

Understanding Phone Fraud in the Age of AI: The Nomorobo Honeypot Persuasion Study

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Overview

- What scammers (and social science) tell us about fraud
- Honeypot research questions
- Study methods
- Results and implications for prevention



What Makes Us Vulnerable?

Researchers have spent decades looking for a Unifying Theory of Fraud Victimization:

- Thousands of consumer surveys
- Hundreds of focus groups
- Analysis of FBI and AG Recordings
- Review of consumer complaint data

No one theory emerged that would predict all victimization.



What Scammers Tell Us About Fraud

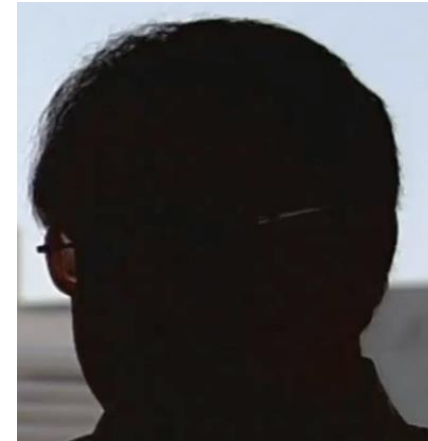
Get the Victim “Under the Ether”



“Enitan”

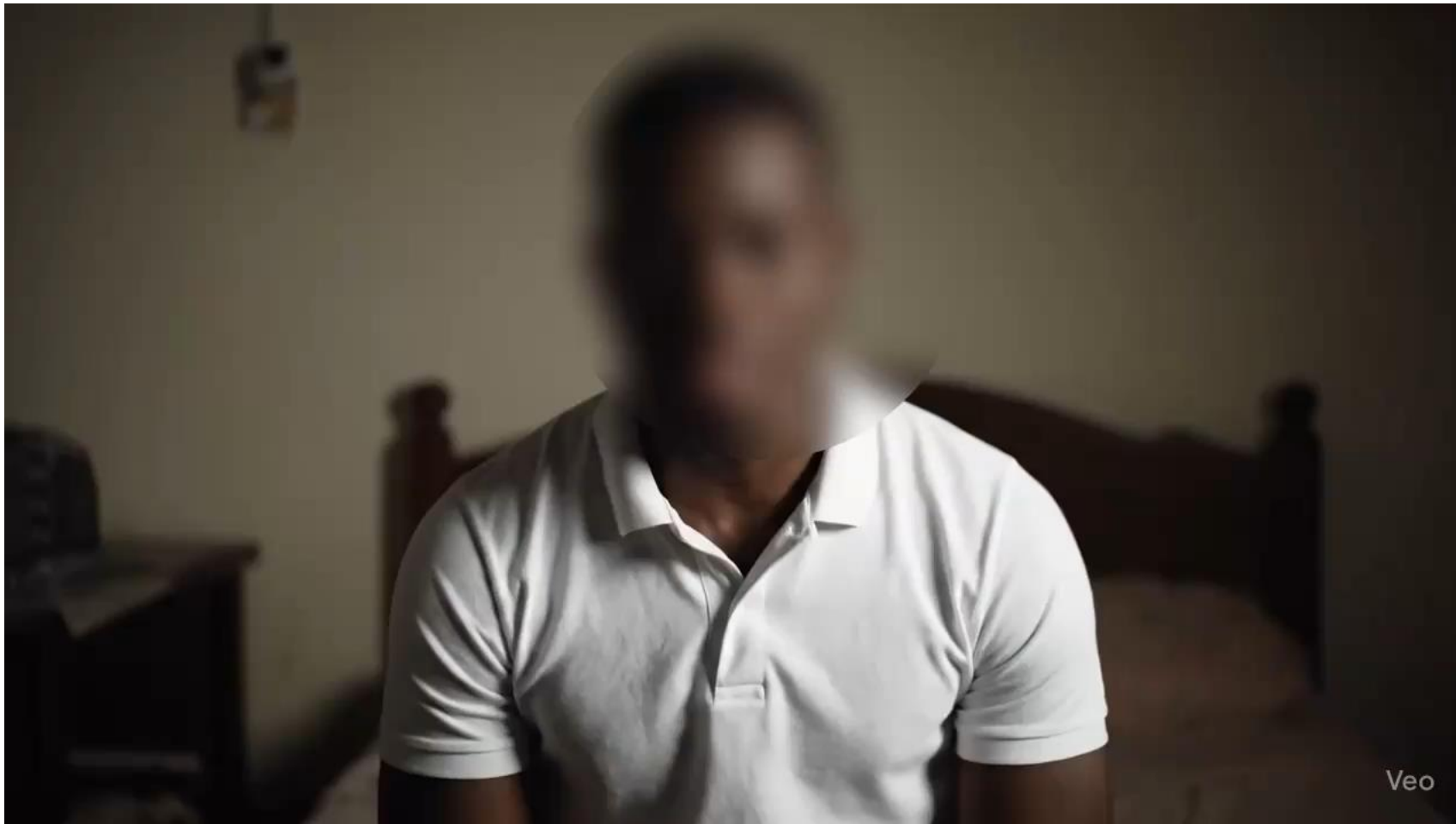


Jim Vitale



“Stephen Michaels”

We call it “Taking Their Brain”



The “kill” is Emotionally Driven.



