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Annotating Pragmatic Errors in a Japanese Learner Corpus of English Emails

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Abstract

As part of an ongoing larger study of assessing pragmatic failure in email writing among higher education students in Japan, this paper focuses on a Japanese EFL learner corpus of English email writing, and the process of developing a practical coding scheme for the annotation of pragmatic errors. The coding scheme focuses on pragmatic competence— the relationship between social context and language choices— and specifically pragmatically inappropriate features of the learner email texts, identified by expert English users. As the annotation is performed manually, and is thus resource-intensive, it is important to develop a coding scheme that is both sufficiently granular and useful, without being unwieldy to implement or prohibiting a reasonable level of inter-annotator agreement. This paper reports on issues and challenges arising from a grounded, template-analytic approach to coding scheme development. Prior to annotating the full data set, two annotators engaged in a series of meetings, in which a portion of the data set was annotated, using an initial coding scheme adapted from Economidou-Kogetsidis (2011). In each meeting, problems and challenges with use of the coding scheme were discussed and noted, and the scheme developed and revised in attempts to mitigate those issues. Findings from this coding scheme development process are discussed. These include issues of usability for non-expert annotators and ameliorating the effects of a complex scheme with multiple levels of codes on inter-annotator reliability. The paper also discusses the ways in which the scheme was adapted to address the needs of the annotators, with early, mid and final coding schemes presented.

Keywords

pragmatics, learner errors, email writing, communicative competence

1. Introduction

Pragmatic competence relates to the ability to appropriately adapt one's language choices to varying social contexts. It is an important aspect of overall communicative competence, as failing to adhere to pragmatic norms may negatively impact perceptions of the speaker by interlocutors. For Japanese English L2 learners in higher education contexts, the pragmatic aspect of communicative competence is of particular importance, due to the need to effectively communicate with non-native Japanese faculty members or international members of the student body.

Despite its importance, there is a relative lack of corpus data regarding pragmatic features of English L2 communication, or pragmatic failure in L2 contexts by learners. Addressing the lack of data on pragmatic failure in particular would potentially have positive consequences for the language learning classroom, allowing teachers to address specific learner problems. One reason for this lack of data relates to the challenge of annotating corpora for pragmatic features or errors. This involves a degree of subjective judgement that does not easily allow for automatic annotation; manual annotation can be both time-consuming and resource-intensive.

This paper reports on a larger ongoing study regarding a specialized Japanese university-level learner corpus of English L2 emails. The corpus focuses on emailing as it is a primary mode of communication between learners and faculty members at the institution in which the study is taking place, and at higher education institutions more generally. It is also of potential importance for learners in future professional communicative contexts. The corpus is manually annotated for instances of learner pragmatic failure. Specifically, annotation focuses on tagging errors related to formality, directness and conventions regarding organization.

Due to the additional need to evaluate contextual factors, there is a higher inherent degree of subjectivity in assessing the pragmatic appropriateness of learner L2 written texts than, for example, syntactic errors. Here, we report on efforts to address the issue of subjectivity while developing a tag set for annotating the learners' pragmatic errors in the corpus. Taking a template-analytic approach to the coding scheme, the researchers aimed to develop a tag set that negotiates the tension between subjectivity and a reasonable degree of inter-annotator reliability, while also attending to the limited time resources of the annotators.

2. Background

2.1 Pragmatic competence, Japanese learners of English and corpora

Pragmatics is an important aspect of general communicative competence (Bachman & Palmer, 1996), with the ability to adapt one's language choices to suit differing social scenarios affecting how one is viewed by an interlocutor (Economidou-Kogetsidis, 2011) and the target L2 community at large (LoCastro, 2012). For Japanese learners of English in higher education institutions, the pragmatic aspect of communication is important due to the need to communicate in an appropriate manner with non-native Japanese faculty members, such as asking for feedback on assignments or projects (Economidou-Kogetsidis, 2011). This is particularly pertinent in the context of the current study, in which a large percentage of the faculty consists of non-Japanese members (see section 2.4). Despite this importance, Japanese learners often find the pragmatic element of communication challenging (Fukushima, 2000), leading to pragmatic failure in communication, as perceived by an interlocutor. This may partly be due to limited opportunities to interact in the target L2 within Japan.

