

In Proceedings from the Second Nordic Conference on Multimodal Communication, Göteborg, 2005.

WORD-FINDING PROBLEMS IN MEDICAL CONSULTATIONS BETWEEN NON-SWEDISH PHYSICIANS AND SWEDISH PATIENTS

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Abstract

One of the most common difficulties in medical consultations between non-Swedish physicians and their Swedish patients is the problem of finding the right word during the interaction, often as a result of using Swedish as a foreign language. In this study, some of the ways this problem is handled during interaction are presented and the influence of the ways of handling the problems on the physician-patient relationship is discussed.

Keywords: physician, patient, communication, word-finding problems, gesture, joint production, patient involvement

1 Introduction

Successful communication between physician and patient is essential for a high quality in health care and for the well being of a patient. In the course of a consultation, the physician and patient exchange information that is important to both of them - the patient provides information about experienced health problems, on the basis of which the physician makes a diagnosis, suggests a treatment and subsequently informs the patient. Consequently, the ability of both participants to contribute and share enough relevant information is essential.

In spite of the fact that the number of studies that focus on factors that lower the quality of information exchange in physician-patient communication is high, most of them concentrate exclusively on problems stemming from the patient, e.g. a patient's language impairment in the case of aphasia (Demeurisse, 1999), a patient's deafness (McEwen & Anton-Culver, 1988) or from the fact that the patient is a foreigner, e.g. an immigrant, a representative of a minority ethnic group, etc with poor cultural and language competence (Fernandez *et al.*, 2004), who requires the help of an interpreter (Davidson, 2001). The physician, on the contrary, is usually seen as the dominant participant in the interaction, whose strong position as a health care provider is even more strengthened as a result of a patient's "weakness" resulting from physical and/or psychological problems or from cultural and language difficulties.

Research relating to problems a physician might have, e.g. a physician's language problems or due to the physician being a foreigner, are rare, in spite of an increased migration of health care personnel (Mejia, 2004). There are only a few such studies, some examples are the overview of problems experienced by foreign/ international medical graduates (FMG/ IMG) in the USA (Miller *et al.*, 1998; Steward, 2003), overseas-trained doctors (OTD) in Australia (McGrath, 2004), utländska läkare (foreign physicians) in Sweden (Ekström, 2004, Allwood, Berbyuk & Edebäck, 2004, Berbyuk, Allwood & Edebäck, 2004, Berbyuk, 2005), etc. Some studies on "foreign physician-native patient" communication worth mentioning here are (i) a brief overview of the problems reported by FMG (Fiscella *et al.*, 1997), (ii) a chapter in Handbook for Foreign Medical Graduates on cultural and language issues essential for successful communication in American health care (ECFMG, 1976), and (iii) a study on power issues in interaction between Polish and Vietnamese physicians and American patients (Erickson & Rittenberg, 1987).

The recent increase of foreign physicians in Sweden (Lindberg, 2005) makes the issue of intercultural communication between them and their Swedish patients and colleagues important for society. The case of a physician being a foreigner and using Swedish as a foreign language raises a number of questions, one of which concerns the influence of the physician's lack of language competence on the interaction with patients.

In the research project 'Communication and Interaction in Multicultural Health Care,' initiated in 2003 at the Department of Linguistics, Gothenburg University, the communication between non-Swedish physicians and their Swedish patients and colleagues is analyzed. The purpose of the above mentioned project is to describe and to analyze the difficulties arising from, and

possible positive effects of, cultural differences and the use of foreign language. The project also considers the influence of gender on communication. In addition to this, language learning at work, i.e. the ways in which non-Swedish physicians get ‘informal tuition’ from their communicative partners, is being studied. The methods used in the project are interviews and questionnaires directed to non-Swedish physicians, health care personnel and Swedish patients as well as video and or/audio recordings of medical consultations and working meetings of different kinds.

The results of the interviews and the questionnaire studies show that non-Swedish physicians experience some difficulties in interaction (Allwood, Berbyuk & Edebäck, 2004, Berbyuk, Allwood & Edebäck 2004, Berbyuk 2005). A very frequent example of this is the problem in finding the right word during interaction with patients (Allwood, Berbyuk & Edebäck, 2004). In this paper, we will exclusively present a taxonomy of the strategies to solve the word finding problems we have found in the data. The question arises: In what situations does this problem occur? How and by whom is it solved? What influence does it have on interaction and on the physician-patient relationship?

2 Data and Methods

Transcriptions of recordings of 33 medical consultations (31 video and 2 audio recordings) between 13 non-Swedish physicians (7 male and 6 female) and their Swedish patients (33 patients, 13 male and 20 female) have been analyzed. The recordings have been made in health care centers and hospitals in Western Sweden. Both physicians and patients gave their oral and/or written consent. The physical examinations were not video recorded for ethical reasons. If participants gave their consent, it was audio recorded only, i.e. the lens lid was placed on the camera, which meant no video recording was made. No researcher was present during the recording of a consultation.

