Linguistic Features of Marine Orders

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ABSTRACT

In the world of international shipping, effective communication is an essential ingredient to safe and efficient ship operations as "careless talk costs lives". To maintain this effectiveness, marine orders, one of the most important factors of communication at sea, must be precise, simple and unambiguous to avoid confusion and error. With an aim to investigate more about the effectiveness of these marine orders, 190 marine orders used on board and in external communications were collected and analyzed quantitatively in terms of speech acts categories, directness, type of sentence, length, and density of nautical terms. Based on the data analysis of these linguistic features, the similarities and differences between the orders used on board and in external communications are unveiled. Finally, all of these analyses and findings are summed up to make the most general and concise conclusions about the effectiveness of marine orders used in communications at sea.

Keywords: marine orders, nautical terms, speech acts, language features, effective communication at sea

1 Introduction

In the world of international shipping, English is used as a medium of communication between ships, between ships and shore stations, or between ships and helicopters in different situations. Among the conversations exchanged, marine orders take a large proportion and play an important part in ensuring safe voyages at sea. However, the structure of a standard marine order is quite different from a social order, which causes barrier issues to non-majors of English, and it is a challenge for ship officers to remember and follow the orders correctly. Therefore, marine orders are still confusing to most of them. In addition, a majority of learners learn the orders mechanically without fully recognizing the speech act realized by these orders and fail to understand the reasons underlying their structure and what linguistic features can ensure the effectiveness of these orders in communications. For these reasons, a study under the title "Linguistic features of Marine orders" was conducted to provide fundamental notion of speech act and some linguistic features of marine orders so that they can use them and understand them appropriately for more effective maritime communication.

2 Literature review

2.1 Speech act and discourse analysis

Discourse was defined by Widdowson (1984) and cited by Nguyen Hoa (2000) "Discourse is a communicative process by means of interaction." In this way, discourse is not simply a representation or a verbal record of the communicative but it includes many situational factors that are the context of the situation, and the meanings or intention that the speaker/ writer assigns to a linguistic means or expressions. Therefore, discourse analysis will be the analysis of language in use.

However, when using language, we not only make propositional statements about objects, entities, states of affairs and so on but we also fulfill functions such as requesting, denying, introducing, apologizing etc. Such entities are called "speech act" or the things people do through language (Nunan:1993). The use of this term was coined by the linguistic philosopher Austin (1962) and developed by Searle (1969), another



philosopher. Their theory was mainly about the locutionary, illocutionary and perlocutionary acts whereas illocutionary act is central to the concept of a speech act. These acts are widely accepted as the act of promising, ordering and bequeathing.

2.2 Speech act and the act of ordering

Types of speech acts (Austin, 1962; Searle, 1969)

According to Austin (1962), there are five types of speech acts as follows:

- (1) Verdictives: such as acquit, grade, estimate, diagnose, predict, interpret
- (2) Exercitives: such as appoint, order, advise, warn, instruct, promote
- (3) Commisives: such as promise, guarantee, bet, oppose, ensure, pledge
- (4) Behabitives: apologizes, criticize, bless, challenge, congratulate, thank
- (5) Expositives: argue, postulate, affirm, concede, oppose, admit

With the classification mentioned above, there are still mistakes and repetitions. For example, the two last types namely "behavitives" and "explositives" are not clear and they are overlapped. Therefore, there is a need to suitably divide it again. In 1969, Searle, one of Austin's followers, further developed and solved the unclear point in Austin's classification by dividing it into five types as follows:

- (1) *Directives*: the acts that are to get people to do something. They express what the speaker wants such as "commanding", "requesting", "inviting", "forbidding", "suggesting" and they can be positive or negative.
- (2) *Commisives*: The acts that commit a speaker to do something in the future.
- (3) Representatives: the acts that commit a speaker to the truth of the expressed proposition.
- (4) *Declaratives*: the acts that change the reality via the utterance.
- (5) *Expressive*: the acts that express speaker's attitudes towards the propositions.

