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On the grammar of scam: transitivity, manipulation and deception in scam emails

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This study examines the language of scam, focusing on one key lexicogrammatical system for representing experience, the system of TRANSITIVITY. The study is informed by systemic functional linguistics theory and is based on a clause-by-clause analysis of forty scam email messages, comprising 860 clauses. The frequency distribution of process types shows that scammers mimic the everyday taken-for-granted construction of experience in discourse in producing scam, thereby concealing the motive of the scammer. Second, scammers favor three sub-types of material processes, namely communication-oriented clauses, clauses of transfer of possession and use-oriented clauses. In addition, scam emails are shown to be interpersonally rich in the use of personal pronouns to index and position scammers relative to their target email recipients in manipulative ways. Also, the possessive determiners *my*, *your* and *our* are used in nominal groups functioning as participants to position the scammer and target recipients differently. Notably, the pronoun *my* (representing the scammer) normally collocates with social relationship/kinship terms or a noun denoting the condition of the scammer, *your* (representing the recipient) collocates with nouns denoting material possessions or semiotic activities, while *our* often collocates with nouns that evoke some institutional commitment, locating the scammer within a network of relations.

Keywords: online deception; possessive pronouns; scam email messages; systemic functional linguistics; transitivity

1. Introduction

Social and anthropologically oriented approaches to linguistic science have revealed that language is a semiotic resource for the construction of experience and that a systematic analysis of language in use can tell us something about the human condition (Sapir 1921; Whorf 1956; Halliday 2005, 2008). Halliday (e.g. Halliday & Matthiessen 2004: 170, 248) describes language as a theory of experience and in his influential paper titled “On the grammar of pain”, he shows how “pain” as a human experience is realized by a syndrome of lexicogrammatical features in English (Halliday 1998). Over the past decades, many linguists have been concerned with how different kinds of experience are realized in language, including motion (Slobin 2004; Matthiessen 2014), emotion (Martin & White 2005), and space (Herman 2001; Xu 2008; Matthiessen & Kashyap 2014). The present study examines the language of scam, focusing on one key lexicogrammatical system for representing experience, the system of

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TRANSIVITY. The purpose of the study is to examine how deception is constructed subliminally clause by clause, using a text archive of scam email messages (see Matthiessen 2015, on the subliminal construal of experience).¹

The growing use of the internet has increased the chances of receiving scam emails. Scam is now part of the internet and it is very difficult to control. Several studies have been conducted on scam email messages (Bernal & Belli 2013; Blommaert & Omoniyi 2006; Freiermuth 2011; Naksawat et al. 2016). Yet studies have given little attention to the different kinds of experience construed in scam emails and the linguistic configuration of these experiences. This is important in itself in revealing the linguistic construction of deception as an aspect of the human condition and in contributing to research identifying the linguistic cues of online fraud. Following Halliday (e.g. Halliday & Matthiessen 2014), the present study takes a functional perspective towards language and primarily assumes that the language of a text reflects the functions the text performs. The specific objectives of the study are to examine: (1) the experiential landscape of scam emails by examining the distribution of process types; (2) transitivity configurations pertinent to scam emails and (3) recurrent patterns in the lexicogrammatical realizations of participant roles, focusing on the positioning of scammers relative to the target recipients of scam email messages. These issues will be discussed in relation to the function of scam emails as a manipulative genre. While we acknowledge that a comparison of the transitivity configuration of scam emails with other emails could strength the claims made in this paper, such a comparison will require a large corpus of emails in general to serve as a reference corpus for our study and this is beyond the purpose of the present study. Another challenge would be to identify a class of emails which share a similar communicative purpose with scam emails that could serve as a reference point for comparison since scam emails, like other texts, are unique in communicative purpose. Our findings should be read in light of these limitations.

The rest of the paper is organized as follows. Section 2 reviews previous studies on scam email messages in order to situate the present study in the emerging literature on the subject. Section 3 discusses the theoretical and analytical framework for the study while Section 4 describes the data source and methods used for the study. Section 5 examines the transitivity choices in scam emails in relation to the objectives of the study. Section 6 concludes the paper.

2. Previous studies on scam email messages

Linguistic studies on scam emails have focused on discourse strategies used by scammers to manipulate scam email recipients as well as the rhetorical structure of scam emails and the linguistic competence of scam email writers.

Many studies on scam emails focus on manipulative macro-discourse strategies used to create desired sentiments in target email recipients. Bernal and Belli (2013), for instance, examine emotional items which raise the emotions of the recipients and found gender differences in the use of emotive words. They show that scam email writers who present themselves as female produce more emotional and affectionate words than their male counterparts and that male-sender scam emails were mostly concerned with business or financial transaction. The findings also show that there are instances in which the scam emails generate fear, mostly associated with the imminent death of either the person sending the message, the death of a relative

or the death of a client. The messages usually give the impression that there is a huge sum of money the dead person left behind, which the sender wants to gain through the help of the recipient. Holt and Graves (2007) also found that the subject lines of scam emails are made to entice the recipients to respond. For instance, they note that some scam emails are created with urgent subject lines while others have a friendly subject line. These are all strategies employed by senders of the messages to get the recipients to read such messages. Zhou et al. (2003) note the use of religious comments and greetings, especially those messages relating to charity to entice recipients. Other studies have also revealed that fraudsters intentionally always withhold vital details in their emails (e.g. Blommaert & Omoniyi 2006; Shafqat et al. 2016).

Studies have also examined linguistic features used by scammers to build interpersonal relationship and bond with their recipients. Hiß (2015) investigates linguistic strategies used by scammers to transmit a sense of identity and authenticity, establish a mutual relationship between sender and receiver and involve the recipient personally. The main aim of Hiß's (2015) study is to find out how the text is used to construct identities and create personal relationships with recipients. The study reveals that scammers use the first-person narrative to narrate private identities while, the third person or second person narrative is used to narrate institutional identities. The third person gives the senders an identity of belonging to a profession, or a social class. Zhou et al. (2003) consider cues deceivers use in a computer-mediated communication. Sixty undergraduates (34 females, 24 males) who were native speakers of English participated in this study. The findings revealed that deceptive senders displayed less lexical diversity and content diversity. Also, deceptive senders made less self-reference and used more group reference and modal verbs in non-immediacy contexts. Moreover, the senders displayed more negative affect and emotiveness than receivers. The findings also showed some salient cues that deceivers employed, comprising the dominant use of ellipsis, wordy sentences, and passive voice construction. Increased uses of second-person pronoun and possessive forms were also identified. Shafqat et al. (2016) also found that, since the main intention of scammers is to convince their target recipients in believing their deceptive stories, they carefully choose their words so as to win the trust and confidence of the recipients.

