

DEPARTAMENT DE FILOLOGIA ANGLESA I ALEMANYA

VOICE AND IDENTITY: A CONTRASTIVE STUDY OF
IDENTITY PERCEPTION IN VOICE.

BEGOÑA PAYÁ HERRERO

UNIVERSITAT DE VALÈNCIA
Servei de Publicacions
2009

Aquesta Tesi Doctoral va ser presentada a València el dia 11 de setembre de 2009 davant un tribunal format per:

- Dr. Jonathan Harrinston
- Dra. M^a Milagros del Saz Rubio
- Dra. Nuria Lorenzo Dus
- Dr. Wolfgang Matthias Schuze
- Dr. Ángel Fuster Márquez

Va ser dirigida per:

Dr. Barry Pennock

Dr. Wolfgang Matthias Schuze

©Copyright: Servei de Publicacions
Begoña Payá Herrero

Dipòsit legal: V-4163-2010

I.S.B.N.: 978-84-370-7644-7

Edita: Universitat de València

Servei de Publicacions

C/ Arts Gràfiques, 13 baix

46010 València

Spain

Telèfon:(0034)963864115

Voice and Identity:

A contrastive study of identity perception
in voice

Begoña Payá Herrero



PhD Thesis



LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN



Linguistik **LIPP**
Internationales Promotions-Programm
Sprachtheorie und
Angewandte Sprachwissenschaft



VNIVERSITAT DE VALÈNCIA

Dr. Barry Pennock, senior lecturer at the Universitat de València and
Dr. Wolfgang Schulze, professor at the Ludwig-Maximilians-Universität München.

CERTIFY:

That the dissertation presented by the graduate **Begoña Payá Herrero**, titled:
“**Voice and Identity: a contrastive study of identity perception in voice**” has been carried out
within the LIPP PhD course at the Ludwig-Maximilians-Universität München, as well as in the
Departament de Filologia Anglesa i Alemanya de la Universitat de València under our
supervision and counselling.

We have found the candidate’s objectives, scholarly research, empirical analysis, results, and
conclusions entirely satisfactory. We therefore authorize the presentation of this Doctoral Thesis
so that it may be evaluated by the corresponding panel.

Valencia, July 2009

Prof. Dr. Barry Pennock

Prof. Dr. Wolfgang Schulze

Acknowledgements

Every PhD student writing his/her doctoral thesis is confronted with an extremely challenging task, which requires a considerable amount of self-discipline. Throughout the years this may last, there are inevitably moments of uncertainty, of confusion, of emptiness, or even moments where we lose track of where we are going and are drowned by the avalanche of knowledge. So was my case. But what seemed like a mountain too high to climb at the beginning became a task that could be managed step by step thanks to the support of many people.

First of all, from the LIPP Programme in Munich, I would like to thank its coordinator, Caroline Trautmann, and all the LIPP professors for what they have taught me along these three years, especially, Prof. Janney and my tutor, Prof. Wolfgang Schulze, for always believing in me and not hesitating to make suggestions when I was a bit lost. I am equally grateful to my tutor in the Universitat de València, Dr. Barry Pennock, who inspired me to research on the topic of Voice and Identity and contributed with many tips for bibliographic references. I am also grateful for the help received by the Statistics Department of the LMU when trying to analyze the results of my measurements.

On a more personal level, I would first like to thank my PhD friends in Munich, especially Trinidad Marin, Julia Martinez, Nydia Contreras and Sebastian Postlep for their moral and sometimes technical support. Secondly, I am very grateful to my family, especially my brother, mother and father for always believing this project would be successful and their endless love and support. Thirdly, I would like to say thanks to my extremely patient and beloved boyfriend for his constant encouragement, merci!

Last but not least, any project like this is only materially possible with financial support. For this too, I am extremely grateful, during the first two years of my PhD to the Mutua Madrileña for giving me a grant, and to Ibercaja for providing economic support to finish the PhD one more year.

Thank you all!

Contents

Acknowledgements	iii
List of figures and tables	vi
Preface	viii
1. INTRODUCTION	1
2. THEORETICAL BACKGROUND	5
2.1. Identity	6
2.1.1. Definitions	6
2.1.2. The construction of Identity	12
2.2. Voice	19
2.3. The interaction of voice and identity	29
2.3.1. Physical markers	33
2.3.2. Social markers	34
2.3.3. Psychological markers.....	41
2.4. The embodied voice	54
2.4.1. Is voice embodied?.....	54
2.4.2. Voice perception	56
2.4.3. Categorizing voices	64
2.4.4. The semiotics of voice	70
2.5. Voice stereotypy	76
3. HYPOTHESIS AND OBJECTIVES	80
4. METHODOLOGY	83

4.1. Choice of corpus and methods.....	84
4.2. Experiment 1	86
4.2.1. The questionnaire	86
4.2.2. Voice label classification.....	89
4.2.3. Praat	90
4.2.4. Corpus tools	91
4.2.5. Personality tests	92
4.3. Experiment 2: the perception test.....	95
5. RESULTS	99
5.1. Phonetic analysis	100
5.2. Statistical analysis.....	108
5.3. Corpus analysis and voice labels	109
5.3.1. Use of <i>MICASE</i> :.....	111
5.3.2. Use of <i>VIEW</i>	113
5.3.3. Use of <i>Corpus del Español</i>	115
5.4. Self perception of voice.....	117
5.5. Perception test	119
5.5.1. Voice labels and voice correlations of personality	119
5.5.2. Perception of emotions and attitudes.....	126
6. DISCUSSION	132
6.1. Paradigm of voice and identity.....	133
6.2. Points to discuss.....	140
7. CONCLUSIONS AND FUTURE OUTLOOK	145
8. REFERENCES.....	151
9. APPENDIX.....	162

List of figures and tables

Figures

Figure 1: Identity as an adaptation process of two types of selves.....	17
Figure 2: Voice quality settings.....	20
Figure 3: Level 1 and level 2 markers.....	26
Figure 4: Intensity and social distance according to Van Leeuwen	38
Figure 5: Schema of linguistic perception in Radical Experientialism.....	60
Figure 6: The interrelation of perception and production	63
Figure 7: Pitch iconicity for involvement	72
Figure 8: Types of prosodic input.....	75
Figure 9: Aspects of identity addressed in the experimental part of the dissertation.....	82
Figure 10: Osgood’s semantic differential cube.....	96
Figure 11: Speech length and nationality	100
Figure 12: Speech length and levels of extroversion/introversion	101
Figure 13: Pitch and Nationality.....	102
Figure 14: Pitch and level of introversion/extroversion.....	103
Figure 15: Pitch SD and level of introversion/extroversion.....	103
Figure 16: Voice intensity and nationality	104
Figure 17: Voice intensity and level of introversion/extroversion	105
Figure 18: Speech rate and nationality.....	106
Figure 19: Speech rate and level of introversion/extroversion.....	106
Figure 20: Matches found with <i>VIEW</i>	113
Figure 21: Matches found with adjective “ronca” in <i>El Corpus del Español</i>	117
Figure 22: Spatial conception of synesthetic voice labels.....	125
Figure 23: Accuracy in the perception of attitudes and emotions	127
Figure 24: Associated emotion in the perception of “self-confidence”	128
Figure 25: Associated attitude in the perception of “sadness”	128
Figure 26: Verticality schema of extroversion and introversion in voice.....	137

Tables

Table 1: Classification of terminology used	21
Table 2: Correlations between identity and voice	32
Table 3: Voice judgements	43
Table 4: Scherer’s vocal correlates for emotional states and attitudes	50
Table 5: Icon, index and symbol	70
Table 6: Interview questions	87
Table 7: Four dimensions of personality types	93
Table 8: Numbers of introverts/extroverts among the candidates	93
Table 9: Results from the One-Way ANOVA test	108
Table 10: Frequency of voice labels	110
Table 11: Frequency of the fourteen types of labels found	112
Table 12: Ten most frequent adjectives of “voice” according to register	114
Table 13: Collocations of “voice” according to <i>El Corpus del Español</i>	116
Table 14: Accuracy in self perception of voice (%)	118
Table 15: Ratings given for pitch, extroversion and self-confidence	121
Table 16: Correlations between ratings for pitch, kindness and standard deviation	122
Table 17: Perception of extroversion/introversion and self-esteem	124
Table 18: Identity markers according to <i>voice quality/voice dynamics</i> division	134
Table 19: Paradigm of voice and identity cues	136
Table 20: Glossary of other correlations found in other research projects	139

Preface

In the research carried out in the last decades in the fields of phonetics and phonology on the one hand, and in perceptual studies on the other hand, any quick search on the internet to find recent bibliography will help the reader recognise that although a lot has been done in Anglo-Saxon countries and in northern Europe (Netherlands, Sweden, Germany...), research carried out in Spain in the above mentioned fields is very scarce. In their overview of the advances in phonetics and phonology in Spain in the last 25 years (2004, pp. 5-44) Gil and Llisterri mention this vacuum: “As far as phonetics is concerned, a significant number of acoustic phonetic studies have been carried out, due to the accessibility of speech analysis tools, but articulatory and perceptual phonetics have not been developed to a similar level”.¹

I decided therefore to carry out a contrastive interdisciplinary study including Spanish on the one hand, and a Germanic language on the other hand, based on the research carried out so far on the topic of voice and identity.

Research in this field has become increasingly important. This can be observed on the one hand, in the field of linguistics, for example, in the prominence over the last decades of forensic linguistics, which has spread from the UK to other countries, such as Spain where the new “estudios forenses” are attracting attention in university circles. On the other hand, more technological fields, such as speech recognition studies are interested in applying findings about the human voice to the creation of robots able to understand human language and speech synthesis studies want to be able to make machines talk like humans, focusing on research in the field of emotions, attitudes and personality.

Any researcher doing work on *voice and identity* must be aware that one single discipline or speciality cannot embrace such a complex and vast topic. On the one hand, trying to understand and define what identity is necessarily implies considering research carried out in philosophy, anthropology, sociology, neurology, cognition, psychology and linguistics, amongst others, and on the other hand, studying the human voice, needs the support of phonetics, psycholinguistics and perception studies (amongst other possibilities). This is why in the project that will be presented here, I will attempt to take key findings in the above mentioned fields and put them together to support my own observations. For some it may appear vague and insufficiently specific because it tries to cover too many things at the same time, but in fact the findings that come out of this thesis will hopefully be the foundation for research not only in linguistics but

¹ Gil and Llisterri (2004, p. 42) also mention: “...aunque en una proporción menor, disponemos también de algunos estudios en el campo de la fonética perceptiva, que debería esperarse fueran más numerosas en el futuro.”

other disciplines. It should be therefore taken as an initial step, as a pilot project. This is why this work will mainly appeal to the readers wishing to gain insight into the topic of voice and identity, to those who are interested in voice and identity in their own fields.

This thesis will be organized as follows. After an introduction to the topic: first to the concept of identity, then to the concept of voice, the reader will be introduced to different theoretical approaches that may help understand the interaction of voice and identity. This will be followed by an explanation of my hypothesis, and the corpus and methodology used in the empirical part of the project (two experiments). There will then be an analysis and discussion of the results found in both experiments. The important findings, both from the theory and the praxis, will be then summarized in a paradigm of voice and identity aspects towards the end.

I hope in any case that this work will awaken the reader's curiosity for a topic that affects each and every one of us, because whether we like it or not, we can't escape the fact that our voices precede and follow us throughout our lives, creating complex impressions on those around us. May this poem from the American Poet Henry Wadsworth Longfellow serve as an illustration:

Ships that pass in the night, and speak each other in passing,
only a signal shown, and a distant voice in the darkness;
So on the ocean of life, we pass and speak one another,
only a look and a voice, then darkness again and a silence.

1. Introduction

“As a material link between body and culture, self and the other, the voice has been endlessly fascinating to artists and critics” (Dunn and Jones, 1994, Preface)

1. Introduction

In everyday life, due to the fact we are social beings, we are constantly exposed to language, be it written or oral, in our desire to “communicate”, or more precisely, in our wish to express cognitive states (as the theory of Radical Experientialism that will be introduced later preconizes). In literature one can frequently find the idea that spoken language covers more communicative functions than simply linguistic ones (“digital” information) because it conveys information about the speaker (“analogue” information). The problem is that this distinction is a practical but misleading one because it implies that we have a choice, that is, that we can convey digital information without necessarily conveying analogue information. If we recognise, as Radical Experientialism does, that what is frequently called *communication* is nothing but a social construction, we understand that in our daily use of language (either written or oral) there must be traces of the constructor. In the case of oral communication the traces are not only found at the lexico-syntactical level but also at the phonetical level, in the quality of our voice and the different vocal features used. It is the use we make of our voice, which on the one hand, makes us belong to a certain group, but on the other hand defines us as unique beings, as individuals. It serves both as a visiting card to others (Eckert and Laver, 1994, p. 1) or as a fingerprint of who we are, of our identity.

Quite often, in order to understand what we are like and how we function we need to look at the others, as if they were our mirror. This is exactly what happens with voice since we must not forget that when we speak we cannot hear our own voice objectively: it is only by understanding how we react to other voices that we can understand what use we make of our own voice and the impact it can have on others.

