AN ANALYSIS OF CONVERSATIONAL DISCOURSE IN MEDICAL SETTINGS FOR LEARNERS OF GERMAN: LANGUAGE, COMMUNICATION AND PEDAGOGY

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Abstract: The recent sociopolitical circumstances in Germany have led to the popularization of teaching German as a foreign language (Deutsch als Fremdsprache, DaF) within the country. To cater to the different needs or goals of learners, various DaF materials including those for specific occupational purposes have been designed. Assuming that dialogues in contemporary DaF textbooks constitute the important means of socializing learners into the use of the target language in real-life communication, this paper examined 29 conversations provided in an audio recording of a DaF textbook for non-physician healthcare workers. The healthcare sector was chosen because it is the profession in which DaF foreigners are often recruited. The major objective of the current research is to identify any pedagogic values of the dialogues. To this end, the utterances of the medical personnel in the dialogues were analyzed in accordance with Halliday’s (1975) model about the seven functions of language. Attention was also paid to how these functions are linguistically manifested for medical communication as well as the construction of professional identity. The findings underscore the different roles which healthcare employees play in their workplace. These roles include providing or gathering information, building up rapport and regulating patients’ behavior. Besides, the function-form correspondence is evident in the data. For instance, where the “instrumental” function is concerned, the healthcare workers tend to articulate their medical routine as a desire with ich möchte [I want to]. On the other hand, the “personal” function is typically realized by phrases like ich glaube [I believe], which preface the healthcare workers’ medical judgment or advice. Last but not least, the data offer insights into how healthcare workers perform their professional identity during communication. One example is the simultaneous use of medical jargon and its generic equivalent (e.g., Amlodipin [amlodipine] versus Blutdrucktabletten [blood pressure tablets]) to display their expertise without jeopardizing patients’ understanding. Given the findings of this study, DaF practitioners working in the field of Languages for Specific Purposes (LSP) are advised to use the dialogues in textbooks to systematically cultivate learners’ consciousness of how linguistic resources can be mobilized for communication in their profession.

Keywords: German as a foreign language; language for specific purposes; medical communication; conversational discourse; textbooks; professional identity

1. Introduction
Being one of the strongest economies in the world (The World Bank, 2017),
Germany is a popular destination for immigrants. It was reported that the population of Germany was 82.27 million in March 2016 and out of the total, 8.86 million were foreigners (Statistisches Bundesamt, 2017). People settle in Germany for various reasons, which typically include studies, work and family reunification. Throughout the years attention was explicitly paid to the integration of immigrants into society. This made the field of teaching German as a foreign language (Deutsch als Fremdsprache, or DaF in short) important. From 2007 onwards, foreigners without a sufficient level of German proficiency are required to attend language classes (Wegmann, 2014: 134). Many schools like the Volkshochschule offer the state-run integration program to equip immigrants with the necessary German language skills. Recently, the surge of asylum seekers has given a further boost to the entire DaF industry.

A multitude of DaF textbooks and educational materials have been developed to cater to the needs of learners. For example, some textbooks were written specifically for Langsamlerner ("slow learners") or people who are not familiar with the Latin script (Bundesamt für Migration und Flüchtlinge, 2017). Textbooks can also be classified according to learners’ goals. Apart from General German, German for Professional Purposes becomes a target of textbook writers as well. In this study, I will examine 29 dialogues identified in a DaF textbook for healthcare workers by capitalizing on Halliday’s (1975) framework about the functions of language. The selected dialogues resemble communication in medical settings. Like many developed countries, Germany experiences a shortage of labor in the medical sector and relies on import of skilled migrant workers to fill vacancies (Astheimer, 2014). It is essential for healthcare employees to communicate effectively in the workplace because any miscommunication can result in undesirable consequences. The assumption of the present research is that textbooks for language learners are the crucial means of socializing them into the use of the target language in real-life communication (Curdt-Christiansen, 2017). They provide language samples for learners to model. What's more, it is believed that the way linguistic resources are mobilized in communication is intricately linked to identity construction (Kong, 2014: 106). While healthcare workers engage in communication at work, they are constructing their professional identity. Thus, it can be argued that the dialogues investigated in this study demonstrate to the DaF learners (probably in an implicit manner though) how such professional identity is performed. It is hoped that by the end of this article, the pedagogic values of the dialogues will have been clear.