In addition to these discursive features, research has shed light on the rhetorical structures of scam emails. Naksawat et al. (2016) investigate the structure of Nigerian 419 scam emails, using fifty emails and identified eight moves and fifteen steps, out of which four moves were obligatory and four optional. The findings also show that the internal structure of the 419 scam emails looks similar to that of the business English emails. Blommaert and Omoniyi (2006) also identify two distinct sub-genres in scam email. The emails which appeared in the form of lottery messages contained technical and procedural registers. Registers of personal involvement, rapport and faith were identified in the messages which appeared in the form of narratives of experience and trust. It was also established from this research that, scammers do not just write anything, but they construct a specific type of text that is meant to present good and reasonable meanings.

Blommaert and Omoniyi (2006) also consider the linguistic competence displayed by scammers in their emails. Even though the writers had a good command over their technological abilities, they possessed poor literacy skills needed to make the messages standard. The narratives contained a lot of inconsistent punctuation and use of informal style, which suggested that the literacy skills of the writers were very poor. Their

study concludes that writers of scam email possess good technological competence, cultural competence, but do not have the appropriate linguistic competence required to write Standard English letters. Holt and Graves (2007) similarly found that the content of the scam messages also had inappropriate capitalization, spelling errors and grammatical errors and Hiß (2015) shows that the mismatch between indexicality and claimed identity in scam email messages exposes the scammer's insufficient control of grammar and genre layout.

The review above shows that the language of scam email has been studied from different perspectives in the linguistic literature. In summary, studies have examined the discourse-pragmatic strategies, the rhetorical structure and some lexicogrammatical resources of scam emails. While most of the studies are on the discourse strategies used in deceptive discourse, only a few studies examine lexicogrammatical features. There is still the need to undertake a holistic analysis of whole text processes such as the construal of experience through transitivity choices in order to get further insights on the linguistic construction of deception. In other words, the present study goes beyond the contributions of previous studies on the linguistic features of scam emails to provide a clause-by-clause analysis of scam emails in order to examine how the lexicogrammatical system of TRANSITIVITY is used in representing deception in discourse. In addition, it shows how some linguistic items such as pronouns discussed in previous studies interact with transitivity to construct scam.

3. Theoretical framework

This section will proceed to discuss the theoretical framework underlining the study, namely systemic functional theory, and then continue to discuss the system of TRANSITIVITY, which is the particular lexicogrammatical system used in analyzing the data.

3.1. *Systemic functional theory*

This study is guided by systemic functional linguistics (SFL) theory. SFL is a theory of language which was developed by Michael Halliday (see Halliday 1961, 1966, 2008; Matthiessen 2007a; Martin 2016; Mwinlaaru & Xuan 2016 on SFL theory). The study draws on two dimensions of SFL: the notion of "system" and the dimension of metafunctions (see Halliday 1966, 1973, 1985; Halliday & Matthiessen 2014). SFL considers language as a system, a resource that offers choices to language users to make meaning. The language is "systemic" exactly in this sense; that "a language is a resource for making meaning" and that "meaning resides in systemic patterns of choice" (Halliday & Matthiessen 2004: 23). Language as a resource for making meaning means speakers have the opportunity to choose from the varied linguistic items presented to them based on the purpose one wants to achieve in a particular context of situation. Thus, in analyzing linguistic patterns in text, it is always important to interpret what is chosen against the options that could have been chosen but were not.

The second aspect of SFL relevant to the present study is the dimension of metafunction. Halliday (see e.g. Halliday & Hasan 1976; Halliday 1985; Halliday & Matthiessen 2014) identifies three main functions intrinsic to language and responsible for the internal structure of language, namely the ideational, interpersonal and textual functions. These functions are collectively called the metafunctions of language

given that they global to the overall structure of language. Ideational metafunction sub-divides into experiential and logical components, with the experiential meaning characterizing language as a mode of representing experience, including beliefs, thoughts, and ideas about the world revolving around us, both the physical world and the inner world of our consciousness. Experiential meaning is realized in the clause basically through the system of TRANSITIVITY. The logical component refers to the resources that connect discourse segments, such as conjunctive relations. The interpersonal metafunction is the function of language as a resource for enacting roles and identities in text-&-interaction. In English, for instance, interpersonal meaning is realized through MOOD and MODALITY at clause level. Textual metafunction is the third mode of meaning and it relates to the organization of text, i.e. how the resources of the two other metafunctions, ideational and interpersonal, are organized to create discourse. Textual meaning is realized by THEME and INFORMATION at clause level. The present study focuses on the experiential component of the ideational metafunction and the specific lexicogrammatical system deployed is TRANSITIVITY.

3.2. The system of transitivity

As mentioned above, transitivity realizes experiential meaning at clause rank (Halliday & Matthiessen 2014: Ch. 5). Syntagmatically, the transitivity structure of a clause generally consists of three maintain clause elements: the process, the participants involved in the process and the circumstances associated with it (see the box diagram in Figure 1). The process is realized by the verbal group and is considered the nucleus of the clause. The participants are realized by a noun group while the circumstance is usually realized by an adverbial group or a prepositional phrase.

Paradigmatically, the system of transitivity consists of six process types, namely material processes, mental processes, relational processes, verbal processes, behavioral processes and existential processes. Material processes involve physical actions and events, i.e. doings and happenings. It is the most frequent of the process types in English discourse and has varied sub-types which can be categorized into different groups, according to the configuration of participant roles involved in it. The primary participant in material processes is the Actor, the doer of the action (e.g. *I* in *I am writing this email*). In agentive passive constructions, the Actor is realized in a by-phrase (e.g. *by me* in *This email is being written by me*) while in agentless passives,

	I	am	writing	this	mail	on behalf of	my	client
clause rank	participant	Process		Participant		circumstance		
group rank	noun group	verbal group		noun group		prepositional phrase		
word rank	pronoun	auxiliary	Verb	Determiner	noun	preposition	determiner	noun

Figure 1. Basic transitivity structure of the English clause.

it is not visible in the clause (e.g. *The email has been written*). Other core participants involved in material processes are Goal (*I am writing **this email***), Scope (e.g. *you* in *I am contacting **you***), Recipient (e.g. *you* in *We are giving **you** a \$50 gift card*) and Client (e.g. *you* in *We will build **you** a house*). Goal participants occur in transitive material clauses, where the process undertaken by the Actor extends to impact on an external participant either by transforming (e.g. *You will utilize the money*) or bringing it into being (e.g. *I am writing this email*). Halliday calls these two subcategories transformative and creative material clauses respectively (Halliday & Matthiessen 2014). The Scope participant is a Goal-like participant but here the process does not impact on the external participant; rather the Scope serves as a range over which the process scopes. Recipient and Client participants are unique to material processes that denote transfer of possessions (typically realized by verbs such as *give, send, bring, buy, sell, etc.*).

The mental process deals with the experiences of a person's inner world, representing thinking, feeling and wanting. Four subcategories of the mental process are identified, namely, emotive represented by verbs such as *love, admire, like*; cognitive, realized by such verbs as *know, understand, believe, forget*; perceptive, realized by verbs such as *feel, hear, notice, taste*; and desiderative, realized by verbs such as *hope, want wish and desire* (see Downing & Philip 2006; Halliday & Matthiessen 2014: Ch. 5; Thompson 2014). The two participants associated with the mental processes are the Senser and the Phenomenon. The Senser is the conscious participant who does the sensing and the Phenomenon represents what is being sensed (e.g. respectively as in *I* and *not to remarry* in *I in I decided not to remarry*).