Now try and imagine yourself in a lecture hall at university, the first day of the academic year, the professor walks in and starts giving his/her lecture. We are all capable of deciding within the first minute of listening to the voice, whether we like it or whether we dislike it. In the first case, we are attracted by it and find it thus easy to focus our attention on what is being said. In the second case, we might discover that our attention easily drifts away. Moreover, within that first minute, we have already formed an opinion about the speaker such as certain personality traits, the mood he/she is in, the physical health and sometimes his/her geographical origin of the speaker. If we then were to ask our peers if they also had the same opinion about the lecturer’s voice, we might discover that there would be more similarities than differences. A similar situation is described by Sapir (1985, p. 537):

1. Introduction

I remember listening many years ago to an address by a college president and deciding on the spur of the moment that what he said could be of no interest to me. What I meant is that no matter how interesting or pertinent his remarks were in themselves, his personality could not touch mine because there was something about his voice that did not appeal to me, something revealing as to personality.

Of course, this example refers to our personality (as a psychological concept) and not our identity (a social concept), but examples of how personality is transmitted by our voice will be equally important in this dissertation since personality will be understood as part of the psychological information subsumed under the broad term of identity.

Second scenario: you just land in a place where the language you are hearing is absolutely foreign to you. You hear somebody talk and without understanding a word you again discover you are using your own experience to judge the voice, the emotions conveyed, and the personality of the speaker. In other words, you are capable of contrasting your experience-based knowledge of what voice can convey with what you are hearing and you immediately produce a judgement of it. In these situations where linguistic content cannot be understood it becomes clear why the voice is so powerful in communication: it is mainly the vocal organs that transmit information regarding our identity and not the words themselves.

What is our identity and how is it reflected through voice? What features of the voice allow us to transmit so much information on who we are? How do common judgements arise about speakers and are they accurate? Are they language-dependant? How are they reflected in the voice labels used? These are some of the questions that inspired the research and that will be discussed in the dissertation.

In order to answer these questions I will not only carry out experimental work but also explore certain theories that may help to shed some light on these issues. The general theoretical background I will use is *Cognitive Linguistics* (CL), thus my approach will be based on the following pillars (Croft and Cruse, 2004):

- Language is not an autonomous faculty; it is part of our cognition.
- Grammar is understood as conceptualisation.
- The knowledge we have of language comes from the use we make of it.
- Language is embodied and situated in a specific environment.

1. Introduction

Therefore there will be a clear demarcation from *Generative Linguistics* because in my dissertation language is not considered as a separate module of our cognition but rather, there is a recognition that many abilities used for language and more concretely here, for our voice, are not purely linguistic and are used for other more basic cognitive tasks. I will consider other theories that are in accordance with the pillars of CL will be considered too:

- *Radical Constructivism* in order to see how we understand reality and more concretely, our identity and our perception of voice.
- *Radical Experientialism* to focus on the key role of perception.
- *Embodiment* to describe the categorisation of voice.

2. Theoretical background

“There is nothing more practical than a good theory.” (Lewin, 1952, p. 169)

2. Theoretical background

2.1. Identity

“L’identité ne se compartimente pas, elle ne se répartit ni par moitiés, ni par tiers, ni par plages cloisonnées. Je n’ai pas plusieurs identités, j’en ai une seule, faite de tous les éléments qui l’ont façonnée, selon un dosage particulier qui n’est jamais le même d’une personne à l’autre.”²

(Maalouf, 1998, p. 8)

2.1.1. Definitions

In our daily lives we are often confronted with the concept of identity: at police check-points, we have to show our identity card; with many purchases you have to prove your identity; to enter certain buildings a card, a fingerprint or a voice recognition device will check our identity; genetic analysis is constantly used to prove paternity; the recently developed field of forensic linguistics tries to focus on identification through linguistic and paralinguistic evidence. The list of examples where the concept of *identity* is involved is endless. But the common thread in all these cases is that it seems that we understand the concept of identity as that which makes us unique, which singles us out from the millions of other inhabitants on this planet, so that we are not mistaken for somebody else. However, these examples of proof of identity are based on the legal sense of identity: the parallelism between a face and a name, to put it in simple words. This is the idea found in the Blue and Brown Books of Wittgenstein (1969, pp. 61-62):

I am as a rule recognized by the appearance of my body. My body changes its appearance only gradually and comparatively little, likewise my voice, characteristic habits, etc, only change slowly and within a narrow range. We are inclined to use personal names in the way we do, only as a consequence of these facts.

The previously mentioned examples are all cases of what we could call *bodily identity* (Shoemaker & Swinburne, 1984, p. 3): “P2 is the same person as P1 if P2’s body is the same body as P1’s body.” But they do not entail many other philosophical

² Translation: “Identity cannot be classified in thirds or in halves or by other subdivisions. I don’t have several identities but rather one single one composed by many elements that shaped it, in a different dosing that is never the same from one person to the other.”

2. Theoretical background

implications of the term identity that do appear, as we will see, in our individual voices. Fingerprints, names, blood tests, can all be a means of detecting our identity but they do not say much about how we are as a person.

If we focus on our identity as that which makes us an individual person, not only in terms of body, but also as the sum of our personality, our attitudes, our social roles, etc. we are looking at what is frequently called *personal identity*.

The question of *personal identity* has been raised, in the course of the history of philosophy frequently in terms of “mind” and in terms of “body”. Obviously this dualism was helpful to give an answer to one of the things which worried most philosophers: is there life after death? Does any evidence of who we are remain after the death of our bodies? Dualist approaches to personal identity describe the individual as being formed by two independent entities: the body and the mind (formerly frequently referred to as “soul”). Descartes (1637), by stating that mind and body are distinct and separate substances that can exist independently of each other, was the founder of the dualist movement.³ But he also insists on the fact that body and mind are interrelated and can work together to form an end product which is different from the simple sum of the elements. He seems to place *personal identity* in the thinking substance in which the psychological states reside, in the mind. For Descartes psychological states are essential to the identity of a person. As Martin and Barresi point out (2006, pp. 126-127), if we consider that Descartes was not only one of the first thinkers to start using the term “mind” instead of “soul”, together with the fact that he assumed there was neural organization of the brain accounting for sensation, perception and imagination (in men and in animals), we can see that beyond the superficial dualism, he was quite modern for his time and already gave some hints for latter approaches to identity.

Leibniz (as explained in Martin and Barresi, 2006, p. 138) on the other hand believes the self to be an immaterial substance, the persistence of which is assured by its unextended quality (it does not take up any space, any volume). His “principle of indiscernibility of identicals” is also known as Leibniz’s law in mathematics and claims that: “if *a* is identical to *b*, then whatever is true of *a* is true of *b* and conversely.” He also defines identity as “the relation which everything has necessarily, to itself, and which nothing has to anything other than itself.” (Shoemaker and Swinburne, 1984, p. 72). This

³ Translation from the 1637 original (1996, pp. 100-105): “...it is certain that this I (that is to say, my soul by which I am what I am), is entirely and absolutely distinct from my body, and can exist without it.” “There is a great difference between mind and body, inasmuch as body is by nature always divisible, and the mind is entirely indivisible.”

2. Theoretical background

is sometimes also called *numerical* or *quantitative identity* (that *a* and *b* are one and the same thing). Yet this definition is not satisfactory or not sufficient for *personal identity*. When we recognise the identity of a person, we are not only saying that the person we are seeing is one and the same person as we have known previously, we are also talking about a *qualitative identity*: which are the characteristics common to the person we are identifying, maybe shared by others, maybe not?

This recalls an idea expressed by Hobbes (1915, p. 133). He claims that the principle of individuation is not based completely on matter (quality) or completely on form (quantity).⁴ Moreover, he states that we are able to say a man is the same throughout time when his actions and thoughts come from the same origin, just as much as we can say a river is the same if it starts from the same source.⁵

Locke in his *Essay Concerning Human Understanding* (1690, edition of 1996, Book II, Chapter 27) says personal identity refers to what a person is: “a thinking intelligent being that has reason and reflection, and can consider itself as itself, the same thinking thing, in different times and places.”

The self (used as a synonym of personal identity) for Locke is above all a consciousness that persists through time, a conscious entity with a coherent collection of experiences, thoughts, feelings, memories, etc. This is why his theory of identity is also sometimes called the “memory theory”.

Although the philosophers mentioned so far sometimes differ in their definitions of identity, the common starting point that I will take for my dissertation is that our understanding of *personal identity* has more to do with our mind, with our unextended mental world, our actions, our memories, than with the constantly evolving extended body. The idea of persistence of memories also seems to be a key one accepted by all.

Cartesian dualism and the dualism contained in philosophers of the age of enlightenment are also found in more modern theories of identity such as in Fauconnier and Sweetser (1996). Instead of speaking of *body* and *mind*, they claim that every conceptualisation process involved in describing what a person is (1996, p. 93) can be understood in terms of *self* and *subject*. For these two linguists, the *subject* includes aspects such as consciousness, perception, judgement, will and capacity to feel, whereas

⁴ Original quote (1915, p. 133): “Ein Schiff, unter welchem Namen wir eine bestimmte gestaltete Materie verbleibt ; ist kein Teil der letzteren mehr derselbe, dann ist es numerisch ein anderes Schiff geworden; sind Teile geblieben, andere ersetzt worden, so ist das Schiff teilweise dasselbe, teilweise ein anderes.”

⁵ Original quote (1915, p. 133): “Der Mensch bleibt derselbe, sofern alle seine Handlungen und Gedanken aus demselben Lebensprinzip der Bewegung, das von der Erzeugung in ihm war, fließen, wir sprechen auch von dem nämlichen Fluss, wenn er nur aus einer und derselben Quelle herfließt.”

2. Theoretical background

the *self* is first and foremost anchored in our body, therefore it includes physical aspects, but also social roles (this would be arguable) and real world actions. According to this division, our personal identity would be mainly included in the concept of *subject*. However this dichotomy is problematic in the context of this dissertation, first because it uses the concept of *self* in a very different way than we generally use it (or the way I have used it before), and secondly because their division of what is related to the *self* and what is related to the *subject* seems quite arbitrary. But what is interesting about their theory is that all the elements subsumed under their concept of *subject* are important in our consideration of what identity is, and how it is manifested in one's voice.

The distinction of mind and body is a practical and even indispensable distinction for human knowledge, and there is no doubt that an attempt to define what identity is must consider many of the elements included in the philosophical definitions of the "mind". But to describe our identity as something which is purely mental would be too reductionistic. We can't escape the fact that our identity, as with other conceptualisation processes in our mind, is contained by our body and is in a way determined and moulded by it. Our identity is embodied and that is why theories of Embodiment will be considered later on.

If we were to ask anybody in the street what they understand by the term "identity" they might come up with one or two or a whole set of adjectives that seem to specify this concept:

- nationality
- mother tongue
- race
- class
- rank
- religion
- profession
- gender
- personality
- physique

This long list of items that are included in our conceptualisation of what identity is, can perhaps be reduced to three categories of information:

- *physical information*: physique, gender, age, health.

2. Theoretical background

- *social information*: regional origin, nationality, mother tongue, social class, religion, profession, power.
- *psychological information*: personality, attitudes, emotions.

As will be explained later on, I will be focusing the experimental part of my research on the *psychological information* transmitted by voice, which is only one part of each person's identity. This is why I will now clarify the terminology used which is related to personality, attitudes and emotions.

Personality (Vernon, 1962, p. 3) is said to be developed "from the interaction of the living human organism with an environment that frustrates or encourages and conditions its impulses". *Personality*, frequently also called *character*, used in its English sense and not with the German implications, is a global term that stands for a general pattern of behaviour, of attitudes, tendencies and preferences that we show in our daily life, which all together form us as distinct individuals. Because personality is a global term, it is subdivided into specific *personality traits*. According to Vernon (1962, p. 5) these are understood as: "more general qualities of social and emotional behaviour, the common features which we abstract from observing people differ."

A sociological definition of personality with special emphasis of the influence culture may have is the one given by Sapir (1985, p. 560): "the totality of those aspects of behaviour which give meaning to an individual in society and differentiate him from other members in the community, each of whom embodies countless cultural patterns in a unique configuration."

Concerning *attitudes* and *emotions* we often find that these two terms are not clearly defined and we cannot know if a particular parameter then refers to an attitude or to an emotion. It is therefore important to make clear the differences between these two concepts: as Scherer (2000)⁶ understands it, *attitudes* are relatively stable affective positions, preferences and tendencies we show towards objects and people. According to many authors, *emotions* seem to be a psycho-physiological process that is triggered by the cognitive evaluation of an object and implies physiological changes, subjective sensations, specific cognitions and a change in either attitude or behaviour. The emotional process is characterised by the following structure according to Battachi et al. (1996, p. 21):

- physiological reactions (activation of the nervous system)
- motor-instrumental reactions (muscle movement)

⁶ In <http://archiv.ub.uni-marburg.de/diss/z2000/0413/>

2. Theoretical background

- tonic reactions (facial expression)
- expressive linguistic reactions (voice)
- subjective experiential components

Among all the existing emotions felt by human beings there are some that are claimed to be universal or basic, that is, recognised and manifested by all cultures in a similar way. However, the discussion about which emotions can be classified as universal and which are culture-specific is never-ending. Amongst all the different positions, there seems to be a consensus that at least *anger*, *sadness*, *joy*, *fear* and *disgust* are universal because they are manifested by common facial expressions (Oatley and Johnson-Laird, 1987, p. 33). This is why in the second experiment (4.3.) only emotions that are clearly universal have been chosen for the perception test: *anger*, *sadness* and *joy* having clearer vocal correlates (see 2.3.3.) are the only ones amongst the universal emotions that were considered in the perception test.

I will now include a quick definition of these three emotions:

- Anger: ranges from irritation to rage, it can be seen as a fight or flight reaction from the brain to a threat of pain.
- Sadness: more or less stereotyped reactions towards loss or helplessness. The loss is in general of a beloved person but it can also be loss of a social value such as honor.
- Joy: emotion of great happiness.

