An Overview of Chinese Seafarers' Communicative Competence in English—Chinese seafarers' Perspectives

L. Fan

Australian Maritime College, University of Tasmania, Launceston, Australia

ABSTRACT: The rapid development of technologies and the increasingly strict international shipping regulations help to explain a significant decrease in shipping losses over decades. However, the number of accidents attributable to human errors, in which communication failures represent one third, has not been reduced proportionally. Under the Manila Amendments 2010, it became a compulsory requirement for every company to ensure that seafarers can communicate effectively. Communicative competence of seafarers has been of vital significance in modern shipping. A majority of merchant ships in international voyages are manned with multicultural and multilingual crew. It is not only the multilingual but also the intercultural character of mariners that leads to miscommunication on board. Additionally, communicative competence involves psycholinguistic, strategic and pragmatic aspects. The concept of communicative competence is relatively new in the context of maritime education and training in China and there is a dearth of research dealing with Chinese seafarers' communicative competence. Through an empirical study, this paper aims to fill in the gap by investigating the current status of Chinese seafarers' communicative proficiency from linguistic, intercultural, psycholinguistic, strategic and pragmatic perspectives to understand their strengths and weaknesses in their English communication. Based on the findings of quantitative data analysis, recommendations are finally made to improve Chinese seafarers' communicative competence.

1 INTRODUCTION

Maritime accidents have witnessed a significant decline for the last century due to the technology development and automation of merchant vessels (Allianz 2012). However, the number of maritime accidents caused by the human element presents an increase trend due to the mixed-nationality crewing strategy. It is generally accepted that more than 80% of maritime accidents are related to the human element (Schröder-Hinrichs 2010), in which communication failure due to insufficient command of maritime English represents one third (Trenkner 2007). According to a funded project called Safety On Sea, communication failure representing 24%

becomes the second main source of maritime accidents and it witnesses an increasing trend (Ziarati 2006). In Vessel Traffic Service (VTS) areas, for example, the communication failure accounts for up to 40% of collisions involving the human element. The failures mainly occur in radio communication and some of them even happen in routine face-to-face communication (Trenkner 2007).

As a lingua franca used by seafarers of different nationalities, maritime English has gained its great significance these years with the increasing communication-related accidents. Based on the feedback from 38 shipping companies surveyed, maritime English proficiency ranked the second in the

crewing criteria for mixed crews at both operation and management levels (Trenkner 2005). It has legitimated the status of maritime English as a subject of instruction and research under the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers 2010 (STCW 2010) (Trenkner & Cole 2010). The requirement related in maritime English is initially introduced as a mandatory technical standard contained in part A of the STCW 2010 code (IMO 2011).

Communication becomes more complicated and challenging due to the fact that nearly 90% of SOLAS vessels (the International Convention for the Safety of Life at Sea) are manned with multinational, multicultural and multilingual seafarers who, for various reasons, often fail to communicate effectively (Trenkner 2009). Besides linguistic and multicultural aspects, other aspects of communicative competence such as psycholinguistic, strategic and pragmatic factors need to be taken into account (Fan et al. 2015). In China, much research on maritime English focuses on the linguistic aspect and limited research analyses the general communicative competence of Chinese seafarers as a whole. This paper is to investigate the current status of Chinese seafarers' communicative competence from the linguistic, intercultural, psycholinguistic, strategic and pragmatic perspectives to understand their strengths and weaknesses in English communication.

2 COMMUNICATIVE COMPETENCE IN THE MARITIME SETTING

The concept of communicative competence was fairly clarified by an anthropological linguist Dell Hymes based on Noam Chomsky's distinction between linguistic competence and performance. Communicative competence performs an essential function in every walk of life (Rickheit & Strohner 2008). Hymes (1972a) claims that communication competence requires both knowledge and demonstrated ability to carry out appropriate conduct in particular contexts. Knowledge can be demonstrated by linguistic and sociolinguistic competences. Demonstrated ability to use English in communication can be mainly reflected by strategic and pragmatic competence.