All patients are native speakers of Swedish, aged between 20 up to 89 years. The physicians come mainly from Iran (5) and Hungary (4). Other countries represented are former USSR (Russia), Colombia, Germany and former Yugoslavia, represented by one physician each and included in what will be referred to as the Mixed group below. All physicians completed their medical education and gained some professional experience in their native countries before coming to Sweden. However, the time they have lived in Sweden, their professional experience and specialties vary (see Table 1 below). The Hungarian

doctors and a German doctor were recruited in a recruitment program started by the Västra Götaland region (Western Sweden) and, since they had their medical licenses automatically approved under EU/EEA (European Union/European Economic Area) regulations, they began work directly after coming to Sweden. They attended a three-month Swedish language course in their native countries. The physicians from outside the EU, i.e. the Iranian physicians, the Russian, the Yugoslavian and the Colombian physicians started working in the Swedish health care system 2–4 years after coming to Sweden, having supplemented their medical education and passing a compulsory language examination for physicians from outside the EU/EEA in order to have their medical licenses approved. In Table 1 below a brief overview of the non-Swedish physicians that participated in the study is presented.

Table 1. Overview of the non-Swedish physicians

<i>Participants' code</i>	<i>Age</i>	<i>Gender</i>	<i>Time in Sweden (years)</i>	<i>Work as physician in Sweden (years)</i>	<i>Specialty</i>
Hungarian group					
HuD1 ¹	45	male	1	1	anesthesiology
HuD2	34	female	1	1	
HuD3	36	male	1.5	1.5	
HuD4	44	male	2	2	
Iranian group					
IraD6 ²	49	female	13	10	geriatrics rehabilitation
IraD7	40	female	7	>1	general medicine
IraD8	45	male	14	12	surgery
IraD9	48	male	17	13	ophthalmology
IraD10	50	female	18	15	obstetrics, gynecology
Mixed group					
ColD17	39	male	12	10	surgery
GerD12	56	male	1	1	orthopedics, rehabilitation
RusD19	45	female	14	10	general medicine
YuD20	43	female	2	4	anesthesiology

Transcriptions of the recorded interactions have been made using MSO transcription standard (Nivre et al 2004) and have been checked by two

¹ Abbreviations: Hu=Hungarian, resp. Ira=Iranian; Col=Columbian, Ger=German, Rus=Russian and Yu = f Yugoslavia

² Participants' codes are taken from the database of the forthcoming PhD thesis, in which in total 20 non-Swedish physicians are included. To avoid confusion in future references, the original numbering from the database is preserved here.

independent checkers. Relevant sequences where the physicians' word-finding problems occur have been selected and analyzed. The transcription conventions applied in MSO and GTS used in the examples in the article are presented in Table 2 below:

Table 2. Transcription conventions

Symbol	Explanation
\$P, \$D,	participant (patient, doctor)
[]	overlap brackets; numbers used to indicate the overlapped parts
()	transcriber's uncertain interpretation of what is being said, e.g. (pritsche)
/, //, ///	a short, intermediate and a long pause respectively
+	incomplete word, a pause within word
CAPITALS	contrastive stress
:	lengthening
< >, @ <>	comments about non-verbal behavior, comment on standard orthography, other actions

3 Results

Sequences in which non-Swedish physicians have word-finding problems have been identified and analyzed in the material. The analysis reveals the variety of strategies used by the non-Swedish physicians to manage interaction with patients.

The non-Swedish physicians often have problems in formulating their messages. The statistical corpus analysis of data, obtained for the PhD dissertation shows a higher number of pauses and OCM (own communication management) in the speech of the non-Swedish physicians as compared to the Swedish physicians. This indicates a slower tempo of interaction as well as language problems (Berbyuk, forthcoming). The non-Swedish physicians, in the majority of cases, attempt to solve the lexical problem themselves, i.e. without help from their patients or other participants present during interaction, with varied success. The physicians recall the words by taking extra time, using gestures for retrieval as well as by using substitutes for the sought words. They also tend to paraphrase their messages, use equivalents from other languages, as well as medical terms. Below, we first give an overview of the word finding procedures used by non-Swedish physicians and secondly we present the procedures used by the Swedish patients (and other participants involved in the consultations) to talk to non-Swedish physicians.

3.1 Strategies used by non-Swedish physicians for handling word-finding problems in production

3.1.1. Using own communication management (OCM) features to recall a word

We will consider the case where a physician successfully uses OCM strategies (cf Allwood, Ahlsén in this volume) to recall words. He uses such strategies to recall both the complex verb *titta i* (look in) and the noun *spegel* (mirror), where it is likely that the noun is being searched for already in the activation of the verb.

Speaker	Transcription	Translation into English
\$D:	får ja fråga / e / har du MÄRKT att e: / <1 dina ögon >1 blev <2 lite >2 / gu:lfärgad // om du om du <3 ö: tittar i >3 <4 e: å:h va heter de / >4 spegel	may i ask / er / have you NOTICED that er: / <1 your eyes >1 became <2 slightly >2 / ye:llow coloured // if you if you <3 er: look >3 <4 er: oh what do you call it / >4 mirror

@ <1 hand gesture: pointing with left hand at left eye >1

@ <2 hand gesture: with left hand >2

@ <3 hand gesture: with left hand >3

@ <4 gaze: looking down >4

Example 1. "Mirror" (HuD3)

The physician starts his word finding with a sequence of typical OCM-behaviors indicating a need for planning and activation – an intermediate pause //, followed by self-repetition *om du om du* (if you if you), followed by an OCM (hesitation) sound *ö:* (er:) accompanied by a hand gesture and a verb *tittar i* (look). This is followed by another OCM (hesitation) *e:* (er:), an interjection *å:h* (oh) displaying frustration, an OCM phrase *va heter det* (what do you call it) and a short pause all of which are accompanied by gaze aversion. When the desired word *spegel* (mirror) is found, gaze is returned to the patient.