2.3 Direct and Indirect speech acts

Indirect speech act is an act which is perform via another act, we say that act which is performed indirectly. For example, in uttering: "Open the window please", for instance, the speaker has directly requested the hearer to open the window. The syntactic structure of this utterance indicates a straight-forward request in English. But the same request can be made in a more tacit, indirect manner to achieve the same result. The speaker may say something like "it's hot in here", instead of "Open the window please".

2.4 The act of ordering

The act of ordering has its own linguistic features to carry the function of an order or a command. The most typical features are *directness, types of sentences, length* and *density of technicality*.

2.5 The act of ordering in marine communication

Communication at sea (written or spoken) mainly deals with on board communications and external communications. External communication (ship – to – ship, ship – to shore or shore – to – ship) encompasses radio broadcasts including communications in emergencies and routine communications whereas on board communications cover orders relating to ship handling of all kinds (helm orders, engine telegraph orders, command for mooring, anchoring, towing). Among the conversations exchanged, radio communication is the most typical which fully manifests the act of ordering. When making conversations, both the sender and the receiver must strictly adhere to the rules of Standard Marine Communication Phrases set up International Maritime Organization (IMO) in 2001....

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3 Methodology

3.1 Data description

External communications are mainly conversations exchanged between ship – to ship, ship – to – shore or shore – to - ship stations. Conversations between ships and shore stations commonly exchange messages about emergency situation communications (including distress, urgency and safety) and routine communications (pilot request, tug request...). Due to the limitation of a minor study, only the most frequent and prioritized command sentences in radio communication are collected and analyzed including emergency situations (30 sentences) and routine communication (50 sentences).

On-board communications or face – to – face communications between seafarers in the ship cover a wide range of topics relating to situations at sea. However, the attention of my research is on the orders and commands that are most typical and frequently used namely wheel orders (34 sentences), engine telegraph order (13 sentences), command for mooring (42 sentences), command for anchoring (11 sentences) and towing orders (10 sentences).

3.2 Source of data

The data is collected mainly from maritime textbooks, websites and recordings of real-life language use. One of the main textbooks is the course material currently used in Navigational Department at Vietnam Maritime University (VMU), the "IMO Standard Marine Communication Phrases" (SMCP) published in 2002. Besides, there is a useful navigational website which contains standard marine orders for seafarers named mareng.utu.fi/. Besides, the data also include recordings of marine orders being used in reality, collected by my students and friends who were working on board. These audios and videos recorded the situations in which marine orders were delivered to help enhance the accuracy and reliability of my study.

3.3 Data analysis

3.3.1 Data analysis method

As mentioned in the introduction, the study aims at investigating the act of ordering realized in marine orders in terms of such linguistic features as directness, type of sentences, length of sentence and the density of technicality. Also, it wishes to find out the differences between orders used on – board and in external communications in relation to those linguistic features. Quantitative method was used to serve the first aim and contrastive method was used for the second as illustrated in the following analytical framework.

3.3.2 Data analysis framework

My analytical framework covers the following analytical units:

- Categories of speech acts realized in marine orders used in external and on-board communications
- The directness, types of sentences, length and density of technicality in the orders
- The differences between on board orders and external orders

Four tables were generated to assist in the analyzing process. Two tables investigated the categories of speech acts realized in marine orders used in external and on-board communications. The other two tables investigated more about the linguistic features of the orders used on-board and in external communications namely directness, types of sentences, length and density of technicality.

The differences between on – board orders and external orders were then extracted from the analyses drawn out from the tables.