These definitions still remain rather vague and we often find in psychology research ways of approaching and measuring emotions and attitudes that include gradations of one or more dimensions, the so-called *attitudinal dimensions* or *dimensions of affect*. Here there is also a lack of consensus: almost everybody agrees to include a dimension of *evaluation* or *valence* (positive or negative characterisation of an attitude or emotion), some include a second dimension of *activity* or *activation* (passive or active characterisation of an attitude or emotion) and others include a third dimension of *potency* (how strong or weak the emotion is). In their study of meaning of words related to emotions, Snider and Osgood (1969) developed the so-called *semantic differential technique* where they created a bipolar scale of adjectives (each adjective had its antonym) which considered at the same time the three dimensions of affect. As will later be seen, this will also be the technique used for the perception test to classify voice labels and range them in a five-point scale. As explained in “Emotionspsychologie: Ein Handbuch” (Euler, 1983): research based on dimensional analysis presupposes that emotions can be ordered in bipolar scales but one has to be careful because the choice of

2. Theoretical background

emotional labels for the scale will have an influence on the answers people give, which means synonyms have to be reduced.

The only two attitudes that will be included later on in the perception test are two opposite ones: *insecurity* and *self-confidence*. Out of all the possible attitudes that exist, only these two were selected due to the fact that they have perhaps more clear vocal correlates and have been considered phonetically in more depth. In psychology *insecurity* is generally correlated with low self-esteem and stands for a feeling of unease and nervousness provoked by a lack of confidence in one's own value and capability. *Self-confidence* can be understood as the opposite concept, that is, the feeling of ease in one's own personal judgement, power and abilities.

Personality, attitudes and emotions are a key element of our identity. Unlike nationality or social rank, which are acquired more or less by chance, by the environment in which we happen to be brought up, our psychological make up is slightly biologically determined and to a great extent constructed progressively by our experiences in life.

2.1.2. The construction of Identity

Identity seems to encompass, on the other hand, many complex values, many of which derive from our lives as social beings. That is, our identity seems to be strongly anchored in the society we live in. This recalls Mead's interactionist theories (1934), where he claims that the individual mind and self arises out of the social process. In the opposite direction but with a similar "end product", Marcel Mauss (1938) describes the process whereby the "collective mentality" ("la mentalité collective") at some point in a person's evolution imposes itself on the individual being, on ourselves as unique beings, as identities. These theories considering the individual in his/her relation to society could be simplified in the the following way:

Mead	Mauss
Social process → The Individual	The Individual → The collective mentality

Table 1: Classification of terminology used

2. Theoretical background

Both theories may be right, depending on whether we are considering the birth of our consciousness of identity from an evolutionary point of view (Mauss) or if we consider it from a more synchronous perspective, with regards to what happens in our lifetime (Mead). Both of these authors contribute ideas that will be important in this project: on the one hand, the consideration of the Maussian individual (2004, p. 7) as a whole that encompasses abilities, routines, perception and reaction strategies, moulded not only physically but by events occurring in his/her space and time⁷, and on the other hand, the fundamental idea that the individual exists, and is constantly constructed and reconstructed in his/her interaction with society. “Both community and individual are necessary to identity.” (Martin and Barresi, 2006, p. 251). Mead claims that individuals constantly try to view themselves from the perspective of others, as others would see them or as they see others. Similar to Mead’s idea is Vygotsky’s claim about self-awareness (1979, p. 29): “the mechanism of knowing oneself and the mechanism for knowing others are one and the same.”

Mühlhäusler and Harré (1990, p. 16) use the existing philosophical distinction of numerical versus qualitative identity, that is, identity with reference to one single particular person, and identity with regard to the kind of person we are (social position, personality). Here we could take the numerical identity for the Meadian individual and the qualitative identity for the Maussian individual.

Another theory about the individual or the self that fits well with the interactionist theories I have mentioned is the one laid out by Goffman (1983). He applies theatrical terminology to explain that the self is a character or a role we play on a given stage (a specific social context) and thus our identity or the self we show to others can be seen as a constellation of the actor itself, the stage, the backstage, the front stage, other actors and the public. The key point in Goffman’s theory is that the self cannot be conceived on its own. It exists only in interaction with others and only because there is an audience that interprets the role each individual plays.⁸ A similar description of the self appears in Habermas’s concept of “dramaturgical action” (one of his four sociological types of communication), where he depicts speakers as participants in an interaction that

⁷ Original quote in Mauss (2004, p. 7): “un tout de facultés, d'habitudes, de façons de percevoir et de réagir, d'humeurs, de forces physiques et mentales, singulier, non pas simplement parce que l'individu se distingue par la position de son corps, mais aussi parce que la série d'évènements dont il est le siège est vraiment un tout dans le temps et l'espace.” (From his notes for the *Congrès international des sciences anthropologiques et ethnologiques* in 1938).

⁸ Goffman (1983, p. 231): “Insofern man dieses Bild von dem Einzelnen gemacht und ihm somit ein Selbst zugeschrieben hat, entspringt dieses Selbst nicht seinem Besitzer, sondern der Gesamtszene seiner Handlungen, und wird von dem Merkmalen lokaler Ereignisse erzeugt, die sie für Beobachter interpretierbar machen.”

2. Theoretical background

carry out a performance for a given public.⁹ This idea of a dramaturgical self will be fundamental to understand how voice stereotypy works.

In the field of neurology, there is evidence that our sense of identity is a product of our mind, that is, of our brain, which is in turn, contained by a specific body. In neurocognitive terms, our identity, our sense of self, comes from the interaction of the cortical and subcortical systems that regulate the global brain state (Benzon, p. 2000). But which part of the brain exactly is accountable for it has not yet been determined. Neurologists know the brain is composed of different parts organised in many circuits and on many levels, yet all of them are complexly related and one component cannot be singled out for the function of our identity.

Curiously, our cognitive need for an identity could be described as a kind of illusion we create or construct. Our identity is very complex (as can be seen from the initial list of factors), it is formed by a history of events in our lives, how we act, decisions we take, etc, and yet from different scraps of experiences, our brain seems to be able to put them together to create the illusion of a unified identity. If we consider each of the “scraps” as mental spaces, using Fauconnier and Turner's theory, we can easily understand this unifying process as he describes it (2003, p. 95):

We connect the mental spaces that have the baby, the child, the adolescent and the adult with relations of personal identity, despite the manifest differences, and we relate these identity connections to other vital relations of change, Time, Cause and Effect.

This is what Kant would call “an act of synthesis”, where we put different representations together and we gather what is manifold in them into one knowledge, here, our identity, is a “unity of consciousness”, using his terms (1781, reedition of 1965, p. 108), which brings us to his sentence: “The mind could never think its identity in the manifoldness of its representations... if it did not have before its eyes the identity of its act, whereby it subordinates all [the manifold]... to a transcendental unity...”

The same idea of unity within identity is brought up by Mühlhäusler and Harré (1990, p. 18): “I am aware of unity and continuity in both my beliefs and my point of

⁹ Habermas (1987, p. 128): “Der Begriff des *dramaturgischen* Handelns bezieht sich primär weder auf den einsamen Akteur noch auf das Mitglied einer sozialen Gruppe, sondern auf Interaktionsteilnehmer, die füreinander ein Publikum bilden, vor dessen Augen sie sich darstellen.”

2. Theoretical background

interaction with the material world, in which as an embodied being I am a thing amongst things and my actions are events amongst events.”

Within studies of identity coming from the field of psychology, Erikson (1971) is known for his theory of the “adolescent identity crisis”. He describes a theory of ego development in eight stages of our life cycle. The stage where the concept of identity is first mentioned and acquires mayor importance is the fifth stage, the one taking place in adolescence where the individual is torn between two poles: *ego identity* and *role diffusion*. At this point, Erikson (1971, p. 275) suggests that: “Ego identity requires knowing who you are and how you fit into society. It requires forming yourself an identity or self that satisfies both your own internal needs and those of society.”

Again we find the idea that identity seems to encompass two very different things: individual needs and needs of society. Erikson (1971, p. 24) also expresses the idea that: “Identity is never established as an achievement in the form of a personality armor or of anything static and unchangeable”.

Erikson not only brings the description of a non-static constantly evolving identity but also the idea that personal identity is based on two things (1971, p. 50):

- 1) Perception of sameness and continuity of one’s existence in time and space.¹⁰
- 2) Perception of the fact that others recognize one’s sameness and continuity.

So it is not all about the individual recognizing continuity in thoughts, memories, etc. but about others recognizing this continuity too.

From the field of Neuro-linguistic programming (NLP), Derks (2000) has contributed interesting ideas that can help us approach what identity is. Many claims of NLP are often disregarded by mainstream academic psychology because they lack empirical evidence but if we bear in mind that NLP is based on interpersonal communication, successful patterns of behaviour and the subjective patterns of thoughts that underly them (the belief that people orientate themselves according to their own world model)¹¹, some of its considerations will make interesting contributions to my dissertation. Derks (2000, p. 31) describes the self (taken here as a synonym of identity) as being composed of the following elements:

¹⁰ Original quote (Erikson, 1971, p. 220): “I is nothing less than the verbal assurance according to which I feel that I am the center of awareness in a universe of experience in which I have a coherent identity, and that I am in possession of my wits and able to say what I see and think.”

¹¹ Original quote (Derks, 2000, p. 332): “Menschen orientieren sich an ihren kognitiven Landkarten, ihrem Modell der Welt und nicht an der Welt selbst”. This was already the idea expressed many years before by Wittgenstein in his *Tractatus-Logico-Philosophicus* (5.63): “Ich bin meine Welt (Der Mikrokosmos)”.

2. Theoretical background

- a) visual self-awareness
- b) kinaesthetic self-awareness
- c) auditive self-awareness, often appearing as an interior voice that articulates our needs and motives.

So our sense of identity comes from an awareness of our body, its senses, its perception and its movement.

Another interesting idea found in Derks (2000, p. 83) is that the term identity, as interpreted by NLP, falsely suggests the existence of a kind of core-self as if there was a stable, constant structure of the self. According to Derks (as Erikson also noted in 1971), identity is not stable but rather in constant restructuration. He claims the self can be subdivided into a *personal* self (referring to the previously mentioned *numerical identity*) and a *social* self (the previously mentioned *qualitative identity*), in other words, what makes us stand out as a unique being, and what unites us to other people. Still within the field of psychology and before moving on to radical constructivist theories, some of the contributions of Keupp et al. (2006) are worth mentioning. Just as Erikson (1971) and Derks (2000) agree that our identity is constantly organized and reorganized and go against the ideal unified stable identity, this interesting work presents identity as a *patchwork* under constant construction.¹² Moreover, they present identity as an adaptation process between inner needs and external needs, between inside and outside.¹³ The following figure is a summary of this concept of identity, a process where constant negotiations between the two types of selves take place:

¹² Original quote (Keupp et al., 2006, p. 215): "Identität ist nicht etwas, dass man von Geburt an hat, was die Gene oder der soziale Status vorgeschrieben, sondern wird vom Subjekt in einem lebenslangen Prozess entwickelt."

¹³ Original quote (Keupp et al., 2006): "In dieser Identitätsarbeit versucht das Subjekt situative stimmige Passungen zwischen inneren und äusseren Erfahrungen zu schaffen und unterschiedliche Teilidentitäten zu verknüpfen."(p. 60). "...Identität steht in einem Aushandlungsprozess des Subjektes mit seiner gesellschaftlichen Umwelt stattfindet."(p. 198)

2. Theoretical background

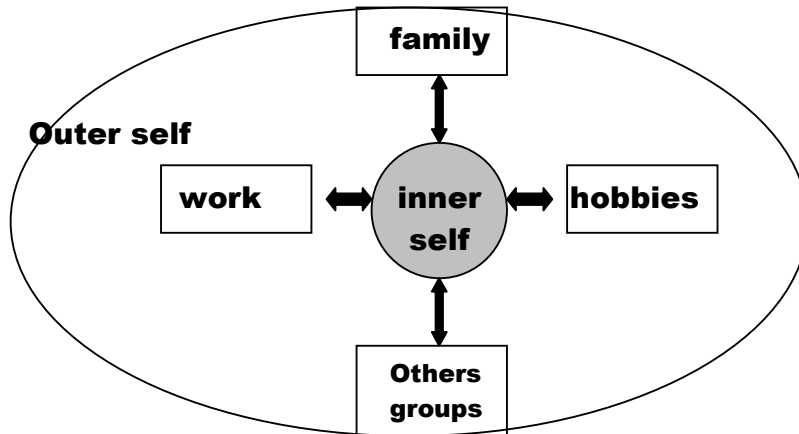


Figure 1: Identity as an adaptation process of two types of selves

To fully understand how identity is constructed and later on in this project, how voice can contribute to this construction, I will now explain some of the ideas of Radical Constructivism (RC) which are in fact very close to many points made by Erikson (1971) and Derks (2000).

The basic idea running through RC is that we do not simply find reality around us, but rather, that we invent it, and that we build it in our minds. This echoes the fact that in the physical world there is no unity without an observer that “creates” this unity, or in Glasersfeld’s words (1981): “Knowledge is constructed by the living organism in order to classify as far as is possible the formless flow of experiences into repeatable, recognizeable, single experience”¹⁴.

Perception is therefore placed as a key dimension in our understanding and construction of reality, and more concretely here, identity. Maturana and Varela (1984, p. 260) point out: “We do not see what cannot be seen and what we do not see does not exist. Only when an interaction takes place, for example, in another cultural background, do we create a new constellation of relations”¹⁵.

¹⁴ Original quote: “Wissen wird vom lebenden Organismus aufgebaut, um den an für sich formlosen Fluss des Erlebens so weit wie möglich in wiederholbare Erlebnisse zwischen diesen zu ordnen”.

