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Medical English teaching and beyond: A multimodal and integrated approach

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ABSTRACT

The aim of this paper is to show how Medical English teaching materials may be improved by introducing multimodal tasks encouraging a holistic approach to communication. Medical English for Specific Purposes textbooks and coursebooks typically focus on how to speak effectively, but they fail to prepare doctors to speak and behave affectively, although it has been demonstrated that how doctors communicate is as important as what they communicate in order to build a therapeutic alliance with their patients (Ambady et al. 2002; Cao et al. 2016; DiMatteo et al. 1980; Hall 1995, among others). Teaching materials should thus include activities aimed at strengthening doctors' ability to offer patient-centred care through mindful communication in association with specific body signals. A proof-of-concept teaching unit is provided here in order to exemplify how ESP materials could be made more responsive to the needs of professional practice by adopting a method that brings together targets for learning Medical English as well as counselling techniques.

Keywords: *Medical English teaching, ESP, multimodal learning, patient-centred communication, counselling*

I. INTRODUCTION

Doctor-patient communication has been studied extensively over the years (e.g. Fong Ha & Longnecker 2010; Salanger-Meyer 2014), with the ultimate aim of improving the quality and effectiveness of medical encounters. Most studies, however, have remained confined to the observation of the linguistic and paralinguistic features of this type of specialised spoken discourse (Gülich 2003; Adolphs et al. 2004; Ten Hacken & Panacová 2015), disregarding the interplay of the verbal dimension with other semiotic modes, which also play an important role in successful communication between doctors and their patients. Research has recently started to show that non-verbal elements (e.g. facial expressions, hand gestures, body posture and movement) are also fundamental for patient engagement and management (cf. among others, Duffy et al. 2004; Yasmeen 2013; Franceschi 2017). These studies suggest that healthcare professionals should be made aware of the whole range of possibilities and strategies, both linguistic and para-linguistic, available to them for effective communication.

The existing materials for teaching Medical English, however, still focus almost exclusively on the analytic (or verbal meaning) component of language, with activities that help learners to

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expand their knowledge of specialised terminology and their speaking skills in a number of different situations. In other words, teaching materials tend to give more importance to language content (i.e. what is communicated) than to form (i.e. how something is communicated) (Franceschi, forthcoming). Although various types of tasks for developing appropriate communicative strategies are present in course and textbooks, they typically draw learners' attention only to a range of standardised rhetorical devices, e.g. for showing politeness, care and understanding towards patients when communicating a diagnosis. The fact that these attitudes towards the patient can be enhanced and supported through the use of accompanying non-verbal signals has been overlooked. Therefore, the following sections put forward a series of activities for teaching Medical English to trainee and practising doctors from a multimodal perspective, i.e. with audiovisual exercises aimed at raising their awareness of how the verbal message can be reinforced via specific non-verbal elements and behaviours.

The activities proposed below are based on authentic video-recorded interviews between doctors and patients with hepatitis C,[i] which can be considered model examples of successful recipient-tailored, i.e. patient-centred, communication.[ii] The following sections illustrate in detail a number of integrated techniques from two unrelated fields, i.e. EFL/ESL teaching and psychology/counselling, which should ideally make practising and prospective doctors more aware of the importance of affective communication in the medical sector. The didactic approach followed is thus multimodal[iii] and holistic in that it addresses both the verbal dimension and other modes of meaning-making in context. The watching/listening and speaking activities presented here are suitable for upper-intermediate and advanced learners, at a B2 or C1 level of the Common European Framework of Reference for Languages (CEFR), respectively.

II. OBSERVING NON-VERBAL BEHAVIOUR

The first and fundamental step in the methodology proposed here consists in training learners to activate channels of attention that usually remain semi-dormant, because we tend to grant more importance to the expression of our inner thoughts and feelings rather than to the observation of the other. Listening and observing with full presence, however, is a necessary ingredient for doctors to be able to understand their patients' requests and what lies behind and beyond their words. In order to tune in with their patients, doctors need to adopt a receptive and supportive attitude consisting in specific behaviours aimed at facilitating communication. Despite the importance of the latter elements, learning how to deal with patients is often left to the doctor's own sensitivity and experience because university modules seldom teach communication and

relational skills explicitly.[iv] Language instruction may represent an opportunity to work both on the development of linguistic competence for specific medical purposes and on the doctors' ability to better liaise with their patients.