Source: The AARP Fraud Fighter's Handbook, 2024

Close the sale before the ether wears off.



Stanford Study (2018)

Question: Does heightened emotions impact vulnerability to fraud?



Emotional arousal may increase susceptibility to fraud in older and younger adults

Stanford Study (2018)

Subjects were divided into three groups:



Heightened Emotions
(Positive)



Heightened Emotions
(Negative)



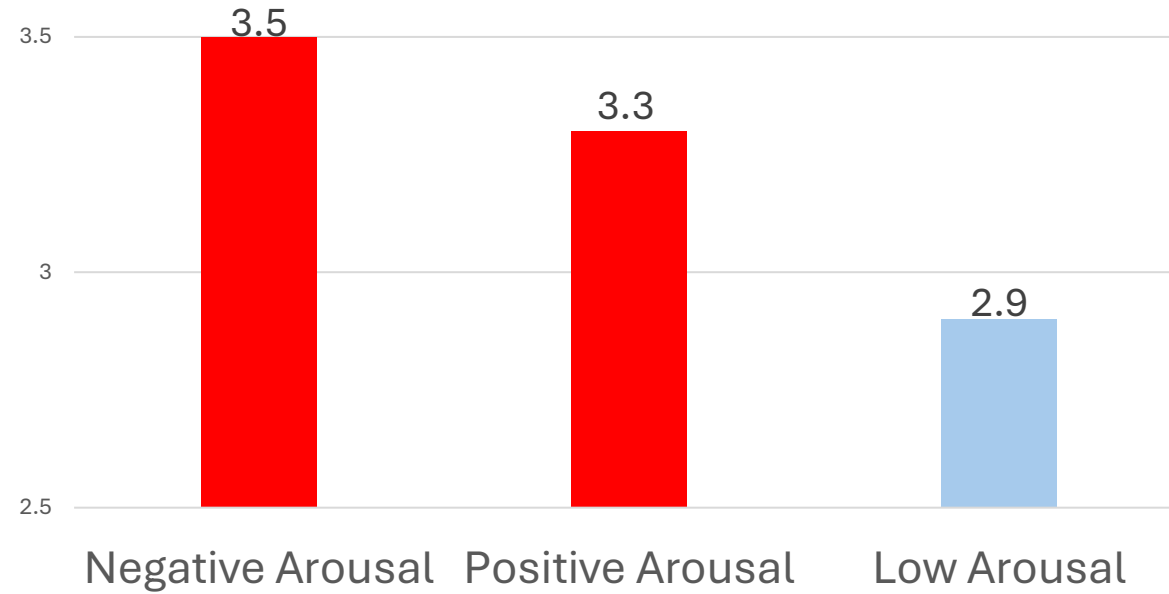
Low Emotions

Once in an artificially induced emotional state, subjects were asked to review deceptive ads provided by the FTC.



Intent to Purchase Deceptively Advertised Goods

Source: Stanford Mood Lab (2018)



Those in an emotionally aroused state showed a significantly higher interest in buying deceptively-advertised products.

The Nomorobo Honeypot Persuasion Study

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Research Questions:

1. To what extent do robocalls employ persuasion tactics designed to arouse heightened emotions (ether)?
2. How do persuasion tactics in **scam** robocalls differ from **spam** robocalls?

Data Source: The Nomorobo Honeypot

- Over 300,000 Direct Inward Dial phone lines.
- Sample drawn from 2018-2022 Nomorobo database
- Over 4.4 million transcripts analyzed.



Preparing the Data: Identify Scams, Spam and “other.”*

Scam – Any message that is attempting to get money or personal information where there is little to no chance that a product or service will be delivered.

Spam – Any communication aimed at promoting a product or service with a likely expectation of delivering something of value.

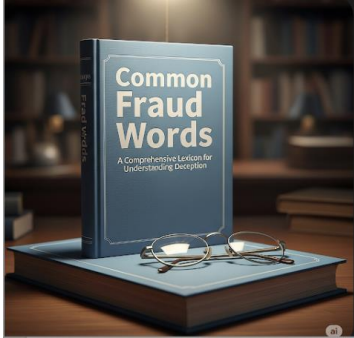
Other – Miscellaneous calls that don't fall into either the spam or scam category.

