

Language Deception Tactics in PayPal Bitcoin Scam Emails: A Critical Discourse Analysis and Forensic Linguistic Approach

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Abstract

This study investigates the deceptive language strategies employed in PayPal Bitcoin scam emails, analyzed through the frameworks of Critical Discourse Analysis (CDA) and forensic linguistics. A corpus of fifty scam emails was examined to uncover the linguistic devices used by scammers to manipulate recipients. The analysis reveals the systematic use of urgency, fear, false promises, impersonation, and credibility construction as dominant strategies in digital deception. These linguistic practices demonstrate how scammers exploit psychological vulnerabilities to gain victims' compliance. By applying CDA, the study highlights how scam emails reproduce power asymmetries and ideologies of authority, while forensic linguistics provides insights into identifying stylistic markers of deception for investigative purposes. The findings align with and extend prior research on online fraud, phishing, and deceptive communication, offering practical implications for cybercrime prevention and victim awareness.

Keywords: critical discourse analysis, forensic linguistics, deception, scam emails, PayPal, Bitcoin

INTRODUCTION

The rise of digital finance has fundamentally reshaped global economic transactions, but it has also created unprecedented vulnerabilities to cybercrime. According to the Federal Trade Commission (FTC, 2023), U.S. consumers alone reported more than 2.4 billion USD in losses to phishing and online fraud, with cryptocurrency-related scams accounting for over 25% of cases. Likewise, Europol (2022) highlights that impersonation of financial institutions such as PayPal is one of the

most common gateways for cybercriminals.

PayPal has become a frequent target because of its reputation as a secure and globalized payment system. Meanwhile, the rise of Bitcoin and other cryptocurrencies has added new layers of legitimacy and urgency to fraudulent schemes. Scam emails often exploit the dual trust in PayPal's brand authority and the perceived profitability of cryptocurrency markets. Victims are lured into revealing account credentials, transferring funds, or clicking malicious links.

While cybersecurity research has developed algorithmic and technical approaches to detecting scams, far fewer studies focus on the language itself—the discursive and rhetorical mechanisms by which fraudsters manipulate victims. Yet, as Whitty (2019) observes, “language is the most powerful weapon of online scammers, for it constructs both the crime and the victim’s compliance.”

This study aims to analyze the linguistic deception strategies in PayPal Bitcoin scam emails using a combined framework of CDA and forensic linguistics. It seeks to answer three questions:

1. What linguistic strategies are employed in PayPal Bitcoin scam emails to manipulate recipients?
2. How do these strategies reflect broader power dynamics and ideologies of legitimacy?
3. What implications do the findings hold for prevention, awareness, and forensic investigation of cybercrime?

By addressing these questions, the study contributes not only to academic scholarship but also to practical strategies in online fraud detection and public awareness campaigns.

LITERARY REVIEWS

2.1 Critical Discourse Analysis (CDA) and Deception

CDA views discourse as a social practice where power and ideology are enacted through language (Fairclough, 1995; van Dijk, 2008). Fraudulent discourse, as argued by Blommaert (2005), functions by creating an illusion of legitimacy that masks

underlying deception. In scam emails, CDA is essential for understanding how authority and compliance are linguistically constructed.

Previous CDA-based studies on online scams show: Kshetri (2010) found scams reproduce power imbalances by impersonating institutions. Chiluwa (2012) revealed that Nigerian 419 scams rely on politeness strategies and appeal to shared cultural values. Fage-Butler (2018) argued phishing emails blend bureaucratic and conversational tones to increase credibility.

2.2 Forensic Linguistics and Scam Detection

Forensic linguistics applies linguistic expertise to legal and criminal investigations (Coulthard & Johnson, 2017). Authorship attribution, stylistic markers, and discourse features are particularly useful in identifying fraudsters (Grant, 2008). Chaski (2013) demonstrated that syntactic and stylistic anomalies often betray fraudulent texts. Turell (2010) emphasized the role of idiolect and stylistic consistency in distinguishing scam authors. McMenamin (2002) highlighted cross-linguistic interference, such as awkward phrasing, as indicators of deception.