Doctor-patient dialogues contain several non-verbal elements worth drawing learners' attention to. As an in-class task, learners may first of all be asked to watch a fragment of a video-recorded dialogue without any audio and to observe physiognomy and body language. This silent observation phase, instead of a more traditional listening comprehension exercise, may be viewed as somewhat odd. This is because language learners usually listen for the gist, specific information, or new words and expressions to be acquired. The approach used here, instead, consists in first focusing learners' attention on facial expressions, hand gestures and body movements. An initial uninterrupted watching of a 2-3 minute segment is recommended,[v] after which some general questions need to be asked, as illustrated in Table 1, in order to gather learners' impressions about the nature of the relationship they have observed. This activity is geared towards raising learners' awareness of deceivingly peripheral issues, which are in fact important factors for successful medical communication.

Table 1. Initial questions following the silent observation phase

1. What is the doctor's attitude? How does the patient seem to react to it?
2. What do you think the doctor is like as a person?
3. Does the doctor behave in a professional manner?
4. How would you feel if you were the patient?
5. In your opinion, how does the doctor feel while talking to the patient?

Indirectly, this exercise also helps learners to broaden their knowledge of adjectives used to describe people's personalities and attitudes. It is important at this stage to brainstorm them and come up with as many words and phrases as possible, which may also be written on the board and clarified before continuing with the rest of the activity. The language instructor needs to expand vocabulary by introducing synonyms and antonyms, and may perhaps also ask learners to make comparisons between their own doctors and the one in the video, in order to stimulate more active participation and involvement. This may be done in small groups, in pairs or individually.

The next stage consists in identifying and naming the exact non-verbal elements associated with speech. The language instructor must pause the video whenever facial expressions, hand gestures and body movements appear to play an important supporting

function. Table 2a is an example of an exercise that each learner will do while the instructor shows and pauses the video at relevant moments. Every image frame in the exercise must correspond to the actual moment of the video shown on the screen for the whole group.

Table 2a. Example of a video observation exercise

Describe and interpret the doctor's behaviour (gaze, facial expressions, hand gestures, body posture, etc.)	
Image frame	Non-verbal behaviour & interpretation
1 	
2 	
3 	

4		
5		
6		

Learners should be encouraged to describe, in their own words, the doctor's behaviour in the greatest detail possible. They could start, for instance, by considering gaze direction, facial expressions and specific hand gestures, and then observe body posture/position and proximity to the patient. It may be necessary to elicit responses with direct questions, such as *Is the doctor looking at the patient while talking to him/her? Is the doctor smiling? What movements is the doctor doing with his/her head/hands/body? How close to the patient is the doctor (standing/sitting)?* and so forth. All these aspects then need to be described in terms of their function. Learners should therefore interpret the doctor's behaviour by answering a number of questions that the instructor will have prepared in advance, e.g. *Why is the doctor nodding? What do the doctor's smiles suggest? What do the doctor's open hands with intertwined fingers indicate?* etc. Table 2b gives an example of what learners should ideally

produce. Finally, a closing discussion on the possible effects that the doctor's behaviour may have on the patient is advisable.

Table 2b. Example of a completed video observation exercise

Describe and interpret the doctor's behaviour (gaze, facial expressions, hand gestures, body posture, etc.)	
Image frame	Non-verbal behaviour & interpretation
1 	Slightly shaking head (doesn't know why patient is there), slightly worried gaze (waits for presentation of symptoms), holding open hands together with fingers intertwined (welcoming attitude)
2 	Nodding (shows understanding), looking straight into patient's eyes (shows attention and interest), slightly worried gaze, holding hands together with fingers intertwined (shows willingness to wait and listen)
3 	Nodding, smiling (shows understanding and sympathy)
4 	Smiling and keeping an upright position (shows confidence and ease), looking straight into patient's eyes (shows interest and engagement), holding hands together with fingers intertwined (shows willingness to wait and listen)

5		Steepling (as if begging for an answer), squinting with head slightly turned to the right (looking for an answer that may not be easy for the patient to find)
6		Sitting across the table, not too far from the patient (shows willingness to be there for the patient)

Learners should reflect at the end of this session and draw up a list of those extra-linguistic features appearing in the video that seem to positively impact the interaction between the doctor and the patient. Alternatively, the instructor may prepare a preliminary list of elements, which learners may contribute to, tick or comment in terms of level of importance. Table 3a provides an example of an activity that could be used for wrapping up and stimulating further discussion on the perceived importance of non-verbal elements in doctor-patient interactions.