Minimum Length – Eliminate all transcripts with fewer than 25 words.

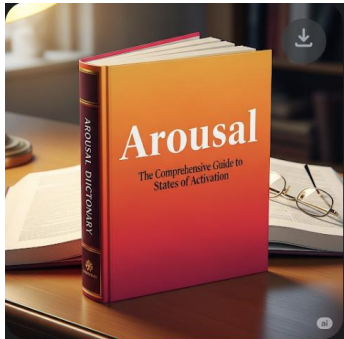
* Chat GPT was used to scale the labeling of 4.5 million transcripts



The Large Language Model Dictionaries



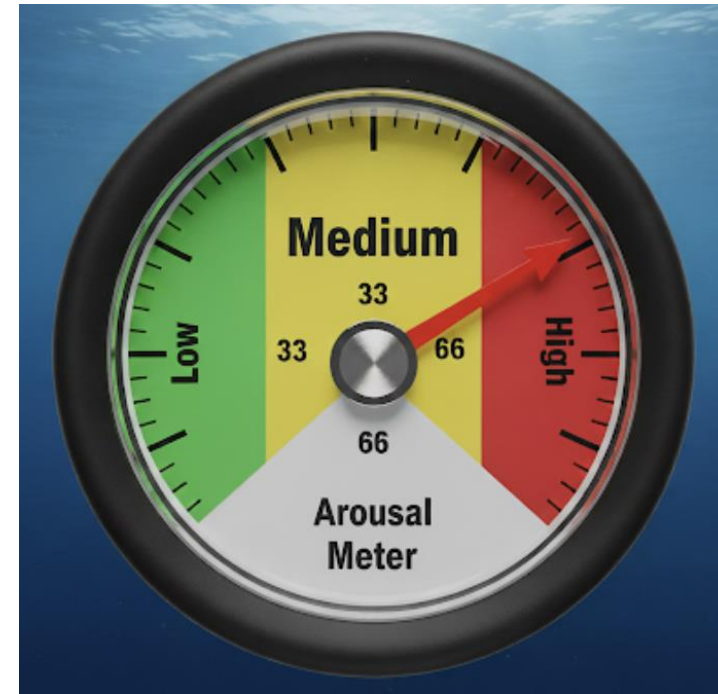
The Fraud dictionary, developed by fraud experts, contains 500 words commonly found in scams.



The ANEW Arousal Dictionary contains 12,000 words scored for emotional content.



Key Finding: Scam robocalls contain more “high arousal” words



Nomorobo Honeypot Persuasion Study

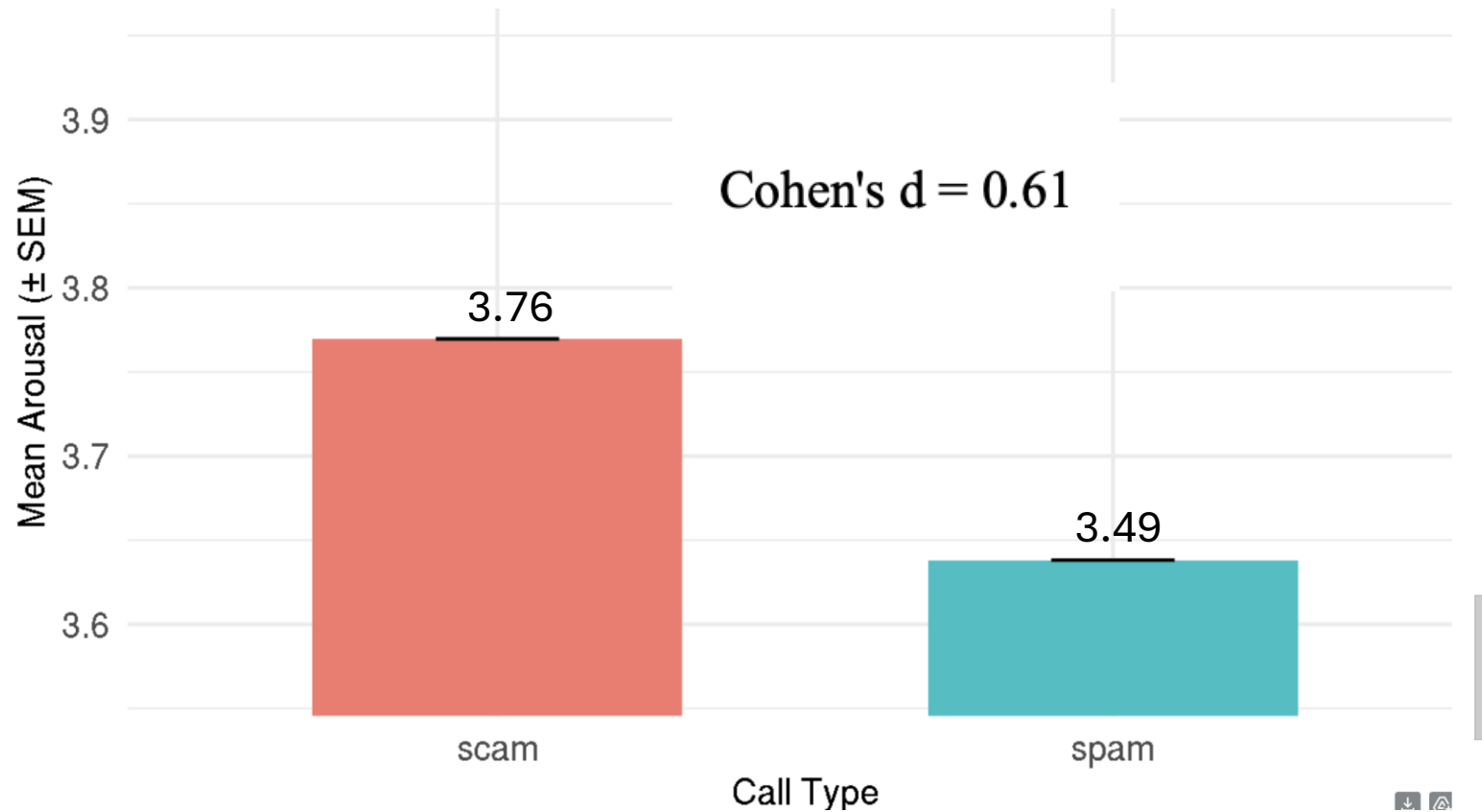
What is a High Arousal Scam Call?