The example shows that word finding often requires effort and might encroach on the valuable consultation time, often limited to 15-20 minutes, and might lead to stress and anxiety for both physician and patient, with regard to both the completeness and correctness of the information. Furthermore, patients often report being nervous and unsure about the physician's ability to understand what they say (Berbyuk, forthcoming). The non-Swedish physicians, in their turn, in spite of reporting the Swedish patients' relative tolerance to their language problems, experience uneasiness, among other things, of such lexical problems as these that might affect the patient's opinion of their professional competence as well as the patients' confidence in them as health care providers.

3.1.2. Substitution of a partially recalled word for another word by moving to a more general concept

The next example illustrates how a physician abandons an attempted word, which is causing problems in favor of another word, which captures more or less the same meaning. The second word *andningsproblem* (breathing problem) signifies a concept, which has the concept signified by the attempted word *andfåddhet* (breathlessness) as a special case. This is a fairly common strategy when specific information is lacking.

Speaker	Transcription	Translation into English
\$D:	vid lätt ansträngning eller vid större ansträngning inget problem	<i>in case of light exertion or more exertion no problem</i>
\$P:	nej	<i>no</i>
\$D:	ingen <1 anf+ >1 e <2 andfådd+ >2 e / <3 and+ >3 // andningsproblem	<i>none <1 breath+ > er <2 breathless+ >2 er / <3 breath+ >3 // breathing problems</i>
@ <1 cutoff: andfåddhet >1 @ <2 cutoff: andfåddhet >2 @ <3 cutoff: andningsproblem >3		@ <1 cutoff: breathlessness >1 @ <2 cutoff: breathlessness >2 @ <3 cutoff: breathlessness/breathing problem>3
\$P:	< nej >	< no >
@ < ingressive >		

Example 2. "Breathing problem" (HuD4)

Apparently experiencing both difficulties with recall and pronunciation (displayed by the OCM words *e* (er), the pause // and the self-interrupted words *anf+(breath+)*, *andfådd+* (breathless+) and *and+(breath+)*), the physician chooses another word instead of the target one, i.e. *andningproblem* (breathing problem) instead of *andfåddhet* (breathlessness).

Self interrupted words are common in the interactions, often being related to language problems, as in the following example, where the physician recommends re-education to a patient: *kanske kan du få omsorgs+ omskolning* (maybe you can get care+ (omsorgs+)). In other cases, a physician just leaves a self-interrupted word without follow-up, e.g. *de kan också organisera möte med arbetsförmedlingen också med arbetsgivare om det är nödv+* (they can also organize the meeting with employment agency also with employer if it is nec+).

3.1.3. Substitution of a word which has been judged inappropriate by moving to a related concept

In the following example the physician becomes dissatisfied with his choice of word and changes it in a more appropriate direction.

Speaker	Transcription	Translation into English
\$D	ska vi göra bak // går de bra	<i>shall we do backwards // is it fine</i>
\$P:	ja	<i>yes</i>
\$D:	säkert // (bakåt) är du säkert	<i>sure</i> // (<i>backwards</i>) <i>are you sure</i>
\$P:	ja	<i>yes</i>
\$D:	stabil menar jag	<i>stable</i> <i>i mean</i>
\$P:	nej / går de bara < framåt // > e de bra	<i>no / it goes just < forwards // > is it fine</i>

@ < laughter: P, D >

Example 3. “Stability or certainty” (GerD12)

This example shows a physician using the wrong word, presumably making a semantically associated error, confusing the word *säkert* (certain) with the word *stabil* (stable). One can see that the patient provides an answer confirming his certainty about being able to bend backwards. The physician then corrects himself and inquires whether the patient experiences stability in the body, the patient provides a joking answer, commenting that as long as things move forward it is OK. One can observe that the physician’s wrong choice of a word first leads the patient to provide inadequate information, concerning whether he is certain or not and to make a joke to ease the situation.

3.1.4. Paraphrasing and abandoning a sought for word

Example 4 illustrates how a word search may be abandoned if the interlocutor’s next utterance indicates that the meaning has been conveyed successfully, without the word having been found.

Speaker	Transcription	Translation into English
\$D:	<1 a >1 och de är en e e symtom symptom som e e <2 >2 man kan tänka att om e du e svettig du kanske inte så sta:rk e kanske du e lite lite e:	<1 yeah >1 and this is a er er symptom symptom that er er <2 >2 one can think about if er you are sweaty you maybe are not that stro:ng er maybe you are a little little er:
@ <1 head movement: nods >1 @ <2 sigh >2		
\$P:	ja fick en e m: <1 <2 b >2 vitaminspruta >1	i got a eh mm <1 <2 b >2 vitamin injection>1

Example 4. "Weak" (HuD3)

The Hungarian physician is apparently experiencing problems in explaining the symptom characteristics to the patient and lacking the word *svag* (weak), paraphrases it using *inte så stark* (not that strong) which, in this case, causes no problems with understanding. The interaction continues, no signs of patient's problems with understanding are observed. However, in another case, a lack of understanding is observed, when the physician discusses a low blood count with the patient, advising her that a transfusion is necessary. In example 5, the physician's explanation is not explicit enough and information is omitted which seems to be necessary in order for the patient to understand what is being said.