Table 3a. Learners' perception of the importance of non-verbal elements in doctor-patient interactions

Please tick the appropriate boxes and add information in each of them with reference to the physical appearance and behaviour of the doctor in the video. Do not tick where there are no instances of that category or if you view a certain aspect as irrelevant, add 1 tick if that particular aspect is only marginally important, 2 ticks if you consider it important and 3 ticks if you think it is very important.					
Clothing	Formal	Casual	Medical		
Kinesics	Posture	Positioning	Proximity		
Gestures	Head	Arms	Hands	Legs	Feet
Touch	Arms	Hands	Fingers		
Facial expressions	Smiling	Frowning	Aggressive	Non-committal	Other
Gaze	Eye contact	Length of eye contact			

Learners will first add elements to the relevant categories and then comment on the role that specific factors play in the interaction. For instance, in the case observed in Table 2b above, the doctor repeatedly makes head movements. Therefore, the category 'gestures' and the subcategory 'head' need to be further specified as exemplified in Table 3b. Nodding could be perceived as an important element in the conversation[vi] and learners may want to add two ticks there and then explain what impact such behaviour has on the quality of the interaction.

Table 3b. Example of a completed exercise on the perception of the importance of non-verbal elements in doctor-patient interactions

Gestures	Head shaking head nodding √ √

III. USING YOUR IMAGINATION

Before letting learners listen to the doctor's actual words, they can be finally asked to imagine the dialogue with the patient and produce a possible version of those exchanges that they have previously analysed only in terms of non-verbal behaviour. In particular, they should focus on what they think the doctor's responses to the patient might be; an example of what learners may add next to each image frame is provided in Table 4.

This writing activity actively involves learners and helps them to structure a possible doctor-patient interaction. The instructor should assist them in finding ways to construct the dialogue with phrases and expressions that are likely to be encountered in this context.[vii] Once learners have completed the conversation, they will act it out in pairs or in front of the class after spending a few moments memorising it.

Table 4. Example of a completed multimodal writing task

Image frame	Non-verbal behaviour & interpretation	Verbal text
1 	Slightly shaking head (doesn't know why patient is there), slightly worried gaze (waits for presentation of symptoms), holding open hands together with fingers intertwined (welcoming attitude)	*So, what can I do for you, Mr X?*

These role-plays may also be used to work on different types of registers, speaking styles and behaviours. To this end, the instructor needs to ask learners to modify the dialogues and introduce elements expressing, for instance, disinterest, annoyance or excessive caution on the part of the doctor. It is important to give learners the opportunity to experiment with various communication strategies and behaviours and see what effects they may have on both the patient and the doctors themselves. Since a fuller range might be possible in future situations, learners should amplify the variability and intensity of their responses as much as possible,[viii] shifting from a polite and reassuring attitude to a rather aggressive, impolite and even uncaring mode. Learners need to notice how facial expressions, hand gestures and body movements change together with the use of a different oral style. These acting-out activities are usually engaging, although some learners might be shy and unwilling to take on a certain role. However, the more they manage to reproduce and identify with various behavioural patterns, the more effective these activities will be. Role-playing offers an opportunity to act out various feelings and to learn the language required to express them.

IV. ACTIVE LISTENING AND WATCHING

Language acquisition and learning necessarily entail processes of imitation and subsequent internalisation of exemplars. In an L1 setting there is a natural and continuous exposure to stimuli that are spontaneously and unconsciously absorbed from

an early age. Learners of a second or foreign language, instead, need to be guided and instructed to develop that metalinguistic knowledge required for grammatically accurate and socio-linguistically appropriate production. Hence the importance of exposing learners to authentic language inputs, while at the same time also asking them to actively reflect on these inputs.