The relational process is the last major process type. Relational process represents the relationship between entities, including attribution, and identification. The attributive processes (e.g. *I have a good heart*) ascribe an attribute, i.e. the Attribute participant, to an entity, i.e. the Carrier participant, while identifying processes (e.g. *I am Mr. Abraham Nuru*) define one entity, i.e. the Identified, in respect of another, i.e. the Identifier.

In addition to material, mental and relational processes, there are three minor process types, each of which embodies the characteristics of at least two of the major process types discussed above. Verbal process is processes of saying, a category between material and mental processes and thus a manifestation of what is going on in the mind through bodily gestures (e.g. *You will answer a short question about your shopping*). Four participants are associated with verbal processes. The Sayer is the one who does the saying, Receiver is the one to whom the saying is addressed, the Target is the one at whom the message is aimed (e.g. *you* in *I praise you; He cursed you*) and the Verbiage is the content of the clause or what is said in the clause (e.g. *a short question about your shopping* in *You will answer a short question about your shopping*).

The behavioral process is the borderline between mental and material processes and is represented by verbs such as *cough, sneeze, yawn, blink, laugh and sigh*. They typically lie between material and mental processes (e.g. *Do not wait!*). As Downing and Philip (2006) notes, they are usually involuntary processes and this distinguishes them from material processes. The behavioral process has two important participants, which are the Behaver and Range (also known as Behavior) (see Halliday & Matthiessen 2014: Ch. 5). The Behaver is the one who elicits the act while the Range/Behavior is the behavior elicited. Existential represent existence; they indicate that something exist or does not exist (e.g. *There is no risk involved*). There is only one participant associated

with the process, the Existent, that whose existence is asserted. Typical existential processes are the existential there-constructions.

3.3. *Transitivity and the analysis of discourse*

Since Halliday's (1971) pioneering application of transitivity in the study of William Golding's novel, *The Inheritors*, many studies have continued to use it as a tool for discourse analysis across a wide range of contexts (Ji & Shen 2004, 2005; Edu-Buandoh & Mwinlaaru 2013; Mwinlaaru 2014; Matthiessen 2015; Lee 2016). Halliday's (1971) study shows that transitivity analysis can reveal the socio-cognitive orientation of a text. He identifies that different distribution of process types and participant roles constructs two different world views in *The Inheritors*; first, an ineffectual perceptual view by people of the tribe invaded by the Neanderthal people shown by the predominance of intransitive material clauses and non-action processes and, second, an effective control of the world by the Neanderthal people as shown by the dominance of transitive material clauses. Most of the earlier studies following Halliday (1971) unsurprisingly focused on literary discourse. This was followed by Kennedy (1982) study on transitivity analysis of characterization in a climactic episode in Joseph Conrad's novel, *The Secret Agent* while Burton (1982) investigates transitivity choices in constructing an electric-shock treatment of the main character in Sylvia Path's autobiographical novel, *The Bell Jar* Burton (1982: 188). reveals how Path uses "disenabling syntactic structures" to construct herself as a helpless victim.

Recent studies have applied transitivity mostly to critical discourse analysis (CDA). As Lee (2016) notes, the wide range of contributions in the volume *Systemic Functional Linguistics and Critical Discourse Analysis*, edited by Young and Harrison (2004), reveals the close connection between CDA research and SFL, and transitivity, in particular. Fairclough (1995: 25) observes that the analysis of transitivity can show interesting aspects of how language construe events as a system of options among different process types and participant roles and that choosing to represent an event in one way to the exclusion others can reveal ideological positions. In a transitivity analysis of news reports on a nationwide public protest from two ideologically opposed newspapers in Korea, for instance, Lee (2016) finds that the newspapers show differences in the distribution of Actor and Goal participants to indicate their ideological framing of the event. While the Chosun newspaper "activated the demonstrators and passivated the police", the Hankyoreh activated the police and passivated the demonstrators (Lee 2016: 492). Thus, "one newspaper cast one participant as an Actor in violent processes, while featuring the other as Goal" (Lee 2016: 492). Li (2010) and Idrus et al. (2014) both apply transitivity in examining the biased nationalist positions. Li (2010) studied transitivity in *The New York Times* and *China Daily* representation of conflict during the NATO bombing, indicating that in terms of violent situations, each news article usually favored their origin and depicts their counterpart as violent and destructive.

Idrus et al. (2014), on the other hand, use transitivity in analyzing a legal proceeding in court, focusing on the oral proceedings of the case of Batu Puteh/Pedra Banca Island as unique because this proceeding led to the end of the 29 years dispute between these two countries over the island. In their study, verbal and existential processes were predominantly used by these Malaysia and Singapore respectively unlike most studies on transitivity where the three dominant processes types are material, mental and

relational processes (see e.g. Halliday & Matthiessen 2014). Behavioral process was least employed by these two countries. Idrus et al. (2014) findings show how process types can be used to show power and position. This was seen in the case of Malaysia who chose to use the verbal process to show power while Singapore chose existential to show position.

Kondowe (2014) also examines the grammar of the inaugural address of President Bingu wa Mutharika (3rd Malawian President, 2nd term in office). The study discovered 369 clauses in the speech but the material processes were predominant which basically gives the impression that Bingu gave account of the things that happened in his past administration and things are likely to happen in his new tenure of office.

Other studies on transitivity reveal the ideological construction of texts to control and manipulate less powerful groups. As an example, Matthiessen (2015) examines the world order that is subliminally represented in a retelling for children of the flood story in the Old Testament of the Bible, *Noah's Ark*. He shows that the transitivity configuration of the text reveals a hierarchy of control, where God acts on humans and humans act on animals and plants. Matthiessen (2015: 279) study suggests that the text has an implicit ideology, “building up the world view subliminally so that there are no general propositions that the children who are targeted can argue with” in the sense that “they are not in a position to offer resistant readings”. Edu-Buandoh and Mwinlaaru (2013) on the other hand, analyze transitivity in a transcript of a meeting between school authorities and student leaders in a high school. The study shows that the school leadership constructs themselves as Actors, Sayers, and Sensors in the discourse and the students as Goal and Receiver in material and verbal processes respectively. The school authorities use these strategies to reproduce their institutional power and manipulate the student leaders to give up their demands and accept the school administration’s position in the decision-making process.

These studies collectively suggest that transitivity has proved to be a viable tool for analysis of texts in different contexts not only to show the representation of experience but to reveal implicit ideologies. The present study contributes to the critical analysis of transitivity in discourse. Its objective is to examine the transitivity choices in scam emails in order to show how this deceptive discourse is constructed experientially.