However, effective communication is not simply determined by knowledge and demonstrated ability to use English. There is a shared belief in many societies that successful communication has many constraints and that one of the most important constraints is the underlying ability of interlocutors (Rickheit & Strohner 2008). The underlying ability can be the interlocutors' psychological competence. Lepschy (2008) claimed that the mastery of communicative competence include the capacity to interpret social norms and behaviours in specific speech contexts (Lepschy 2008; Rickheit & Strohner 2008). The expression, interpretation, and negotiation of meaning are much influenced by interlocutors' psycholinguistic competence (Ho & Savignon 2007; Savignon 2002; VanPatten 2002).

Effective communication is of great importance not only for the safety of personnel and property at sea but also for seafarers' wellbeing. The highly technical nature of seafaring puts seafarers at great risk and under great stress both in terms of the actual tasks involved and harsh work environment onboard. Psychosocial stress from isolation, loneliness and fatigue and physical stress from noise, vibration in the workplace are common for seafarers (Jensen et al. 2009). The loneliness is mainly due to one's lack of communication with others (Reichmann 1959). Cumulative stress can have a negative impact on mental and physical health (Mann & Holdsworth 2003) which can in turn affect the safe operation of any ship.

Nearly three quarters of the seafarers agreed that cultural differences have an effect upon the level of communication on board (Ziarati et al. 2011). Considering the complexity of communication among seafarers of different nationalities, strategic communicative competence can help communication go smoothly and successfully when communication breakdowns occur (Hymes 1972b).

Pragmatic competence indicates the ability to convey and interpret intended information appropriately in difference circumstances (Fraser 2010). The circumstances in communication could be the environment, who the interlocutors are, the resources available and the relative status of interlocutors. There are many standing orders at work for seafarers and it is important for seafarers to use different language registers at work and in life. Speech acts included in pragmatic competence like request, advice, instruction, question and answer are common in communication at sea. Sufficient practice in English both at work and life for seafarers is essential for improving pragmatic competence.

3 RESEARCH METHOD

An online questionnaire was used in this research targeting Chinese oceangoing seafarers. The questionnaire was mainly cantered on the aforementioned five components of communicative competence. There were totally 35 question items related to communicative competence. Self-assessment questions were answered on a five-point Likert scale ranging from '1=minimum' to '5=maximum'.

For the data analysis, exploratory factor analysis (EFA) was conducted to calculate the coefficient of each factor (question item) using the Statistical Packages for Social Science (SPSS). Factors with coefficients below 0.30 were suppressed and those cross-loaded with less than 0.2 difference between factors were deleted too (Thurstone 1947). Taking into account the coefficient of each factor, an descriptive analysis was made of the remaining 30 factors to provide the means, standard deviations and range of scores for all independent and dependent variables.

4 DATA ANALYSIS AND DISCUSSION

4.1 General information of participants

There were 235 valid responses to the online questionnaire. Individuals of the sample group ranged mainly from 18 to 56 years old. This group included all ranks of oceangoing seafarers ranging from ratings to master. The wide age dispersion and various ranks of seafarers could well represent the real extended target group. Nearly 60% of participants had studied English for 7-10 years and half of them aged between 26 and 40. For the ranks of seafarers, the majority of them were at an operational level (cadets, third/second officers and fourth/third engineers) accounting for 55%. The respondents included seafarers who had working experience on foreign vessels (31.79%) and those who had not (68.21%). Unless otherwise specified, all the results presented in the following sections were based on the 235 respondents of Chinese seafarers.

4.2 The current status of communicative competence of Chinese seafarers

4.2.1 Overall communicative competence of Chinese seafarers

Table 1 shows that Chinese seafarers were relatively weak in linguistic, psycholinguistic and pragmatic competences. They were a little better in intercultural competence and strategic competence among the five components of communicative competence. Generally, the overall score (3.18) of communicative competence of Chinese seafarers was just above the average value 3. According to the five-point Likert scale, the value 3 indicates a fair level.

Table 1. Scores of five components of communicative competence of Chinese seafarers.