¹⁵ Original quote: “Wir sehen nicht was wir nicht sehen und was wir nicht sehen existiert nicht. Nur wenn irgendeine Interaktion, z.B. in einer anderen kulturellen Umgebung, stattfindet, dann bringen wir neue Konstellationen von Relationen hervor.”

2. Theoretical background

All this, as we will see later on is important to see how we construct our identity, how we perceive other identities and in this contrastive project, how this is reflected (on a smaller scale) in the use we make of our voice.

So what can we take then from all the different theories mentioned to define a concept of identity valid for this dissertation?

1) The dualism of mind and body, or subject and self constantly appears in different theories to deal with identity but it can be misleading. There is no doubt that most of what is understood under identity is “contained by” our mind but our mind is encapsulated in a specific body and the properties of the body have an impact on the way our identity is constructed.

2) The concept of identity is a mixture of individuality and collectiveness, at the same time a sense of uniqueness and a sense of belonging, or in Mendoza-Denton’s words: “an individual and collective-level process of semiosis” (cited in Chambers, Trudgill and Schilling-Estes, 2002, p. 474). In this regard Watzlawick mentions (2005, p. 35): “There exists an increasing interdependence that we need to take into account between the individual and the system, between inside and outside”¹⁶.

3) Stepping away from theories that present identity as an ideal, stable and unified mental concept that accompanies us throughout our lives, it seems more plausible to accept that it is a necessary mental construction common to all mentally sane humans: through our own personal lenses, we gather the multiplicity of memories, actions, experiences, attitudes, opinions, social practices, etc. that characterize us and try to sew them together constantly to produce “a patchwork” of who we are, which is recognized by us, recognized by others. This patchwork is not given to us at birth but rather is an adaptation process that lasts a lifetime, in other words, we can say it is a *site under construction*.

Identity will be hence understood as a relational term that constructs a parallelism between two domains: the domain of individuality (personal self) and the domain of collectiveness (social self), or in other words, the domain of aspects that make us unique (specific body, personality, attitudes, memories, experiences...) and the domain of what we share with the society we happen to live in (social groups, nationality, religion, customs).

¹⁶ Original quote: “Zwischen Individuum und System, zwischen “innen” und “ausen” besteht also eine Interdependenz, die wir zunehmend in Betracht ziehen werden müssen”.

2. Theoretical background

2.2. Voice

“With many kinds of animals, man included, the vocal organs are efficient in the highest degree as a means of expression” (Darwin, 1965, p. 83)

I will now offer an overview of the phonetic terms that will be used in this dissertation, as presented in different handbooks of phonetic theory.

How can voice be defined? According to Trask (1996, pp. 378-379) voice can be strictly understood as the “natural and distinctive tone of the speech sounds produced by a particular person”, or more broadly as “any phonation type involving vibration of the vocal folds”.

In order to produce and describe speech sounds, several features of the voice are involved and these tend to be classified mainly into two groups (Abercrombie, 1967): *voice quality* features and *voice dynamics* features. The former refer to those physical, organic features with which we are born and are not consciously chosen and the latter refer to those features that are learnt through socialisation and which are therefore said to be more controlled. *Voice quality* features correspond to Ladefoged’s (1967, p. 61) organic features, and *voice dynamics* to Ladefoged’s functional features. Within the former group we find aspects such as tension, phonation types, and nasality, and within the latter, aspects such as pitch range, intonation, loudness and tempo. However, we must bear in mind that this classification is purely practical, in reality there is no such clear-cut distinction since some features of *voice quality* can be more or less controlled on a short term basis for affective information, as would be the case of breathy voice used to convey intimacy and sexiness, for instance, to sell a perfume or other personal hygiene products in a TV ad.¹⁷ In this case the conscious use of a particular vocal aspect for a specific purpose fulfils a communicative function, as stated by Pennock-Speck (2005) and Saz Rubio & Pennock-Speck (2008)¹⁸ because it is conveying information to the audience and trying to influence them to buy the product.

Moreover, if we consider all the definitions of *voice quality* amongst authors doing research into voice we find it is a confusing term because it is sometimes used in a

¹⁷ Saz Rubio & Pennock-Speck (2008, p. 378): “There seems to be a correlation between certain products and the use of special voice quality settings such as whispery and breathy voice.”

¹⁸ Saz Rubio & Pennock-Speck (2008, p. 377): “Manipulation of voice exists in commercials because voices like everything else are chosen deliberately.”

2. Theoretical background

restricted way (as I did before) to refer to laryngeal qualities but in can be used in a broader sense as the total vocal image of a speaker, including pitch, loudness and phonation types. The key aspect that I will consider in my distinction between *voice quality* and voice dynamic aspects will be the time-frame: *voice quality* features will be those long term features that have an extralinguistic function. They are those that form the *grain of our voice*, using Barthes' terminology (1977, p. 182)¹⁹. They will be those quasi-permanent features which are given to us at birth and are to a great extent biologically determined. *Voice dynamics* elements are short-term and medium term features which can convey linguistic information (for example when intonation is used to distinguish a statement from a question) or paralinguistic information (to express a transient emotional state of the speaker).

In broad definitions of *voice quality* we thus not only find the laryngeal configurations which appear in restricted definitions, but also other settings that Abercrombie (1967) considered as *voice dynamics*. The following figure schematizes the different settings included in broad definitions of *voice quality* and the grey box indicates that they will be addressed specifically in the research I carried out:

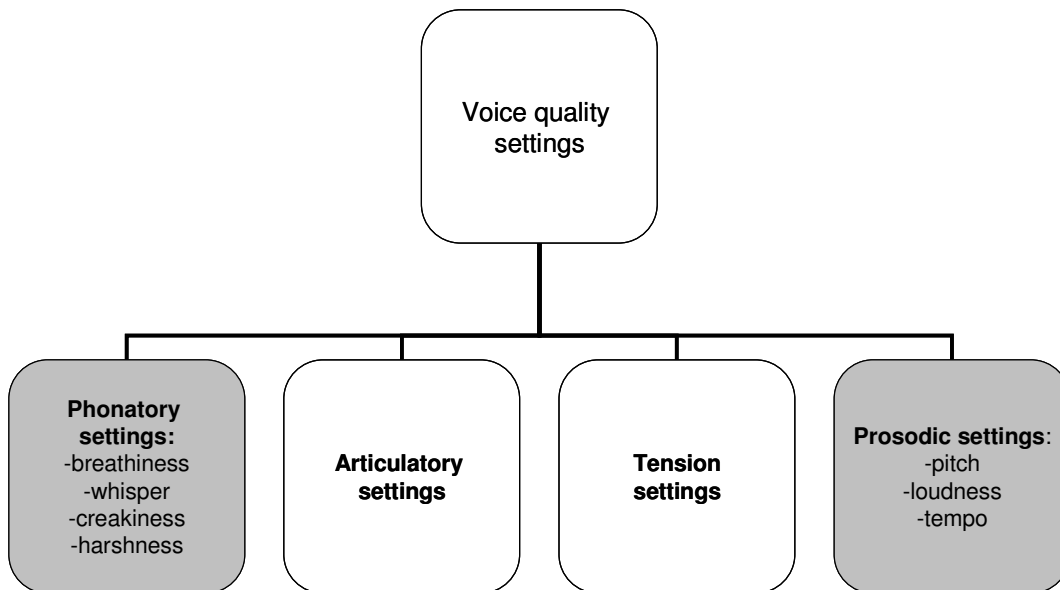


Figure 2: Voice quality settings

¹⁹ Barthes (1977, p. 182): "The grain is that: the materiality of the body speaking its mother tongue".

2. Theoretical background

So we have many voice features that can be classified as a *voice quality* element or as a *voice dynamics* element, the distinction being made more on the basis of the time-frame: if for example pitch is considered as the average pitch used by somebody on all occasions then pitch is a *voice quality* feature, but if pitch is studied for example to see how it can correlate with self-confidence in specific moments, then it is a medium or short-term feature and it is considered as a *voice dynamics* element. In this same direction, Pennock-Speck (2006, p. 93) comments: “ Although a person’s normal speaking voice is almost like a fingerprint...it can nevertheless undergo changes, that is, in certain circumstances, it can be moulded to suit one’s purposes.”

Some of these features have a clear acoustic correlate, which makes them easier to measure and analyze phonetically. The following table summarizes the classification of main terms that will be used, and specifies certain acoustic correlates. For practical reasons, it will be based on the restricted definition of *voice quality* and *voice dynamics* to avoid repetitions of terms:

<i>Voice quality</i> features		<i>Voice dynamics</i> features	
Features	Acoustic correlate	Features	Acoustic correlate
Muscular tension	Signal to noise ratio(S/N ratio) + Mean frequency (F0)	Pitch/tone	Mean frequency (F0) in Hz
Phonation a)modal b)falsetto c) whisper d) creak e) harshness f) breathiness	-Pressure and flow records -Jitter	Intonation/pitch fluctuation	High and Low peaks in pitch
Nasality	Nasal/oral airflow	loudness	Intensity in dB
		tempo	Speech rate in SPM

Table 1: Classification of terminology used

2. Theoretical background

In what follows provides quick definitions of those terms that will be used in the dissertation:

- Pitch: rate at which vocal folds pulses recur. Measured by the fundamental frequency (F0) of the sound wave it produces.
- Loudness: the amplitude of the sound wave produced, measured by its intensity.
- Intonation: the use of pitch, in possible combination with loudness, tempo and pauses over a stretch of utterance to convey either linguistic or paralinguistic meaning.
- Tempo or rate: the pace of delivery of speech, measured generally in syllables per minute (SPM) or in words per minute (WPM).
- Tension: when the muscles of the throat are either contracted or decontracted.
- Roughness: an aperiodic vibration of vocal chords, which is heard as friction.
- Breathiness: when the closing phase of the vibration is not complete. Simultaneous breathing and tone productions.
- Creakiness: produced by holding the entire glottis laterally compressed but untensed, except for a small opening near the anterior end, producing clear audible taps.
- Nasality: the perceptual effect in speech of a lowered velum (which allows the air to come out through the nose).

As we can see from this list, the term *intonation* is a complex one, because it derives from the sum of several phonetic features (mainly pitch, but also loudness and tempo). It can therefore be expected that such a complex prosodic element of speech conveys more information or that the information conveyed is more detailed. Indeed, just a quick look at research carried out on the functions of intonation helps us understand the importance it has. According to Vaissière (2005, p. 237) intonation can have all the following functions:

- Syntactic
- Informational: theme/rheme, given/new
- Interactive: turn-taking, topic end, continuation...
- Modal: assertion, question, order...
- Attitudinal: attitude of the speaker towards what is said or towards the listener.
- Emotional: joy, anger, sadness...
- Other: identity, sex, age, physiological state, regional varieties...

For the purpose of my dissertation and my own empirical research, I will only be focusing on the last three functions of intonation.

2. Theoretical background

The term prosody will be used here in a broad sense to refer to the contributions in speech of suprasegmental features such as intensity, pitch and speed. It will be thus understood as a global term that subsumes more specific ones, such as intonation or intensity.

In neurophysiological terms, prosody is said to be processed mainly by the right brain hemisphere (Cook, 2002, pp. 28-29), as many experiments with patients suffering right hemisphere damage prove. While the left brain hemisphere is in charge of the word denotation and literal meaning, the right brain hemisphere processes the connotative and metaphorical meaning, as well as affective implications of what is being said. In terms of the digital/analogue information distinction used at the beginning, we can therefore say that the left side of the brain covers the digital information of voice whereas the right hemisphere covers the analogue information of voice.

The fact that prosodic features can convey linguistic information (grammatical and semantic according to Crystal (1969)), as well as non linguistic information (psychological, attitudinal and social, according to Crystal, 1969), has perhaps divided the approaches in the research of prosody into two main tendencies (Arndt and Janney, 1987, p. 234):

- the grammatical approach
- the attitudinal approach

It is the second approach that is more useful for the purposes of my topic and the one which will provide most of the bibliographic references. However we must remember that prosodic features never occur in isolation but rather interrelate with verbal and kinaesthetic elements. Recent research carried out by Lander et al. (2007) demonstrates that there is a pervasive link between voices and facial movement when it comes to identity matching. Therefore a holistic position that avoids static conceptualisations which often ignore the importance of multimodality in identity recognition (Arndt and Janney, 1987, p. 239) will be sought.

Recalling Pierce's semiotic terminology, in linguistics we can say that a form is "indexical" when it "stands for its object neither by resemblance to it, nor by sheer convention, but by contiguity with it." (Hanks, 2001, p. 119) or using Peirce's terminology, an index is a sign in a relation of "dynamical coexistence" or of cause-and-effect with its object. Abercrombie (1967) associated voice with the concept of index, referring to the fact that certain prosodic features directly reveal personal characteristics of the speaker. This idea of indexical information, also retaken by Laver and Trudgill (1979), is a key idea in the search for correlations between voice parameters and identity of the speakers and will thus

2. Theoretical background

be evoked in this dissertation, together with the concept of *speech markers* (Giles et al., 1979, p. 360): “Speech markers are defined as those extralinguistic, paralinguistic and linguistic cues which differentiate between various biological, social and psychological categories or characteristics of speakers which are important -actually or potentially- for social organisation and social interaction.”

Starting from the global concept of *speech markers*, Laver and Trudgill (1979, p. 3) then distinguish three categories:

- physical markers: for biological information such as size, physique, sex, age and health.
- psychological markers: for personality, mood, emotions or affective states.
- social markers: to signal (symbolically) regional origin, status, social role and occupation.