One possible approach to addressing Japanese learners' needs concerning pragmatic competence is by leveraging the use of corpora; such data allow for patterns or themes to be systematically identified across large numbers of texts. Corpora have been used to various ends, with most typically used for the identification of formal aspects of language use, such as grammar or lexis. However, annotation of corpora for pragmatics features or pragmatic failure is not common (Maynard & Leicher, 2007; Kallen & Kirk, 2012; Tono, 2003; see section 2.3 for further discussion).

2.2 Pragmatic competence and email writing

While pragmatic competence plays a key role in all modes of communication, oral or written, the current study focuses on learners' L2 English email writing specifically. In part this is because pragmatics-focused corpora to date have typically annotated oral data (see section 2.3); focusing on written email data helps to address this imbalance. Further, a faculty survey at the institution in which the corpus data was elicited (Kaneko et al., 2018) identified the ability to write English emails as a key task that undergraduate students should be able to carry out while enrolled at the university. This skill is also potentially beneficial for students in post-graduation contexts, with a high percentage of graduates proceeding to enter the professional workplace, in which email communication is common, and frequently used between teams in an international context. Email writing has also been identified as an important mode of communication

for students who require feedback or information from a faculty member in a timely manner (Economidou-Kogetsidis, 2011).

Email can be seen as a "hybrid medium" of oral and written communication, sharing some characteristics with both; it is interactive, yet the interlocutors do not interact face-to-face (Barron, 1998; Crystal, 2001; Economidou-Kogetsidis, 2011, 2016). For English L2 speakers, therefore, emailing in English can be challenging as they learn to navigate expectations regarding pragmatic norms and conventions (Economidou-Kogetsidis, 2011).

Despite the importance of email writing, students at the university frequently struggle to compose pragmatically appropriate email texts, due to the complex relationship between the social context of an email communication and the language choices we make relating to directness and formality during email composition. Brown and Levinson (1987) identify three key contextual variables that influence language choices regardless of culture: *power* (P), which relates to the relative social statuses of the interlocutors; *distance* (D), referring to how well the interlocutors know each other, and *rank of imposition* (R), referring to how potentially troublesome the request may be to the hearer if the request is granted. L2 pragmatic norms relating to these variables can be complex; with Japanese EFL learners not being embedded in the L2 community, email can, therefore, be a challenge.

Learners' violations of email pragmatic norms can lead to issues between faculty members and students, with faculty members often perceiving student email communications to exhibit inappropriate levels of formality, directness, or lacking expected structural features (Biesenbach-Lucas, 2007). Despite these issues, there has been relatively little research investigating non-native speakers' pragmatic errors in their emails to university faculty members (Chen, 2006; Economidou-Kogetsidis, 2011, 2016), or Japanese EFL learners' emails to faculty.

2.3 Pragmatic annotation and error-tagging

Pragmatic annotation focuses on discourse, with corpora typically focusing on speech acts in oral communication, such as telephone dialogues (Leech & Weisser, 2003). While efforts have been made to assist annotation (Weisser, 2003; Carletta & Isard, 1999), pragmatic annotation is generally not fully-automated. Typically, there are few corpora with pragmatic annotations (MICASE, Maynard & Leicher, 2007; SPICE Ireland, Kallen & Kirk, 2012), with little work on learner pragmatic errors.

Error-tagging learner corpora allows for characteristics of non-native L2

communication perceived to be inappropriate to be identified and analyzed. There are a number of corpora with annotations for non-pragmatic learner errors, including the Cambridge Learner Corpus and Longman Learners' Corpus; corpora have also been created with learners who have the same L1 (Chinese Learner English Corpus; Japanese EFL Learner Corpus). Such corpora employ a variety of coding schemes for errors, with varying numbers of codes for error types. Error-tagging is typically resource-intensive, with manual annotation typically being the norm, due to a lack of research relating to patterns of learner errors (Tono, 2003); however, semi-automatic annotation has been attempted (Weisser, 2015).