Transcription exercises, although difficult and time consuming, prove useful to work on these two aspects simultaneously. The instructor should pause, rewind and play the video segment as many times as necessary to allow learners to listen to and transcribe the actual conversation. The next suggested activity consists in asking learners to notice the differences between the expressions and speaking style used by the doctor in the recording and their previous creative version of the interaction with the patient. In the cases in which this task has been implemented, learners have often reported that their phrasing is not as natural and loose as the doctor's way of speaking. Although they are generally able to structure a conversation with a potential patient in English, they present difficulties in the choice of rhetorical strategies. Therefore, it is important to explicitly inform learners about the repertoire of devices at their disposal. The following sections examine five phenomena (i.e. repetition and reformulation, hedging, informality, figurative language and the expression of empathy/sympathy), which have been identified as recurrent features of doctor-patient communication and recognised as essential elements for successful medical interactions (Franceschi 2017). It will also be observed how the use of these elements may be sustained by accompanying non-verbal signals that validate verbal information. Learners should be made aware of these features of spoken medical discourse through a number of multi-modal activities that will be outlined below.

IV.I. Repetition and reformulation

Repetition and reformulation are typically two sides of the same coin (Gülich 2003), meaning that they have the same function, i.e. that of presenting facts in a simplified and easier-to-understand way. Since medical discourse is often filled with a wealth of technical terminology patients may not be necessarily familiar with, it is important for doctors to be able to rephrase concepts using simpler language and synonyms. This is a particularly important aspect to be considered especially by those learners who are L1

speakers of a Romance language, such as Italian, French, Spanish, etc. These learner populations have a tendency to be verbose and to use copious Latin-based vocabulary due to issues of language transfer. Words of Latin origin, however, are usually considered formal in English and are not always easy to understand for the layperson. The following examples show how the doctor in the video segment examined successfully manages to substitute medicalese[ix] with plain English and express the same idea in other, more straightforward words:[x]

(1) We have not seen the **remission**, *in other words* the getting rid of the virus, just with alternative medicine.

(2) And I'm wondering if you know anybody that has gone through standard of care treatment with the, *we call it* **adjunctive**, *meaning* 'in addition to' standard of care, these **adjunctive** treatments.

(3) The fluid in the abdomen *is called* **ascites**.

Another common technique to ensure that a patient understands what is being talked about is the introduction of synonyms and paraphrases, often resulting in the use of doublets as well as of lists of several items that essentially express the same idea:

(4) Some patients with genotype two can even take fewer weeks of therapy, but because you have significant **fibrosis and scarring** […].

(5) You know, working out in the farm, where you get **injuries** and **sores** and **cuts** and **bruises** and **scrapes**, that's ways of again transmitting blood between people that would be minor and nothing that you would pay attention to, but potentially could have occurred […].

After being shown some instances of these rhetorical strategies, as in the examples above, learners should be asked to identify similar phenomena of simplification. Tables 5 and 6 present activities aimed at helping learners to develop their ability to repeat and reformulate ideas.

Table 5. Example of a vocabulary exercise on synonymous words and expressions

Identify words and expressions in the following sentences that are synonyms or basically express the same concept
1) What our therapies can do is help minimise the toxicity or side effects of standard of care therapy. 2) There are some good studies that show that with weight loss and exercise that can be reversed. […] there are good studies that show that that can be turned around.

Table 6. Example of a vocabulary exercise on reformulation (explanation)

Underline the expressions in the following sentences that provide an explanation of the words in bold
1) […] when you have underlying, active sores, if you will, the **hepatitis**, then the alcohol is much more damaging than it would be to a normal liver. 2) Some of them already have very advanced disease, **cirrhosis**, which would be at the one extreme of severe scarring damage to the liver.

Finally, but just as importantly, learners will observe the association of the various verbal strategies (used by the doctors to reformulate and simplify their speech) with non-verbal cues that appear to have the same function. Table 7 below presents a succession of images and the corresponding text, which learners will have previously transcribed. This time they will be asked to identify the verbal elements that are being given prominence to through the use of gestures.