4 Results and Discussion

4.1. Results

Speech act categories realized in marine orders

By analyzing 190 marine orders used in different contexts, it can be concluded that the type of speech acts realized in all marine orders is directives. However, there are slight differences in categorizing on – board orders and external orders into three types of directive utterances: commands, requests and suggestions. Based on the definition and predicates of each type, it can be seen that while external orders are mainly suggestions, on-board orders are commands and requests as the speaker has some degree of control over the actions of the addressee and wants the addressee to do or refrain from doing. Although in many cases, predicates are omitted, all these orders are made explicit.

Linguistic features of marine orders

As orders used on board and in external communications are explicit, nearly all of these orders are given directly. Only in situations without pressure of time or psychological stress like routine communications between ship and shore, the speaker can use indirectness to make polite requests. However, this indirect speech act is just limited in the form of interrogative sentences which normally starts with "Can you", "Could you".

Another feature that makes marine order clear and concise is the length of sentences. According to IMO SMCP, the important rule that is applied in all sentences is providing one phrase for one event. This also helps reduce the sentence length. Therefore, the majority of orders and commands just contain from four to six words. Long orders with more than seven words are rarely found in any cases.

Although the orders are very simple short sentences, nearly all of them contain technical words. About two-third of marine orders have at least one terminology in each sentence. The use of block language permits to reduce all unnecessary words to a tolerable minimum and keep only content and meaningful words. Therefore, the words in marine orders are made as densely as possible which mainly contains terms relating to navigational areas.

Orders used in external communications and on-board communications

Generally, on board orders and external orders are quite similar in terms of speech act categories, directness, types of sentences, length and density of technical terms. However, as being used in different contexts, on – board and external orders have different ways to enhance the effectiveness in communications. While communication by radiotelephony, people clearly inform his/her intentions by message markers, on – board orders, on the other hand, using short and simple imperative sentences. As the context of giving order is out-door which may be distracted by sound of engine, wave, wind..., to ensure the accuracy, the addressee must repeat the message again. Besides, on-board orders omit all predicates, with just content words remaining to make the sentences much shorter than orders used in external communications.

4.2. Discussion

Speech act categories realized in marine orders

According to the International Regulations for Preventing Collision at Sea, language used must be relevant to situations. Therefore, the result of directive speech act realized in all 190 marine orders in this study is totally comprehensible and meets the requirements of the regulations. Although the orders can be performed by different ways, they all reach the purpose of making somebody do something. The majority of performance is by imperative sentences as orders normally made by authority people, for instance, orders of the captain, the chief officer on crew members.

Linguistic features of marine orders

All linguistic features of marine orders, namely directness, types of sentences, length, and density of nautical terms support to make the orders clear, concise and unambiguous. As working in a multi-national environment, a simplified and standard language is necessary to reduce misunderstanding and error. However, depending on the contexts, these features can change slightly to adapt themselves to the situations. For instance, orders in emergencies are rather different from orders in routine communications as under the pressure of time and psychological stress, people act differently. Therefore, in routine communication, people tend to use longer and more complicated orders.

Orders used in external communications and on-board communications

External and on-board communications are two different types of conversations at sea. While external orders are exchanged by radiotelephony, on-board orders are given directly between seafarers. This is the main reason leading to the different linguistic features of each type. Besides, on – board orders are mainly directions for ship operation; therefore, they include many specialized vocabularies for equipment on board, course, position...Meanwhile, radio communication concerns with broadcasts of meteorological forecasts and aids to navigation information as well as reporting incidents and accidents on boards. As a result, external orders tend to be longer but less nautical terms.

External communications are of two subtypes: emergencies communications and routine communications.

Types of speech acts	Emergencies Communications (30)	Routine communications (50)	Total
Expressives	0/30	0/50	0/80 (0%)
Representatives	0/30	0/50	0/80 (0%)
Directives	30/30	50/50	80/80 (100%)
Declaratives	0/30	0/50	0/80 (0%)
Commissives	0/ 30	0/50	0/80 (0%)

Table 1: Speech acts used in external communications

According to the data in the table, the type of speech acts realized in orders used in external communications is directives. It is comprehensible as due to the theory of speech act, directives is the act of getting people to do something. This coincides with the act of ordering in navigation also used to give advice, direction, request, suggestions.