Speaker	Transcription	Translation into English
\$D:	ja de e lite lågt men e / a de finns flera	yeah is is a little bit low but er / yeah there are many
\$P:	va	what
\$D:	< påsar med >	< bags with >
@ < laughing >		
\$P:	de gör de va	there are aren't they

Example 5. "Bags with blood" (HuD2)

Here, the word search does not result in a paraphrase but in a lack of expressed words. The patient does not understand what the physician means by *flera* (many) and requests explanation. The physician completes the utterance by adding *påsar med* (bags with) meaning bags with blood for transfusion.

3.1.5. Substitutioning a word from a related language

In Example 6, the physician solves a word by using the similarity between Swedish and German in order to provide the word he needs. Another way of solving word-finding problems exhibited by the non-Swedish physicians consists in “borrowing” a word from their native languages and/or English. This often presupposes a relative similarity of the physicians’ native language to Swedish, as is the case with, for example, German. Consider the example below:

Speaker	Transcription	Translation into English
\$D:	okej nu skall vi titta / kan du ta byxor bort	<i>okay now we look / can you take trousers away</i>
\$P:	ja	<i>yeah</i>
	och lägga dej på // vad heter det <1(p)ritscha>1 // <2 (p)ritscha >2 // <3 e m >3	<i>and lie down on // what's it called <1 (p)ritscha >1 // <2 (p)ritscha >2 // <3 er m >3</i>
@ <1 other language: German >1		
@ <2 other language: German >2		
@ <3 sigh >3		
\$D:	på rygg	<i>on the back</i>
\$P:	på rygg ja	<i>on the back yeah</i>

Example 6. “Pritscha- britsen” (GerD12)

Inviting the patient to lie on the examination bed, the physician uses the German noun *Pritsche* that corresponds to Swedish *britsen* (a plank bed). Being aware of an apparent similarity between Swedish and German, the physician uses the German word hoping that the patient will guess what is meant. Due to the fact that this example is taken from the part of the recording when physical examination occurs, it is not possible to know if the physician uses gestures, e.g. deictic gestures. Other examples involve using English words like *voices* and *relaxa* instead of Swedish *röster* and *slappna av*, etc.

3.1.6. Using medical terminology when ordinary language terms are lacking

The above-mentioned examples could occur in any social activity. A case that is more specific to medical consultation is the use of medical terminology by the non-Swedish physicians in case of word-finding problems. Using medical terminology in interaction is both helpful and problematic. Being a universal part of medical education, Latin terms are widely used in medical literature and can be understood by health care personnel, but not necessarily by patients

(especially non-chronical ones), who are often unfamiliar with ordinary colloquial names for diseases, symptoms, etc.

Consider the example below, an excerpt from an interaction between a German physician and a patient who had undergone back surgery:

Speaker	Transcription	Translation into English
\$D:	e: // e / (...) trombos oj oj oj oj oj // ja men varför <1 >1 (fusion vad var det) ostabilt 2 < (3< spoldiroristes >3) >2 //	yeah // eh / (...) thrombosis oh oh oh oh oh // yes but why <1 >1 (fusion what was that) unstable 2 < 3 < (spoldiroristes) >3 //
	@ < 1 gaze stop: looking down in the papers and reading >1 @ < 2 hand movement: waving illustrating instability >2	
	@ < 3 SO: spondylolistes >3	@ < 3 SO: spondylolisthesis >3 ³
\$P:	<1 ja hänger inte me >1 <2 // >2	<1 i don't follow >1 <2 // >2
	@ <1 head movement: shake >1 @ <2 laughter >2	
\$D:	<1 gör du <2 inte >2 >1	<1 you do <2 not >2 >1
	@ <1 laughter: P >1 @ <2 gaze: looking in the papers >2	

Example 7. "Spoldiroristes" (GerD12)

As we can see, the physician's use of a medical term, the name of the disease, together with its poor pronunciation, causes lack of understanding in the interaction. One can also observe that the physician uses a hand gesture, apparently for the patient to distinguish what the physician means.

3.1.7. Use of deictic and iconic gestures to supplement verbal information

The example mentioned above, apart from illustrating the problems with understanding medical terms by the patient, shows the importance of using body movements as an aid in solving word-finding problems.

³ Spondylolisthesis is a condition in which one vertebra slips on another, causing low back pain (Dawson 2002).

Speaker	Transcription	Translation into English
\$D:	[1 < du har]1 opererat här >	[1 you < had]1 surgery here >
@ < hand gesture: right hand on back >		
\$P:	< opererat ryggen ja >	< back surgery yeah >
@ < hand gesture: right hand on back >		
\$D:	ja	yeah
\$P:	fjärde femte	fourth fifth
\$D:	varför //	why //
\$P:	ja [2 de var väl]2 ostabilt	yeah [2 it was unstable i suppose]2
\$D:	[2 va var de]2	[2 what was it]2
\$D:	< ostabilt >	< unstable >
@ < head movement: nod >		
\$P:	ja	yeah
\$D:	< okej >	< okay >
@ < head movement: nod >		
\$P:	de e ju stelopererat [3 (...)]3 ja	the joints are fused [3 (...)]3 yeah
\$D:	[3 < det menar jag >]3	[3 < that what i mean >]3
@ < head movement: nod >		
\$D:	ostabilt <1 det <2 slider >2 så // främre >1 // de heter <3 (spoldirolistes) >3	unstable <1 it <2 flies >2 like this // front >1 // it is called <3 (spoldirolistes) >3
@ <1 hand gesture: right hand in the air doing a sliding gesture >1		
@ <2 SO: glider >2		
@ <3 SO: spondylolistes, hand gesture: pointing at P with right hand >3		
\$P:	< m >	< m >
@ < head movement: nod >		
\$P:	okej < // >	okay < // >
@ <laughter: D >, <facial gesture: P smiles >		