If you don't wanna make up your mind
right now, that's where I come in.

Difference in Arousal Persuasion – Scams vs. Spam

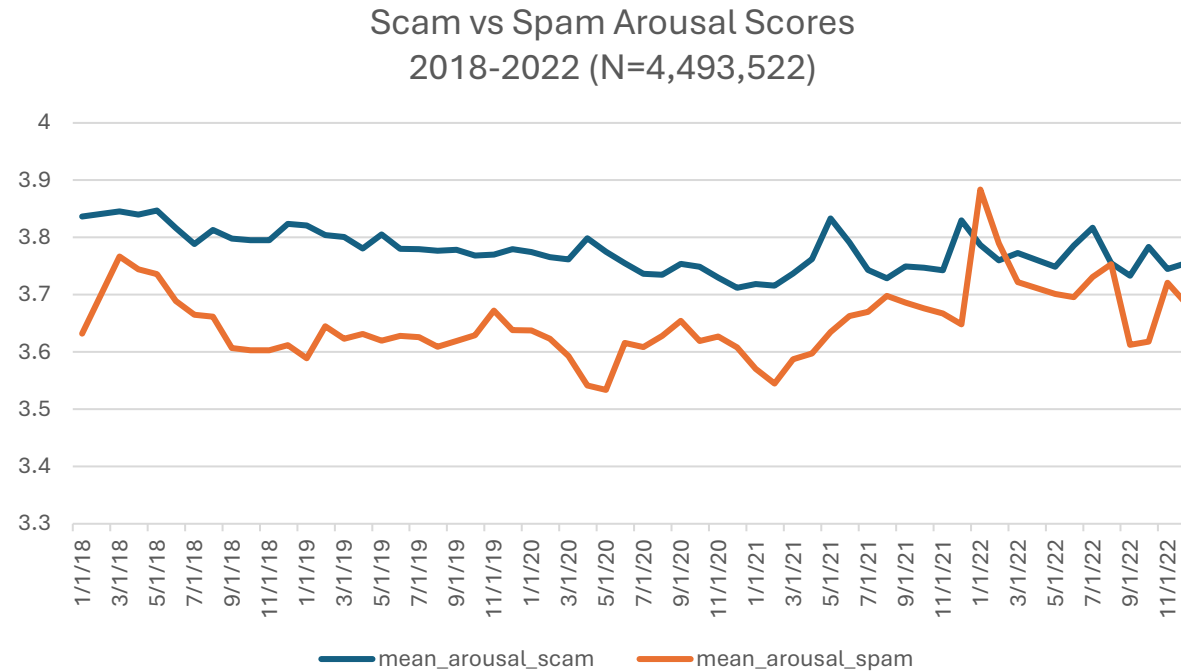
2018-2022 (N=4,493,522)



Difference in Arousal Persuasion over 60 months

Scams vs. Spam

2018-2022 (N=4,493,522)



More Key Findings: Scam Robocalls have more:

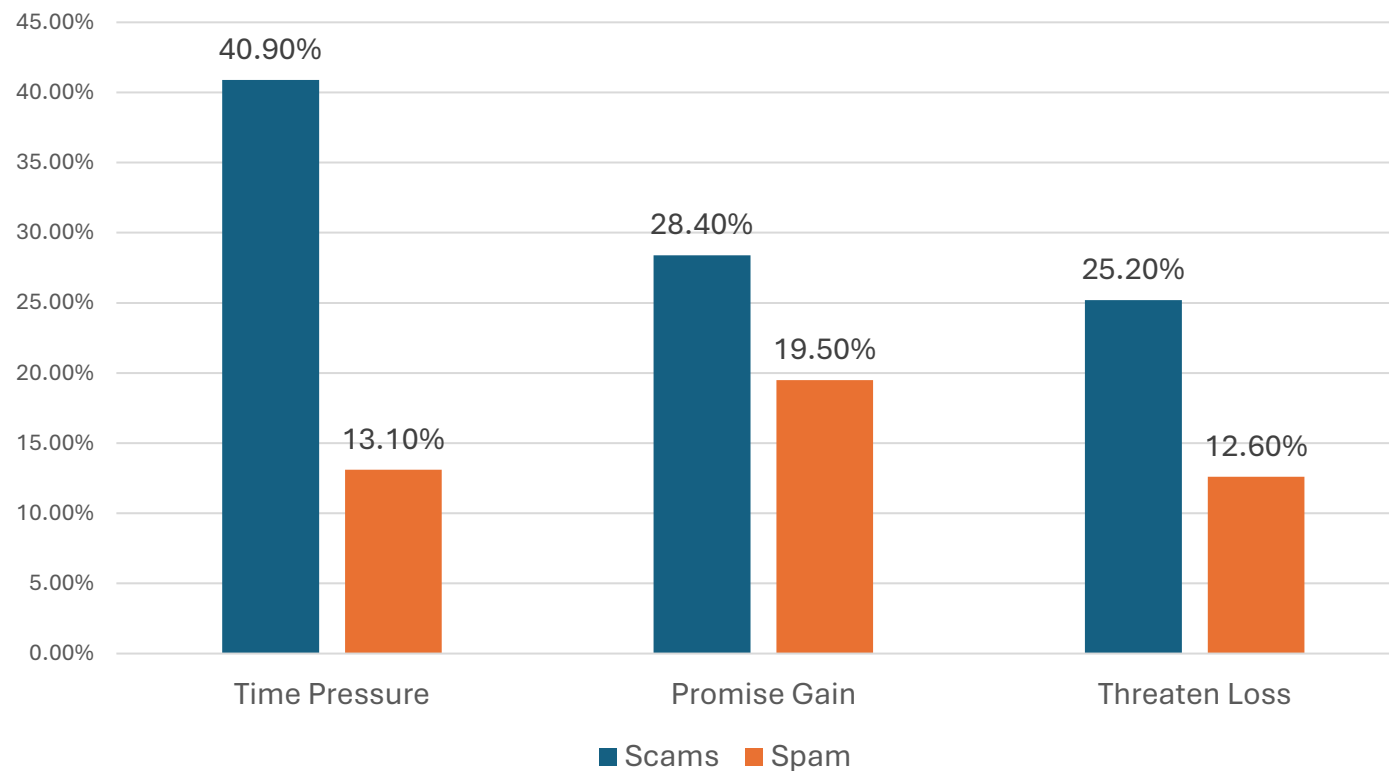
- ✓ Time Pressure – “You must respond in the next 30 minutes.”
- ✓ Threat of Loss – “Hackers are in your computer and will steal everything.”
- ✓ Promise of Gain – “Congratulations! You qualify for a low 6% interest rate on your credit card.”



Persuasion Tactics in Scams vs. Spam

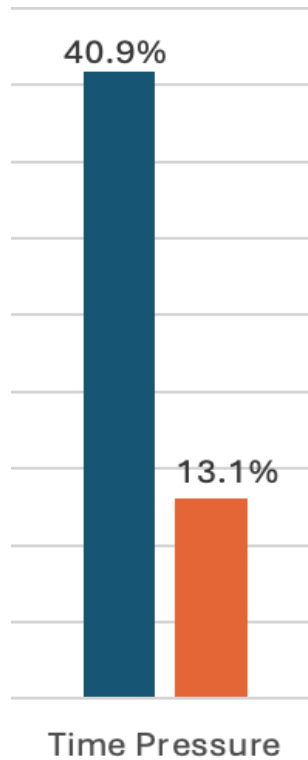
2018-2022

(n=4,493,522)



