

the infliction or imposition of a penalty as retribution for an offence.

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Humans and animals can be strongly motivated to seek information to resolve uncertainty about [rewards](#) and [punishments](#). In particular, despite its clinical and societal relevance, very little is known about information seeking about punishments. Jezzini et al. showed that attitudes toward information about punishments and rewards are distinct and separable at both behavioral and neuronal levels. They demonstrated the existence of [prefrontal](#) neuronal populations that anticipate opportunities to gain information in a relatively valence-specific manner, separately anticipating information about either punishments or rewards. These neurons are located in anatomically interconnected subregions of anterior cingulate cortex (ACC) and ventrolateral prefrontal cortex (vIPFC) in area 12o/47. Unlike ACC, vIPFC also contains a population of neurons that integrate attitudes toward both reward and punishment information, to encode the overall preference for information in a bivalent manner. This cortical network is well suited to mediate information seeking by integrating the desire to resolve uncertainty about multiple, distinct motivational outcomes <sup>1)</sup>.

<sup>1)</sup>

Jezzini A, Bromberg-Martin ES, Trambaiolli LR, Haber SN, Monosov IE. A prefrontal network integrates preferences for advance information about uncertain rewards and punishments. *Neuron*. 2021 Jun 3:S0896-6273(21)00353-6. doi: 10.1016/j.neuron.2021.05.013. Epub ahead of print. PMID: 34118190.

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