4. Data source and analytical method

The scam emails used for this study were accumulated from three sources, namely the researcher’s own email “Spam” section, solicited scam emails from other email recipients and the 419 Scam website, where different scam emails are posted to caution netizens (<http://www.419scam.org>). All emails were written in English, dated between January 2016 and December 2016 and ranged between 200–400 words. The scam email messages used for this study were first analyzed for their content and grouped into seven main categories presented in Table 1. As the table shows, those in the “Business transaction” category are the most frequent kind of scam emails. A systematic comparison of the different categories is not part of the focus of the present study.

The small data size of 40 email messages was partly accounted for by the fact that many of the scam emails gathered shared very similar characteristics and are recurrent in their organization and linguistics features. Duplicate scam emails were thus identified and removed from the text archive during the data collection process. Given that the bulk of scam email messages are recurrent, a small number of scam emails

Table 1. Distribution of scam emails in the data set across different categories.

Category of scam	Number of messages
Dormant accounts	8
Charity	6
Lottery win	3
Business transaction	13
Rescue operations	2
Free shopping	5
Account update	3
Total	40

can be used to make generalizations on the language of scam, especially when one is investigating grammatical patterns, which themselves are regular linguistic properties.²

Regarding data analysis, the texts were analyzed clause-by-clause to identify the function of the transitivity configuration of scam emails. The procedure of analysis is summarized below (Simpson 2004: 189; see also Mwinlaaru 2012; Matthiessen 2015):

- (1) chunk the texts into clauses, assigning a number code to each clause;
- (2) isolate the processes, and find which participant (who or what) is “doing” each process;
- (3) find what sorts of process they are, and which participant is engaged in which type of process;
- (4) find who or what is affected by each of these processes.

The messages were coded manually and chunked into clauses and the chunked clauses were typed and transferred into Microsoft Excel spreadsheets and edited for easy sorting and identification of process types. Specific type of processes were then identified and labeled. There were greetings and salutations in almost all the scam email messages but they were not considered in the analysis. Greetings and salutations are considered minor clauses in the sense that they are not multidimensional in function, they only realize interpersonal functions in exchange and cannot be analyzed in terms of transitivity (Halliday & Matthiessen 2014; Eggins & Slade 1997: 94–6). The study employed frequency counts and percentage distribution to support the qualitative analysis of process types and related linguistic patterns.

5. TRANSITIVITY and the construction of scam

This section presents and discusses the findings of the study. The discussion will proceed to first consider the quantitative distribution of process types in the data set, and then examine the qualitative properties of these process types and finally the realization of participant roles, focusing on pronominal choices.

5.1. *The experiential landscape of scam emails: an overview*

Table 2 below presents the quantitative counts of the six process types of transitivity, namely material, mental, relational, verbal, behavioral and existential. It answers

Table 2. Distributions of clauses in scam emails across process types.

Process type	Frequency	Percentage (%)
Material	442	51.4
Relational	241	28.0
Mental	127	14.7
Verbal	44	5.1
Existential	3	0.4
Behavioral	3	0.4
Total	860	100

research question one. The process types and their frequencies, as well as their percentages, are the main focus of discussion in this section.

The data showed that material process types were dominant in the scam email messages. A total of 442 material process types were found in the scam email messages analyzed, representing a percentage of 51.4% of the total number of clauses. This implies that more than half of the clauses in the scam emails are material processes. The second most frequent process type was the relational process type (241; 28.0%), followed by the mental process type (127; 14.7%), and verbal process type (44, 5.1%). The existential and behavioral process types occurred least in the scam email messages, each occurring three times (0.4%).

The high occurrence of material processes reveals that scamming via email represents more of actions and happenings than other domains of experience. The scammers recount a series of actions in the scam email messages and instruct the recipients to undertake particular actions in order to yield a successful outcome. In other words, scammers tend to focus more on recounting activities and happenings as well as the activities they desire their targets to engage in. As indicated in [Table 1](#), most of the scam emails in the data set belong to the business transaction category.

Generally, the frequency distribution of clauses across process types in the scam email messages is not marked when we compare them to the typical distribution of process types in English discourse. In a quantitative corpus study of process types in English, [Matthiessen \(2007b: 812\)](#) reveals that across different registers, the most frequent process types are material, relational and mental, in their respective order of frequency. These are followed by verbal, behavioral and existential, which is the least frequent process type (see also [Halliday & Matthiessen 2014: 215](#)). This frequency distribution of process types is corroborated by this study as [Table 2](#) shows. It is interesting to note the striking correlation between relative frequency of the different process types provided in [Table 2](#) and the numbers given by [Matthiessen across different registers \(Matthiessen 2007b; Halliday & Matthiessen 2014\)](#) The implication is that scammers do not markedly favor any particular selection in the system of PROCESS TYPES in their emails. Scam language, or rather the grammar of scam so far as process types is concerned, thus tends to mimic the everyday taken-for-granted discourse, concealing the motive of the scammer and making it difficult for the ordinary user of the language to suspect foul play.

5.2. Discourse functions of different transitivity patterns

This section proceeds to discuss the discourse functions of different transitivity configurations identified in the scam emails. As indicated above, the material process recorded the highest frequency of occurrence in scam email messages. Three kinds of material processes stand out in the overall construal of experience in the dataset, namely communication-oriented material clauses (26; 6% of all material clauses) material clauses of transfer of possession (42; 10% of material clauses) and use-oriented material clauses (16; 4% of all material clauses). In all, these three kinds of material processes account for about half of the material clauses in the data set. Table 3 presents examples of communication-oriented material clauses. In this subtype of material clauses identified in the scam emails, the favorite verbs realizing the Process are *WRITE* and *CONTACT*.

As can be seen in Table 3, these communication-oriented material clauses consist of both declarative and imperative clauses. In the declarative clauses, the Actor is the scammer (realized as *I*) and the target recipient (*you*) is represented as either Recipient (in the case of *WRITE*) or Scope (in case of *CONTACT*). In the imperative clauses, on the

Table 3. Communication-oriented material clauses in scam emails.

#	Process	Actor	Goal/ Scope	Recipient	Circum.	Clause [ranking]
[1]	am writing	I			to let you know	I'm writing [[to let you know]]
[2]	am writing	I	this mail	You	With heavy tears ...	I am writing this mail to you with heavy tears in my eyes and great sorrow in my heart,
[3]	am contacting	I	you		from my country ...	and I am contacting you from my country Tunisia
[4]	am contacting	I	You		based on trust ...	I am contacting you based on trust and confidentiality
[5]	am contacting	I	You		in regards to ...	I am contacting you in regards to his deposit of USD8.6 Million left in the bank
[6]	are contacting	We	You		now	We are contacting you now
[7]	write back	[you]			promptly ...	write back promptly to my private email
[8]	Write			Me		Write me
[9]	Contact	[you]	Us		today for more ...	Contact us today for more information on Email:
[10]	Contact	[you]	Us		on ... at this email for	sheikhamed010@gmail.com Contact us at this email for your claim: wbuffett4@aim.com
[11]	Contact	[you]	Me		... for more details	Contact me for more details
[12]	Contact	[you]	Him		now	contact him now

other hand, the Actor is the implied email target recipient (“you”) while the Scope (in case of *CONTACT*) and the Recipient (in case of *WRITE*) is the scammer, realized variously as *me*, *him* and *us*.