Example 8. "Spoldirolistes" (GerD12)

The gestures used, i.e. both physician and patient putting their hands on their backs more or less at the same time, the physician's gesture showing the instability of the spine by performing a sliding gesture as well as the patient nodding, that in a way indicates active listening, are all ways to handle the lack of understanding.

a. Use of deictic gesture to supplement verbal information

Body language and body contact are important parts of communication in health care between health care providers and patients, e.g. using deictic gestures in order to point at the part of the body where a problem occurs is a common way

for a patient to show where his/her pain is localized as well as for the physician to make clear to the patient what part of the body is concerned. Consider the example below:

Speaker	Transcription	Translation into English
\$D:	och e känsel // < har du nån // känsel på nedre [1 extremiteter]1 > ingenting [2 alls]2	<i>and er sensibility // < have you some // sensibility on the lower [1 extremities]1 > nothing at [2 all]2</i>
@ < hand gesture: D points at the lower part of P's body >		
\$P:	[1 nej]1	<i>[1 no]1</i>
\$P:	[2 lite]2 beröring e	<i>[2 slight]2 touching er</i>
\$D:	lite [3 beröring]3	<i>slight [3 touching]3</i>
\$P:	[3 emellanåt]3 då	<i>[3 occasionally]3 so</i>

Example 9. "Extremities" (IraD6)

Using a deictic gesture by the physician is helpful for the patient to understand what part of the body the physician is talking about. Furthermore, apart from making the message more specific, the gesture used has a clarifying function. The term *extremiteter* (extremities) is an uncommon word in spoken Swedish, and its usage without an accompanying deictic gesture might have been problematic for the patient to understand.

The gestures are also used for triggering the recalling of words in interaction:

Speaker	Transcription	Translation into English
\$D:	har du <1 <2 brygg+ >2 [1 e]1 >1	<i>have you <1 <2 brid+ >2 [1 er]1 >1</i>
@ <1 hand gesture: right hand moving up towards her mouth >1 @ <2 cutoff: brygga >2		
\$P:	[1 a]1 de har ja >	<i>[1 yes]1 i have</i>
\$D:	brygga ja	<i>bridge yeah</i>

Example 10. "Bridge" (HuD2)

The deictic gesture used by the physician both helps the patient to understand what is meant as well as helps the physician to find the word *brygga* (bridge).

b. Use of manual iconic gesture to supplement verbal information

Apart from deictic gestures, iconic gestures are used as well. In the example below (the excerpt from the same interaction as example 9 above), the iconic gesture is used by the Iranian female physician to illustrate the movement of a wheelchair asking the patient about his mobility at work:

Speaker	Transcription	Translation into English
\$D:	m < // > el jobbet är anpassat	m < // > er the job is adjusted
\$P:	a	yeah
\$D:	< ja du kan >	< yeah you can >
@ < hand gesture: showing a wheelchair movement with her hand >		
\$D:	ah	yeah

Example 11. "Wheelchair" (IraD6)

By illustrating the movement of a wheelchair, the physician attempts to get the necessary information from the patient, which the patient can then provide. The example shows how a gesture can completely replace a vocal message.

Apart from in task-focused exchanges where the participants discuss health-related issues, gestures are also used in situations when the non-Swedish physicians attempt to create a more personal relationship with their patients by providing psychological support and, having informal conversation, showing apprehension and understanding. As mentioned by the participants in interviews and questionnaires, this type of interaction is often more problematic than the medical type, requiring both linguistic and cultural competence (Berbyuk, forthcoming). In the example below, the physician notices the patient's stress about the forthcoming physical examination and his bewilderment with the physician's language, and therefore attempts to console him:

Speaker	Transcription	Translation into English
§D:	mhm // okej // < ja då ska jag undersöka dej > liten	<i>mhm // okay // < yeah well i will examine you > a little</i>
@ < gaze: looking down in the papers >		
§P:	m	<i>m</i>
§D:	å0 du är färdig <1 // <2 de var inte så >2 farlig <3 du är så >3 <4 /// >4 frukta de <5 inte >5 <6 vi <7 bit+ >7 biter inte >6 // <8 vi sprutar dej >8 inte >1	<i>and you are ready <1 // <2 it was not that >2 dangerous <3 you are so >3 <4 /// > be afraid of it <5 not >5 <6 we don't <7 bit+ >7 bite >6 // <8 we don't inject you >8 >1</i>
@ <1 laughing >1		
@ <2 hand gesture: pointing at P with right hand >2		
@ <3 hand gesture: both hands waving >3		
@ <4 gaze: looking down in the papers >4		
@ <5 hand gesture: both hands waving >5		
@ <6 hand gesture: illustrating biting with left hand >6		
@ <7 cutoff: biter >7		
@ <8 hand gesture: illustrating an injection with a syringe >8		
§P:	de blir säkert	<i>surely</i>
§D:	vi bara pratar och // och undersöker liten och // försöker att hjälpa dej	<i>we just talk and // and examine you little and // try to help you</i>

