EXPOSING THE KILLER IN DISASTER PLANNING THROUGH ANTECEDENTS OF DECISION AVOIDANCE

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Summary

In the case of a bushfire, Australian residents of bushfire prone areas have a choice between staying and defending their property or leaving early. The government tries to motivate people to choose one of these fire plans ahead of time, and prepare for the chosen plan in a proper manner. However, a significant percentage of the population (e.g., 37% to 67% in our studies) chooses a plan that implies ambivalence regarding staying or leaving (e.g., 'I will defend my house until the fire comes too close'), or an outright avoidance of the decision altogether (e.g. 'I will wait until the authorities come and tell me what to do'). These 'indecisive' plans are generally tied to lower levels of preparedness for any type of action and a greater risk of harm due to leaving very late during an actual fire (McLennan, Elliot, & Omodei, in press). Based on the literature on decision avoidance, the current project aimed to determine which factors predict selection of an indecisive fire plan. We conducted a 2-wave survey in which we measured several trait factors (need for cognition and compulsive indecisiveness) and decision factors (decision relevance, selection difficulty, and blame avoidance), and asked people to indicate their fire plan. Results of this study showed that people's choice of fire plan is mainly predicted by selection difficulty due to lack of distinctiveness of the options of defending versus timely evacuation (i.e., competing options). This study serves as a basis for more effectively reducing the choice of indecisive plans.

Method

Participants and procedure. Data were collected at two time points amongst residents of WA fire prone communities: Time 1 = pre-fire-season (October 2011) and Time 2 = the end of the season (March 2012). The final pool consisted of 182 participants (98 males, 84 females, Mean age = 54.04).

Need for Cognition. 18-item questionnaire on 9-point disagree/agree scale (Cacioppo, Petty, & Kao, 1984), e.g., 'I find satisfaction in deliberating hard and for long hours'.

Compulsive Indecisiveness. 15-item questionnaire on 9-point disagree/agree scale (Frost & Shows, 1993), e.g., 'I find it easy to make decisions'.

Decision Relevance. Three items measuring bushfire risk perception on 7-point scales, e.g., 'How likely is it that a fire will threaten your suburb or community during the next fire season?'.

Regret/Blame Avoidance. Two questions on 5-point scale, e.g., 'If a fire threatened your community, who would ultimately be responsible for saving your life?'.

Selection Difficulty (through lack of distinctiveness). We measured the importance of 18 positive outcomes (e.g., you survive the fire) and likelihood of occurring when defending versus evacuating. Final score was calculated by subtracting the total value of evacuating from the total value of defending.

Fire plan. We gave people the following options in indicating their fire-plan (see Whittaker, Haynes, McLennan, Handmer, & Towers, 2010):

- ❑ Stay and try to protect your property throughout the fire,
- ❑ Do as much as possible to protect your property but leave if the fire directly threatens it/reaches your property,
- ❑ Wait to see what the fire is like before deciding whether to stay and defend or leave,
- ❑ Wait for police, fire or other emergency services to tell you what to do on the day,
- ❑ Leave as soon as you know there is a fire threatening your town or suburb,
- ❑ You would not be at home because you intend to leave your property and stay somewhere else on days of extreme and catastrophic fire danger,
- ❑ Haven't thought about it, or
- ❑ Other (please specify): …

Bottom 3 plans were not analysed as they were reported by less than 1% of participants.

Results

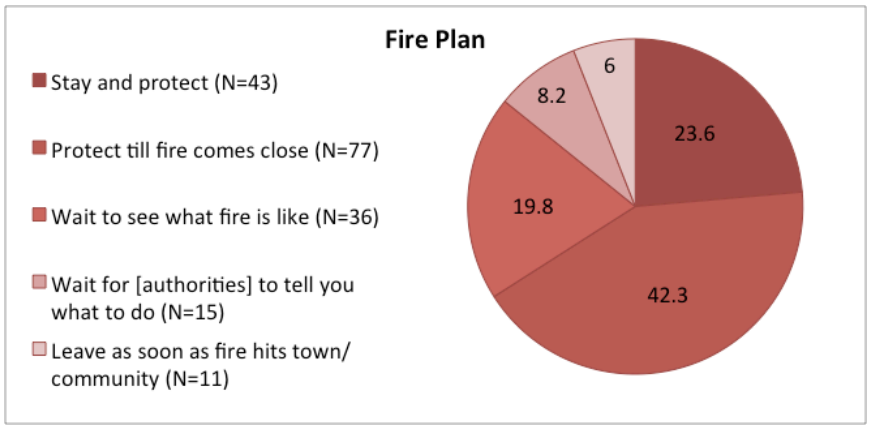

Figure 1. The majority selected an indecisive fire-plan.

A multinomial logistic regression showed that selection difficulty through lack of distinctiveness was the main significant predictor of fire-plan choice:

B (SE) Wald	NFC	Indecisiveness	Relevance	Blame	Distinctiveness
Stay and protect	.67 (.28)* 5.52	.10 (.22) .20	-.37 (.23) 2.58	.32 (.21) 2.28	.01 (<.01)*** 21.89
Wait to see what fire is like	.20 (.27) .60	-.08 (.21) .14	-.33 (.22) 2.19	-.07 (.19) .13	.01 (<.01)+ 3.46
Wait for authorities	.16 (.36) .19	-.16 (.30) .29	-.30 (.30) .98	-.36 (.25) 2.05	<.01 (<.01) .09
Leave as soon as fire hits town	-.69 (.47) 2.21	-.20 (.44) .21	.82 (.60) 1.86	-.06 (.35) .03	-.02 (.01)** 11.32

Baseline = Protect until fire comes close

Also, 2 out of 3 indecisive plans had distinctiveness means not significantly different from 0 (= no distinctiveness).

	M	SD	t (df)[1]	Lower (95%)	Upper (95%)
Stay and protect	59.90	88.57	4.44 (42)***	32.64	87.15
Protect until fire hits property	-41.16	96.74	-3.73 (76)***	-63.12	-19.20
Wait to see what fire is like	-7.08	69.65	-.61 (35)	-30.65	16.48
Wait for authorities	-32.60	77.31	-1.63 (14)	-75.41	10.21
Leave as soon as fire hits town	-161.43	125.45	-4.27(10)**	-245.71	-77.16