These markers of speech can be generally found not in one single prosodic feature, but generally in the combination of several of the ones previously listed.

The empirical part of this dissertation will mainly deal with psychological markers in speech as a fundamental contribution to the construction of our identity.

However, there is another way of classifying voice markers instead of this three-fold classification. If we conceptualise speech markers in terms of their complexity and the global functions they accomplish, we may find Giles, Scherer and Taylor’s proposal interesting (1979, p. 344): they distinguish two kinds of markers, level one and level two markers. Level one markers are those we share with subhuman species which (1979, p. 343): “permit speakers to reveal their association with broadly defined biological, social and psychological states, and listeners to categorize others accurately in these terms”.

Over these markers we have less control. Since humans (as well as some subhuman species) rely first and foremost on visual and auditory expression, it can be expected that level one speech markers, together with movement, will play a fundamental role in identification and recognition processes. If we then bear in mind that humans, as is the case with other social species, follow mechanisms of territoriality and bonding, we then understand that in order to achieve this we constantly recognize individual identities or group memberships and hence the importance of level one speech markers that give information on sex, age, individuality, nationality and group membership. Extensive research carried out on non-human species that are very social in their organisation have helped scientists understand the purpose of level one markers at the human level. Directly linked to this kind of markers, though specifically not classified as such, would be the

2. Theoretical background

research carried out by Lander et al. (2007, p. 905) concerning the importance of bimodal cues (facial movements and vocal cues) as “a dynamic identity feature”. After doing face-to-voice and voice-to-face matching experiments they come to the conclusion that (2007, p. 906): “Identity matching is not directly tied to linguistic content. Instead, it appears that individual variations in nonverbal aspects of speech are sufficient to specify identity.”

Level two markers are much more complex and characteristic of human communication (as opposed to animal communication). They are the speech markers that help speakers communicate (Giles et al., 1979, p. 344): “attitudes, beliefs, values and intentions about their own social states as well as processing the emotional significance of the social states of others.”

Over level two markers we do have some control, since we can often choose to communicate or not to communicate openly feelings and attitudes about belonging to social categories or about others belonging to social categories. It is this emotional evaluation of social categories that differentiates level two markers from level one markers. Giles et al. (1979, p. 352) speak about two main functions accomplished by level two markers: “cognitive organization and identity maintenance”.

As will be explained in 2.4., categorizing is a vital human need to process the external stimuli we receive every day via perception, and this need appears then secondarily in our interactions with the social environment. Gibson (1986) explains how living organisms exist and have evolved in a rich sea of information. Our perceptual systems have thus been tailored to process the available information constantly in a most effective and ecological way. More about this approach will be explained in 2.4.2.

In this process, as we will see later on, we reduce the infinite input into finite units of information and cannot help thus discarding and losing information in this simplification process. With the cognitive organizational function in mind (consciously or unconsciously) we are cooperative in conversation and we also take the communicational and emotional needs of the listener and structure our message accordingly, which explains how accommodation phenomena take place (when we adopt speech markers that we believe are similar to those used by the listener). Wilson and Wharton’s approach (2006), based on Sperber and Wilson’s Relevance Theory (1986) explained later on in 2.4.4., echoes this cognitive organizational function of speech markers.

As for the identity maintenance function of speech markers, this idea is based on the interactionist tradition mentioned in 2.1.2., which recognized that the concept of the self arises from other’s reactions to it, i.e., it is only because we see how people react to us that

2. Theoretical background

our sense of identity is born, that is, individual arises from the social process. Therefore speech markers are a useful tool we can constantly use to present our “self” in discourse. Furthermore, as explained by Giles et al. (1979, p. 357), level two speech markers are also involved in our motivation to present ourselves in a positive way to others. Speakers will thus choose speech markers that they believe will favour them and if successful, listeners will interpret these speech markers positively. Many examples for this use of speech markers can be found in studies on politeness, which will be explained in more detail in 2.3.2. In both the cognitive organization function and the identity maintenance function of speech markers we find that the role of the listener, or the decoder should not be underestimated, because unless we are talking to ourselves in a monologue, we are always addressing ourselves to one or more individuals and it is the listener who decides if what we say is communicative or not, if they interpret the image we give of ourselves with a particular identity or not.²⁰ The following figure sums this up:

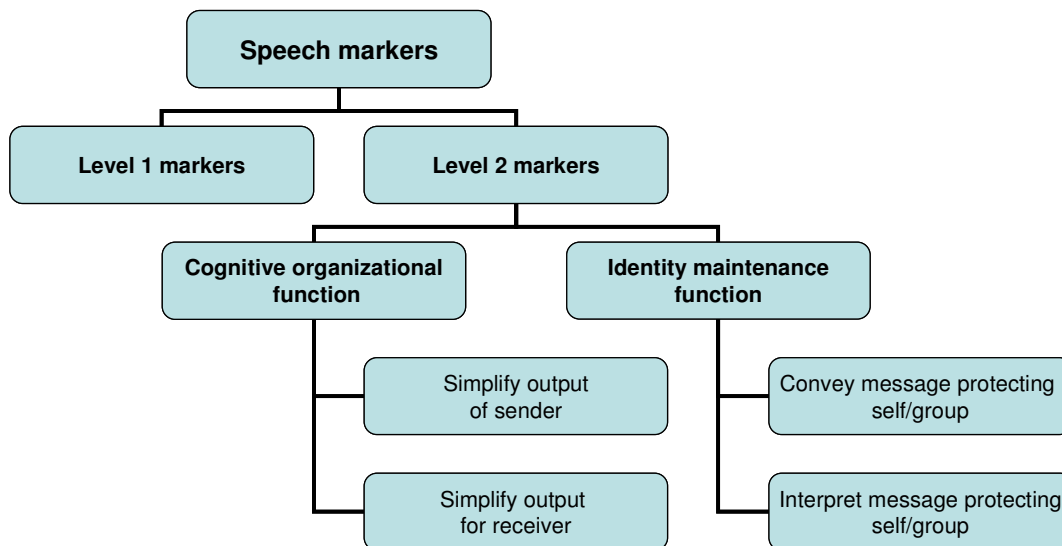


Figure 3: Level 1 and level 2 markers

Giles et al. (1979) also talk about three semantic distinctions of marking at the linguistic level. However, these can also be applied to the paralinguistic level of prosody:

- The semantic distinction of the *discrete* vs. *continuous* dimension of meaning can be found in prosody. For example, nasality is a discrete speech marker because sounds are

²⁰ Schulze (c, p. 32): “Ob eine Äusserung kommunikativ ist, entscheidet nicht der Sprecher, sondern derjenige der diese Äusserung wahrnimmt.”

2. Theoretical background

either nasal or they are oral, whereas pitch, intensity or speech rate are continuous speech markers since we can talk about the various degrees in which they appear, by saying that a voice is more or less high, loud or fast.

- Regarding the nature of the relationship between speech markers and what they mark we can say there are either *invariant* speech markers when a specific speech marker always appears in association with a particular variable. They are then said to be either *universal* or *culturally specific*. The other tendency is when a speech marker appears only in a very specific situation or context, being thus a *conditional* or *probabilistic* speech marker.

- Regarding the covariation between a speech marker and its variable we can say a speech marker is *unique* when it is used to mark one single variable and we will say it is *equivocal* when a speech marker is used to mark several variables. Pitch, for example is a good example of an *equivocal* speech marker, since it can, amongst many possibilities, convey at the same time information on the age variable and on the sex variable. A more concrete example for this is given by Daly and Warren (2001, p. 94) referring to the use of a broad pitch range by females in New Zealand. It may serve to: “attract and maintain the interest of listeners, speakers may be signalling their gender identity, indicating their emotional involvement in conversation or showing their commitment to expressive and dynamic communication.”

- Regarding the kinds of factors that motivate the speech markers we can classify them in two groups: *intrinsic* (if they are inherited through evolution and biologically determined) and *extrinsic* (if they are psychologically and sociostructurally determined).²¹ However, what makes research on speech markers so difficult is the fact that these two factors operate simultaneously. As mentioned by Giles et al. (1979, pp. 364-365): “The interface of the biological and the social psychological is obviously very difficult to disentangle empirically, particularly as one mutually affects the other.”

Bearing in mind that in everyday communication we rarely find a speech marker used in isolation but rather several speech markers used in combination to convey information related to different variables, the most common markers are the *equivocal* speech markers. And if we look at the research carried out on correlations between speech markers and different variables we also find many more examples of *cultural specific* and even of *conditional* markers more than of *universal* markers. We can in general assume that

²¹ Scherer and Wallbott (1990) retake this idea by talking about “push” and “pull” factors for the expression of emotions, as will be explained in 2.3.3.

2. Theoretical background

those variables for which we have less control (such as physique, age or gender) will be reflected by level one speech markers and more precisely, by *voice quality* aspects and that those variables that are more context and situation dependant (such as attitudes and emotions) will be manifested in level two speech markers and more precisely, by *voice dynamics* aspects.

To sum up, we must consider that all these distinctions are useful, depending from which perspective we are approaching them and that more frequently than not, for a given language we find examples of all the previous distinctions, many of them used in combination with one another. Speech markers should therefore be regarded as dynamic and not stable, as flexible and not rigid, as “anchored to an underlying baseline but continually being modulated to meet changing circumstances” (Giles et al., 1979, p. 368).

It is perhaps this flexibility and complexity in the elements involved that makes it inevitable in any research in the field of prosody to encounter the following problems:

- the lack of one-to-one correlation between acoustics and perception of a given emotional expression (Cruttenden, 1997, p. 5).
- the lack of one-to-one correlation between a category and a unique tonal representation (Pakosz, 1983, p. 40).
- the lack of extensive phonetic setting studies due to highly complex sets of parameters which may interact to yield a particular *voice quality* (Foulkes, 2002).
- gauging the influence of verbal content on the intended emotive effect of certain vocal cues (Eckert and Laver, 1994, p. 151).
- the absence of “explicit criteria and an agreed semantic theory” (McGregor, in Arndt and Janney, 1987, p. 237).
- naïve conclusions based on the belief that vocal cues alone convey emotional meaning (Arndt and Janney, 1987, p. 237).

It is thus my belief that there is a need for a more solid and concrete description of the vocal cues that contribute to the construction of our identity in everyday conversation. There is a need for a more open approach that recognises what Gumperz (in Arndt and Janney, 1987, p. 239) states and was in fact already mentioned by Wittgenstein many years before²²: “there is no meaning without context”, that there is always an interrelation of verbal, prosodic and kinaesthetic elements when we communicate orally.

²² In Wittgenstein (1953, p. 109e): “One cannot guess how a word functions. One has to look at its use and learn from that.”

2.3. The interaction of voice and identity

“In spite of the fact that language acts as a socializing and uniformizing voice, it is at the same time the most potent single known factor for the growth of individuality.” (Sapir, 1985, p. 17)

Can we think outside language or without language? This is a question that has long been dealt with by philosophers, linguists, neurologists, etc. Some say no. This is for example the position of Maturana and Varela (1984, p. 32) when they explain that, as communicative social beings, we are located IN the language, we go through our lives in an imaginary dialogue with ourselves and that each reflection takes place within language. That’s why, as they point out, language is the starting point, the instrument of our perception and our problem.²³ But this position is too reductionistic since thinking does not equal speaking, or cognition does not equal language. Language is only an epiphenomenon of cognition, as was stated in the introduction.

Be it as it may, since my dissertation concentrates on the oral use of language (on voice) we should consider the origin and function of language on a larger scale, and the origin and function of oral communication on a smaller scale. It is often argued that language evolved primarily to transmit social information (Nass, 2005). As mentioned in the introduction, the oral use of language (versus its written use) is much more common as a form of communication and is historically older than language literacy. People are able to rapidly categorize voices they hear to detect personality, emotions or who is speaking, that is, the elements that are subsumed by the term “identity”. The information we gather from voices is then vital in everyday conversation to decide on the spur of the moment “whom to like, whom to trust and with whom to do business” (Nass, 2005)²⁴. So bearing in mind the points discussed in the previous chapter, we can assume that there must exist within our oral capacities, that is, in general, in our voice, the means to construct and reflect our identity. With a finite combination of vocal features such as pitch, rhythm, intensity, pitch range or speech rate we are able to encode an infinite number of relevant pieces of information.

This does not mean that voice alone should be the only possibility of constructing and defining ourselves in discourse, since in general voice does not occur in a vacuum but rather, in face to face interaction, being thus supported and enhanced by gestures, facial

²³ Idea also found in Wittgenstein’s *Tractatus-Logico-Philosophicus*, 5.6.: “Die Grenzen meiner Sprache bedeuten die Grenzen meiner Welt”.

²⁴ In <http://www.pbs.org/speak/ahead/technology/voiceinterface/#>

2. Theoretical background

expression and of course, the linguistic content of what is being said. But in this dissertation only the interactions of vocal cues and identity will be analyzed and discussed, not in an intent to ignore or underestimate the importance of the linguistic and kinesthetic levels of communication, but simply in an attempt to reduce –for experimental purposes– the incredibly high number of variables that occur simultaneously. The role of content and gestures in speaker identification is not disputed here, it will simply not be addressed.

