

**Temporal Discounting in Two Non-Human Primates, the cotton-top tamarin (*Saguinus Oedipus*) and the common marmoset (*Callithrix jacchus*)**

**Abstract**

Tradeoffs between smaller immediate value and larger delayed value have captured the attention of researchers studying choice theory in a diversity of fields, from economics to ecology. Part of the temporal aspect of decision-making is that all individuals devalue or discount the value of future rewards. Previous studies have quantified how quickly pigeons, rats and humans discount future rewards. I present two experiments to investigate how time influences decisions about food in two species of New world monkey, the cotton-top tamarin (*saguinus oedipus*) and the common marmoset (*Callithrix jacchus*). My first experiment examines whether the ability of tamarins to see food rewards influences their capacity to wait for delayed rewards. While studies demonstrate that children can wait for preferred foods longer when the rewards are out of sight, my results suggest that visual exposure does not affect preferences in the cotton-top tamarin-that is, removing visual access to the food does not suspend their preference for immediacy. In my second experiment, I quantify the degree of discounting and estimate a function describing how each species of monkey devalues food over time. To establish this function, I used an adjusting procedure in which the delay to the larger reward is adjusted until the individual is indifferent between choosing the smaller and larger reward. Such an indifference point describes an individual's level of impulsivity. Together, results from these experiments will help to illuminate the mechanisms by which individuals make important choices about how time influences the value of future rewards.