Table 7. Example of a completed multimodal listening comprehension/watching exercise

Identify those words and phrases that hand gestures appear to highlight		
Image frame	Non-verbal behaviour & interpretation	Verbal text
1 	Bringing hands together vertically (indicates a narrower space)	*What our therapies can do is help **minimise** the toxicity or side effects of standard of care therapy*

2		Moving left hand to one side as if supporting something (describes the idea of there being another possibility)	*And I'm wondering if you know anybody that has gone through standard of care treatment with the, we call it* ***adjunctive****…,*
3		Lifting left hand as if preparing to put something into a container (simulates the movement of 'adding' something to something else)	*… meaning '****in addition to****' standard of care, …*
4		Bringing hands together as if holding something round (suggests holding something heavy)	*… these* ***adjunctive*** *treatments.*

It is obvious that hand gestures are used here to aid the patient's comprehension of complex lexical items, such as *minimise* and *adjunctive*. They appear to have the same goal as paraphrases and reformulations, i.e. the simplification of a certain concept, by means of an iconic or metaphoric illustration of the meaning of words.

IV.II. Hedging

Hedging (Lakoff 1972) is a useful rhetorical strategy for doctors who often need to speak with tact and soften the blow of what they are communicating, for instance while giving a diagnosis. It consists in not speaking too directly thanks to the use of elements, called 'hedges', aimed at mitigating the emotional impact on the addressee of what is being discussed. Hedging may also have other functions (cf. Frazer 2010), e.g. suggesting that the speaker is not fully committed to what is being said.

In the conversations examined for the present study, the doctors attempt to persuade their patient that standard of care therapy is the best option for his condition, despite the possibility of

a number of side effects that he may experience while on treatment. The patient fears that these side effects might aggravate other problems he has and for which he is also being treated. Therefore, the doctors have to find a way of encouraging him to follow their advice, while at the same time dealing with his worries and taking his requests into consideration. This is an example of hedged communication:

> (6) Well, the interferon side effects make you feel like you have [***pause***] the flu, **to some extent**. **Erm**, you **may** have **some** loss of appetite, **may** lose **a little** weight on treatment. **Erm**, the ribavirin **might** give you, **oh**, **sometimes a little** funny taste in the mouth, **sometimes a little** soreness, **maybe** some rash.

The elements in bold in this example are used to attenuate the force of the utterance and perhaps allow the patient to accept the doctor's advice more easily. Although the initial *well* suggests that there is indeed a likelihood of side effects, such a verbally unexpressed message is mitigated by the use of the two modal verbs *may* and *might*, the adverbs *sometimes* and *maybe*, and the expression *a little*. The interjections (*erm*, *oh*) and the pause also seem to attenuate the force of the utterance, because they give the doctor time to think and to present facts in a less direct way. The modal items in particular introduce optionality and help to minimise the threat potentially perceived in the doctor's words.

Learners should be asked to read examples like this one aloud and compare them with their unhedged (fabricated) counterparts in order to see what changes in terms of tone. Other activities may consist in identifying elements with a similar hedging function, exemplified in Table 8 below, or in adding them to sentences where none of these elements appear, as in Table 9:

Table 8. Example of an exercise on the use of hedges (I)

Exercise: Identify hedges in the following sentences
1) It also looks like being stage three, which you've seen the model of the liver and how the next stage is cirrhosis, which is the worst, you know, stage that you can get to, kind of the final stage with hepatitis C, that your condition which it sounds like you have had for a while, you know, that case scenario was non-A non-B was hepatitis C from what we can tell. 2) […] there was a recent study with acupuncture that actually just showed that this is the case in people with hepatitis C.

Table 9. Example of an exercise on the use of hedges (II)

Exercise: Add linguistic hedges to the following sentences
1) Now it's time for you to consider getting the hep C treated and trying to get rid of that infection. 2) In that case you must consider the treatment.

It is interesting to observe how the use of non-verbal cues may also play a role in allowing utterances to be perceived as less assertive. This is possible when hand gestures, for instance, visually depict the semantic content of hedges. Learners should therefore be engaged in activities that draw their attention to the possibility of supplementing spoken language with non-verbal items, which may facilitate communication and ultimately have an impact on the likelihood of the patient's compliance. In order for learners to take a more active role in the teaching and learning process, they will be asked to tell the instructor to pause the video when a certain form of behaviour on the part of the doctor appears to support the use and function of linguistic hedges. Table 10 below shows what learners should ideally be able to do while or after watching a segment of a hedged doctor-patient dialogue.

