

# Open Study Answer #130

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**Proposed answer to the following questions:**

- What benefit does scoped entropy have that variance does not?

Related questions:

- What is scoped entropy?
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## **WORK IN PROGRESS**

A feature of scoped entropy [1] analogous to mutual information is the following:

For any random variable  $X$  and random object  $Y$  of finitely many values,

$$V_{\mathfrak{D}(X)}(Y) = 0 \quad \text{if and only if} \quad X \text{ and } Y \text{ are independent}$$

## **References**

1. Ellerman EC Scoped entropy. <http://castedo.com/osa/128/>