2.3 Strategies of Online Deception

The literature consistently identifies several recurring tactics: urgency and time pressure, fear appeals, reward and gain appeals, authority impersonation, and linguistic manipulation. Workman (2007) showed scammers exploit cognitive overload by imposing artificial deadlines. Pattinson et al. (2012) found urgency decreases critical reflection and increases compliance. Lea et al. (2009) noted threats of account suspension induce panic, while Cross et al. (2016) highlighted how fear-based strategies exploit emotional vulnerability. Button et al. (2014) found reward promises exploit optimism bias, while Whitty (2019) explored the psychology of scam victims. Holt & Graves (2017) and Williams (2018) showed scammers exploit brand legitimacy. Bada & Sasse (2015) and Mohammad & Rutherford (2021) revealed the role of jargon and cryptocurrency discourse in deception.

Despite this growing body of research, very few studies focus explicitly on PayPal Bitcoin scams, which combine financial trust with cryptocurrency hype. This study addresses that gap.

METHODOLOGY

3.1 Research Design

This is a qualitative study using CDA and forensic linguistics. The goal is not statistical generalization but in-depth analysis of linguistic strategies.

3.2 Data Collection

- Corpus: 50 PayPal Bitcoin scam emails.
- Sources: cybersecurity forums, scam-reporting websites, and email archives of volunteer participants.
- Timeframe: January 2025 – August 2025.

3.3 Data Selection Criteria

- Explicit mention of PayPal and Bitcoin.
- Verified as fraudulent by cybersecurity authorities.
- Exclusion of duplicates.

3.4 Analytical Procedure

The analysis involved textual analysis, discursive practice analysis, sociocultural analysis, and forensic linguistic markers.

3.5 Reliability and Validity

Coding was conducted manually, then cross-checked with two independent coders. Inter-coder reliability was 0.86 (Cohen's kappa), considered high.

FINDINGS AND DISCUSSION

4.1 Urgency as Coercion

Phrases like “Immediate action required” or “Verify your account within 24 hours” were present in 78% of emails. These mirror patterns documented by Workman (2007) and Pattinson et al. (2012). Example: “Your PayPal account has been temporarily suspended. To restore access, you must verify your Bitcoin transactions within the next 12 hours.”

4.2 Fear Appeals and Threats

Nearly 65% of emails threatened account closure, financial loss, or legal action. Example: "Failure to confirm your Bitcoin transfer will result in permanent account suspension and may be reported to financial authorities."

4.3 Reward Promises and Incentives

42% of emails promised financial benefits. Example: "As a valued PayPal customer, you are entitled to a Bitcoin bonus of \$500 after completing account verification."

4.4 Impersonation and Authority Construction

Scammers reproduced PayPal's logos, formal greetings, and technical jargon. Example: "Dear PayPal Member, We have detected irregular Bitcoin activity on your account. Please log in immediately using the secure link below."

4.5 Linguistic Manipulation and Stylistic Markers

Forensic linguistic analysis revealed non-native English structures, overuse of modal verbs, and generic greetings. These markers are consistent with findings by Chaski (2013) and Grant (2008).

4.6 Power Dynamics in Scam Discourse

CDA reveals scammers discursively construct themselves as powerful institutions, positioning victims as subordinate.

4.7 Comparison with Previous Studies

The findings confirm established strategies (urgency, fear, reward, impersonation) but extend them in hybridization with cryptocurrency discourse (Mohammad & Rutherford, 2021).

CONCLUSIONS

This study demonstrates that PayPal Bitcoin scam emails systematically exploit language to manipulate victims. The strategies—urgency, fear, false promises, impersonation, and credibility construction—reflect broader patterns of online deception documented in previous literature.

By integrating CDA and forensic linguistics, the study not only reveals how

language constructs power and ideology in scams but also provides practical markers for scam detection. Implications include: (1) expanding CDA and forensic linguistic research in cybercrime studies, (2) informing user awareness campaigns, and (3) equipping forensic linguists with stylistic evidence for law enforcement.

Future research should analyze multimodal features, such as visual design and hyperlink behavior, and compare scams across languages and regions.

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