Hyperbolic discounting example:

A student, on day t=1, faces the following choice, study (S) on day t=2 for a test on day t=3 or not study (NS). The choice set is therefore : {S,NS}.

The student has the following preferences:

$$U_t = C_t + \beta \sum_{i=t+1}^{T} C_i \delta^{(i-1)}$$

Assume that ∃ = .5, ∗ = 0 (this is just for simplicity) and that the values of consumption, C, are :

	t=2	t=3
S	$C_2^s = -5$	$C_3^s = -5$
NS	$C_2^{ns} = 0$	$C_3^{ns} = -14$

ON day t=1 :

	Utility
S	$U_1 = \exists(C_2^s + C_3^s) = .5(-5 + -5) = -5$
NS	$U_1 = \exists(C_2^{ns} + C_3^{ns}) = .5(0 + -14) = -7$

The student, ON DAY t=1, chooses to study on day t=2.

ON day t=2 :

	Utility
S	$U_2 = C_2^s + \exists(C_3^s) = .-5 + .5(-5) = -7.5$
NS	$U_2 = C_2^{ns} + \exists(C_3^{ns}) = 0 + .5(-14) = -7$

The student, ON DAY t=2, chooses NOT to study on day t=2.

The student fails to follow his t=1 preferences on day t=2 : his preferences are time inconsistent.