

## **Constructing a Climate of Compliance**

### **– Understanding Reactance to Pro-Environmental Messages**

Efforts to promote climate change awareness can paradoxically lead to adverse behavioral reactions. According to Psychological Reactance Theory (PRT) they emerge when individuals perceive threats to their personal freedom and seek to restore it (Brehm, 1966) with behaviors like counterarguing, engaging third parties to vent, noncompliance, or withdrawing from the message. Although PRT has been widely applied in communication research (Ratcliff, 2019), its application to climate communication is relatively recent (Ma et al., 2019).

This research seeks to comprehend the psychological processes triggered by pro-environmental messages and their resulting behaviors. We outline a novel five-step reactance process: Starting with (1) perceived freedom limitation and (2) aptitude to act, leading to (3) negative cognitions and (4) negative affect (anger), and ultimately (5) the intended action. We posit that messages emphasizing the urgency of adopting eco-friendly behaviors will intensify the signs and feelings of resistance, leading to (H1a) heightened perceived limitation of freedom, (H1b) increased perceived aptitude to act, (H1c) more negative cognitions, and (H1d) intensified anger.

Our aim is to explore the link between these cognitions and affects, and various behavioral outcomes. We specifically seek to determine if individuals with a stronger tendency towards cognitive resistance exhibit different behavioral patterns compared to those inclined towards affective resistance (RQ1), as posited by Kim, Lee, & Hong (2020).

**Method.**

In an online experiment using the SoSci Survey panel (2x2, n = 546), participants were shown a fictional Instagram post from a public broadcasting service, *funk*. The post's content varied both in its emphasis on the urgency and individual responsibility to avoid environmentally unfriendly behaviors (x2, low and high) and in its topic (x2, smartphone use and air travel). Next, participants completed a questionnaire with 37 items addressing the five-step reactance process we delineated, and were prompted to provide comments in response to the posting.

**Results.**

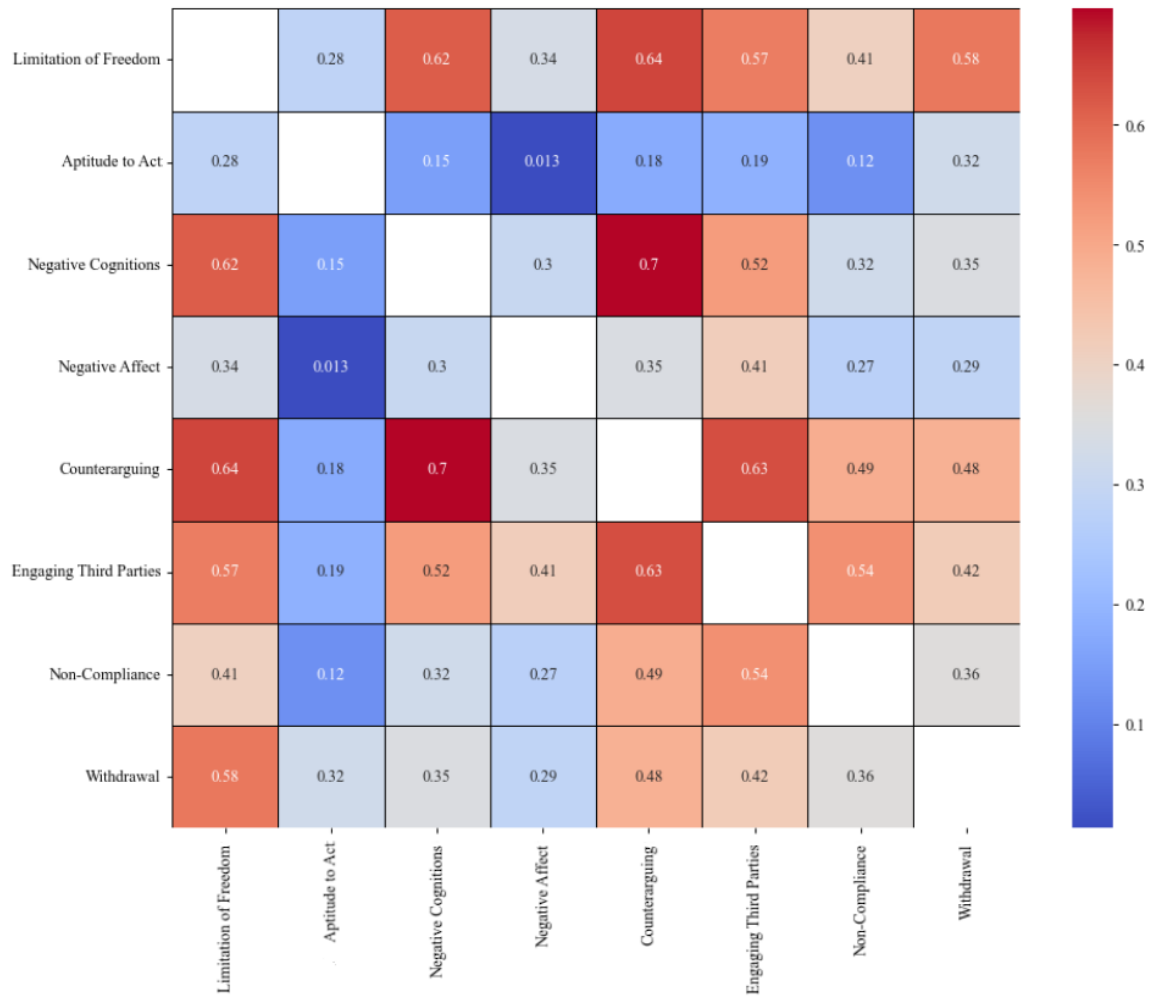
Our quantitative analysis showed that emphasizing a greater urgency and personal responsibility to avoid environmentally unfriendly behaviors leads to an increased perception of freedom limitation and aptitude to act, and, subsequently, anger (Table 2). Notably, this emphasis had no discernible effect on negative cognitions. A qualitative content analysis of 538 comments (266 high-urgency group, 272 low-urgency) revealed that in the high urgency condition, more comments were marked by strong negative emotions, assertiveness, and frustration. This reflects a clear emotional contrast with the low urgency group. While both groups critiqued the post's simplicity and missing arguments, low-urgency comments more often encouraged constructive debate, whereas high-urgency comments primarily focused on criticizing the message's design and perceived manipulation. Taken together, our quantitative and qualitative data supports hypotheses H1a, H1b, and H1d, but clearly refutes H1c.