Types of speech acts realized in orders used in on-board communications

There are five types of orders on board that ensure vessel runs smoothly: wheel orders, engine telegraph orders, command for mooring, and command for anchoring and towing orders.

Table 2: Types of speech acts used in orders in on-board communications						
Types of speech acts	Wheel orders (34)	Engine telegraph orders (13)	Command for mooring (42)	Command for anchoring (11)	Towing orders (10)	Total
Expressives	0/34	0/13	0/42	0/11	0/10	0/110 (0%)
Representatives	0/34	0/13	0/42	0/11	0/10	0/110 (0%)
Directives	33/34	13/13	41/42	11/11	13/10	110/110 (100%)
Declaratives	0/34	0/13	0/42	0/11	0/10	0/110 (0%)
Commissives	0/34	0/13	0/42	0/11	0/10	0/110 (0%)

Table 2: Types of speech acts used in orders in on-board communications

Similar to orders used in external communications, the type of speech acts realized in all orders used on board is directives. However, while external orders can have various forms like direction, advice, suggestion, orders used in on-board communications just want to impose force on the hearer. Here are some more examples:

- Full speech ahead! (Engine telegraph order)
- Have the fenders ready! (Command for mooring)

Linguistic features of marine orders used in external communications and on-board communications

Linguistic features of marine orders in external communications

In order to study how safe and efficient of maritime English, 80 marine orders used in radiotelephony are analyzed in terms of directness, length, types of sentences and density of technical terms and shown in the table below:

Table 3: <i>Linguistic</i>	features of n	marine orders	used in external	communications
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Linguistic features	Categories of linguistic features	Emergencies communications	Routine Communication	Total
Directness	Direct	30/30	44/50	74/80 (93%)
	Indirect	0/30	6/50	6/80 (7%)
Types of	Declarative	6/30	5/50	11/80 (14%)
sentence	Imperative	24/30	39/50	63/80 (79%)
	Interrogative	0/30	6/50	6/80 (7%)
Density of technical terms	Sparse (0 word)/sent	15/30	14/50	29/80 (36%)
	Average (1-2 words)/sent	15/30	34/50	31/80 (61%)
	Crowed (≥3 words)/sent	0/30	2/50	2/80 (3%)
Length	Short (1-3 words)	6/30	7/50	13/80 (16%)
	Medium (4-6 words)	19/30	29/50	48/80 (60%)
	Long (≥7 words)	5/30	14/50	19/80 (24%)

Directness

As mentioned above, people tend to use indirect speech acts mainly in connection with politeness. One of the most common types of indirect speech acts in English is interrogative ("Can you?", "Could you?", "Would you?"). Similarly, navigational language sometimes uses questions "Can you?", "Could you?" to make a polite request. Nevertheless, this type of indirect speech act takes up a small proposition, about 7.5% and only appears in routine communications and can be found in some communications between ship and shore station when the ship asking for permission to berth: "Could you spell me your vessel's name, please?". However, the frequency of using is very limited to eliminate the misunderstanding in conversations.

Type of sentences

As it can be seen from the data in the table, 78.8% of marine orders are realized in the form of imperative sentences. According to Searle, the directive function may be realized by a wide range of forms like imperative sentences, questions or statements, however, imperative is still the most common type. The

benefit of using this form is direct and clear which focuses on the action of sentence. The structure of imperative sentence always begins with the base form of a verb as in the following examples:

- ADVICE: Turn to port

- Stand by the pilot ladder

Density of technicality

Another feature that makes marine orders typical is the existence of technical words. Within three groups of technical words, density, ranging from spare (no words), medium (1-2 words) to crowded (at least 3 words), the second group is outnumbered with 61% and nearly as twice as the first group (36%). The orders with three technical terms as in sentence "Rig pilot ladder on portside 2 metres above water" are rarely used and only take up 3%.