The current study aims to address this lack of corpus data on learners' pragmatic failure by manually annotating a specialized corpus of learner emails at a university in Japan. The corpus is annotated for specific instances of pragmatic failure related to formality, level of directness, and text organization. This paper reports on efforts to address one of the key issues- the amount of time and resources required to manually annotate for pragmatic features or errors- by ameliorating the effects of subjectivity in the annotation process. This is done by seeking to develop a coding scheme for annotation that can be readily used by annotators who are not experts in the field of pragmatics, while at the same time being sufficiently granular, and, therefore, preserving the ability to capture useful information.

2.4 Context

The English L2 email text data that form the corpus were elicited at a higher education-level institution in Japan, specializing in computer science and engineering. It is a bilingual institution, with all meetings and administrative communications conducted in both the Japanese L1 and English L2. Furthermore, approximately 40% of faculty members are non-native Japanese speakers, meaning the student body must regularly engage in L2 English interactions with faculty members in order to effectively communicate for purposes such as receiving feedback.

The university student body consists of non-English majors, with a primary focus on computer science and engineering. While English communicative abilities vary, in general students may be classified as upper-beginners or lower-intermediate English learners, with TOEIC scores for first and second grade students averaging in the 400-600 range.

3. Coding scheme development

3.1 Emails and requesting

The focus of the current study is on *request*-based emails, due to the frequent need for constructing requests in both daily and academic contexts for learners, and requesting being widely researched and described in the research literature (Blum-Kulka & Olshtain, 1984, 1989; Economidou-Kogetsidis, 2011; Fukushima, 2000).

Email data were elicited through a set of four email tasks. Scenarios were generated via the administration of a questionnaire to a sample of the student body, asking for requesting situations in their daily and academic lives. Elicited scenarios were then ranked in terms of frequency; the most frequent scenarios were then evaluated by expert English speakers for the three contextual variables of P, D and R (see Table 1 for descriptions of meanings). From this list of scenarios, four were chosen as tasks for the student participants, selected for their varying P, D and R levels in order to challenge the learners (see Table 2 for the chosen scenarios with assigned P, D and R values). The email tasks were administered online using Google Forms. A total of 1,474 email texts were elicited from 425 participants.

Table 1: Contextual values Power (P), Distance (D) and Rank of imposition (R) (adapted from Hudson et al., 1995)

P	Definition	D	Definition	R	Definition
+	Receiver has a higher rank, title or social position than sender.	+	Sender and receiver do not know or identify with each other.	+	Considerable expenditure of goods or energy by the receiver in order to carry out the request.
_	Receiver has a lower rank, title or social position than sender.	_	Sender and receiver know or identify with each other.	_	Small expenditure of goods or energy by the receiver in order to carry out the request.

Table 2: Email task scenarios administered to participants, with assigned P, D and R values

Task Scenario	P	D	R
You are organizing a university event in which local businesses' products are showcased to the public. To help fund the event, you are contacting local business people to ask for financial donations. Email Mr. Smith- a local business owner in Aizu-Wakamatsu- to ask for a financial donation. You do not know Mr. Smith.	+	+	+
You have a close friend who is an international student at university. You want to practice your English conversation skill next week, so you email him/her asking if they can spend five minutes of their time talking with you in English.	-	-	-
You need to go to Sendai for an academic conference next week, but the train there is too expensive. You email your friend (who has a car) asking them to drive you there. It takes about three hours to drive from your home to Sendai by car. Your friend will be busy next week, so this will be inconvenient for him/her.	-	-	+
You must submit a document to the local government office in Aizu-Wakamatsu proving that you are a student at the University of Aizu. Email the manager of the Student Affairs Office at the university asking them to provide you with the document you need.	+	+	-

In developing our coding scheme, we initially followed the scheme used by Economidou-Kogetsidis (2011) to analyze the directness of email requests, whose scheme was adapted from the Cross-Cultural Study of Speech Act Realization Patterns (CCSARP) framework, which describes features of speech acts in oral communication (Blum-Kulka & Olshtain, 1984). Initially the *head act* of the request is identified (the portion of the text within which the request is actually made). Directness is then evaluated by identifying features both within the head act (*internal modifiers*) and before or after the head act (*external modifiers*). In addition to the coding scheme set out by Economidou-Kogetsidis (2011), we added additional codes relating to *formality*, referring to pragmatically appropriate use of vocabulary and structure, because the current study aims to assess the entirety of the email text, rather than only the directness of the request.