2. Literature Review

2.1 The German-Speaking World

German is one of the prominent languages around the world. Despite the fact that English is by default the language for global communication, German is the most widely spoken first language within the European Union (European Commission, 2012: 10). People who speak German as their mother tongue amount to 76.8 million whereas nearly 53 million people are non-native speakers of the language (Simons and Fennig, 2017). In five countries (i.e., Germany, Austria, Liechtenstein, Switzerland and Luxembourg) German is the official language. German-speaking communities exist not only in Europe, but also in America.
Being the largest German-speaking country, Germany has played an active role in enhancing the status of the language. Within the country, the Federal Office for Migration and Refugees (Bundesamt für Migration und Flüchtlinge, BAMF) oversees the implementation of the language benchmark for foreigners who intend to stay in Germany on a long-term basis. Several institutions such as the German Academic Exchange Service (Deutscher Akademischer Austauschdienst, DAAD) and the Goethe-Institut are responsible for promoting the German language and culture abroad (Salerno, 2016). It was said that the motivation to learn German is reasonably high due to the strong economic performance of German-speaking countries (Deutsche Welle, 2015).

2.2 Language for Specific Purposes

Language for Specific Purposes (LSP) is customarily discussed under the domain of second/foreign language instruction. Different from general language courses, LSP courses focus on specific use of the target language in accordance with an identified range of learners’ specialized needs (Trace, Hudson and Brown, 2015: 2). Some concrete examples of LSP courses are Chinese for business, English for pilots and Spanish for tourism. Usually the content of LSP courses is limited to a particular social situation or even a specific type of tasks and skills (Trace, Hudson and Brown, 2015: 2).

Three remarks made by Gollin-Kies, Hall and Moore (2015) regarding LSP are worth mentioning. First, LSP studies have been dominated by research into English, although LSP is an area which in principle covers all other languages (2015: 11). In fact, German for Specific Purposes (GSP) has aroused the interest of some researchers (for an overview, refer to Byrnes, 2013). Second, LSP involves much more than technical vocabulary, as possession of lexical items per se does not guarantee successful communication (Gollin-Kies, Hall and Moore, 2015: 14). Third, within the field of pedagogy, LSP is mostly examined from the functionalist and pragmatic perspectives as it cannot be detached from language use in context (2015: 3). Adhering to this convention, the present research will adopt the functional approach to language for data analysis.

2.3 Medical Discourse

As mentioned by Gotti and Salager-Meyer (2007: 13), research on medical discourse among linguists is expanding. Broadly speaking, analysts of medical discourse make use of linguistics to decipher the connection between language, health issues and contexts. Examples of data which are frequently collected for analysis are interactions between medical providers and patients, medical counseling and people’s retrospective accounts of their illness (Hamilton and Chou, 2014: 1). It should be noted that medical providers do not only include doctors, but they also encompass other health professionals such as nurses, therapists and even caregivers.

Medical discourse can be considered a type of professional discourse because it is generated in professional settings. According to Linell (1998: 143), professional discourse is divided into three kinds: (i) “intraprofessional discourse” (viz., communication among individuals within the same profession); (ii) “interprofessional discourse” (viz., communication between people from different fields); (iii) “professional-lay discourse” (viz., communication between experts and
laymen). Linell’s (1998) classification is applicable to medical discourse as well. For instance, an encounter between a physician and a patient is an example of “professional-lay discourse.”

2.4 Relevant Empirical Research

Given that the present research deals with dialogues found in a language textbook designed for healthcare workers who are learners of German, I will provide a review of previous studies on interactions which occurred in medical settings. Besides, prior empirical work on DaF materials will be discussed.