As was previously explained, our identity is largely based on the cultural environment in which we develop and the experiences we have. Considering then the expression of our identity through language and more precisely, through its suprasegmental level we can expect that culture is going to play a role too at this stage. This is how, Schulze (1998, p. 402) mentions that the language of a person will be based on the interaction of the following experiential elements:

- the own dynamics of communicative development (language acquisition)
- the resulting idiosyncratic substrate
- the degree of the development of a linguistic “collectivity hypothesis”
- the degree of the resulting reduction of the idiosyncratic substrate
- the degree of adherence to a linguistic norm
- secondary group-specific idiosyncrasies and “autotypicalizations”²⁵

What this can mean for the actual use of voice is that it will be more or less original, more or less unique and individual depending on all the previously mentioned factors. Some aspects of our voice will typically reflect an adherence to a “collectivity hypothesis” or a linguistic norm and others will remain more idiosyncratic. This reminds us of Ladefoged’s (1967, p. 61) distinction between *phonetic quality* aspects (the features of speech that are part of the sociolinguistic system) and *personal quality* aspects (features that are partly innate, partly acquired and characteristic of the speaker). There is constantly an interplay of both elements to which we are so much used to, which is why “every speaker has learnt to separate personal quality from phonetic quality as a result of his constant experience of the sociolinguistic system” (Ladefoged, 1967, p. 59). In Spain, the VILE project (Estudio acústico de la variación inter e intralocutor en español) has also been researching on these two aspects that influence phonetic variability: inter and intraspeaker phonetic variation arising in speaker identification. Marrero et al. (2003) and Battaner et al. (2004) focus on the common parameters of speaker identification such as F0, intensity, vocal

²⁵ This is a translation from the original german version in Schulze (1998, vol.2, p.402).

2. Theoretical background

formants and nasal energy distribution to study the role they play and even carry out some perceptual experiments.

Until now linguists, psychologists, phoneticians, neurologists, etc. have carried out research on many correlations between voice and identity. Some of their main findings will be summarized first in Table 2 and then explained in 2.3.1., 2.3.2. and 2.3.3. in order to provide an overview before describing the objectives and hypothesis in this dissertation. The following table retakes Laver and Trudgill's (1979, p. 3) distinction of physical, social and psychological markers as the three kinds of speech markers conveying information about our identity (presented earlier).

2. Theoretical background

Identity		Voice correlation research
Physical markers	Size and Physique	Fay and Middleton (1940)
	Sex and Age	Kaplan (1960), Luchsinger and Arnold (1965), Daly and Warren (2001), Muñoz et al. (2001), Podesva (2002), Harrington (2007)
	Health state	Luchsinger & Arnold (1965), Laver (1991)
Social markers	Regional origin	Laver (1980), Trudgill (1978)
	Social class/group	Labov (1966) Trudgill (1974), Laver (1991), Van Leeuwen (1999), Mendoza-Denton and Jannedy (1998)
	Profession	Pear (1931)
	Power: dominance/submission	Bolinger (1989), Van Leeuwen (1999), Tusing and Dillard (2000), Ward and Masafumi (2003)
	Politeness	Brown and Levinson (1987), Laplante and Lambady (2003), Wilson and Wharton (2006)
Psychological markers	Personality	Scherer, K.R. (1979), Allport and Cantril (1934), Kramer (1963), Aronovitch (1976), Eckert and Laver (1994)
	Attitudes	Cruttenden (1997), Arndt and Janney (1987) Fährmann (1960)
	Emotions	Darwin (1965), Scherer (2000), Kienast (2002), Breitenstein, Van Lancker and Daum (2001), Pakosz (1983), Arndt and Janney (1987), Janney (1996), Truong and Van Leeuwen(2007)

Table 2: Correlations between identity and voice

2. Theoretical background

2.3.1. Physical markers

As Laver (1991) explains, out of the three types of information that vocal features can carry about our identity, it is the physical information that is the most easily recognised and correctly guessed through voice and also the one that has the clearest vocal correlations because these can be easily measured. Within this type of indexical information, size and physique clearly play a role in the size of the larynx and the vocal tract, which in turn have a direct effect on the voice frequency, the acoustic correlate for pitch. Fay and Middleton (1940) found correlations between deep and loud voices and large male bodies. So, up to some point, the voice seems to indicate approximate size of the speaker. However, any other physical detail, such as the attractiveness of the speaker or the eye colour does not have clear vocal correlates and guesses in this direction are quite frequently wrong (see Zuta, 2007 or Collins, 2000)²⁶. At the same time pitch is also the most obvious indicator for sex and age: adult males speak in general within a frequency of between 50 and 200Hz, adult females between 150 and 300 Hz and children up to 400Hz. Moreover, there is recent research from Daly and Warren (2001, p. 94) that claims that it is a combination of pitch range and pitch dynamism that distinguishes female from male voices, with women using a greater pitch range and more dynamic speech. In Spain, Muñoz et al. (2001) carried out a similar study by using a multidimensional voice program (MDVP).

Luchsinger and Arnold (1965) carried out research to explain how voice is altered through time and how extreme old age has specific vocal characteristics, such as harshness, creakiness and deficient harmonics. Kaplan (1960, cited in Laver, 1980) also carried out research on glottal tract measurements and correlated it with sex. What is interesting is that not only sex, but also sexual orientation, such as gayness seems to have vocal correlates, according to the work of Podesva (2002) where he claims that gayness is quite frequently transmitted by falsetto and creaky voices. Concerning a person's state of health, a lot is transmitted by voice. Everybody has had the experience of hearing a very denasal, congested voice on the phone and immediately realizing that the person has a cold. Or hearing a very husky, creaky voice it is often assumed that the person is tired and was drinking and/or smoking too much the previous night. These are

²⁶ Zuta (2007) showed through a voice perception test that attractiveness is not correctly guessed with vocal cues alone and Collins (2000) states that although women are able to reliably guess men's weight from voice, age, height or hairiness of chest are not.

2. Theoretical background

just very simple examples that prove to a certain point, that some illnesses or transient states can be detected through voice. Luchsinger and Arnold (1965) investigated the effects certain pathologies and laryngeal paralysis can have on the voice.

2.3.2. Social markers

The social information that may be transmitted by voice became of special interest in the 60's and 70's with the rise of sociolinguistic research. Phoneticians such as Labov in the USA and Laver and Trudgill in England, carried out different research projects that helped to distinguish on the one hand, clear correlations between regional origin and specific accents or concrete phonemic realizations, such as the rhotic /r/ as one of the indicators of American English, and on the other hand, they supported the idea that a lot of information about social classes and speakers' aspirations to belong to a specific one (generally the upper class) had a direct influence on specific vocal features that were adopted consciously, for example amongst females as an indicator of prestige of a higher social class (Labov, 1966). Belonging to a specific group may also bring with it the acquisition of certain vocal features and some research proves that certain gangs may signal their belonging to a group this way, such as Latina gang girls, by using a creaky voice (Mendoza-Denton & Jannedy, 1998; Mendoza-Denton, 2008).

Another point mentioned in Table 2 is politeness. Some may argue that politeness belongs more to the psychological information that is transmitted by our voice, being either part of our personality (as a more or less permanent trait) or being an attitude (temporal context and mood-depending). However, politeness exists first and foremost in society; it is a social practice that would not exist outside a particular community since there would be no need for it. We can thus say it derives from the necessity of living in society and has been classified previously within the social information.

We can roughly understand the concept of politeness²⁷ as a cultural application of good manners to make the listener feel comfortable in a given context. One of the key aspects of politeness is that what is felt to be polite or not is always contextually defined. However there are certain aspects of what politeness implies that are said to be more universal, as explained in Brown and Levinson's theory of politeness (1987). They base

²⁷ In Watts et al. (2005, p. 3) we find a distinction between *first-order politeness* and *second-order politeness*. The former is referred to as "commonsense notions of politeness" and the latter as a technical term "within a theory of social behaviour and language usage". Whenever I use the term *politeness* in this dissertation without specifying the type, I will be referring to the first-order politeness, also known as politeness 1.

2. Theoretical background

their classification of two kinds of politeness according to the concept of *face*, which is based on Goffman's concept of *face* (1955) and the English folk term that relates *face* (from the expression *losing face*) with the idea of being embarrassed or humiliated. Brown and Levinson (1987) say that everybody cooperates to maintain *face* in daily interactions. Although the concept of face is differently defined in each culture, the need to preserve it is said to be universal. The authors (1987, p. 62) claim there are two kinds of faces:

- Negative face: “the want of every competent adult member that his actions be unimpeded by others.”
- Positive face: “the want of every member that his wants be desirable to at least some others.”

A combination of these two needs or wants we all have and the way we respond to the addressee's own needs marks in a way our personality, as Brown and Levinson also state (1987, p. 62):

The most salient aspect of a person's personality in interaction is what that personality requires of other interactants- in particular, it includes the desire to be ratified, understood, approved of, liked or admired.

Anything said in discourse that runs contrary to the face wants of the addressee will be considered by Brown and Levinson as a *Face Threatening Act* (FTA) that is done directly (“on record”) or indirectly (“off record”). In order to minimize the impact of the threat towards the addressee we have the option of carrying out “a redressive action” (“action that attempts to counteract the potential face damage of the FTA either by using positive or negative politeness, depending on the case.

The two kinds of face are thus reflected by the two kinds of politeness just mentioned:

- Positive politeness: “redress *directed* to the addressee's positive face” 1987, p. 101). It respects a person's need to be liked and understood.
- Negative politeness: “redressive action addressed to the addressee's negative face” (1987, p. 129). This is the most common aspect of politeness for Anglo-Saxon cultures.

Both kinds of politeness are a very important aspect of communication and are thus found in daily conversations, not only at the linguistic level, (especially at the lexical level) but also at the paralinguistic level, in prosody. How polite or impolite we present ourselves in speech will often depend on the use we make of our voice and

2. Theoretical background

because politeness is an important aspect of our identity it will be considered in its prosodic dimension briefly in the theoretical part of my dissertation. We find examples of politeness or impoliteness²⁸ in speech in both *voice quality* features and *voice dynamics* features. An example for the former is mentioned by Brown and Levinson (1987, p. 267): “Tzeltal-speakers use creaky voice to express commiseration and complaint”. These authors even explain how the choice of creakiness is a rational choice based on the fact that creaky voice is a natural source of low speech energy and can thus be easily associated (by what Leeuwen calls “experiential meaning potential” or by iconicity) to indicate calmness and assurance, comfort and commiseration. It is therefore typical of positive politeness. As for prosodic examples of politeness from *voice dynamics* features we find an obvious case in pitch: if high pitch is a index (see 2.3.1.) of age, that is, of childhood, then an adult that chooses to address another adult with a higher pitch than average is implying deference or negative politeness by iconicity with the situation when a child speaks to an adult. Another key prosodic transmitter of politeness is intonation, which can be directly linked with the concept of markedness (explained in 2.4.3.). An example of the role intonation plays in positive or negative politeness strategies is mentioned by Holmes (1995, p. 9): “An appropriate intonation can reduce the apparent peremptoriness of a criticism, or convey commitment to a compliment.”

If we consider briefly the different functions of intonation discussed in this chapter, we see that one of the uses of the rising intonation and the fall-rise intonation is for negative politeness. This is not surprising when we think of the association made between the tone typically used for questions and the feeling conveyed by it, that is, uncertainty or inconclusiveness. Such a feeling is thus by extension the one we consciously or unconsciously try to convey when we want to maintain our negative face and when we are performing a FTA: in the cases when we need to obtain something from somebody then it will be done either with the rising tone typical from questions or with a falling-rising intonation that indicates willingness to compromise. This is why it is easy to find examples of this in hedges²⁹, as described by Holmes (1995, p. 74). In hedges we can say that either rising or rise-fall intonation will be the unmarked choice in intonation because we normally expect that an FTA will be accompanied by a redressive

²⁸ Culpeper (2005, p. 38) says *impoliteness* occurs when: “(1) When the speaker communicates face-attack intentionally, or (2) when the hearer perceives and/or constructs behaviour as intentionally face-attacking, or a combination of (1) and (2).”

²⁹ Holmes (1995, p. 74): Hedges are “devices which are aimed at reducing the imposition experienced by the person that the directive is addressed to.”

2. Theoretical background

action. If however, we opt for the marked choice for this context, that is, to use a falling tone (associated with assertiveness, conclusiveness and certainty), then it will sound more as an order or statement and may be interpreted as impolite because no redressive action has been undertaken. However, we cannot generalize this example in order to claim that any question we ask without rising intonation will be impolite because we must not forget that the level of politeness is determined by the context in which an FTA happens. Vice-versa, not every statement using a rising intonation implies a politeness strategy: as Holmes comments rising intonation when applied to statements does not always imply uncertainty or deference, as happens with the HRT (high rising terminal). As Holmes (1995, p. 102) explains:

The functions of the HRT are similar to those of pragmatic particles like *you know* and tags such as *eh*. Despite its superficial similarity to interrogative intonation, the HRT does not function to mark an utterance as a straightforward question. Rather it serves interpersonal politeness functions.

Brown and Levinson are more precise and speak of three sociological factors that may have an impact on the level of politeness required (1987, p. 15):

- The relative power of the hearer over the speaker (P)
- The social distance between the speaker and the hearer (D)
- The ranking of the imposition involved in doing the FTA (R)

If for example we apply this to the intonation used by a mother that wants her son or daughter to help her at home with a task, she will not need to carry out a redressive action, he/she will simply give an order (falling intonation used) and this will not be interpreted as impolite precisely because in this case the hearer has no power over the speaker (no P) and what the speaker wants in this case is not even interpreted as an imposition on the hearer but rather as a normal action to be done to help at home (no R).³⁰

As a conclusion to this brief overview of the theory of politeness applied to voice, we can say that we are not judged to be polite or impolite by our failure to carry out positive or negative politeness every time we do FTAs but rather when we fail to do so

³⁰ A much more detailed description of how variables P, D, R may interact in discourse can be found in Brown and Levinson (1987, pp. 74-84)

2. Theoretical background

when the context requires it.³¹ The way we decide or not to encode politeness through prosody (amongst other possible means) will reflect one aspect of our personality for which we are judged when we speak.