Prior to giving the coding scheme to all annotators to use, and prior to checking their

inter-annotator level of reliability, it was necessary to refine and adapt the coding scheme to enhance its effectiveness. The goal in this process was to ameliorate subjectivity in the annotation process by developing and revising the scheme in such a way as to enhance user-friendliness for non-expert annotators by maximizing clarity and understanding, while at the same time maintaining a useful level of detail. This revised scheme would then be used by all annotators, with inter-annotator reliability checks performed. In developing the coding scheme. the current study followed the procedure set out by Campbell et al. (2013) for contexts in which one or more annotators are not experts in the field. The researchers initially applied the first version of the coding scheme (see Tables 3a and 3b) in batches of five email texts, comparing coding and recording problems or issues with the initial coding scheme. In cases of disagreement, the annotators entered into a phase of negotiation, until agreement was reached on how a portion of the data should be coded. In the first meeting, the non-expert rater found the initial version of the coding scheme challenging, with coding categories unclear in meaning, and the organization of the scheme unintuitive.

From this session, ways in which to adapt the coding scheme were agreed, and the coding scheme revised (see Figure 1). The revised scheme was then applied to further batches of email data in the subsequent meeting. The categories in the coding schema were at times rather long (See Figure 2) and so there was difficulty in displaying the full category name in the UAM Corpus Annotation Tool (O'Donnell, 2008) in both the schema editing layer in the software and for the annotators in the annotation window.

Table 3a: Initial tag set categories for formality.

Formality: appropriate formality for intended audience, in terms of vocabulary and sentence structure.
Inappropriate formality- casual
Inappropriate formality- formal
Lack of form of address
Inappropriate form of address
Lack of form of closing
Inappropriate form of closing

Table 3b: Initial tag set categories for directness.

Directness: appropriate levels of directness in relation to P, D and R variables.		
Too direct	Imperative Elliptical requests ("any comments") Performative (I want to ask…") Want statements Need statements Conventional indirect strategies ("I was wondering if…") Hints	
	Lack of internal modifying phrasal or lexical downgraders, e.g.	• Marker "please • Consultative device ("would you mind" "do you think"), • Downtoners ("possibly" perhaps" "just"), • Hedges ("a bit" "a little" "sort of") • Subjectivisers ("I'm afraid" "I wonder") • Cajolers ("You know" " You see…") • Appealers ("will you…Prof. Nicholas?")
	Lack of external modifiers, e.g.	• Greeting/opening • Self-introduction • Grounder/reason • Disarmer (preempting reasons to refuse the request; "I know you're busy, but…") • Preparator ("I really need a favour") • Getting a precommitment ("Could you do me a favour?") • Promise ("I promise to hand in…") • Imposition minimizer ("just for a few days") • Apology ("I'm very sorry…") • Orientation move ("About the mid-term exam…") • Complement ("your opinion is important…") • Pre-closing/thanks ("thanks for your time") • Email closing ("Best wishes…")
Too polite	Overuse of phrasal/lexical downgraders	