Example 12. "Scared patient" (GerD12)

This example reflects the difficulties experienced by the foreign physician in a case where it is necessary to console the patient. This is also discussed in other studies on foreign physician-native patient interaction (Fiscella et al., 1997). The cutoff *bi+ biter* (*bi+bites*) as well as the long pauses reflect the low tempo of the physician's speech and his language difficulties. Iconic (functional) and deictic gestures help the physician to illustrate what is meant. Functioning as support for verbal expression, the gestures subsequently facilitate a better understanding in interaction. The example above might also reflect the Lexical Retrieval Hypothesis (Rauscher et al. (1996) that claim that gestures help to activate the lexical retrieval process, i.e. the "biting" iconic functional gesture retrieves the word *biter* (bites).

c. Use of holistic iconic gesture to supplement information

Not only hand movements but also more complete involvement of the whole body is used by non-Swedish physicians to illustrate what is meant as in the example below:

Speaker	Transcription	Translation into English
\$D:	< du kan gå också normal >	< you can walk also normal >
	@ < head movement: nod >, < hand gesture: right hand circling in the air >	
\$P:	ja	yeah
\$D:	< inte att du plötslit å >	< not that you suddenly and >
	@ < body movement: showing how to stumble and fall >	
\$P:	jo om ja sitter still	yes if i sit still

Example 13. “Stumble and fall”

Not knowing how to explain stumbling and falling in Swedish and attempting to show to the patient what he means, the physician uses the iconic body movement to show the process of stumbling and falling that might result from the stiffness of the body.

3.2. Strategies used by non-Swedish physicians for handling word finding difficulties in perception/understanding

3.2.1. The physician displays lack of understanding of a term and is given an explanation by a patient

As we can see, in case of word-finding problems, the non-Swedish physicians attempt to recall the words they need, use medical terminology, native language as well as English as recourses in combination with gestures. In addition, physicians get help from their communicative partners, patients, patients’ relatives or health personnel (if present). As mentioned above, Swedish patients interacting with non-Swedish physicians are reported by the latter to be helpful and tolerant (Allwood, Berbyuk & Edebäck, 2004). This can be partially explained by such traces in Swedish culture as tolerance, conflict avoidance, and fear of confrontation (ibid, Lewis, 2004). In the interaction, the patient is shown providing an explanation when the physician does not understand the word as in the following case:

Speaker	Transcription	Translation into English
\$P:	opererat för nageltrång också	<i>surgery for an ingrowing toenail also</i>
\$D:	< opererat >	< surgery >
@ < inquiring >		
\$P:	stortårna	<i>big toes</i>
\$D:	aha // var de nageln som går i < okej >	<i>oh // was it the nail that goes in < okay ></i>
@ < quiet >		
\$P:	ja	yes

Example 14. “Ingrowing toenail” (IraD5)

The patient noticing the physician’s problem with understanding the word *nageltrång* (ingrowing toenail) provides a hint *stortårna* (big toe) as well as a confirmation to the physician’s inquiry.

3.2.2. The physician displays lack of competence concerning choice of a term and a patient supplies correct term

a. The patient supplies a word after an explicit question

In the example below, the physician is unsure about how to write in the patient’s journal concerning a recent pregnancy and a newborn baby. The patient supplies word after physician’s explicit question:

Speaker	Transcription	Translation into English
\$D:	< har fått // hur säger man > barn flicka nej vad säger man	< have got // how do you say > <i>baby girl (nanny) no how do you say</i>
@ < hand gesture: D is writing >		
\$P:	en flicka	<i>a girl</i>
\$D:	flicka	<i>girl</i>
\$P:	ja	yes

Example 15. “Baby girl” (GerD12)

The physician first uses the word “barn flicka,” that literally means “child girl,” but is also a common term for “nanny.” The physician is unsure if the word chosen is correct and asks the patient for help, which the latter provides.

b. The patient supplies a word as a correction of what the physician has said

An interesting example of a patient correcting a physician is provided below, an excerpt from the interaction between an Iranian oculist and his Swedish male patient. After the operation, the physician asks the patient about his eyesight and the patient reports that the left eye functions better for short distance and the right – for long distance:

Speaker	Transcription	Translation into English
\$P:	<1 de här funkar på >1 nära avstånd bäst [1 inte på]1 långt avstånd <2 de funkar på långt avstånd <3 bäst >3 men inte på nära >2 / <4 så att dom >4	<1 this eye functions >1 best at short distance [1 not at]1 long distance <2 this functions at long distance <3 best >3 but not at short >2 / <4 so that they >4
	@ <1 hand gesture: points at left eye >1 @ <2 hand gesture: points at right eye >2 @ <3 head movement: nods >3 @ <4 hand gesture: P and D move both hands forth and back >4	
\$D:	[1 jaha]1	[1 aha]1
\$D:	kombinerar	combine
\$P:	<1 ja dom kompletterar varandra väldigt <2 bra >2 >1	< 1 yeah they complement each other very <2 well >2 >1
	@ <1 hand gesture: D puts on some glasses on P >1 @ <2 giggling >2	
\$D:	<1 <2 okej >2 <3 // >3 <4 förlåt >4 // >1 <5 om du tittar på tavlan >5 där borta	<1 <2 okay >2 <3 // >3 <4 sorry >4 // >1 <5 if you look at the board >5 right there
	@ <1 hand gesture continued: D puts on some glasses on P >1 @ <2 quiet >2 @ <3 laughter: P >3 @ <4 gaze: D looks at the board >4 @ <5 gaze: D looks at the board >5	