	Min	Max	Mean	Std. Deviation	Std. Error Mean
Communicative competence	1	5	3.1839	.67492	.04403
Linguistic competence	1	5	3.071	.79635	.05195
Intercultural competence	1	5	3.430	.76760	.05007
Psycholinguistic competence	1	5	3.355	.85078	.05550
Pragmatic competence	1	5	3.079	.91405	.05963
Strategic competence	1	5	3.973	.58533	.03818

4.2.2 Linguistic competence of Chinese seafarers

Effective communication can not only enhance safe navigation but also improve seafarers' wellbeing, such as a sense of belonging, establishing interpersonal relationships and team work involvement. Consequently, both maritime English (ship-related English for working purpose) and general English (daily on-board English for social purpose) should be emphasized. As such, it is necessary to get a general knowledge of Chinese seafarers' general English as well as their maritime English linguistic knowledge (Table 2).

Table 2. Comparison of Chinese seafarers' maritime English and general English skills

	Min	Max	Mean	Std. Deviation	Average Mean
How do you rank your general English listening skills?	1	5	3.1460	.85866	3.179
How do you rank your maritime English listening skills?	1	5	3.2123	.97278	
How do you rank your general English speaking skills?	1	5	3.0468	.97069	3.061
How do you rank your maritime English speaking skills?	1	5	3.0760	.98229	
How do you rank your general English reading skills?	1	5	3.1825	.87487	3.195
How do you rank your maritime English reading skills?	1	5	3.2075	.90799	
How do you rank your general English writing skills?	1	5	2.6094	.85974	2.649
How do you rank your maritime English writing skills?	1	5	2.6903	.93536	
Valid N (listwise)					

The comparisons show that Chinese seafarers were a little bit weaker in general English than maritime English. Among the four language skills listed in Table 2, writings for both general English and maritime English were their weakest skills, followed by their speaking skills. Reading and listening skills of Chinese seafarers were relatively better compared to their writing and speaking skills. This result was slightly different from that of previous research which highlighted Chinese seafarers' biggest weaknesses in listening and speaking skills. Actually, the result is not surprising since maritime English writing skill was neglected in the maritime English teaching and testing syllabi in China. The importance of writing skills was greatly underestimated in the maritime English education and training in China.

4.2.3 Intercultural competence of Chinese seafarers

As for Chinese seafarers' intercultural competence, around 75% of participants expressed their willingness to share Chinese culture with foreign seafarers while nearly 65% Chinese seafarers were willing to learn various foreign cultures by direct communication with foreign seafarers. However, less than 40% of Chinese seafarers had knowledge of foreign culture, such as religious culture and around half of them had cultural awareness when communicating with foreign seafarers. Similarly, around half of them agreed that they could list some celebrities or famous tourist destinations in foreign seafarers' nations and were willing to take their initiatives to greet foreign seafarers. Besides, around 60% of them could not simply greet in foreign languages (except English). Greeting in the

interlocutor' language can demonstrate your respect for his or her language and culture (Schweers 1999). The intercultural competence of seafarers becomes of great importance on board a ship manned with a multilingual and multicultural crew.

4.2.4 *Psycholinguistic competence of Chinese seafarers*

Compared to their intercultural competence, Chinese seafarers were relatively weak in psycholinguistic competence. Over 50% of Chinese seafarers surveyed tended to communicate with foreign seafarers to relieve their loneliness, homesickness or work pressure on foreign vessels, but only 11% of Chinese seafarers tended to speak English on board. They preferred to speak Chinese whenever they could. Chinese students are shy to speak English and afraid of losing face when making mistakes (Pan et al. 2014). Chinese maritime students are no exception and they have psychological pressure and insufficient confidence to speak English, especially those who are from remote areas. Only a quarter of Chinese seafarers had confidence in communicating with foreign seafarers in English. Being scoffed and scolded due to making mistakes tends to make them very nervous when speaking English. Additionally, Chinese seafarers paid unduly attention to English grammar and around 50% of them tended to repeat and self-correct their speaking to ensure that the grammar they use is correct. Overemphasis on grammar when speaking could affect effective communication, whereas effective communicate could occur without following correct grammars (Carter & Mncarthy 1995; Ke & Suzuki 2011).