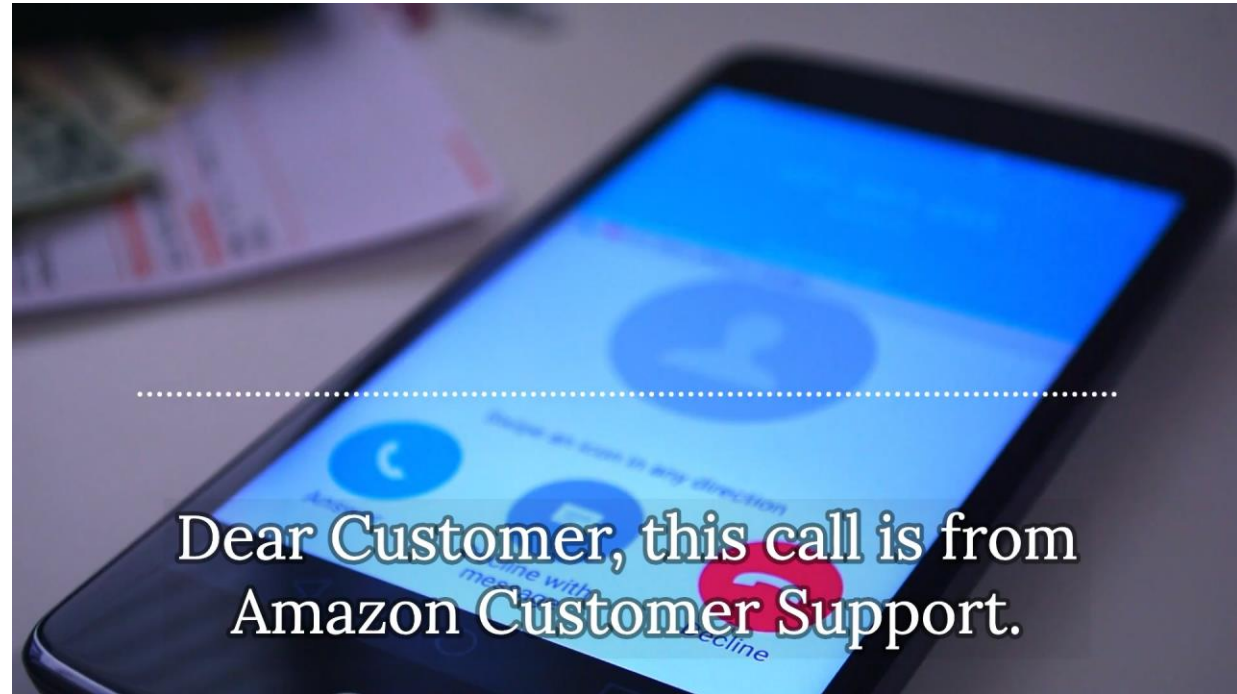
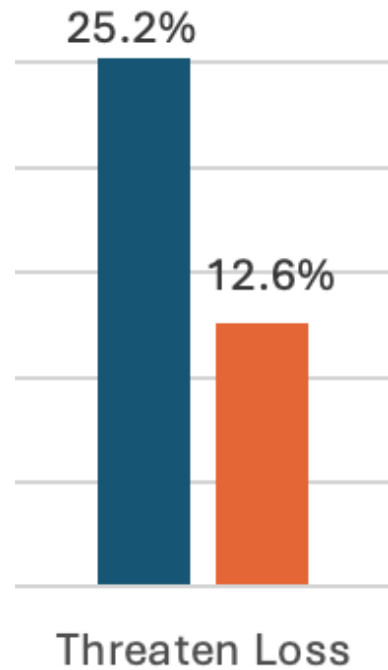
Source: Nomorobo Honeypot Persuasion Study