Slade and her associates (2008) analyzed the spoken discourse between English-speaking medical professionals and patients in an emergency department of an Australian hospital. Part of the research was to find out how the professional roles of doctors and nurses were related to their discursive practices. One interesting finding was that the nurse, when interacting with the patient, took on a “boundary-spanning role.” On the one hand, the nurse projected himself as a member of the medical professionals while their knowledge was drawn into the conversation. On the other hand, where rapport management was concerned, the nurse distanced himself from the medical professionals and sided with the patient (2008: 281). The shift in discourse roles of nurses in their encounters with patients was reported by Candlin (2006) as well. In her study, the conversation between an experienced nurse and a patient during a health assessment conducted in English was analyzed. While formal language and directness were employed by the nurse when information was being elicited from the patient, the nurse also engaged in “idle talk” about housework. Candlin (2006: 79) interpreted this as a strategy to facilitate the interaction. She also argued that in their communication with patients, nurses have to strike a balance between their skills (viz., the “nursing world”) and the patients’ needs (viz., the “life world”).

Unlike Slade et al. (2008) and Candlin (2006), Pryor and Woodward-Kron (2014) focused on 12 telephone conversations between junior and senior doctors—an example of “intraprofessional discourse.” The junior doctors sought clinical advice from the senior doctors in each of these English conversations. Pryor and Woodward-Kron (2014) intended to derive from the conversations their generic structure. It was found that “instructional sequences” (where the senior doctors utilized a range of strategies to teach the junior doctors) appeared in conversations which were deemed to be less successful (2014: 48). The researchers recommended that examples showing what constitutes more and less effective communication be incorporated into the training program for doctors (2014: 51).

The journal Die Unterrichtspraxis/Teaching German specializes in research related to DaF, albeit within the American context. Studies on DaF textbooks can be identified from the journal. Two examples are the work of Lipinski (2010) and that of Snider (2005). Lipinski (2010) examined three DaF textbooks used by first-year undergraduates in the United States. The scholar compared the vocabulary lists of these textbooks with the high-frequency words found in the Frequency Dictionary of German. It was discovered that not more than 65% of the top 1000 high-frequency words were introduced in any one of the three textbooks. Lipinski (2010) remarked that textbook writers should have included a larger variety of high-frequency words because it is vital for learners to receive exposure to words which occur frequently (2010: 173). Snider’s (2005) corpus came from six DaF
textbooks used at American universities. His objective was to reveal the proportion of communicative to non-communicative activities offered by these textbooks. Snider (2005) found that communicative activities outnumbered non-communicative ones in all textbooks. It was concluded that there was progress in materials design because authors and publishers were moving away from mechanically drilling learners in grammatical forms (2005: 169–170). As demonstrated in this subsection, researchers of medical discourse have mostly worked with English speakers. The current research will deviate from this tradition by examining German data. Furthermore, previous scholarly work on DaF materials has generally been undertaken from a non-LSP perspective. This somehow creates a research niche which the present study may fill.

3. Data and Methodology
The data of the present study are 29 dialogues found in a textbook of a DaF series called Menschen im Beruf. This series was designed for LSP learners of German and contains textbooks for various professions. The one developed for healthcare workers (entitled Menschen im Beruf—Pflege B1) was selected for analysis. Although there is a textbook for medical doctors in this series, I decided to focus on healthcare professionals who are not medical doctors. As the title of the textbook suggests, its target users are those working in the medical field who aim for B1 Level of German proficiency based on the Common European Framework (CEF). The textbook was published in 2016 and consists of 118 pages. All the 29 chosen dialogues which amount to 6296 words come from the accompanying audio recording. Despite the fact that there are 37 tracks altogether in the CD, only 29 of them resemble dialogues in which healthcare workers interact with other people and thus constitute meaningful data for analysis.

The transcript of each dialogue was first examined to find out its interlocutors (e.g., healthcare workers talking to their colleagues, healthcare workers conversing with patients, etc.). This is an important step because only when such contextual information is available can educated guesses about the discursive practices of healthcare workers as reflected in the dialogues be made. Next, the utterances from healthcare workers were identified for detailed analysis. This means that the patients’ utterances, for instance, were not analyzed, even though they would be taken into account during the discussion of the findings. To systematize the analysis, the framework suggested by Halliday (1975) was utilized. While discussing the language development of a child, Halliday (1975: 18–21) proposed seven functions which language serves. These functions are listed in Table 1 below.

