Querying the Group Mind: Applying Query Theory to Group Discussions

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Abstract

Query Theory assumes decision makers construct preferences by consulting memory for thoughts about choice alternatives.

Using accelerate vs. delay discounting scenarios, we extended this explanation to the "group mind". Discounting in delay was (positively) predicted by the number of "now" thoughts, while discounting in acceleration was (negatively) predicted by the number of "later" thoughts.

Thoughts for the default option predicted choice, even though thought frequency did not differ between conditions, pointing to an attentional effect.

For individual decisions, "now" and "later" thoughts clustered in different orders for the two conditions, a result (not surprisingly) not found for the group discussions.

Theoretical Background

Assumptions of Query Theory: (Johnson et al., 2007)
• Decision makers construct preferences by consulting their memory for thoughts about choice alternatives.

• People generate internal queries (e.g. do now? do later?)

• Most tasks suggest a natural order in which queries are posed, typically beginning with thoughts about the status quo.

• The retrieval of later queries tends to be less successful due to output interference.

As related to discounting:
People are impatient and discount future outcomes, but they are inconsistent in their impatience and discounting (Loewenstein, 1998).

$$\text{Discount Factor} = \left(\frac{\text{amount now}}{\text{amount later}}\right)^{(1/(\text{time now} - \text{time later}))}$$

[smaller numbers indicate *more* discounting]

• Thus, the balance of support favors the status quo and leads to differences in discounting.

• As predicted by Query Theory, prominence of impatient thoughts mediates the effect of frame on discounting for gains (Weber et al., 2007).

Motivation for the current study:
Query Theory has focused on individual thought processes:
Do these same processes transfer to group discussion?

Methods

• 93 individuals (41 men, 52 women) in 31 three-person pre-existing groups drawn from local clubs, organizations, and work teams

• Individuals were presented with an accelerate or delay discounting scenario

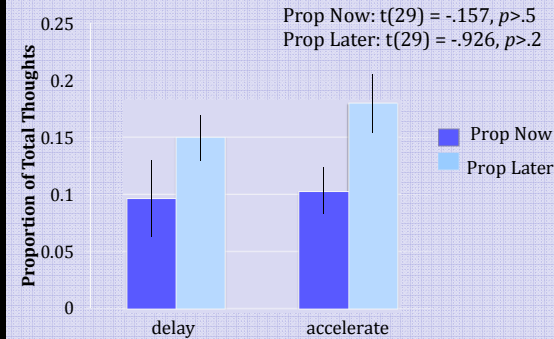• Group discussions were videotaped and transcribed.

Coded for "Now" thoughts = statements supporting receiving the $$ today
Coded for "Later" thoughts = statements supporting receiving the $$ in the future

Results

There is no difference between conditions for discounting (in contrast to what is normally found for individuals).

Prop Now: t(29) = -.157, *p*>.5
Prop Later: t(29) = -.926, *p*>.2

Even though thought frequency did not differ between conditions, **thoughts for the default option predicted choice**.

B=-.197, SE=.062
t(27) =-1.045, *p*>.2
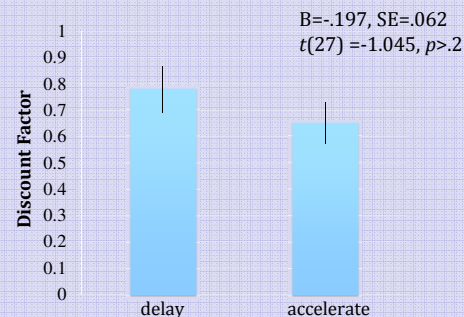
Results continued

Discounting in delay was (positively) predicted by the number of "now" thoughts, while discounting in acceleration was (negatively) predicted by the number of "later" thoughts

		Standardized Beta	t	Significance
Delay				
	Prop "Now" thoughts	**-.538**	**-2.379**	**p < .05**
	Prop "Later" thoughts	.244	1.080	p > .05
Accel				
	Prop "Now" thoughts	-.236	-1.232	p > .05
	Prop "Later" thoughts	**.688**	**3.597**	**p < .05**

Discussion

Although there were the same proportion of "now" thoughts and "later" thoughts across condition, these results point to an attentional effect such that:

• "Now" thoughts matter more for delay
• "Later" thoughts matter more for accelerate

For individual decisions, the default option determines the clustering of "now" and "later" thoughts, which in turn determine individual choice (Weber et al., 2007). The current work shows the same pattern of effects for group choice, with one important difference: for groups, defaults influence choice via the differential weighting of "now" and "later" thoughts. This attentional effect suggests that defaults matter for group decisions.

References

Johnson, E. J., Häubl, G., & Keinan, A. (2007). Aspects of endowment: A query theory of value construction. *Journal of Experimental Social Psychology: Learning, Memory and Cognition, 33(3)*, 461-474.

Loewenstein, G. F. (1988). Frames of mind in intertemporal choice. *Management Science, 34(2)*, 200-214.

Weber, E. U., Johnson, E. J., Milch, K. F., Chang, H., Brodscholl, J. C., & Goldstein, D. G. (2007). Asymmetric discounting in intertemporal choice: A query theory account. *Psychological Science, 18(6)*, 516-523.

Weber, Elke U. and Johnson, Eric J., Constructing Preferences from Memory (2006). The Construction of Preference, Lichtenstein, S. & Slovic, P., (eds.), pp. 397-410, New York, NY, Cambridge University Press, 2006.

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