**Table 2.** Impact of urgency and responsibility on dimensions of state reactance

Dimension	High Urgency & Responsibility		Low Urgency & Responsibility		Delta	t	df	p	d
	M	SD	M	SD					
Limitation of Freedom	3.643	1.687	2.816	1.583	<b>.827***</b>	4.124	264	.000	.506
Aptitude to Action	5.921	1.201	5.565	1.508	<b>.355*</b>	2.127	257	.034	.260
Negative Cognition	3.286	1.770	2.980	1.669	.306	1.438	259	.152	.178
Negative Affect	2.282	1.698	1.731	1.070	<b>.551***</b>	3.089	204	.002	.390

Addressing RQ1, we find a strong association between negative cognitions and counterarguing (Figure 1). 81 respondents reported experiencing intense negative cognitions with minimal negative affect. In contrast, only 19 respondents reported strong negative emotions with minimal negative cognitions. While the former group is predominantly prone to counterarguing ( $r = .378, p < .001$ ) and withdrawal ( $r = .123, p < .05$ ), the latter is only inclined to withdraw from the pro-environmental messages ( $r = .227, p < .001$ ).

**Figure 1.** Correlations with behavioral outcomes



**Discussion.**

Our study provides insights into cognitive and affective resistance to pro-environmental messages. One enhancement for the presentation at DGPuK could be the use of SEMs, offering a deeper understanding of the causal relationships between the reactance dimensions. A central finding of our study is the differential impact of pro-environmental messaging on cognitive and emotional elaboration. Notably, our research reveals that respondents consistently devalue

message arguments, regardless of urgency or responsibility. Interestingly, emotional responses vary significantly, suggesting that reactance can hinder constructive feedback despite high cognitive engagement. This distinction in responses extends to behavioral outcomes like counterarguing.

From a practical standpoint, our findings suggest that by discerning and leveraging the differential effects of reactance, communicators can potentially mitigate undesirable outcomes, e.g., pivoting from counterarguing to mere withdrawal. Future studies might explore communication strategies that help to make these shifts in outcomes, such as personalized messaging.

## References.

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