

Multilinguistic and Multicultural Crews

- Over 66% of all international ships have mixed nationality and multi-linguistic crews
- The common language spoken onboard vessels is unlikely to be the native language of the majority of crew.

Source of Miscommunication

- 'Human element'
 - critical feature of all aspects of ship operation
 - found to be the cause of over 90% of incidents involving collisions and groundings

Language and Miscommunication

- Communication failures cited as one of the major factors in all incidents at sea.
- Many communicative difficulties are a result of cultural and pragmatic differences as well as linguistic failures.
- Lack of standardization in language and clear format for communication contribute to these failures.

Sources of Miscommunication

- Unique environment with specific communicative challenges and high stakes consequences
 - Social factors
 - fatigue, management interactions and company pressure
 - Isolation and alienation
 - Environmental factors
 - instrument reliability, engine noise, and VHF radio conditions
 - Cognitive factors
 - Cognitive load
 - High stress or panic can lead to language failure/miscomprehension
- Varying linguistic abilities affect crew interaction and team building

Pragmatics

- Meaning in use, meaning in context
- Speaker meaning and utterance interpretation
- Abstract meaning > contextual meaning > force of an utterance

• Examples: politeness, indirectness, mitigation, and illocutionary force

Factors affecting politeness

- Cultural differences in the values assigned to distance, power, and imposition impact the speaker's selection of a specific strategy.
- Example
 - Chinese politeness behavior: although gender and age play a role in influencing the speaker's choice of politeness strategies, ranking hierarchy is the most important factor to consider in politeness behavior (Pan, 2000).

Cosco Busan

- Data:
 - NTSB transcripts of conversations between pilot, master, and crew; pilot and VTS
 - English L1 pilot, Mandarin Chinese L1 master and crew
- Incident: Cosco Busan allided with the Delta tower of the Bay Bridge in San Francisco during foggy weather. Miscommunication between pilot and master, as well as lack of familiarity with on-board instruments, cited as cause

Excerpt from Cosco Busan

08:21:56

- 1)Pilot Cota: What are these ah red- red marks?
- 2)Capt. Sun: This is on bridge.
- 3) Bridge on a light.
- 4) Pilot Cota: Oh oh I couldn't figure out what the red light was red triangle was.

Politeness

- Interlocutors are inclined to speak differently to their social equals than those whose status is higher or lower in a given situation.
- Cota asks a direct question-"What are these ah red- red marks?"
 - The captain does not know the answer to the pilot's request-instead, he provides the information he believes the pilot wants to hear.

Politeness

- Captain seeking to support information he believes the pilot already knows
 - Pilot, as expert, would know what the symbols meant (NTSB, 2007)
- Perceived hierarchy influences his hesitation to contradict the pilot, leading to non-face threatening language

Indirectness

- Indirect request for additional information:
 "Oh oh I couldn't figure out what the red light was red triangle was"
 - Capt. Sun does not respond-he did not want to make the pilot "feel uncomfortable or unwelcome."
- Chinese politeness beliefs require that the speaker occupying the most important power or social position controls the floor.

Excerpt from Cosco Busan

08:28:08

- 9) Pilot Cota: **This is the center of the bridge**right?
- 10) Capt. Sun: Yeah yeah.
- 11) Pilot Cota: Yeah.

Pragmatic Failure

- M/V Bright Field (Dec. 1996)
 - Allided with the New Orleans River Walk
 - Engine failure
 - Pilot not alerted of danger by crew
 - pragmatic failure
 - Crew communications in Chinese

Standard Marine Communication Phrases

- Prescriptive phraseology with reduced syntax and vocabulary for common and routine interactions.
- 3,000 phrases deemed essential for effective and safe communication practices at sea.
- Focused mainly on functional and technical aspects of Maritime English.
- Designed to provide standardization for ship to ship and ship to shore communications.

SMCP: Potential challenges

- Linguistic: Lexical burden
 - special terminology and phrases
 - terms act not only as linguistic units but also as complex notions specific to specialized knowledge.
- Native English speakers receive little to no training in using and following the SMCP
- Although SMCP phrases use simple grammar, the illocutionary force behind these phrases and speech acts may be more difficult for learners to decipher.

Parallels in Aviation Research

- Aviation research
 - Native English speakers less likely to use standard phraseology, and were insufficiently trained to understand when others used it.
 - Non-native speakers experience frustration with the American pilots' use of 'Plain English' and wordiness
 - Discourse between pilots and ATC
 - As quantity of information in a turn increased, the chance for problematic communication in the following turn also increased

Implications

- Message Marker guidelines may contribute to miscommunication due to their ambiguity.
- Socio-pragmatic factors
 - Speakers may be influenced by power, social distance, and politeness.
- Hearers may not react appropriately to speakers' intent.
- Numerous opportunities for mismatch caused by cultural and pragmatic differences

Solutions?

- Need for further investigations and greater involvement from a linguistics/pragmatics perspective
- Pragmatic awareness raising to improve intercultural communication
- Authentic practice for junior mariners to support linguistic and pragmatic development

Targeted Training

- Focus on the *how* and *what* of the content that should be included in training
- Little attention has been paid to pragmatic and/or sociocultural causes of miscommunication
- High need for the language taught in classrooms to be the language needed for real-world interactions/tasks

Next Steps

- Targeted Needs Analysis
 - Identify the unique linguistic, pragmatic, and task-based needs of stake-holders
 - Identify potential sources of miscommunication (e.g. bridge management, master/pilot exchange)
 - Proactively develop training materials and curriculum

Findings so far...

- Lack of training and awareness of Maritime English
 - Target native and non-native English speakers
 - Target all bridge personnel
- Need for standardization in practices
 - Use of L1/ME on board
 - Port practices
 - SCMP
- Need for intercultural training of officers and pilots (in particular)

Conclusions

- Multiple populations in need of task-based curriculum
 - "A task-based approach is 100% necessary"
- Bridge management tasks → key focus
- Cultural component
 - Requests, queries, suggestions
 - Raising concerns and disagreements
- Targeted needs analysis to identify and address communication in relevant contexts

