word-set for each attribute as a linguistic frame of cognition LFoC of this attribute whose size depends only on application requirement. We propose a linguistic summary method based on multi-granularity representations of this LFoCs that can preserve order-based semantics relation and generality-specificity relation of words. Theoretically, the number of words in LFoC is not limited. A simulation study using dataset Iris shows that the proposed method can extract sentences using words of length 3 characterizing dataset Iris that other existing ones cannot do.

Do It Today Or Do It Tomorrow: Empirical Non-Exponential Discounting Explained by Symmetry Ideas

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Abstract. At first glance, it seems to make sense to conclude that when a 1 dollar reward tomorrow is equivalent to a $D < 1$ dollar reward today, the day-after-tomorrow's 1 dollar reward would be equivalent to $D \cdot D = D^2$ dollars today, and, in general, a reward after time $t$ is equivalent to $D(t) = D^t$ dollars today. This exponential discounting function $D(t)$ was indeed proposed by the economists, but it does not reflect the actual human behavior. Indeed, according to this formula, the effect of distant future events is negligible, and thus, it would be reasonable for a person to take on huge loans or get engaged in unhealthy behavior even when the long-term consequences will be disastrous. In real life, few people behave like that, since the actual empirical discounting function is different: it is hyperbolic $D(t) = 1/(1 + k \cdot t)$. In this paper, we use symmetry ideas to explain this empirical phenomenon.
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