In order to test the role prosody (non-verbal level of language) plays in the successful transmission of politeness in comparison with the content level of language, an interesting experiment was carried out by Laplante and Ambaby (2003). They manipulated intensity and tone for both positive and negative content in a given speech and made people judge the level of politeness. Sometimes tone and intensity were in contradiction with the content (positive tone for negative content, for example) and sometimes not (positive tone for positive content, for example). On the one hand, they found out that for questions with both positive and negative content and for statements with positive content (and not statements for negative content) the tone of voice had a direct impact on the perception of politeness for both positive and negative content, and on the other hand they found out that intensity had predictable important effects on the perceived politeness of verbal statements. If we apply this to the relevance theory of Wilson and Wharton (2006) explained later on, we can say that the use of prosody to encode negative politeness as a redressive action of an FTA will be relevant as long as it does not contradict the content level of language. When prosody contradicts content it is not felt to be reliable any more and hearers automatically seek other cues to come to a conclusion, for example, gestures.

Van Leeuwen (1999, p. 27) explains how there is a clear correlation between the sound of the voice (its intensity) and social distance, which could be summarized with this schema:

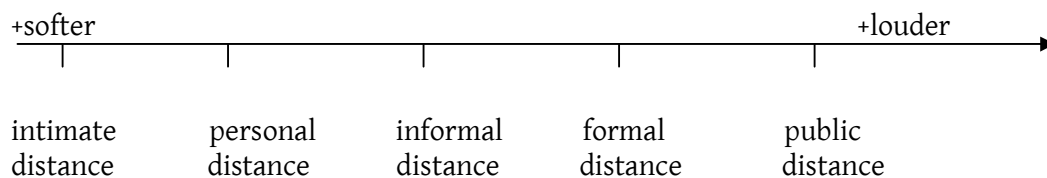


Figure 4: Intensity and social distance according to Van Leeuwen

³¹ This point is also mentioned by Watts (2003) with the notion of “politic behavior” in his criticism of Brown and Levinson’s theory. He defines it (2003, p. 20) as “that behaviour, linguistic or non-linguistic, which the participants construct as being appropriate to the ongoing social interaction.”

2. Theoretical background

This schema seems to show that the louder the voice is, the more territory it seems to claim, the more power the speaker has over the hearer.

According to him, there would be not only a correlation with intensity but also with frequency: “As distance grows, the voice not only becomes louder but also higher and sharper.” (1999, p. 24). Tusing and Dillard (2000, p. 162) come to similar conclusions in their research about voices transmitting dominance. They claim that the mean amplitude, that is, mean intensity and its standard deviation, together with mean F0 (but only for male speakers) are positively associated with dominance judgements.

In the same work already mentioned, Van Leuwen (1999) also deals with the expression of emotions and attitudes through different vocal strategies, but this will be dealt with later. The key idea, with respect to my project, is what he calls *provenance* (1999, pp. 111-112), that is: “our ideas about and attitudes towards the era, culture, social group or social context with which we associate a certain way of using pitch movement, range level and melodic articulation.”

Provenance seems thus to be a key factor moulding the use we make of our voice, for example “rough voices” are understood as a signal of belonging to an urban area (1999, p. 132), because our experience makes us associate what is rough with what comes from big urban agglomerations (at least this is the case for American culture), we extend the association “metaphorically to grasp similar extensions made by others”. This would be what Van Leeuwen (1999, p. 140) calls *experiential meaning potential*, which is an important part of people’s linguistic competence, which helps them “use sound for making meanings, in everyday conversation, in jokes, in advertising, in newspaper headlines...”. He also defines the concept of *experiential meaning potential* as the “idea that our experience of what we physically have to do to produce a particular sound creates a meaning potential for that sound”.

Nevertheless, if we have a look at the research carried out to find direct correlations between professions and certain vocal features, the results have not been so convincing. Pear (1931) did a study based on voices heard on the radio and came to the conclusion that certain professions such as the clerical one (preachers) were very easily recognised by the candidates that took part in his experiment. However, the answers given for other professions were not homogeneous. One is thus tempted to conclude that a profession is not necessarily accompanied by specific vocal strategies, or not consistently enough to help people come to a correct guess.

2. Theoretical background

As for the vocal signalization of power many researchers have handled different aspects of this topic. Just to mention a couple of them Van Leeuwen (1999) states that frequency, intensity and nasality can be used in isolation or interrelatedly to convey either dominance or submission. According to him (1999, p. 134) men having a tendency to possess deeper voices, use a higher pitch to signal dominance (see also Puts, Gaulin and Verdolini, 2006), whereas women, generally having higher voices, do the opposite, that is, they choose a lower pitch to be assertive. This would match well with the concept of *saliency*, whereby every speaker would choose the salient use of a vocal feature (here either high or deep pitch) to mark dominance on specific occasions. In the use we make of intonation, that is the variation in pitch, Bolinger (1989) reminds us of Ohala's (1983, p. 15) idea of the *universal frequency code*. He claimed that in general high pitch depicts smallness, and thus, by association, supplication and diminution, whereas deeper tones convey dominance and confidence.³² Nasality, implying vocal tension (the soft palate lowered so that the air and therefore the sound comes through the nose) would also be, in a way, according to our *experiential meaning potential*, associated with inhibition or repression, and metaphorically then to a certain degree with submission. However this may all be culture-dependant and overgeneralizations must be avoided. Ward and Okamoto (2003) for example, simply found that nasality in the Japanese culture is used to cover old ground in a conversation.

When dealing with social aspects of language there is a useful distinction originally coined by the anthropologist Pike (1967, p. 37) to consider: derived from the terms *phonemic* and *phonetic* the neologisms *emic* and *etic* were created in order to describe two different perspectives involved in the study of a society's culture.³³ Firstly, the *etic* perspective refers to the approach that bases itself on objective external features of a culture that have a meaning for experts in the field (for example phonetic features of a language meaningful to linguists only). Secondly, an *emic* perspective refers to the approach that concentrates on the socially meaningful features of a group, that is, an internal view where only members belonging to a social group will judge the validity of

³² Original definition of the "universal frequency code" from Bolinger (1983, p. 15): "a cross-species sound/meaning correlation whereby vocalisation consisting of high frequencies signal the vocaliser's apparent smallness and, by extension, his non-threatening, submissive or subordinate attitude and by which low frequencies signal apparent largeness and thus threat, dominance, self-confidence."

³³ Original quote from Pike (1967, p. 37): "The etic viewpoint studies behaviour as from outside of a particular system, and as an essential initial approach to an alien system. The emic viewpoint results from studying behaviour as from inside the system."

2. Theoretical background

the features considered. Applied to speech markers, Robinson (1979, pp. 215-216) offers his own definition:

Etic will be used here to refer to those features of speech or writing that are available at any moment of time for better than chance identification of socioeconomic status membership...Emic features are those which serve for discriminatory behaviour, either unconscious or conscious.

With this definition in mind we thus understand that any etic feature can potentially become an emic feature in a given society, that is, a present etic feature is a future emic one. Because I shall be concentrating on voice perception from the perspective of normal speakers who are not phoneticians in order to find out correlations between identity aspects and voice aspects I will be adopting the emic approach much more frequently than the etic approach. We can say that the phonetic analysis of voices recorded using measureable criteria such as frequency or intensity is an etic approach, but the interpretation on voice perception will follow an emic perspective.

2.3.3. Psychological markers

Moving on to the psychological information carried by voice, the field of possible directions for research is enormous, since it covers personality, attitudes and emotions, and literature about this is endless. Therefore only some significant works will be singled out and briefly explained here.

Allport and Cantril (1934, p. 50) were two of the first experts in the field of empirical research on voice and personality who came to interesting conclusions: on the one hand, that many features of personality can be determined from voice, and on the other hand, that stereotypes play an important role in making judgements about the personality of the speaker. As they mention: “for the various features of personality there is associated in the minds of judges some preconception of the type of voice to which these features correspond.”

What is also interesting is the fact, that a voice can subsume several features of personality at the same time. For example, a very high, creaky, female voice, can at the

2. Theoretical background

same time transmit submission but also insecurity. They also mention the idea that the heterogeneity of the voices chosen in their experiment contributes to the success rate, which is something that was considered then in the experimental part of my work, in the search for heterogeneous voices for the perception test.

The idea of existing voice stereotypes was later retaken by Kramer (1963) and by Aronovitch (1976). Kramer (1963) defined the concept of *voice stereotypy* “as voices that convey a stereotype of some personality trait without the stereotype necessarily having any validity”. Some years later, Aronovitch (1976, p. 208) confirmed Kramer’s claim when he came to the conclusion through his experiment that “raters consistently judge certain voices as reflecting various personality characteristics, regardless of whether or not the person whose voice is rated possesses these characteristics” and this is a key idea that I will also try to pursue in my project. Aronovitch (1976, p. 214) also came to the conclusion that “voice stereotypes” are based, at least in part, on distinctive, measurable properties of the human voice”, which is again something that I will try to prove. Based on the fact that Aronovitch (1976, p. 216) concluded that “male and female raters tended to judge male and female voices essentially alike”, when it comes to the use of a perception test, I will include both male and female raters, as will be explained further on.

Later on in the 90’s Eckert and Laver also carried out research in the direction of voice stereotypy and claimed for example (1994, p. 7): “Somebody whose voice is perceived as being weak and monotone, won’t have an extroverted personality”³⁴. This remind us of the idea of a *self-fulfilling prophecy*, which will be retaken later in the analysis chapter and the discussion.

Eckert and Laver also mention the relevance of the folk etymology of the word “personality” itself, from Latin, “per” meaning “through” or “by means of” and “sonare” meaning “to sound. It referred to the mouth opening found in the masks worn by actors in the ancient Roman Empire. If we bear in mind this etymology, then it is not surprising that voice is considered as a powerful transmitter of personality. They also claim that our voice judgements are often based on clichés (1994, p. 154). An idea that will also be retaken from them for my project is one evoked by a cultural example: the fact that American men speak on average with a deeper pitch than Germans can lead them to come to false conclusions. This would be an example of how our *provenance* moulds the perception we have of voices around us and can be misleading in some cases. Eckert and

³⁴ Original quote: “Jemand dessen Stimme man als kraftlos und monoton empfindet, wird keine extrovertierte Persönlichkeit haben.”

2. Theoretical background

Laver (1994) distinguish positive judgements of voice from negative ones and correlate them with specific vocal features. The following table summarizes their claims:

Positive judgements	Negative judgements
Average pitch perceived as pleasant and natural	Pitches differing too much from the average are perceived as unpleasant and artificial
Clear intonation perceived as a trait of competence and self-confidence	Lack of intonation/monotone voice, perceived as boring, introverted, passive, characterless
Strong but not too loud perceived as transmitting vitality, dominance, and extroversion	Too loud or too quiet will be perceived as unpleasant. Quiet voices are associated with introversion.
	Very rough voices perceived with discomfort.
	Extreme nasality or denasal voices are associated in Germany with arrogance.

Table 3: Voice judgements

From the different judgements of what is positive in voice in the previous table we find an echo of what is said in certain biological Darwinian interpretations for what is beautiful or attractive. Grammer et al. (2003, p. 402) state that: “the basic features of human beauty in faces and bodies are symmetry, averageness and sex-hormone markers.” If we apply this to voice it is not surprising to find that voice features that are used in an average way at different levels (intensity, frequency, speech rate...) will be positively perceived and vice-versa, the more a voice escapes the average to approach extremes the more negatively it will be perceived.³⁵

Concerning attitudes that can be expressed by voice, I will mention three interesting references in chronological order: Fährmann (1960) explained that deeper and louder voices express assertive attitudes versus higher and quiet voices, expressing submission. This echoes what was said concerning the social information. An interesting

³⁵ A similar idea is expressed by Zuta (2008, p. 45) and will be explained in chapter 6.

2. Theoretical background

idea that will appear in my project has to do with synesthetic associations³⁶ in the voice: higher tones are also somewhat paradoxically associated with lighter and “colourful” voices, as opposed to deeper tones that convey an idea of “dullness” or “emptiness”. An explanation for this will be given in the empirical part of this dissertation. Fährmann also states that warm, soft, harmonic voices convey security and empathy, whereas cold, hard, shrill voices will be often judged as insecure and unfriendly.

Arndt and Janney (1987) mention the attitudinal function as being one of the five possible functions of prosody (1987, p. 234). Here “attitude” will be defined as a cognitive-affective reaction of like or dislike towards an item/person/situation. Attitudes can change according to context and experience and can even be learnt. For example, an insecure person can receive advice and therapy so as to become a confident public speaker, as can be found in many self-learning books (Lucas, 2004). That is, an attitude of insecurity can change to an attitude of self-confidence by working on one’s self-esteem. Attitudes being in part affective, as we just mentioned, they can be better approached with the attitudinal dimensions of affect: for some authors there would be only two dimensions: valence and activity, for others even a third added dimension to the previous two, that of potency (Kienast, 2002, p. 12). What is sure is that an attitude implies not only either a positive or a negative judgement but also a degree of activity, ranging from “active” to “passive”. Arndt and Janney (1987, p. 239) make an interesting point about two dimensions that have to be taken into account when doing attitudinal research, in this case of vocal features:

- the *personal-interpersonal* dimension, that is, the fact that cues are either interpreted as unintentional (emotional) or intentional (emotive).
- the *positive-negative* dimension (our interpretation of vocal cues depend on our attitude toward the speaker).