The use of circumstantial elements is also common among these communication-oriented material processes. Again, in declarative clauses such as clauses (1), (4) and (5), the preferred circumstance is that of Purpose, although other circumstances such as Comitative (e.g. clause 2) and Place (e.g. clause 3) are also common. The implication is that scammers often state the purpose for which there are initiating contact with target recipients, their spatial location and/or indicate their emotional state. Although, our data set is small to make a strong generalization, we can hypothesize that Comitative circumstances representing the emotional states of scammers are associated with emails on disasters and illness. In the imperative clauses, the preferred circumstance is, however, Time, often indicating the urgency of the situation (e.g. *now*, *promptly*, *today*). Declarative and imperative communication-oriented material processes correspond to two moves in the exchange established by the scam email. That is, the declaratives are used as initiation strategies in the Opening of the message while the imperatives are closing strategies in the Coda. In this case, the scam email is like a promotional discourse which typically end with what in Rhetorical Structure Theory (RST) is called a prompt and an enablement (Mann & Thompson 1988; Mann et al. 1992), i.e. respectively an invitation to the reader to act upon the information provided by the email and contact information that enables the reader to comply with the invitation.

As Table 4 shows, material processes of transfer of possession also follow a predictable pattern in scam emails. The preferred verb here is the general verb associated with transfer, namely, *GIVE*. More semantically specific verbs such as *transfer*, *send*, *receive* and *provide* however also occur. In example (2) in Table 4, the act of transfer is represented as a circumstance of Time (i.e. *after the transfer*) while the verb (i.e. *receives*) encodes the Recipient of the transfer process. Unlike in communication-oriented material clauses, here the typical mood type is the declarative and the Actor normally represents the scammer. Interestingly, the Goal participant is normally realized by referring expressions denoting money (e.g. *this money*, *50% of the total amount*, *a \$50 gift card*) or a semiotic “entity” (e.g. *the letter of application*, *more explanation*, *more details*, *details of instructions*, *contact of the bank*). This means that in scam emails the commodity that is often exchanged is “money” and “information”. According to the experiential frame presented in Table 4, while the Actor is the scammer, the Recipient is the target email recipient, represented in the clauses as *you*. A few circumstantial elements are also used, namely Time (e.g. *after transfer*), Means (e.g. *by fax*) and Manner (e.g. *in summary*). A common frame, however is to use a hypotactic clause as a temporal frame for the giving-oriented clause (e.g. *I will refund it to you as soon as we arrive home*; *I will give you more details as soon as I hear from you*). This temporal frame normally highlight the urgency of the situation as indicated by the conjunction *as soon as*.

Further, use-oriented material clauses typically have to do with the utilization of money (see Table 5). Unlike in the communication-oriented and giving-oriented processes where the Actor is normally the scammer, in use-oriented material clauses, the Actor is often the target recipient of the email while the Goal participant is typically “money”. The favorite circumstantial element here is Manner, commonly indicating responsible use of the money. This is a manipulative strategy used by scammers to

Table 4. Material clauses of transfer of possession in scam emails.

#	Process	Actor	Goal	Recipient	Circum.	Clause [ranking]
[1]	will transfer	I	this money			where I will transfer this money
[2]	will receive	you	50% of the total amount		after transfer	you will receive 50% of the total amount after transfer
[3]	will give	I	more details	you		I will give you more details as soon as I hear from you
[4]	are giving	we	a \$50 CVS gift card	you		For a short time, we are giving you a \$50 CVS gift card
[5]	are giving	we	a \$50 Costco gift card	you		We are giving you a \$50 Costco gift card
[6]	are giving	we	a \$50 gift card	you		[1]We are giving you a \$50 gift card
[7]	will send	I	the letter of application	you	by fax	[8] I will send you by fax the letter of application
[8]	will give	I	more explanation	you		[10.4] I will give you more explanation on this transaction,
[9]	will give	I	contact of the bank ...	you		[21.1] I will give you contact of the bank here in Abidjan.
[10]	can give	I	you more details	you		[19.2] I can give you more details. qasim.saad@tewsmail.com
[11]	will give	I	the details		in summary	[2.1] I will give the details, in summary,
[12]	will provide	I	details and instructions.			[4.3] and I will provide details and instructions.

Table 5. Use-oriented material clauses in scam emails.

#	Process	Actor	Goal	Circumstance	Clause [ranking]
[1]	Used	he	my name	as the only daughter; for his next of kin ...	that he used my name as the only daughter for his next of kin in deposit of the FUND
[2]	Use	[you]	the link below	Today	use the link below today
[3]	will utilize	you	this money		you will utilize this money
[4]	want to use	I	parts of my funds		I want to use part of my funds
[5]	to use	[you]	the money	wisely and ...	to use the money wisely and judiciously over there in your country.
[6]	Use	[you]	the money	Wisely	use the money wisely
[7]	will be used	[Ø]	this money	in an ungodly manner	this money will be used in an ungodly manner.

entice the target recipients into a fraudulent transaction. The email recipient is manipulated into believing that the sender is morally credible and trustworthy.

The relational process type was the second most frequent process type in scam email messages. Out of the three sub-types of the relational processes, intensive relational clauses (147, 61% out of 241 relational clauses) were mostly employed in scam email messages, followed by the circumstantial (31, 13%) and possessive (30, 12.4%) processes. The analysis of the scam email messages revealed that, the intensive relational clauses are used for showing the scammers' identity and stating their social status. Adegbija (1995), as cited in Chiluya (2006), says that scammers usually see the introductions as a way of preparing them for a successful interaction. The transitivity elements associated with the intensive attributive relational processes reveal the identity of the scammers as credible and respectable persons in society. Consider the examples below:

- (1) I_(Identifier) am_(Relational) Mr Abraham Nuru, Accountant by profession,
(Identifier) [STX05, CL2.0].
- (2) I_(Identifier) am_(Relational) Mr. Andrew Edwards, Head of Client Asset Management of my bank (Identifier) [STX06, CL1.0].
- (3) I_(Identifier) am_(Relational) Susan Searle, the manager of auditing and accounting department of AFRICA BANK (AB) here in Ouagadougou Burkina Faso (Identifier) [STX21, CL2.0].
- (4) I_(Identifier) am_(Relational) Dr. Hassan Musa, senior staff of the Nigerian Ports Authority (Identifier) [STX37, CL1.0].
- (5) I_(Identifier) am_(Relational) (Mrs.) Madeline Howard a widow to late Wright Howard (Identifier) [STX38, CL2.0].

The Identifier positions are usually occupied by titles, names and social role or occupational position. This finding supports Hiß (2015), who observed that scammers use the first person pronoun to give account of personal identities. This present study, however, disputes Zhou et al.'s (2004) study which portrays that liars distance themselves from the messages they send by making less use of self-reference pronouns.