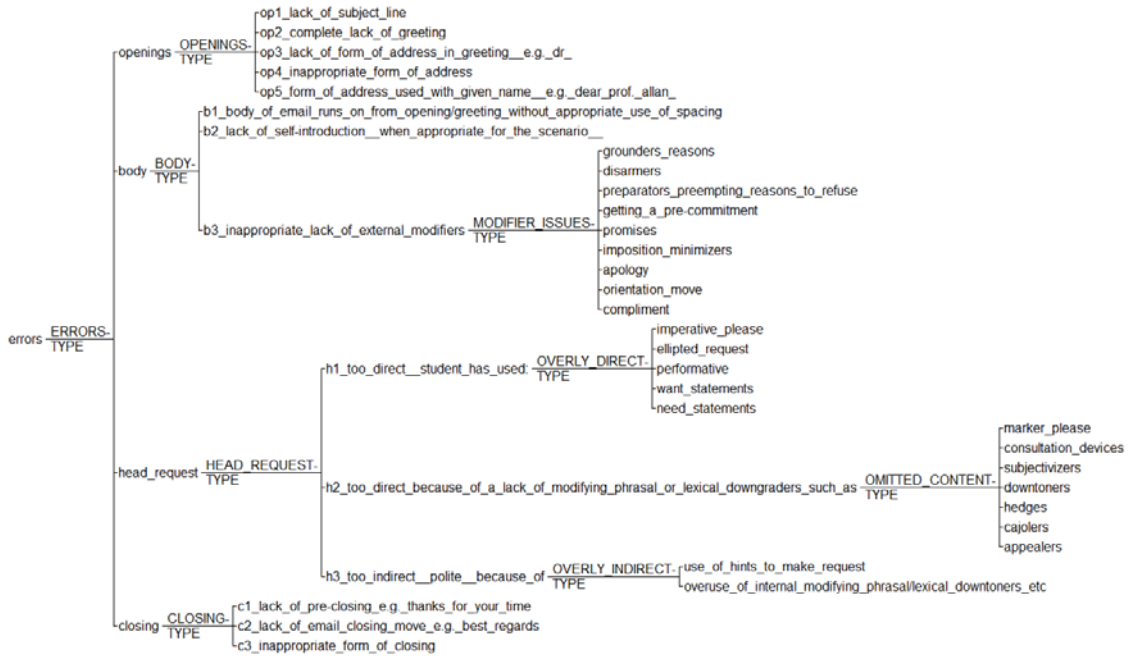


Fig. 1: Revised coding scheme

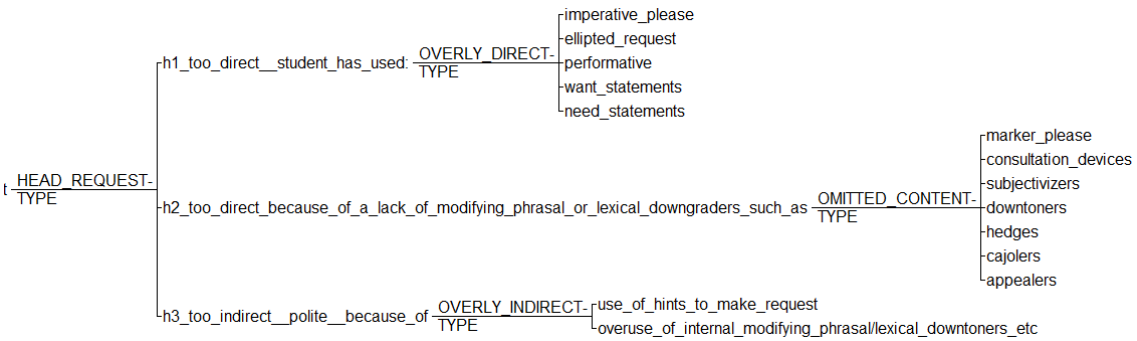


Fig. 2: Enlarged view of head request section of the revised coding scheme

Figure 3 provides an enlarged view of the opening section of the revised scheme. It can be seen that each category is allocated an alphanumeric code (e.g. op1, h2) for easy reference, which makes it easier for annotators to refer to particular items in the coding scheme. When inputting the categories (features), it was the necessary to assign different names to each category as the UAM Corpus Tool software does not allow feature names to be duplicated in the same layer.

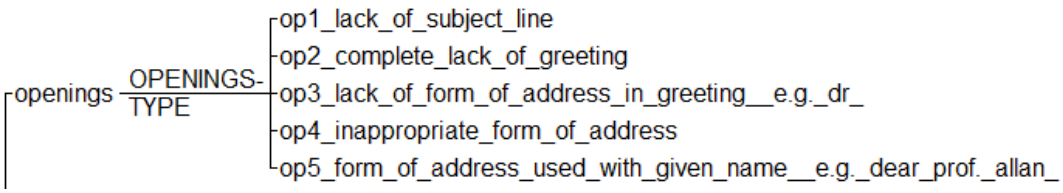


Fig. 3: Enlarged view of openings section of the revised coding scheme

Based on the outcome of this second meeting, further revisions were made, resulting in the final version of the coding scheme, shown in Figure 4.

4. Discussion

In the following section, we discuss the issues that arose from the process of developing the coding scheme for tagging pragmatic errors in the learner email corpus. Specifically, there were two key issues that needed to be addressed: usability of the scheme for non-expert annotators, and developing a reasonable level of reliability through the amelioration of the subjectivity inherent in judgements of pragmatic appropriateness.