The length of orders

Last but not least, an important factor that ensures the effectiveness of communication is the length of orders. The medium of words contained in an order should range about four to six words. It is the most suitable length to carry sufficient amount of information and can be found in 60% of marine orders used in external communications. Moreover, depending on the context, sometimes the length of these orders can be changed. In routine communication, people tend to use longer orders (more than 7 words) while in stressful situations, short and simple orders (1-3 words) are preferable.

Linguistic features of marine orders in on-board communications

Unlike external communication which messages are exchanged by radiotelephony, on – board communication is face – to – face conversations between seafarers at sea. Therefore, in different contexts, orders used on – board have different linguistic features which are shown in the table below.

Linguistic features	Categories of linguistic features	Wheel orders	Engine telegraph orders	Commands for mooring	Commands for anchoring	Towing orders	Total
Directness -	Direct	34/34	13/13	42/42	11/11	10/10	100 %
	Indirect	0/34	0/13	0/42	0/11	0/10	0%
Types of sentence	Declarative	0/34	0/13	0/42	0/11	0/10	0%
	Imperative	34/34	13/13	42/42	11/11	10/10	100%
	Interrogative	0/34	0/13	0/42	0/11	0/10	0%
Length	Short (1-3 w)	22/34	13/13	14/42	6/11	4/10	54%
	Medium (4-6w)	12/34	0/13	24/42	5/11	6/10	43%
	Long (≥7w)	0/34	0/13	4/42	0/11	0/10	3%
	Sparse (0w/sent)	4/34	5/13	1/42	1/11	0/10	10%
Density of technical terms	Average (1-2 w)/sent	29/34	7/13	38/42	9/11	9/10	83%
	Crowded (≥ 3 w)/sent	1/34	1/13	3/42	1/11	1/10	7%

Table 4: Linguistic features of marine orders used in on-board communications

Directness

From the data in the table, it can be seen that when communicating on board, people always give orders in a direct way. For example, as guided in IMO SCMP (page 66), when the officer of the watch requires a course to be steered by compass, the direction in which s/he wants the wheel turned should be stated followed by each numeral said separately, including zero "Port, steer zero eight two". On receiving an order to steer, the helmsman is steady on the course ordered, and is to call out "Steady on zero eight two". The

person giving the order should acknowledge the helmsman's reply to ensure his order was carried out correctly and immediately.

Types of sentences

As orders on board are always given directly, all sentences to realize these orders are imperatives. However, many orders omit all predicates and unnecessary words to become special simple sentences containing just one or two phrases like "Amidships", "Steady", "Port 5". These kinds of omitted sentences can be found a lot in wheel orders.

The length of sentences

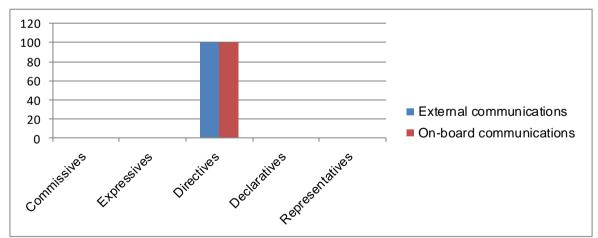
Another typical feature of on-board orders is the length of sentences. While communicating by radiotelephony, people tend to use sentences with medium length (four to six words), orders used on board are very short, just from one to three words. That is the reason why it is easy to find many short orders like "Stand by engine", "All starboard", "Easy ahead". As a result, 54% of orders are short sentences (one to three words), 42% are medium sentences (4 to 6 words), while very few orders are long sentences (seven to nine words) and take up only 4%.

The density of technicality

As orders on board are directions to operate the ship, the density of technical words in each order is much greater than in external communications. It can be seen that technical terms appear in 90% of orders or commands although the sentences just contain from three to six words. Some sentences even have more than three terms as in "Heave in the port anchor chain" or "Slack away the bow spring". However, there are only 7% of orders of this type. The orders given without any term relating to the navigation take up only 10% compared to 36% of external communication.