Fake Urgency: We're coming to shut off your power



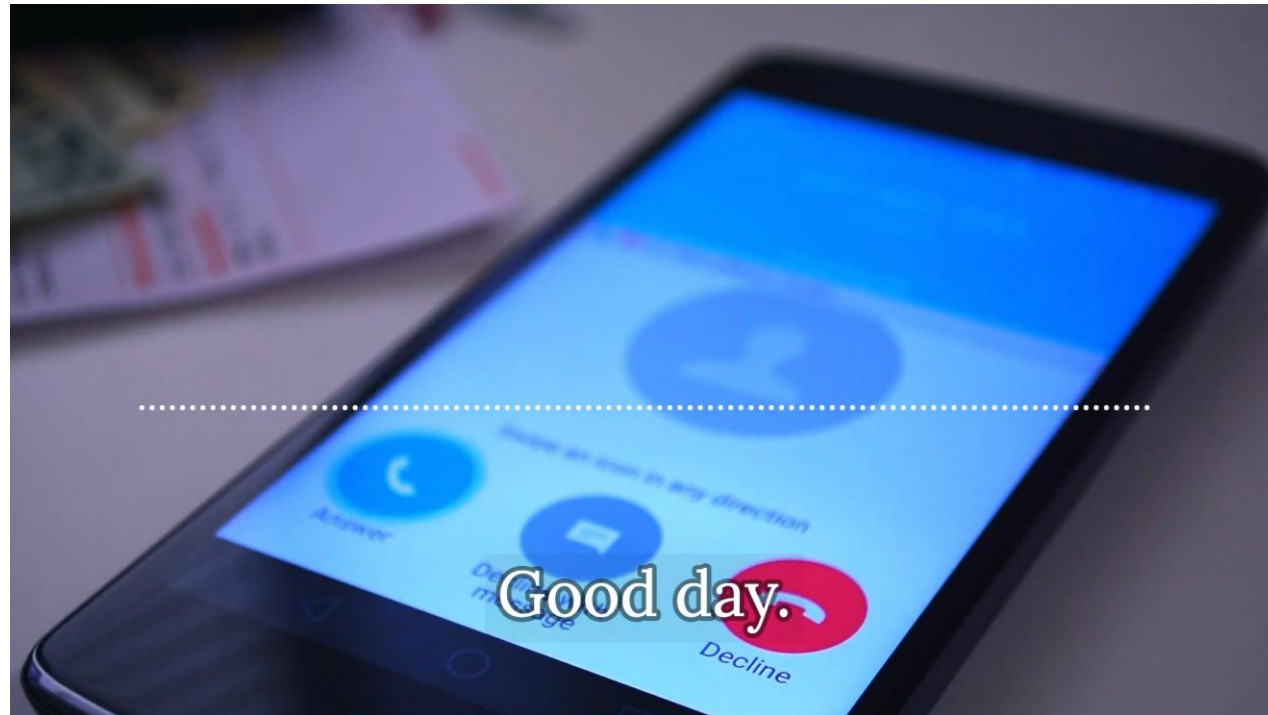
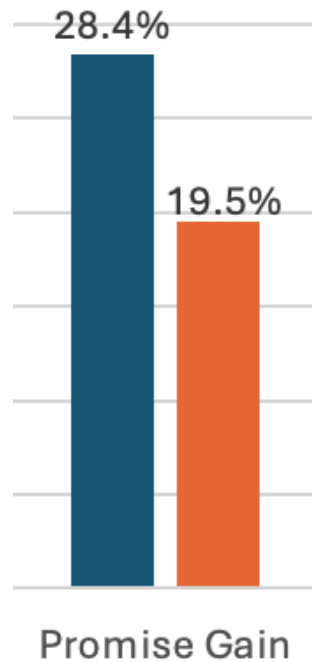
Source: Nomorobo

Threat of Loss: Someone made a false charge on your account



Source: Nomorobo

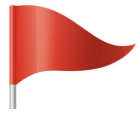
Promise Gain: You've won the \$5 million dollar prize



Source: Nomorobo

Tips for Avoiding Robocall Fraud

Red Flags:



Caller says you must act immediately to take advantage or avoid trouble. (Time Pressure)

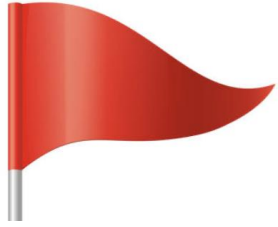


Caller says bad things will happen to you if you do not act. (Threaten Loss)



Caller says you are entitled to a huge windfall if you do what he/she says. (Promise Gain)





The Biggest Red Flag

****Avoid making decisions when your emotions are elevated.**

“Perhaps the best strategy to resist scams is to resist making decisions in the ‘heat of the moment,’ and instead wait until emotions have returned to a calm, neutral state.