Table 1: Functions of Language [adapted from the work of Halliday (1975: 19–21)]

<table>
<thead>
<tr>
<th>Function</th>
<th>Explanation</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumental</td>
<td>To express desire and needs</td>
<td>&quot;I want …&quot;</td>
</tr>
</tbody>
</table>
| Regulatory | To control the behavior of others  | "Take the medicine."
                 |                      | "Call me."        |
| Interactional | To establish or maintain          | "Hello."
                 | relationship with others    | "Good morning."
| Personal   | To express one’s own               | "I like helping others." |
uniqueness, personal feelings and opinions

“I agree with you.”

Heuristic

To find out more about the physical or social environment

“Can you tell me why this happened?”
“What is the best solution?”

Imaginative

To create an imaginary context

“Let’s pretend we’re not happy.”

Informative

To convey information

“I’ve got something to tell you.”
“This disease is called cholera.”

Two remarks concerning the use of Halliday’s (1975) framework have to be made. First, although Halliday (1975) related these functions of language to child language acquisition, his framework is transferable to the examination of language use in other situations because these seven functions are in some way fundamental to human communication. In the present study, this framework was employed only as a springboard for unpacking the conversational discourse in medical settings designed for DaF learners. Second, one feature of this framework, as Halliday (1975: 51) acknowledged, is its assuming the “un integrated uses of language,” i.e., the seven functions being separate from one another, which may not be the case in reality. Due to the constraint on space, it is not feasible to elaborate on this issue. Nonetheless, I would like to emphasize that Halliday’s (1975) framework enables a systematic analysis of the data in the current research, as the next section will show. In fact, Kohandani, Farzaneh and Kazemi (2014) have made use of this framework to investigate conversations in textbooks for learners of General English. After the data had been analyzed according to Halliday’s (1975) framework, attention was paid to the salient linguistic manifestations of the functions. The findings would also be discussed in relation to the construction of healthcare workers’ workplace identity.

4. Findings and Discussion

The 29 dialogues were divided into four main categories on the basis of their interlocutors. Table 2 demonstrates the distribution of these four categories. Conversations between healthcare workers and patients make up the largest amount (nearly 50%) of the dialogues. This is followed by conversations with colleagues (around 35%). It is interesting to note that three dialogues involve the family members of patients. Generally, the dialogues provided in the textbook are extensive enough to cover the major communicative situations which non-doctor healthcare workers encounter, except for the occasions where they have to communicate with medical doctors.

Table 2: An overview of the 29 dialogues analyzed

<table>
<thead>
<tr>
<th>Category</th>
<th>Interlocutors</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversations with patients (e.g., hospital admission interviews, dialogues with inpatients and follow-up health checks)</td>
<td></td>
<td>14 (48.28%)</td>
</tr>
<tr>
<td>Conversations with colleagues (e.g., meetings in the office and telephone</td>
<td></td>
<td>10 (34.48%)</td>
</tr>
</tbody>
</table>
Table 3 presents the distribution of Halliday’s (1975) seven functions of language identified from the healthcare workers’ utterances in the 29 dialogues. As the table displays, “interactional,” “informative” and “personal” are the three most common functions. On the other hand, no instances of the “imaginative” function have been identified. This comes as no surprise because the healthcare sector is not an industry which is dependent on the workers’ creativity. Healthcare professionals are not expected to engage in creative work while carrying out their duties.