Comparison between orders used in external and on-board communications Categories of speech acts

As mentioned earlier in chapter 1, the notion of orders and commands totally coincides with the language function of directives - one of five types of speech acts categories by Searle. Therefore, there is no doubt that directives category is realized in all marine orders used both in external and on – board communications. Based on the data analysis above, the result can be shown clearly in the following chart.

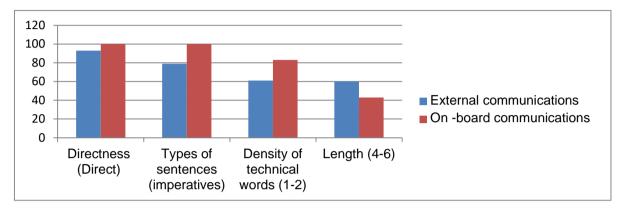


Three kinds of directive utterances can be recognized: commands, requests and suggestions. They are distinguished by the degree of force imposed on the hearer. In radio communications, these three kinds of directive utterances are made explicit by using message markers preceding the messages desired to exchange. Based on the definition of the three kinds of directives utterances, it can be seen that the marker ADVICE, WARNING and INSTRUCTION belong to suggestion category as they are utterances which causes the hearers to give opinions to what they should do or should not do. Meanwhile, on board orders

are mainly commands as the speaker has some degree of control over the actions of the addressee. Even though the predicates as *require*, *order*, *demand*...are omitted, these commands are explicit as they are all performed by imperative sentences.

Linguistic features

The study focuses on analyzing language used in terms of directness, types of sentences, length of sentence and density of technical words. The most outstanding categories namely directness, types of sentences (imperatives), length (4-6 words) and density of technical words (1-2 words) which are shown in the table below:



In terms of directness, nearly all orders used in external and on – board are given directly as one of the key points of maritime language is avoid ambiguous words. Although they are direct orders, the way to perform each type is different. In external communication, one of the eight message markers may be used to increase the probability of the purpose of the message being properly understood.

While external communications use message markers to avoid confusion and error, on-board orders make the message clear by using all imperative sentences. As a result, all commands and orders for ship operation are always given directly by imperative sentences.

That is the reason why on – board orders are much shorter than external orders. The result of data analysis also reveals that more than half of on – board orders are simple sentences which range from one to three words, while in external communication, the orders with from four to six words take up 68%.

Although the sentences are very short, the density of technical terms in on – board orders is greater than in external orders. 90% of orders on board contain technical words while communication by radiotelephony just accounts for 64%. As a result, the orders on board with one to two terms or even three terms are much more than external ones.

5 Conclusions

By analyzing 190 marine orders that are most frequently used in external and on – board communications, this research has unveiled the effectiveness as well as conciseness in language of ordering at sea. Meanwhile, two research questions have been answered reasonably as follows:

The effectiveness of marine orders is realized through some criteria: speech acts categories, directness, length of sentences, types of sentences and density of nautical terms. The common feature of marine orders analyzed in this research is that they all follow the standard of IMO SMCP which makes the orders themselves explicit and direct. The standard form of direct orders is imperative sentences that can be found in almost every marine order. The order sentence is not very long. The average length is from four to six words which mainly contain nautical terms.

On board and external orders generally have the similar characteristics but have different ways to maintain the effectiveness in communication. Since confusion and misunderstanding in external communication or non-face – to – face conversations are likely to occur, it is important for interlocutors to use message markers before the intended messages. The need for a clear indication of intended messages is required by the abundant use of imperative form, typically associated to different pragmatic functions, such as advising, requesting, ordering and so forth. Meanwhile, on board orders use a block language with very short simple sentences to avoid ambiguity and misunderstanding in communications.

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