4.1 Usability for non-expert annotators

In the early version of the coding scheme (see Tables 3a and 3b), the scheme was oriented towards experts in the relevant field (pragmatics researchers), with terminology in line with that used in the CCSARP framework and by Economidou-Kogetsidis (2011), and the schema organized according to category of error type. While appropriate for researchers in the field, its usability for non-expert annotators was an issue. Based on difficulties arising in the first meeting, the scheme was reorganized to reflect how annotators are likely to read the email data- from the subject line to the opening, followed by the email body and closing. The purpose of the reorganization was to reduce time spent searching for codes while annotating the data. This alteration was found to considerably decrease the amount of time spent annotating in the subsequent meetings; an important consideration when outsourcing the annotation of the full data set.

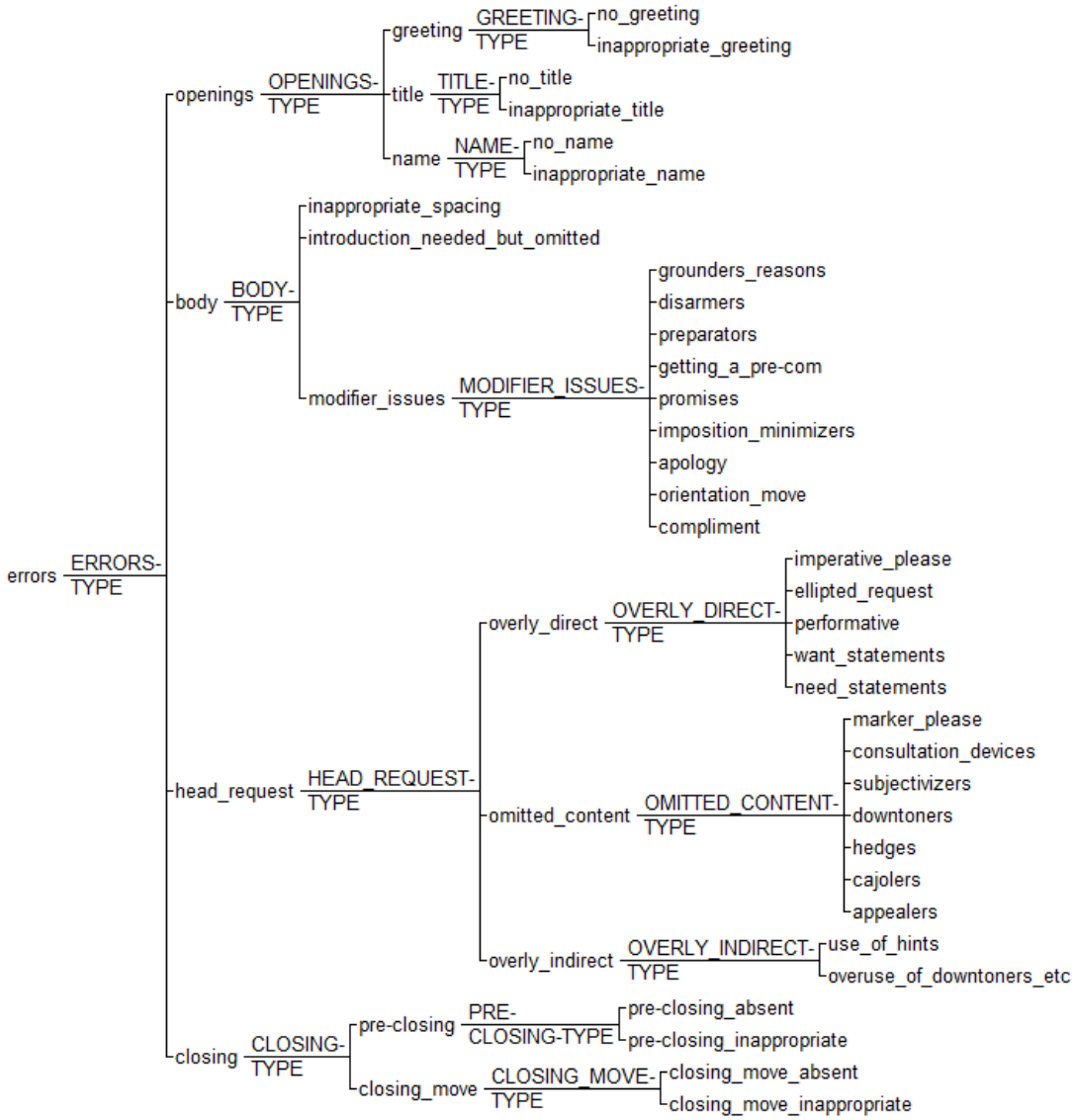


Fig. 4: Final version of the coding scheme

In addition, during the initial coding scheme development meetings, annotators found it necessary to regularly refer to the P, D and R values of the email scenarios in order to assess whether some language choices in the data were pragmatically inappropriate. This presented usability issues- while coding for errors, therefore, it was determined that annotators should be able to refer to the relevant email scenario and P, D and R values on the same screen as the email data. Furthermore, the coding manual developed to support annotators during the error-tagging process should also ensure it is clear to annotators that coding decisions will be at least partially dependent upon the assigned P, D and R values of the email scenarios.

4.2 Addressing discrepancies between annotators

In developing a tag set, there is a potential trade-off between the number of tags employed and inter-annotator reliability (Rissanen, 1989, 2018). If tag sets become overly-granular, a decrease in inter-annotator reliability may be seen. In the early version of the coding scheme (see Tables 3a and 3b), there were multiple external modifiers listed as potentially lacking in the email data. Because different annotators could potentially choose different, equally plausible, modifiers as being absent, it was decided that this could lower inter-annotator reliability. These sub-categories of external modifiers were, therefore, combined into one category- 'lack of external modifiers.'

Furthermore, in the initial version of the coding scheme (see Tables 3a and 3b), some categories were found to be potentially overlapping, leading to uncertainty as to which code to select, or whether to select both. For example, the codes 'lack of greeting/opening' under the 'lack of external modifiers' category and 'lack of form of address' under the 'formality' category created confusion among the annotators in the first meeting. To address this, the scheme was reorganized and categories reworded to clarify precisely what each code is referring to.