Example 16. “Combine or complement” (IraD9)

The physician attempts to complete the patient’s utterance saying the word *kombinerar* (combine). In the subsequent utterance, the patient implicitly corrects the physician saying that the eyes *kompletterar* (complement) each other very well. The physician’s confusion can be noticed in his saying *förlåt* (sorry) preceded by a long pause.

c. The patient supplies a word the physician can not retrieve

Using Swedish as a foreign language often results, as mentioned above, in the physician keeping a slow tempo in interaction. In some cases, when the patients

notice the language problems of the physicians, they tend to complete the physicians' utterances, like in the example below:

Speaker	Transcription	Translation into English
\$D:	a du har // en < // >	yeah you have // a < // >
@ < laughter: D, P >		
\$P:	< en urinvägsinfektion som heter duga ja // >	< a really bad urinary infection // >

@ < laughter: D, P >

Example 17. "Urinary infection" (IraD7)

The pauses in the physician's utterance are interpreted by the patient as uncertainty with language competence resulting in the patient completing the utterance.

3.2.3. An accompanying person supplies the physician with a needed term

Apart from patients, patients' relatives (if present) help physicians and patients understand each other. It is often the case with elderly patients, who might have hearing problems that make it additionally difficult to understand the physician's accent (Allwood, Berbyuk & Edebäck, 2004). In the example below, the patient's daughter helps the patient, her father, and the physician:

Speaker	Transcription	Translation into English
\$D:	e:1 <1 >1 förlåt mej men ja måste e fråga dej e om e två saker till / e1 brukar du <2 dricka alkohol eller inte >2	er: < 1 >1 i beg you pardon but i must er: ask you er about two more things / er: do you usually <2 drink alcohol or not >2
@ <1 inhalation sound >1		
@ <2 head movement: nods >2		
\$P:	ja använder inte alkohol	i don't use alcohol
\$D:	okej < e du nykter >	okay < are you sober >
@ < head movement: nod >		
\$P:	< HM >	< HM >
@ < body movement: leans towards D to hear better >		
\$D:	< NYKTER >	< SOBER >
@ < head movement: nods >		
\$C:	< nykterist ja >	< teetotaller yeah >
@ < gaze: P looking at C >		
\$D:	[1 nykterist ja]1 nykterist [2 okej]2 < ja >	[1 teetotaller yeah]1 teetotaler [2 okay]2 < yeah >
@ < head movement: nods >		

\$P:	[1 nykterist]1	[1 teetotaller]1
\$P:	[2 ö:]2	[2 e:r]2
\$P:	sen nittonhundrafemtitre	since nineteen fifty three
\$D:	< okej >	< okay >
@ < head movement: nods >		
\$P:	har ja inte använt sprit	i have not used alcohol
\$D:	oj	wow
\$P:	annat än i medicinskt bruk	in other way than in medical use
\$D:	<1 a visst visst visst >1	< I yeah sure sure sure >1
@ <1 head movement: nods >1		

Example 18. “Sober” (HuD3)

The physician’s use of the wrong word form creates bewilderment and lack of understanding from the patient’s side, which might think that the physician asks if he is *nykter* (sober) at the moment of consultation. The patient’s relative (participant \$C) understands what is meant and provides the correct form of the word. It is plausible that the patient’s gaze directed at the relative at that moment could be interpreted as a request for help.

In this example, an interesting observation can be made about Swedish culture. One of the subjects that the interview and the questionnaire respondents among health care personnel and physicians consider to be sensitive in communication with Swedish patients is a problem relating to alcohol consumption (ibid). The physician’s careful way of asking the question about alcohol by introducing it with “pardon me” shows his awareness of the sensitivity of the topic. When the lack of understanding occurs, the physician becomes apparently stressed about it. It can subsequently be noticed in his feedback “yeah sure sure sure” as well as a supportive head nodding, after the patient’s narrative about being a teetotaler.

4. Summary and Discussion

The article has presented several examples of word-finding problems exhibited by non-Swedish physicians in communication with Swedish patients and strategies used for handling them. Some of the problems and strategies discussed are mispronunciation, paraphrasing, choosing another word, choosing the wrong word, etc. Leaving a word out is another observed strategy. Furthermore, there is the use of medical terminology and word borrowing from other languages, e.g. from the physician’s native language or from English, to solve the problem. Body movement seems to be helpful for triggering a sought word (Lexical Retrieval Hypothesis). Body movements (often in the form of manual gestures) can also have a clarifying function being used to support a verbal message. They

might also be used as substitutes for a verbal message. In some cases, the interlocutors of non-Swedish physicians, i.e. the patients or their relatives help the physician to find a word or an explanation of an unknown word with or without the physician's request. They might also complete utterances and correct incorrect words. In diagram 1 below, we give an overview of the ways of handling word-finding problems that have been observed in the data.