The scammers are mostly aware that a person's status in society is a key consideration for business transaction (Blommaert & Omoniyi 2006; Hiß 2015; Tan & David 2017; Chiluya 2006; Edelson 2003; Rich 2018). Thus, the scammers proceed to declare their wealth or an attractive deal which would be beneficial to the recipients. They use the possessive relational clauses to portray what they have, ranging from qualities to material possessions. Examples are illustrated below to highlight this point:

- (6) I_(Carrier: possessor) have_(Relational: possessive) a good heart_(Possessed) [STX21, CL6.0]
- (7) I_(Carrier: possessor) have_(Relational: possessive) all the legal document_(Attribute: Possessed) with me_(circumstance) [STX21, CL8.1]
- (8) I_(Carrier: possessor) have_(Relational: possessive) a very sensitive and confidential brief_(Attribute: Possessed) for you from international bank of Taipei, Taiwan_(circumstance) [STX28, CL1.1].
- (9) I_(Carrier: possessor) have_(Relational: possessive) US\$56,000.000 (fifty Six Million United States Dollars) for investment purpose_(Attribute: Possessed). [STX32, CL6.0].
- (10) I_(Carrier: possessor) have_(Relational: possessive) a Business worth \$47.1M USD_(Attribute: Possessed) for you to handle with me_(circumstance) [STX36, CL3.0].

- (11) I_(Carrier: possessor) have_(Relational: possessive) some funds_(Attribute: Possessed) [STX38, CL3.0].
- (12) I_(Carrier: possessor) had_(Relational: possessive) a client_(Attribute: Possessed) [STX40, CL2.4].

In example (6), the scammer identifies the unique quality he possesses which is “good heart”. This also reflects that, in scamming, the personal attitude of a person is considered an important manipulative strategy. The scammers also reveal the wealth they possess as shown in examples (9, 10 and 11) as “*US\$56,000.000 (fifty Six Million United States Dollars)*” and “*\$47.1M USD*” respectively. The wealth is usually given in huge sums of money to lure the recipient into possibly accepting the proposal.

Circumstantial relational processes were used to give additional information about the scammers, the transaction or their client. If the scammers portray themselves as lawyer to a dead client, then there is a need, for instance, to specify the time the client died and what caused his death. This is done using the circumstantial relational clauses. Examples are illustrated and discussed below:

- (13) Sorry if you received this letter in your spam, it_(Carrier) is_(Relational: attributive) due to recent connection error here in the country_(Attribute: circumstantial) [STX05, CL11.0].
- (14) He_(Carrier) was_(Relational: attributive) among the death victims of the May 26, 2006 Earthquake disaster in Jawa, Indonesia_(Attribute: circumstantial) [STX06, CL5.1].
- (15) He_(Carrier) was_(Relational: attributive) on a business trip in Indonesia during this disaster_(Attribute: circumstantial) [STX06, CL6.0].
- (16) She_(Identified) is_(Relational: identifying) not here with me any more_(Identifier: circumstantial) [STX23, CL18.5]
5.1 A lot of people_(Identified) are_(Relational: identifying) out there_(identifying: circumstantial) to discourage them_(circumstance) [STX23, CL19.6].
- (17) This_(Identified) is_(Relational: identifying) due to the urgency of this project_(Identifier: circumstantial) [STX35, CL1.1].

In the examples above, the scammer provides additional information which is crucial for the success of the transaction. Examples (14, 15 and 16) specify information about the dead client. Also, the scammer specifies the urgency of the message in example (17), which is why he contacted the recipient.

Mental clauses demonstrate the feigned commitment and dedication of the scammers towards the scammed transactions. Most of the mental processes were engaged in by the scammers:

- (18) I_(Senser) decided_(Mental) not to remarry or get a child outside my matrimonial home_(Phenomenon) since his death_(circumstance). [STX28, CL2.1]
- (19) I_(Senser) decided_(Mental) to relocate to your country_(Phenomenon). I_(Carrier: possessor) got_(Relational: possessive) your contacts_(Attribute: Possessed) through my personal research and out of desperation_(circumstance). I_(Senser) decided_(Mental) to reach you through this medium_(Phenomenon). [STX34, CL3.0]

Table 6. Distribution of mental clauses across the sub-types of mental processes.

Mental Process type	Frequency	Percentage (%)
Desiderative	61	48.03
Cognitive	48	37.8
Perceptive	10	7.87
Emotion	8	6.30
Total	127	100

Table 6 shows the types of mental processes used in the scam email messages and their frequency distribution. The desiderative mental process type is the most frequent sub-type (61, 48.03%) and it is closely followed by cognitive processes (48, 37.8%) and then perceptive (10, 7.87%) and emotive (8, 6.30%) processes. These findings reveal that in scam email messages, one key driving concern is the quest to fulfill the scammer's desire and email recipients are manipulated to help fulfill this desire. Thus, Rich (2018) rightly notes that scam messages appeal to trust and greed. The desiderative verbs, such as “*decided*”, “*want*”, and “*wish*” were frequent in the scam email messages.

The transitivity patterns in which the scammers are the Sayers in verbal processes reveal two interesting issues. Firstly, the pattern shows that scammers often thank the recipients and apologize for intrusion. It is usually a politeness strategy used to make the scammer appear reasonable and socially responsible. Examples are given below:

- (20) Thank_(Verbal) you_(Receiver) very much for your urgent response to me_(circumstance: Matter) [STX21, CL1.0].
- (21) Thank_(Verbal) you_(Receiver) for your cooperation_(circumstance: Matter) [STX13, CL9.0]
- (22) Exodus 14 vs 14_(Sayer) says_(Verbal) || that the lord_(Actor) will fight_(Material) my case_(Scope) [STX26, CL18.0].
- (23) I_(Sayer) apologize_(verbal) for sending you this sensitive information via e-mail instead of a Certified Post-mail_(circumstance) this_(Identified) is_(relational: identifying) due to the urgency of this project_(Identifier: circumstantial). I_(Sayer) will introduce_(verbal) myself_(Target) to you [first]_(circumstance: Matter) [STX, CL1.0].
- (24) I_(Sayer) apologize_(Verbal) || if the contents in this mail_(Carrier) are_(Relational: attributive) contrary to your moral ethics_(Attribute) [STX25, CL1.0].

Secondly, as example (22) shows, the scammers use religion to influence the recipients to see them as God-fearing and holy. The religious comments usually appear at the closing of the scam email messages. This is a form of evoking the emotions of the recipients to respond. It was noticed that some made reference to the Bible while others made reference to the Quran. The scammers believe making religious comments may appeal to the emotions of religious recipients and lure them to respond to the message, particularly given the emphasis of both the Judo-Christian and Islamic religions on charity and alms giving. Other scholars (e.g. Chilwa 2006; Rich 2018) also note in their study that deceivers tended to use religion to influence

recipients because they had much knowledge about how religion was influencing the way of life of people in the world. Holt and Graves (2007) also note in their study that the scammers make reference to fasting and prayers in the scam email messages to present a Christian character. Some of the headings of the messages, especially those which belong to the charity category began with religious greetings.

