined.

In conclusion, an attempt or collaboration to create a perfect system in the infinitely diverse reality is in vain. If not applied to everything equally (which usually doesn't make sense), a perfect rule is unattainable and subject to eternal debate, due to the infinite number of necessary categories caused by exceptions and differences on a case-to-case basis, and due to the infinitely small border between categories, or a category and the "grey area."

However, there is an assumption built into the above logic: that categorization is only used to completely describe a reality. Once we realize categorization does not need to serve this purpose, the conjecture that certain issues are subject to "eternal debate" can be debunked. If we take the approach to categorization that treats it more as an act of modelling (rather than perfect

encapsulation), we can accept its guaranteed approximation, as that is to be expected with a model. That is to say, we should understand that reality is infinitely complex and cannot be perfectly captured, and so we should only strive for our categories to roughly describe reality.

Therefore, we can conclude that an attempt or collaboration to create a perfect system in the infinitely diverse reality is not necessarily in vain, rather the problem may arise with our approach to categorization; if we approach rule-making as an act of perfect encapsulation, we enter an endless battle with perfection. However, if we understand that we cannot reach said perfection, we can utilize categorization to gain a rough understanding of some natural reality, rather than striving for the perfect description that gives rise to the three-layered infinite problem. And while this conclusion may seem obvious, it is an all-too prevalent mistake in our current climate.

And yet, where is the line at which we flip from using categorization for rough capturing to using categorization for perfect description?