Table 10. Example of a completed multimodal listening comprehension/watching exercise on the use of hedging devices

Highlight linguistic hedges in the text and identify co-occurring non-verbal cues	
Non-verbal behaviour & interpretation	Verbal text
Doctor raises left hand towards his mouth, brings thumb and index finger together, with squinting eyes (physically reproduces the concept of 'smallness');	*Erm, the ribavirin might give you, oh,* ***sometimes a little*** *funny taste in the mouth,* ***sometimes a little*** *soreness, maybe some rash.*

IV.III. Informality

We have already observed in section IV.I. above that replacing Latin-based terminology with words and expressions of Anglo-Saxon origin is likely to facilitate comprehension by the layperson. The avoidance of technical vocabulary produces an informal, often colloquial style, which may be used in those contexts where the need for clarity is particularly strong, e.g. when doctors need to inform and educate patients about surgical procedures. In the example below, for instance, all the verbs used by the doctor are multi-word verbs describing straightforwardly how a liver biopsy is performed. Such a

style is assumed to soften the perception of fear and danger associated with the description of the procedure in question:

> (7) Your liver is up here under the ribs. We numb up the area of the skin and we put the needle directly into the liver, we suck up a little piece of liver and take it back out. […] And the piece of liver that we take out, it's about as thick as the lead in the lead pencil, not the pencil itself, just the lead.

This is an example of recipient-tailored language use (Brown and Fraser 1979), aimed at establishing doctor-patient alignment. Learners of Medical English need to be aware of the fact that the use of a certain type of register may have a significant impact on the quality of the relationship with patients. Therefore, they should experiment with different speaking styles and consider what effects they may bring about. For instance, Table 11 below shows an example task where learners substitute the underlined items with more formal words and expressions carrying the same meanings.

Table 11. Example of a completed exercise on register variation

Exercise: Provide Latin-based alternatives to the underlined verb phrases
Your liver is up here under the ribs. We numb up (**anaesthetise**) the area of the skin and we put (**insert**) the needle directly into the liver, we suck up (**suction**) a little piece of liver and take it back out (**extract**). […] And the piece of liver that we take out (**extract**), it's about as thick as the lead in the lead pencil, not the pencil itself, just the lead.

Another activity may consist in simply asking learners to identify instances of informal language use in a series of sentences, as in Table 12 below, in order to draw their attention to the fact that register variations may be due to different elements, e.g. the presence of colloquialisms, onomatopoeic phrases and slang expressions.

Table 12. Example of an exercise on register variation

Exercise: Identify colloquial elements in the following sentences
1) Well, turns out, if you get rid of the hepatitis C with treatment, there's a good chance that your risk of cancer is gonna go way down. 2) The biopsy itself, the needle is in there less than a second. Boom boom, it's done! 3) Why the heck would you want treatment?

Generally speaking, it may be argued that the use of body language and gestures emphasise informality and add a sense of commitment and enthusiasm to what the doctor is talking about. Instead of focusing on a fragment of a videoed doctor-patient interaction, learners could be invited to watch a longer segment and locate all those relational signals that help to establish an informal rapport.

IV.IV. Figurative language

Speaking figuratively, i.e. by means of similes and metaphors, is a common strategy that doctors use to increase message clarity, as can be observed in the following example, in which hepatitis C infections are compared to different types of cars:

> (8) Cos hepatitis C is more than one virus, if you will. There are different subtypes, just like Ford has different kinds of cars, they are all Fords, but one's a truck and one's an SUV etc. Hepatitis C has different subtypes.

In the data examined, hepatitis C is also figuratively associated to a fire and drinking alcohol is presented as dangerous for the liver of a person with hepatitis C as pouring gasoline on fire would be (9). The hepatitis C virus is then indirectly referred to as a friend when it remains dormant and does not cause any complications (10). The latter meaning is activated by the phrasal expression *to get along alright together*, which is normally used to refer to people who are on good terms:

> (9) The combination of alcohol with active hepatitis, I look at this **as kind of putting alcohol on a fire or putting gasoline on a fire**, it just makes the fire worse.
>
> (10) […] and their disease never progressed anywhere very seriously. So for some reason their body and the virus are kind of **getting along alright together**, without major damage occurring.