4.2.5 *Strategic competence of Chinese seafarers*

Although the score of strategic competence of Chinese seafarers was relatively higher than the other four competences, there were some hidden problems when working with foreign seafarers. For example, nearly 90% of Chinese seafarers would make full use of paralinguistic language when communication could not go smoothly. Paralinguistic elements such as hand gestures and silence however have varied significances across cultures, which can pose additional risk of misunderstanding. For example, people acknowledge with a gesture that they have understood something, but in actually, they have not (Ziarati et al. 2011). The differences of paralinguistic languages across cultures must be borne in mind when communicating with foreign seafarers. Besides paralinguistic language, Chinese seafarers were also good at expressing themselves in alternative ways, such as by means of photos, to facilitate their communication or explain some difficult concepts. Although over 80% of Chinese seafarers tended to use short and simple sentences to enhance communication due to lack of linguistic knowledge, few of them were familiar with the Standard Marine Communication Phrases (SMCP) which was not sufficiently covered in maritime English textbooks (Liu 2008). It was not surprising that over 80% of Chinese seafarers, in a nation of ceremonies, were mindful of using euphemism to avoid offensiveness.

4.2.6 *Pragmatic competence of Chinese seafarers*

As mentioned earlier, Chinese seafarers were reluctant to communicate in English. Around 60% of Chinese seafarers didn't often speak English and 80% of them didn't often write in English. Although Chinese seafarers, thanks to the advanced technology, had the opportunities to practice their listening skills, over half of them just passively watch English programs, in most cases, with translated subtitles. Much listening practice nowadays can, to some degree, improve Chinese seafarers' listening ability. So it is not surprising to find that their listening skills were second only to their reading ability. Reading is greatly emphasised in maritime English teaching, learning and testing in China. However, less than 40% of them had a habit of reading English materials in their spare time. Consequently, it is challenging for Chinese seafarers to improve the pragmatic competence without sufficient practice in English both at work and in life.

5 CONCLUSION AND RECOMMENDATION

Based on the five components of communicative competence, communication can be regarded as a holistic mental process calling upon applying linguistic and strategic skills to integrating language with intercultural knowledge in different circumstances. It not only focuses on psychological process, but also highlights beliefs and attitudes, fears and expectations. Effective oral communication of seafarers requires frequent practice of listening and speaking skills. Since many speech acts are verbally performed at sea, Chinese seafarers' insufficient practice of English, especially interactive communication practice, could be one contributing factor to their language deficiency. This survey shows that linguistic competence was still the weakest area for Chinese seafarers. More specifically, Chinese seafarers' English writing and speaking ability (language output) were poorer than English listening and reading ability (language input).

It is necessary to add multicultural course into the China's maritime English teaching and testing syllabi. Paralinguistic elements across cultures should be addressed properly in class. Great importance needs to be attached to encouraging and facilitating interactive communication in English instead of passively inputting language in maritime English learning and teaching. Interactive learning activities can be developed by virtue of the Information Technology. For example, learners could be motivated and encouraged to communicate interactively with their peers online via social media. Besides, Chinese seafarers' psycholinguistic competence needs great attention. Chinese seafarers' thinking mode should not be confined by their traditional culture but open to the world, which echoes with the fact that maritime English education and training should be internationalised rather than be constrained by national education.

As to Chinese seafarers' overall level of communicative competence, the respondents' self-assessment of their communicative competence might not provide an accurate assessment because

responders tend to overestimate or underestimate their communicative competency. Consequently, Perspectives from maritime English teachers and employers are helpful to provide supplementary information. The implications of the results however are significant as they identified the strengths and weaknesses of communicative competence of Chinese seafarers, which pointed out the direction to which maritime English education and training should aim in order to make a significant impact and address user needs. Additionally, this paper empirically provides a comprehensive picture of Chinese seafarers' communicative competence.

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