Behavioral clauses occur in one unique pattern, that is urging the recipients to act urgently to the message. In the analysis, three behavioral clauses were identified in three different scam emails. But interestingly, the clause is repeated in all three different scam email messages:

- (25) [You] _(Behaver) Do not wait _(Behavioral) [STX17, CL5.0].
 (26) [You] _(Behaver) Do not wait _(Behavioral) (STX18, CL5.0)
 (27) [You] _(Behaver) Do not wait _(Behavioral) [STX19, CL6.0]

This gives the impression that the scammers use this process to stimulate the urgency the recipients are expected to attach to the messages. As the examples show, the behavioral process appeared in the form of exhortation as the scammers want the recipients to believe that any delay can make them lose something valuable.

Only three existential processes were identified in the data set and they were all connected with the transaction. Here, the scammers want to let the recipients know that the transaction is not harmful or will not cause any damage as illustrated in (STX06, CL11.2, see Table 7). This strategy could motivate the recipient because they are assured of a successful transaction.

As the illustrations show, the Existent element in these existential clauses normally contains an assurance to the recipient, either a disclaimer of a business or an assurance of wealth. This strategy is in line with the purpose of the scam email to manipulate unsuspecting recipients into a scam transaction with flashy attractions.

In summary, a close analysis of process types in scam emails reveal that, although the frequency distribution of process types in this manipulative genre is similar to the construction of everyday experience in English discourse, it is possible to isolate some pertinent transitivity patterns in scam email messages. Three sub-types of material clauses, namely communication-oriented clauses, transfer clauses and use-oriented clauses, are recurrent and can be predicted in scam emails. Second, desiderative and cognitive clauses are the most frequent mental clauses. In addition, relational clauses are used to construct a network of identities for scammers and to attribute to them prestigious social roles and admirable possessions. Verbal clauses mainly indicate the scammer's appreciation and apologies for intruding into the reader's social space and for evoking scripture in order to appeal to the possible religious beliefs of the reader. Behavioral clauses and existential clauses tend to be repetitive and

Table 7. Samples of existential clauses in scam emails.

Text no	Dummy Subject	Process	Existent
STX06, CL11.2	There	is	No risk involved
STX13, CL5.1	There	is	a possibility of gaining the money
STX10, CL3.0	There	Is	the sum of \$150,000,000.00 in my bank

predictable across different emails and they respectively indicate the need for urgency in action on the part of readers and assure them of the “safety” of the scammed transaction.

5.3. *Personal pronouns and participants roles*

This section proceeds to discuss the use of personal pronouns to index participants in the scam email messages. Personal pronouns play an important role in discourse. As indexicals, they are normally used in discourse to enact different kind of speaker-hearer positioning and to perform interactant roles and identities (see Edu-Buandoh and Mwinlaaru 2013 on the interaction between transitivity and personal pronouns). In scam emails, these person deixis are generally used by scammers to position themselves positively relative to the target recipient for manipulative purposes.

Table 8 presents the distribution of personal pronouns in the scam emails. As the table shows, personal pronouns in subject position are predominant compared to those in object position. The most frequent (subject) pronouns are *I* (229, 46.3% of all pronominal tokens) and *you* (77, 15.5% of all pronominal tokens), which shows that the emails are interpersonally rich and skewed towards the “me-&-you” dimension of interactional discourse.³ While the first person is more frequent in participant roles in subject position, however, the second person (i.e. *you*) is most frequent for participant roles in complement position. This linguistic configuration reflects the fact that scammers are in control of the semiotic process involving scammer and target recipient. The pronoun *I* is often Actor in material clauses, Senser mental, especially desiderative, clauses, Sayer, in verbal clauses, Carrier in attributive clauses and Identifier in identifying clauses (229, 46.3%). The burden of the success of the semiotic transaction lies on the scammer and, to achieve this, they ascribe to themselves different tasks and responsibilities that appear to favor the target recipient and possibly lure them into the game. Target recipients are often represented as the Recipient of cash, gifts or some material benefits in material clauses, the Goal participant in materials clauses denoting some luck (e.g. *I selected you*) or Scope in communication-oriented material clauses (e.g. *I am contacting you*). When the target recipient (*you*) is in subject position, they are often Actors in use-oriented material clauses and also Actors in material clauses of transfer urging them to send some relevant information to the scammer or the scammer’s partner.

Table 8. Frequency distribution of personal pronouns in scam emails.

Person	Syntactic Position				Total	
	Subject		Complement		<i>n</i>	%
	Token	Frequency	Token	frequency		
1st	<i>I</i>	229	<i>me</i>	34	263	53.1
	<i>we</i>	43	<i>us</i>	9	52	10.5
2nd	<i>you</i>	77	<i>you</i>	56	133	26.9
3rd	<i>slhe</i>	44	<i>him/her</i>	3	47	9.5
Total		393		102	495	100

The predominance of the first-person pronoun *I* also corroborates Hauch et al.'s (2014) observation that liars use more self-reference when narrating a personal event or an experience where one is personally involved. The findings of Toma and Hancock (2012), Hancock et al. (2008), DePaulo et al. (2003) and Newman et al. (2003), however, show that liars tend to use more third-person pronouns in order to distance themselves from the lies. The present study does not corroborate this argument as the scammers use more self mentions. The examples below show the use of personal pronouns in different contexts in the scam emails:

- (28) I_(Actor) 'm writing_(Material) to let you know_(Circumstance) that my family and I_(Goal) are stuck in Madrid [STX02, CL1.0].
- (29) I_(Actor) am writing_(Material) this mail_(Goal) to you with heavy tears in my eyes and great sorrow in my heart_(Circumstance) and I_(Actor) am contacting_(Material) you from my country Tunisia_(Circumstance) [STX11, CL1.0].
- (30) I_(Actor) am writing_(Material) this mail_(Goal) on behalf of my client_(Circumstance) [STX22, CL3.0].
- (31) I_(Actor) selected_(Material) you_(Goal) to receive a cash sum of \$1.500,000,00 USD_(Circumstance) [STX23, CL3.6].
- (32) I_(Actor) am contacting_(Material) you_(Goal) to negotiate my proposition for investment funding in your country_(Circumstance) [STX24, CL2.0].

The first person pronoun “I” is subject in all the above examples. The scammers take responsibility as the “author”, the “animator” and the “controller” of the discourse (cf. Goffman 1981). This gives the recipients an impression that the scammers are bonding with them. For emails in the category of business transaction, in particular, this “I-orientation” makes them similar to business promotional letters.