– Kircanski et al., Stanford study on emotional arousal and fraud



Fraud Fighter Pro Tip: Develop a Refusal Script



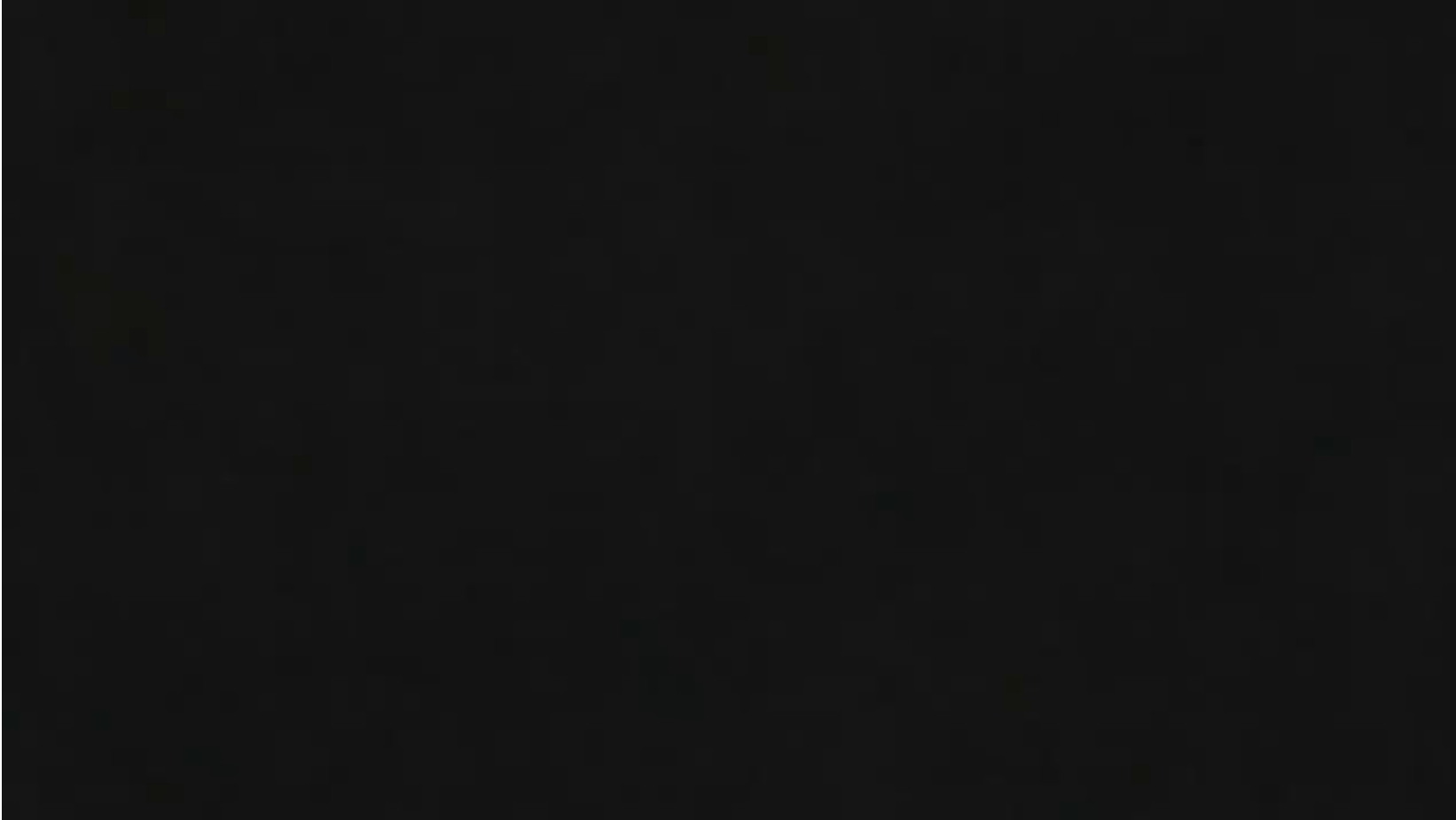
Nomorobo Honeytrap Persuasion Study

Refusal Script: The AI Generated PSA



Source: www.Nomorobo.com/fraudfighters

The Romance Scam



Source: www.Nomorobo.com/fraudfighters

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- ❖ Dylan Adelman, Co-Founder of Applause
- ❖ Aaron Foss, Founder of Nomorobo

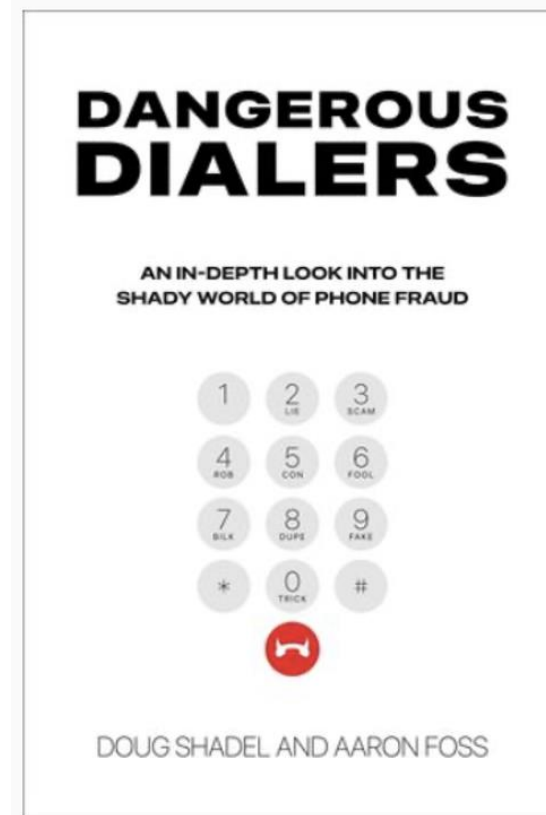
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