Table 3: Instances of Halliday’s (1975) seven functions of language in the healthcare workers’ utterances

<table>
<thead>
<tr>
<th>Function</th>
<th>Tokens</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumental</td>
<td>11</td>
<td>2.27</td>
</tr>
<tr>
<td>Regulatory</td>
<td>52</td>
<td>10.72</td>
</tr>
<tr>
<td>Interactional</td>
<td>159</td>
<td>32.78</td>
</tr>
<tr>
<td>Personal</td>
<td>80</td>
<td>16.48</td>
</tr>
<tr>
<td>Heuristic</td>
<td>48</td>
<td>9.90</td>
</tr>
<tr>
<td>Imaginative</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Informative</td>
<td>135</td>
<td>27.84</td>
</tr>
</tbody>
</table>

The “interactional” function is salient in the healthcare workers’ utterances. Out of the 159 tokens, 73 involve the use of vocatives. In all the dialogues, the healthcare workers consistently address their patients by their surname (plus title). Nevertheless, only the given name is used when the addressee is one of their colleagues. Two examples are:

1. „So alt sind Sie doch noch gar nicht, Herr Topak!” (Lektion 8 Einen Verband wechseln, Aufgabe 3)
   [You are not that old at all, Mr. Topak!] (Lesson 8 Change a bandage, Exercise 3)
2. „Natalia, schmeckt Dir denn indisches Essen?” (Lektion 12 Teambesprechung, Aufgabe 3b)
   [Natalia, so do you like the taste of Indian food?] (Lesson 12 Team meeting, Exercise 3b)

Apart from the forms of address, there is a difference in the use of the second-person pronouns between Examples 1 and 2 (viz., Sie [formal nominative “you”] versus Dir [informal dative “you”]).

The “interactional” function also materializes when healthcare workers express gratitude, apologies, greetings or concern about the patients, as the following examples show:
While the “interactional” function has to do with the rapport between the interlocutors, the “informative” function pertains to the transmission of information. Two relevant examples are:

(7) „Herr Zumwirth schwitzt aber ziemlich stark, sodass seine Bettwäsche sicher bald wieder gewechselt werden muss und er ein neues Hemd braucht.“ (Lektion 22 Kollegen bei der Übergabe über Patienten informieren, Aufgabe 3c)
[But Mr. Zumwirth sweats quite intensely, so his bedding certainly has to be changed again soon and he needs a new shirt.] (Lesson 22 Brief colleagues on patients at the handover, Exercise 3c)

(8) „Die Tabletten hier sind Blutdrucktabletten und heißen Amlodipin. Sie bekommen drei Stück, das reicht Ihnen genau bis Montag-früh.“ (Lektion 24 Patienten überleiten, Aufgabe 1a)
[The tablets here are blood pressure tablets and are called amlodipine. You receive three pieces. This is exactly enough until early Monday.] (Lesson 24 Transfer/discharge patients, Exercise 1a)

In Example 7, the healthcare worker gives her colleague information about a specific patient during a handover meeting. Here she reports on the patient’s symptom and the necessary follow-up actions. In Example 8, another healthcare worker briefs his patient on the medication before the patient is discharged from the hospital. What appears in Example 8 corroborates Candlin’s (2006) idea about the interface between the “nursing world” and the “life world.” When talking about the tablets, the healthcare worker employs both the medical jargon Amlodipin [amlodipine] and the generic term Blutdrucktabletten [blood pressure tablets]. In this way, he can simultaneously construct his professional identity and appeal to the patient’s “life world.” The professional identity of the healthcare workers is evident in places where the “personal” function of language is realized, as the three excerpts below indicate:
In Example 9, the healthcare worker is commenting on the behavior of a female patient with Alzheimer’s disease. This patient has been trying to hug another male patient. By using her knowledge of the disease and the patient’s history, the healthcare worker rationalizes what the female patient has done. The “interpersonal projection” (Thompson, 2014) ich glaube [I believe] signals not just her opinion, but also her professional self. Examples 10 and 11 come from a conversation between a healthcare worker and a patient who has a hard-to-heal wound. The healthcare worker is giving the patient advice on treatment. Again the “personal” function of language is manifested via the projecting clauses ich rate Ihnen [I advise you] and ich empfehle Ihnen [I recommend you], which at the same time foreground the expertise (viz., professional identity) of the healthcare worker. The “regulatory” function of language identified in the healthcare workers’ utterances is marked by the use of imperatives or deontic modality:

12. Achten Sie bitte auch darauf, dass Ihre Mutter in der nächsten Zeit viele Vitamine, viel Eiweiß und ausreichend Flüssigkeit zu sich nimmt. [Please also notice that your mother will take a lot of vitamins, protein and sufficient fluid in the near future.]