A rather challenging, creative activity may consist in asking learners to enrich the descriptions and explanations provided by doctors, in the conversations they analyse, with imagined scenarios that compare different aspects on the basis of qualities they have in common, as in the examples above. Such a technique seems to facilitate comprehension of both human anatomy and medical conditions and processes. The doctors under scrutiny repeatedly also show their patients anatomical models and

encourage them to think in terms of comparisons and associations, as exemplified in Table 13 below.

Table 13. A doctor's use of a liver model to aid the patient's understanding of its physiological/pathological anatomy

Image frame	Non-verbal behaviour & interpretation	Verbal text
1 	Showing a healthy liver model, rubbing hand on its surface (indicates it has a smooth surface)	*This piece of a liver, if you will, is what a normal liver would look like. It's* ***kinda like*** *what you'd see in a supermarket. You know, just kind of smooth and a little reddish-purple, but a very smooth, shiny, nice surface*
2 	Showing a cirrhotic liver model, pointing to its surface (indicates that it has a very hard, non-smooth surface)	*This would be cirrhosis, which would be stage four disease. Lumpy, bumpy,* ***rock hard****. […] Cirrhotic liver is […],* ***it literally feels like a rock***

Since it might be complicated for learners to use objects and models in the language classroom, they could simply try to draw or find photos on the Internet in order to complement their talking with visual aids or props.

IV.V. Empathy and sympathy

The doctor's ability to imagine himself/herself in the patient's position, thus experiencing the emotions and ideas of that person (empathy), will most probably activate feelings of sorrow and compassion (sympathy) and then a willingness to help. The development of both empathy and sympathy seems to play a fundamental role in the doctor-patient relationship (Anfossi & Numico 2004, Halpern 2003, Larson & Yao 2005, Williams & Bendlow 1996). The analysis of the data used for the present study has suggested that initially uncooperative patients, who refuse to undergo treatment and

to follow their doctor's advice, may eventually change their attitude if approached in a suitable communicative style that shows understanding and care. The latter elements therefore appear as crucial for building trust and achieving patients' compliance.

The expression of sympathy and empathy needs to be made explicit both linguistically and non-linguistically, i.e. it has to translate in the use of specific language patterns and also find support in a series of non-verbal signals that sustain what words are communicating. These two aspects are bound together and cannot contradict each other. In other words, there has to be a correspondence between the choice of words and expressions that doctors use and their behaviour. Caring words alone would not be enough if the doctor's attitude expressed disinterest, for instance. Therefore, learners of Medical English should be constantly reminded of the importance of accompanying their speech with suitable behaviours, thus reflecting their ideas and intentions. The multi-modal transcription in Table 14 shows how the verbal and non-verbal dimensions can be felicitously combined for effective and affective communication.

Table 14. Showing and expressing sympathy/empathy

Image frame	Non-verbal behaviour & interpretation	Verbal text
1 	Keeping lips shut, looking at patient with a sad expression, almost about to cry (simply listens and deeply sympathises/empathises with the patient)	***I hear you***. *I think that I'm not gonna take your alcohol away from you right this minute, but […]. And so,* ***I hear you***, ***I hear that*** *this is really important for you and that you're not ready to give it up…,*
2 	Keeps looking at patient, but with head slightly turned to the right (suggests that she is considering things from another perspective), hands pointing together (suggests the idea of cooperation)	*…, but if you are willing to talk about alternatives* ***I can certainly help you*** *in that, in that way.* ***I'm willing to be there for you and work with you*** *in terms of being able to trade the alcohol for those alternatives to PTSD.*

Learners should discuss techniques and brainstorm ways to express empathy and sympathy that they feel most comfortable with. Owing to individual differences in personality, certain communicative styles may be perceived as more or less natural or difficult to adopt. It is therefore crucial to assist learners in finding a personal compromise in their choice of the type of language and behaviour they are willing to use with patients, within their own abilities and limits.