Furthermore, the scammers create a fictitious “we” to help them achieve their manipulative purpose. The first person plural (*we* and *us*) is in fact quite frequent in scam email messages (52, 10.5%). The pronoun *we* is used as Actor, Identified, Sender, and Carrier (43, 8.7%). It frames the scammer with an institutional or familial identity. This finding relates to Hiß's (2015) study on identity and personal relationship creation of scammers which reveals that scammers use the third or second-person pronouns to show their institutional belongingness. Email scammers usually give an impression that they are part of a reputable institution in order to claim credibility for themselves. Bano and Shakir (2015) also believe that the personal pronoun “we” evokes familiarity and friendship. This could apply in scam emails as scammers try to make the text appear friendly so as to win the trust of the recipient and put away fears. The clauses below provide illustrations for the use of *we*:

- (33) We_(Actor) will handle_(Material) the logistics involved in the movement of the funds to you_(Goal) [STX27, CL14]
- (34) We_(Actor) are contacting_(Material) you_(Goal) now_(Circumstance)
- (35) We_(Actor) got mugged_(Material) last night at gun point_(Circumstance) [STX02, CL3.0]. I_(Actor)'ll refund_(Material) it_(Goal) back to you_(Circumstance) as soon as we arrive back home_(Circumstance) [STX02, CL3.0].

Table 9. The use of possessive pronouns in nominal groups realizing participant roles in scam emails.

#	Scammer		Target recipient
	My	Our	Your
1	my family and I	our return flight	your positive response
2	my mother	our application	your assistance
3	my life	our bank	your email
4	my father	our information	your unpaid fund
5	my guardian	our security measure	your funds receiver
6	my name		your payments
7	my partner		your money
8	my late husband		your identity
9	my doctor		your trust
10	my condition		your important files
11	my client		your reply
12	my wife and I		your account
13	my husband relatives		your profile
14	my happiness		your \$50 gift card
15	my brother in-law		your private Tel/Fax

Another interesting finding in relation to pronouns is where they occur as possessive determiners in noun groups that realize participant roles in the clause (see Table 9). Three pronouns are recorded for this function, namely *my* (37 instances, 58.7% out of 63 tokens of possessive determiners), *your* (22 instances, 35%) and *our* (4 instances, 6.3%). Of interest is the nominal items that serve as Heads in the nominal groups where these possessive determiners occur. Where the pronoun *my* (referring to the scammer) is determiner, the Head is normally a social relationship or kinship term (e.g. *my family and I*, *my mother*, *my partner*, *my client*) or a condition related to the scammer (e.g. *my life*, *my condition* and *my happiness*). On the other hand, nouns collocating with *your* (referring to the target recipient) are material entities/possessions (e.g. *your email*, *your payments/money/unpaid funds*, *your important files*, *your account*) or services (e.g. *your positive response*, *your assistance*, *your reply*). The pronoun *our* (which locates the scammer either within an institution or a family) often collocates with nouns that evoke some institutional commitment (e.g. *our application*, *our bank*, *our security measure*). Given the consistency of this linguistic patterning in the scam emails analyzed (see Table 9), we can arguably generalize this pattern to be a general pattern for scam emails. In other words, in any given scam email, the possessive determiner *my* is more likely to collocate with a social relationship/kinship term or a noun denoting the condition of the writer while *your* is more likely to collocate with either a material possession or a noun denoting service.

This consistency in the distribution of person deixis in nominal groups serving as participants reflect the function of the scam email as a manipulative genre. By indexing material possessions with the second person *your* (e.g. *your money/payments/\$50 gift card*) instead of, for instance, the definite article *the*, the scammer is already attributing ownership of these possessions to the target recipient and inviting them to “legitimate” their ownership by showing commitment to the proposed transaction, where such

commitment is highlighted by the referring expressions *your trust*, *your assistance*, *your positive response*, *your identity*, etc. It is also revealing that the first person pronoun *my* indexes the psychosocial condition of the scammer. Scammers often establish a network of desperate relations in order to draw the sympathy of their target email recipients. This is reflected in the grammatical configuration established by the possessive determiner *my*.

6. Conclusion

This study examined the grammar of scam emails by focusing on the system of transitivity, a key lexicogrammatical system for the representation of experience. The findings show that the frequency distribution of clauses across process types in the scam email messages is not marked when we compare it to the typical distribution of process types in English discourse (cf. Halliday & Matthiessen 2014; Matthiessen 2007b: 812). In other words, scammers mimic the everyday taken-for-granted construction of experience in discourse in producing scam, thereby concealing the motive of the scammer and making it difficult for the ordinary user of the language to suspect foul play.

A closer analysis of process types, however, reveals that scammers favor three sub-types of material processes, i.e. the most frequent process type, accounting for more than 50% of the total number of clauses in the corpus. These are communication-oriented clauses, clauses of transfer of possession and use-oriented clauses. In addition, the scam emails are shown to be interpersonally rich because personal pronouns were predominantly used to realize participant roles, skewing the discourse towards the “me-&-you” dimension of discourse. The frequent use of *I*, for instance, puts the scammer in control of the discourse and shows that scammers discursively bond with the target recipient in order to lure them into the scam. This strategy has been observed to be similar to the discourse of business sales letters. Finally, the possessive determiners *my*, *your* and *our* are used in nominal groups functioning as participants to position the scammer and target recipients differently. Notably, the pronoun *my* normally collocates with social relationship/kinship terms or a noun denoting the condition of the scammer, *your* collocates with nouns denoting material possessions or semiotic activities, while *our* often collocates with nouns that evoke some institutional commitment.

The study has a number of implications. First, it contributes to the scholarship on the linguistic representation of experience, in general, and the language of scam in particular. The study identifies transitivity patterns that are pertinent in scam email messages and sheds more light on the use of personal pronouns, especially possessive determiners, in scam emails. Although previous research has identified the salience of pronouns in scam emails, the present study adds that there is a predictable pattern in the use of possessive pronouns in indexing the scammer relative to the target and email readers. Also, the identification of three notable sub-types of material clauses in the present study, namely communication-oriented, transfer-oriented and use-oriented clauses, reveals the need for further research on different sub-types of material clauses across registers. The findings of the study can thus serve as a basis for a comprehensive study of the linguistic patterns identified using a larger corpus.

Disclosure statement

No potential conflict of interest was reported by the authors.

Notes

1. By the term “subliminally” we mean that we are focusing on the lexicogrammatical patterning of the emails as an “implicit” (linguistic) strategy for construing deception, i.e. this kind of strategy is not readily observable to the reader, as opposed to for instance lexical choices, but rather can only be revealed by a more systematic analysis.
2. While we acknowledge that the different categories of scam emails in our data set may show different linguistic configurations, they will also share general patterns since they have a common communicative purpose. Also, the uneven distribution of scam emails in the corpus is not suitable for a comparative study. This can be the focus of further research.
3. One reviewer rightly queries how the dominant use of personal pronouns in the scam emails compares with legitimate advertising emails. We note that we are not claiming that the richness in the use of pronouns in scam emails is unique to this type of email. Our focus here is to examine the tenor enacted in scam emails and identify the function of this tenor in this type of email. Emails with different communicative purposes will however tend to use personal pronouns for different functions and with a different distribution.

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