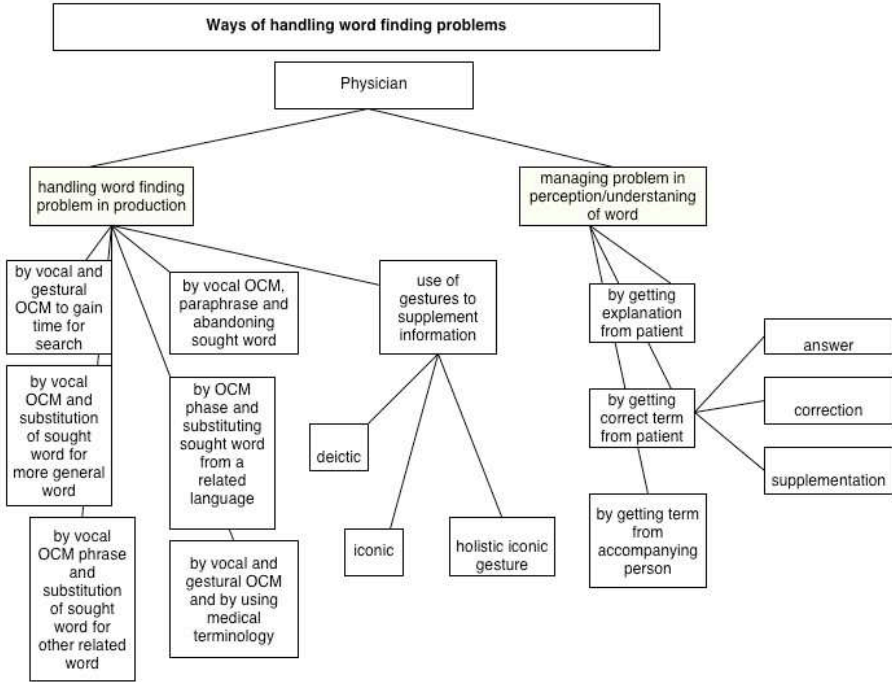


Diagram 1. Ways of handling word finding problems

Some quantitative data on the different ways of handling word finding problems in 33 medical consultations is presented in Table 3 below.

Table 3. Frequency of different ways of handling word finding difficulties

#	Ways of handling word finding difficulties	Number of occurrences
The physician handles word finding problem in production		
1.	by vocal and gestural OCM	23
2.	by vocal OCM and substitution of sought word for more general word	2
3.	by vocal OCM phrase and substitution of sought word for related word	2
4.	by vocal OCM, paraphrase and abandoning sought word	8
5.	by OCM phrase by substituting sought word from a related language	5
6.	by vocal and gestural OCM and by using medical terminology	3
7.	use of gestures to supplement information	
a	<i>deictic</i>	4
b	<i>particular iconic</i>	8
c	<i>holistic iconic</i>	1
The physician handles problem in perception/understanding of word		
8.	by getting explanation from patient	1
9.	by getting correct term from patient	2
a	<i>answer</i>	1
b	<i>correction</i>	1
c	<i>supplementation</i>	2
10.	by getting term from accompanying person	1
Total:		64

As we can see, in the majority of cases the physicians successfully recall the words they need themselves. The most common solution is to recall the word using vocal and gestural OCM (23 occurrences), to use gestures to supplement information (13 occurrences total) as well as to use vocal OCM, paraphrase and abandoning sought word (8 occurrences). Other strategies such as handling the lexical problem through the use of an OCM phrase, by using a word from a related language (5 occurrences), by vocal OCM and substitution of sought word for a more general word (2 occurrences) or a related word (2 occurrences) are represented as well. The physicians also use medical terminology in case of word finding problems (3 occurrences). The physicians rarely get help from their patients and patients' relatives, i.e. only in nine (9) occurrences out of 64, the patient or the patient's relative are directly involved and help the physician.

We, thus, see that the non-Swedish physicians use of Swedish as a foreign language can be a negative factor for interaction. An increased uncertainty in interaction, when both physician and patient are unsure if they understand each other correctly, might result in stress and frustration from both sides. Our study also shows that foreign physicians might be anxious about the "fear of patient bias," i.e. nervousness about a patients' underestimation of their medical training and competence received outside of Sweden, i.e. that the patients are

fearing inferior medical care (Allwood, Berbyuk, Edebäck 2004). Language problems are an additional factor that increases the physician's anxiety. The physician's lack of language competence can influence the patient's perception of the physician's interpersonal skills, i.e. the physician's problems with informal conversation might result in patients not feeling comfortable and secure. Especially, in sensitive situations, word-finding problems can have a negative impact on interaction.

The examples of interactions between the Swedish patients and non-Swedish physicians show that the latter often solve the problems themselves. In a few cases, the patients' help can be observed. That this does not happen more often might be the result of activity influence, i.e. the physician's dominant role might keep the patient from correcting physician's language.

The involvement of the patients in the cases observed above can be explained by the necessity to obtain the information they need during consultation as well as by the short power distance between physician and patient in Sweden reflected in a relatively low Power Distance Index in Hofstede's taxonomy of cultural patterns (Hofstede 2001). In spite of the fact that the patients' help, as reported by the non-Swedish physicians in the interviews, is often seen as positive factor, one should not underestimate the fact that the majority of the non-Swedish physicians involved in the study are used to a larger power distance than the one typical for Sweden. The help of the patients might result in the physicians' feeling of losing face, that might probably not often be expressed, but nevertheless be an experienced feeling.

The examples of the word finding problems and their handling also indicate the multimodality of the communication between non-Swedish physicians and their Swedish patients. The physician's use of gestures necessitates the patient's involvement and attention in order to understand what the physician means. Thus, the physicians' "weakness" in terms of language can result in increased involvement and participation of patients in interaction - something that is often viewed as a positive factor.

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