V. CONCLUSIONS AND FUTURE PERSPECTIVES

This article has put forward some alternative classroom activities for teaching Medical English multi-modally, thus going beyond what is usually found in ESP texts and coursebooks to this day. The basic assumption is that meaning does not lie solely in the choice of language forms and strategies in given situations, but it is also created in the course of the interaction via non-verbal signs (Argyle 1975/1988, Poyatos 1992, Wharton 2009). This is particularly true in doctor-patient exchanges, in which what is left unsaid and is otherwise communicated appears to be of paramount importance for building rapport and trust. Such an aspect, however, has not been taken into consideration sufficiently in English language teaching materials geared towards the medical profession.

Future research should be aimed at producing a systematic taxonomy of non-verbal behaviours that doctors could adopt in various situations of their daily practice with patients. While medical staff certainly know how to express thoughts and feelings verbally, they seem to find it much harder to pinpoint their natural behaviour non-verbally in different contexts, e.g. to express concern, disappointment, empathy and so forth.

This consideration raises a number of questions. It seems clear that there is a need to train English language instructors for Healthcare and Medicine to combine their teaching skills with specific competences and knowledge that are usually required of psychologists and counsellors. This is certainly not an easy task, as it presupposes a significant change in our training programmes. In addition, there are both cultural and gender-related issues that need to be observed if a behavioural repertoire were to be proposed for its use in the language classroom. What works in one country might be

viewed as culturally inappropriate in another. The same applies to the perceived level of acceptability in the use of certain non-verbal elements by men and women doctors with their male or female patients.

Notes

[i] These interviews are part of a database prepared by Caring Ambassadors Program Inc., Oregon City, OR, which can be accessed for free at http://hepcchallenge.org. I would like to thank Lorren Sandt (Executive Director of Caring Ambassadors Program Inc.) and Dr Lyn Patrick (Medical Director at Progressive Medical Education, Irvine, CA, www.progressivemedicaleducation.com) for allowing me to use the interviews and reproduce some images for my research.

[ii] Authentic video-recorded doctor-patient dialogues are extremely difficult to find and use because of privacy issues. However, there are several medical drama TV series, which may also be used for teaching purposes, despite their tendency to present situations in a more dramatised way.

[iii] Kress & van Leeuwen (2001: 20) have defined multimodality as "the use of several semiotic modes in the design of a semiotic product or event, together with the particular way in which these modes are combined – they may for instance reinforce each other […], fulfil complementary roles […], or be hierarchically ordered".

[iv] This can be easily verified by checking the curricula of University courses on-line. The University of Yale, for instance, only offers basic and clinical courses for students of Medicine (e.g. Energy and Metabolism, Genes and Development, Human Anatomy) and does not seem to include modules on more 'peripheral' topics, such as communication (http://medicine.yale.edu/education/curriculum/integrated/index.aspx). The same applies to courses offered by Harvard-MIT Programmes in Health Sciences (https://ocw.mit.edu/courses/find-by-topic/), which are also strictly medicine-oriented to the detriment of a more humanistic approach to healthcare.

[v] 2-3 minutes of silence can actually be perceived as quite long by the language instructor, who usually promotes frequent spoken interaction in the classroom. However, it is important not to interrupt this silent phase in that it helps learners to observe rather than listen.

[vi] See Lambertz (2011) for a discussion and a review of the literature on the use of backchannels to show engaged listenership.

[vii] It would be useful to encourage learners to think of alternative expressions, possibly with different levels of formality, to what they have written. For instance, instead of saying *What can I do for you?* a conversation with a patient might begin with other questions, such as *What brings you here today?* or *How can I help you?* and so on.

[viii] This technique is commonly used in Gestalt therapy (Naranjo 1993). It proves particularly powerful and effective for making people more aware of the costs/harms/risks and benefits of a certain behaviour.

[ix] Medicalese is the jargon used by medical and healthcare professionals.

[x] Technical terms are in bold, while their explanations have been underlined. It is also interesting to note that the reformulations are often introduced by a word or phrase signalling that we are faced with a paraphrase into a more popularised/ordinary style. These words or phrases have been italicised.

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