While applying the second version of the coding scheme (see Figures 1, 2 and 3) in the second meeting of annotators, coding categories for the opening and closing portions of email data were found to be confusing, with some potential overlapping of categories. To address this, the final version of the coding scheme (see Figure 4) breaks down the opening into three parts- the greeting, the title and the name. For each, there are two options- 'absent' or 'inappropriate.' The closing categories were reorganized in a similar manner. Applying these new codes in the final version of the scheme in the third meeting was found to be both simpler and more time efficient.

While applying the revised coding scheme in the second meeting (see Figures 1 and 2), it also became apparent that it was not clear in the 'head request' category that it was necessary for annotators to code for both head request sub-categories. It could plausibly appear to annotators that, if coding for one, coding for the other category might not be necessary, as they provide different useful information. For the final version (see Figure 4) the wording was revised for one category to improve clarity; the coding manual also highlights the need to code for both head request sub-categories.

5. Conclusion

The creation of an annotation scheme is a time-consuming task, but given that the quality of the data produced and the value-added to the corpus directly correlates to the

accuracy of the annotations, it is vital that the scheme used is the best possible version. The quality of any further research based on the annotation data will vary, depending on the quality and reliability of the annotations. When annotating a corpus, therefore, it is worth investing time upfront to create a tag set and tag schemata (coding scheme) that will enable the research questions to be answered in the most effective and efficient manner.

In terms of recruiting, training and retaining annotators, the more intuitive and the simpler the scheme, the better. Should the coding scheme appear to be complex, not only may potential annotators be reluctant to take on the task of annotating, but this perceived difficulty will most likely need to be reflected in the amount of remuneration offered. In short, to increase the cost-performance of the annotation process follow the maxim: the simpler, the better. At the same time, it is important to achieve this clarity and simplicity without sacrificing the accuracy and usefulness of the annotated corpus.

There are many ways to simplify the annotation, but when drafting the tag set and coding scheme it is essential to consider how the annotators may view the categories and choices. When annotators are required to annotate a particular text type, it is more efficient if the annotation scheme follows the flow or sequence (e.g. move structure) of the text.

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