13. Setzen Sie sich doch bitte, Frau Wilke. [Sit down please, Mrs. Wilke.]

14. Sie sollten uns nur Bescheid sagen, wenn Sie die Station verlassen. [You should only tell us when you leave the ward.]
the imperative in Examples 12 and 13 performs a similar function. Undoubtedly, one of the important tasks for healthcare professionals is to “regulate” the behavior of their patients within the medical settings. The three examples illustrate how particular linguistic forms can be applied to mitigate the imposition caused. Since the “heuristic” function of language concerns the search for unknown information, it coincides with the use of interrogatives very often. Two examples are:

(15) „Sie haben einen Hautausschlag. Haben Sie denn auch Schmerzen?“ (Lektion 16 Pflegeberichte I, Aufgabe 3)
[You have a skin rash. So, do you also have pain?](Lesson 16 Care reports I, Exercise 3)

(16) „Wissen Sie, wie Sie die Fersen frei lagem?“ (Lektion 7 Dekubitus und Dekubitusprophylaxe, Aufgabe 3)
[Do you know how to keep the heels free?](Lesson 7 Bedsore and its prevention, Exercise 3)

In Example 15, the healthcare worker wants to know whether the patient’s skin rash causes any pain so that the appropriate remedy can be determined for the symptom. In Example 16, the purpose of the question is to check if the family member of a patient knows how to look after the patient who suffers from pressure ulcers.

Though the “instrumental” function of language is rather infrequent in the healthcare workers’ utterances, its occurrences exhibit an interesting pattern. The healthcare workers tend to articulate their medical routine as a desire when interacting with patients, as the following examples show:

(17) „Aber bevor ich einen neuen Verband anlege, möchte ich sie (die Wunde) noch ausmessen.“ (Lektion 8 Einen Verband wechseln, Aufgabe 3)
[But before I apply a new bandage, I still want to measure it (the wound).] (Lesson 8 Change a bandage, Exercise 3)

(18) „Ich bin Schwester Uta und möchte jetzt das Aufnahmegespräch mit Ihnen führen.“ (Lektion 1 Patienten aufnehmen, Aufgabe 3)
[I am Nurse Uta and want to administer the admission interview with you now.] (Lesson 1 Admit patients, Exercise 3)

In both examples, the medical step which the healthcare workers have to take is stated in the clause introduced by ich möchte [I want to]. Example 18 also demonstrates that within the medical scene, Schwester (which is the short form of Krankenschwester [nurse]) is used as a formal title (plus surname) for nurses.

5. Conclusion
By using Halliday’s (1975) framework about the functions of language, this study explored 29 dialogues in a DaF textbook for healthcare workers. As mentioned before, the dialogues are important resources for LSP learners of German to get exposed to the target language, although strictly speaking they are not authentic conversations recorded in medical settings. The findings yielded reveal the pedagogic values of the dialogues. First of all, they highlight the various roles which healthcare employees play in their workplace. These roles include providing
or gathering information, building up rapport and regulating patients’ behavior. More importantly, the analysis exemplifies systematically as well as in concrete terms the contexts under which these roles are assumed. For instance, concerning their role of gathering information, healthcare workers ask questions not just for making an informed decision on the remedy needed, but also for checking the interlocutors’ knowledge of essential healthcare techniques. On the other hand, the healthcare workers act as information providers when they inform their colleagues of the patients’ conditions during handover meetings or when they talk to their patients about post-hospitalization treatment before their discharge from the hospital.

Another contribution of the present research is that the tendency for certain linguistic forms to serve specific functions in medical communication has been made explicit. The function-form correspondence is also connected to identity construction. One example is the “personal” function which is typically realized by phrases like ich glaube [I believe] in the data. Such expressions tend to be accompanied by the healthcare workers’ medical judgment or advice. Thus, it can be inferred that they are indicative of the workers’ professional identity. Given the findings of this study, DaF teachers working in the field of LSP may consider making more strategic use of the dialogues given in textbooks to develop learners’ awareness of how linguistic resources can be mobilized for effective communication in their profession.

References