

## FEELING GREEN: DECISION MODES PROMOTING ENVIRONMENTALLY-FRIENDLY CONSUMER UTILITY CHOICES

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### INTRODUCTION

People approach judgments in qualitatively different ways [1][2], and the use of specific decision modes promotes mode-consistent choices [3]. In many choice contexts, particularly those involving tradeoffs, multiple decision modes operate in parallel to guide people's considerations. Clarifying how variability in decision modes shapes evaluations of environmentally-friendly products or services could inform applied choice architecture interventions that alter decision processes. The present experiments examined how decision modes shape judgments about environmentally-friendly energy options.

### DECISION MODES USED IN CONSUMER UTILITY CHOICES

To investigate the impact of decision modes on energy utility plan choices in 5 studies - conducted in two countries - participants indicated to what extent they used the three different modes when presented with choices between an environmentally-friendly option and a standard option. In Study 1 and 2a participants had to decide between a more expensive energy plan that used only renewable sources or a cheaper energy plan that included standard sources. The remaining studies employed a choice between a tariff where electrical consumption was capped and a standard option where electrical consumption was unconstrained. In all studies participants' decisions were regressed on the extent to which they indicated having used an affect-based (emphasizing immediate emotional responses), calculation-based (emphasizing utilitarian considerations), or role-based decision mode (emphasizing habits or rules). Table 1 outlines the results of the regression analysis.

Table 1: Effect of decision modes on utility plan choice

	Study 1	Study 2a	Study 2b	Study 3	Study 4	Study 5
Green choice	69.5%***	66.7%***	60.2%*	84.8%***	70.6%***	66.8%***
Affect Mode	1.25***	1.24***	0.49**	0.60**	0.75***	p > .2
Role Mode	0.48*	0.84**	p > .2	p > .5	0.25*	0.81***

Calculation Mode	-0.97***	-0.94**	-0.49*	p > .3	-0.33**	-0.63***
Country (N)	CH (226)	US (132)	US (133)	CH (132)	CH (442)	US (587)

Across all studies we find that self-reported use of an Affect Mode (significant for study 1-4) and a Role Mode (significant for study 1, 2, 4 & 5) were more likely to lead to choosing the environmentally friendly option. Conversely, stated use of a calculation-based mode reduced choice of the environmentally friendly option (significant for study 1, 2, 4, 5).

In study 3 we sought to establish the effects found in study 1 and 2 in a framed field experiment [4], using utility customers encountering these options through their current utility company. Additionally, study 3 explored whether highlighting different benefits of the environmentally-friendly plan would alter decision mode use and its relationship with choice: the explanation either highlighted only the financial benefit of the green option, only the benefit to the environment of the green option, or both the financial and the environmental benefits. Results show that the main effect of Affect Mode on choice remained significant ( $\beta = 2.06$ ,  $p = .001$ ).

Studies 4 and 5 additionally assessed whether people are sensitive to the amount of the financial benefit of the environmentally-friendly plan. The framing significantly influenced participants' decisions in study 4 ( $\chi^2(3) = 9.325$ ,  $p = .025$ ), as participants were much less likely to select the green option when only the financial benefits were highlighted compared to the other conditions. A similar but only marginally significant pattern was detected in study 5.

In two more studies we sought to establish whether consumers intuited the relationship of modes and choice and their perceptions of which modes were most appropriate for this decision (Study 6) and whether mode use could be manipulated (Study 7). In Study 6 (N=202) 84% of participants predicted that the Role Mode would increase adoption of the green option rather than the standard option,  $\chi^2(1)=75.59$ ,  $p<.001$ . Interestingly, participants also expected the other two modes to encourage the green choice. When asked which mode was most appropriate, 79.1% of participants chose the calculation-based mode. In Study 7 (N=269) participants were manipulated into a specific mode use. Participants were randomly assigned and primed to use one of the three decision modes. Those assigned to use the role mode made more green choices (72%) than those in the other two conditions (Affect: 61%; Calculation: 55%).

## CONCLUSION

Calculation mode reduce the choice of the environmentally friendly option while the other two increase it. Although people intuit this relationship for the Role Mode, people generally feel that the Calculation Mode is most appropriate for the choice context, and anticipate that use of any of the modes will lead to of adoption environmentally-friendly utility plans. However, this may be a pitfall as it prevents (e.g. policy makers) to encourage the use of the right mode(s) which reinforce pro-environmental behaviors.

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