Another suggestion they make is that of adopting a holistic approach in the research of attitudes and affect in voice. As already mentioned, vocal cues never occur in isolation, not only are they generally accompanied by linguistic content but also by gestures. Moreover, as we will see when vocal cues are used to transmit different attitudes, emotions and personality aspects they seldom appear in isolation: “prosodic activities are not reduced to their basic constituents but treated like word-like totalities;

³⁶ Synesthesia will be understood as the phenomenon by which associations are made between sensations of one experiential mode and sensations of another experiential mode. A classic study on color-music synesthesia was carried out by Karwoski and Odbert (1938).

2. Theoretical background

prosody cannot be fully accounted for along individual dimensions such as pitch or stress” (1987, p. 251). Of special interest for my project are their remarks about the usefulness of pitch prominence as a communicative gesture that implies either presence or absence of both emotions and self-assertiveness. In general pitch contours have the following interpretations (1987, p. 251):

a) The fall:

- assertive
- conclusive
- certainty
- completeness
- dogmatic

b) The rise:

- uncertainty
- inconclusive
- politeness
- joy

c) The fall-rise:

- doubt
- reservations
- willingness to compromise
- non-assertiveness

These would be the expected associations we have of the pitch contours in our experience. However, as Arndt and Janney (1987, p. 257) correctly point out, we must not stick strictly to these associations to make generalisations about attitudes implied by certain vocal features but rather consider, in the case of pitch contours, if they are marked in their use or not. For example, a question asked with a rising pitch is what is generally expected, and thus does not transmit any extra information. However, questions asked with a slight falling tone, would be salient or marked, and would help us hearers extract extra information from the speaker, such as assertiveness or emphasis or a certain “matter-of-fact attitude”. The key idea to be retaken is that “unexpected intonations are attitudinally motivated” (1987, p. 273). Moreover, Arndt and Janney (1987, pp. 139-140) give two alternatives of interpreting *voice quality* and *voice dynamics* features, we can either believe they are *intentional* (whereby we are interpreting the

2. Theoretical background

speaker's attitudes or intentions) or *unintentional* (whereby we simply interpret the speaker's internal emotional-cognitive state).

For Cruttenden (1997, p. 91) in general, falls in pitch imply a sense of definitiveness, completeness (which echoes what was previously said) and is thus most often used with declarative sentences. But he makes a distinction between *low falls* and *high falls*, that is, the "potency" of the fall, if we were to take the attitudinal dimension mentioned before. For this author a *low fall* implies lack of interest, of excitement and passivity and *high fall* more interest, and emotional involvement. The tonal universals would be the ones already mentioned: falling tones for statements, commands or neutral questions and rising tones for "sympathetic question requests".

A cognitive interpretation of this universal trend in pitch variation (rise for questions, fall for statements) can be found in Schulze (2007, pp. 247-260). He claims that if we leave linguistic interpretations of interrogativity aside and consider it from the cognitive perspective, and more concretely from the perspective of Radical Experientialism, we can view questions as a "memory mismatch that may occur when processing outer world stimuli". According to him, variation in pitch is the expression of different degrees of certainty whereby <UP> and <OPEN> (as embodied concepts) are related to uncertainty. This explains why a rising pitch (sometimes appearing with gestures such as arms, shoulders or eyebrows raised) is the iconic representation of a "bodily upness", of a moment of uncertainty (as a reaction of memory mismatch).

As for the research carried out to prove correlations between specific emotions and vocal cues, the list is practically never-ending and I will simply mention some of the findings that will be of use in my own project.

Darwin was one of the first scientists to study the expression of emotions, both in men and in animals and to consider it from the evolutionary perspective in his work of 1872 (later reedited in 1965). However most of the attention there is devoted to typical human and animal gestures and physical reactions such as reflexes or patterns of behaviour and nothing much is said explicitly about vocal features except the mentioning of cries or shrieks as universal signs for pain and grief. Nevertheless, what is interesting for us is the applicability of the "three general principles in the expression of emotion" (1965, p. 347) to the study of vocal features:

2. Theoretical background

1) *The principle of serviceable associated habits:*

Movements that are serviceable in gratifying some desire or in relieving some sensation, if often repeated, become so habitual that they are performed, whether or not of any service, whenever the same desire or sensation is felt, even in a very weak degree.

This, in the use of voice could be seen for example in the habitualized rising of intensity (loudness) for anger and joy expressions.

2) *The principle of antithesis:*

If certain actions have been regularly performed in accordance with our first principle, under a certain frame of mind, there will be a strong and involuntary tendency to the performance of directly opposite actions, whether or not these are of any use, under the excitement of an opposite frame of mind.

For voice this could mean, for example that if joy or happiness are manifested by a higher intensity in voice, a state of sadness would in opposition be manifested by a low intensity.

3) *The principle of actions due to the constitution of the nervous system, independently of the will and independently of habit.*

Perhaps an example of the third principle in voice would be the fact that when feeling fright or fear the tempo of the speaker becomes faster (Breitenstein, Van Lancker and Daum, 2001, p. 19), just as the heart beats and breathing increases, which were initially a defence strategy of our bodies when being faced to danger to prepare the body for a fast reaction. Moreover, if we bear in mind that both prosody and emotions are processed in the right hemisphere of the brain (as opposed to linguistic content, which is processed in the left side of the brain), this could be an index supporting the idea that the nervous system in the brain is responsible (independently of will) for certain emotive expressions.

2. Theoretical background

Leaving evolutionary information about emotional expression behind, we nowadays find examples from recent research carried out which prove that correlations between emotions and vocal cues exist. Just to mention one example, Schröder et al. (2001, p. 88) show that “nearly all acoustic variables show substantial correlations with emotion dimensions.” More about different vocal correlates of emotions will follow in this chapter.

Pakosz (1983) carried out an interesting study of what he called *emotive intonation*, where he classified adjectives that describe emotions in voice and managed to reduce them to nine different groups, by classifying them according to their semantic field in a hierarchical relation of hyperonyms and hyponyms. Out of all his findings what should be highlighted are two of his conclusions: on the one hand, the fact that “the meanings of tones are expressed in discrete categories” (1983, pp. 19-20) and on the other hand the fact that “few categories (of emotions) have a unique tonal representation and few contours correspond uniquely to given categories”. This again matches what was previously said about the expression of attitudes, that in most cases there is no one to one correlation of one single vocal feature with a specific emotion, but rather that the expression of affect (as well as of our personality and attitudes in a given context) is carried out with simultaneous vocal strategies. Vocal markers are more *equivocal* than *unique*.

As for the factors that determine the expression of emotion, research was carried out by Scherer and Wallbott (1990, p. 354). They classify these factors into two groups: the so-called *push-factors* and the *pull-factors*. According to these authors, *push-factors* are those triggered by changes in the subsystem of the organism and have a direct influence on the mode and intensity of the motoric expression, they are highly individual and dependant on the organism and are said to be uncontrolled. If compared with Abercrombie’s distinction (1967) the *push-factors* can be said to be reflected in *voice quality* aspects. *Pull-factors* are external socio-normative demands such as the relevance principles that we try to respect in conversation, for example. They are socio-cultural factors that make us either inhibit the expression of an emotion or to feign another emotion. An example for this can be found in the use of a joyful tone for giving thanks when we receive a present, even if we do not like it. This is motivated by the will to be perceived as polite. The *pull-factors* are thus better represented by *voice dynamics* features since they are more controllable and are socially learnt.

2. Theoretical background

Janney (1996, p. 10) considers the expression of emotion of *affect* in speech as essentially being a “social, strategic feature of human interaction” that is constructed by our experience. He describes the different strategies existing in English for emotive communication, however, he points out that “emotive strategies are not only culture-bound but also, that, especially between members of widely distant cultures, they can be organized according to, and can reflect, vastly different notions of self and feelings per se” (1996, p. 21). This idea will also be taken up again in my contrastive approach to voice perception.

Scherer, T.M. (2000) carried out research on the relations between our voice, our emotions and our psyche. He considers four “measurable” vocal dimensions: duration, intensity, frequency and timbre. Regarding three of the emotions that also appear in my study, he notes that (2000, p. 129):

- Generally joy correlates with higher frequencies, amplitudes and variability in tone.
- Sadness correlates with lower frequencies, lower variability in tone, falling patterns of intonation and less articulation.
- Anger correlates with an overall high frequency and amplitude but decreasing frequency as speech progresses.

The logic or functionality of these observed tendencies in the measurable vocal dimensions matches the activity dimension of the emotions mentioned: the higher the activity rate of an emotion (joy, anger) the more intensively it is embodied then in vocal dimensions; the lower the activity rate (sadness), the weaker it is marked in vocal dimensions. This will be again explained in the experimental part.

The above mentioned vocal correlates of different basic emotions were already stated by Scherer, K.R. (1979, a, p. 513) together with some attitudes such as confidence or indifference and even attitudinal dimensions such as activation. The following table is an adaptation of his findings and mentions only the results of those emotions or attitudes that will be relevant for my perception test:

2. Theoretical background

Emotion	Pitch level	Pitch range	Pitch variability	Loudness	Tempo
Happiness/joy	high	?	large	loud	fast
Anger	high	wide	large	loud	fast
Sadness	low	narrow	small	soft	slow
Confidence	high	?	?	loud	fast
Activation/activity	high	wide	?	loud	fast

Table 4: Scherer's vocal correlates for emotional states and attitudes

Related to the terminology used in this table, I here include some quick definitions:

- Pitch level: it refers to the average measured frequency in an utterance
- Pitch range: the difference between the highest and lowest frequency.
- Pitch variability: the standard deviation of the measured frequencies in an utterance.

These findings make Scherer (1979, a, p. 515) conclude that:

The major dimensions of emotional experience may be differentially expressed by patterns of vocal cues and that discrete emotions are characterised by their position in this dimensional space.

What may strike us here (but is nevertheless explained by reasons of evolution) is that there is no difference between happiness and anger from the point of view of the vocal correlates mentioned (if we discard the fact that there is a wide pitch range recognised in angry speech and no conclusive answers regarding pitch range for happiness). This could then imply that anger and happiness may be confused more easily and harder to recognise than other feelings that have very different vocal correlates, such as sadness. This idea of certain emotions being more differentiated than others is explained by a more modern approach in Truong and Van Leeuwen (2007) using the concept of "mental map of emotions". Although their research is aimed more at automatic recognition of emotions by machines, the results they come to are very interesting in terms of which emotions are most likely to be confused or misinterpreted and will be compared with the results of my future perception test. By using multidimensional scaling they find that joy and anger are placed quite close together in

2. Theoretical background

their “mental map of emotions”, whereas sadness is quite far away, which could be a reason why sadness would be in general most easily perceived through cultures and why anger or joy could be confused by machines (but also by humans): “it seems to be difficult to discriminate between negative and positive emotions, while discrimination between active and passive emotions (activity scale) is relatively easy”. The saliency of the activity or activation dimension in research on vocal correlates of emotions is also stated by Schröder et al. (2001, p. 88):

The most numerous and strongest correlations were found for the activation dimension. Most acoustic variables correlate with activation, in the sense that expression of active emotion is accompanied by higher F0 mean and range, longer phrases, shorter pauses, larger and faster F0 rises and falls, increased intensity, and a flatter spectral slope.

A possible answer to how we actually manage to distinguish anger from joy is suggested by Cook (2002, p. 99) by introducing terminology from the music field. He mentions four universals in intonational phenomena perceived by everybody alike:

- Interval dissonance
- The movement away from dissonance or toward consonance/harmony
- Harmonic tension
- The movement away from tension (toward major or minor resolution)

According to this author it is the fourth universal that helps distinguish positive human emotions (joy, optimism) from negative ones (sadness, pessimism), which matches the popular conception that major harmonies transmit joy and minor harmonies transmit sadness or gloominess. This idea is at the same time based on an association of what is big/high with what is positive, as opposed to what is small/low with what is negative, as will be seen in point 2.4.4.

Breitenstein, Van Lancker and Daum (2001), in an attempt to study the perception of vocal emotions in German and American English, come to the interesting conclusion that it is “rate that is the most potent cue in emotion perception in voice” (2001, p. 18), whereby a fast tempo is typical of anger and fright and a slow tempo is generally related to sadness. They also found that “activity ratings increased with greater pitch variation of the stimuli”, which echoes the *activity* attitudinal dimension of active vs. passive, so

2. Theoretical background

frequently associated with high pitch variation vs. low pitch variation, or in other words, harmonic voices vs. monotone voices (terms used in my own voice classification). These findings will also be considered in my own study.

If we then have a look at Kienast's research (2002, p. 121-135) she mentions the following correlations:

- Anger is associated with a high speech rate and clearer vocalisation.
- Joy is associated with a slower speech rate and clearer vocalisation.
- Sadness implies a slower speech rate, more pauses, laxness and elisions.

And if we have a look at her tables of averages of measured laryngeal settings according to the different emotions (2002, p. 155) we find that:

- Anger and joy imply a certain level of raspiness in voice.
- Sadness is manifested more frequently with creaky, aspirated, breathy voices.

Regarding the average of accuracy in emotion perception, if we look only at the three mentioned emotions (the ones that I will take into account for my perception test), Kienast (2002, p. 63) comes to the conclusion that anger is better recognised than joy, and joy better than sadness, which contradicts Scherer's and Truong and Van Leeuwen's (2007) ideas.

All this research and the conclusions reached help us understand that indeed, vocal features transmit a lot about who we are, where we come from and what we are like. That is, that voice is one of the elements with which we can construct our identity in everyday conversation, whether we are conscious of the use we make of it or not. Cameron (1995, p. 17) asks an interesting rhetorical question that would support this: "If identity pre-exists language, if it is given, fixed and taken for granted, then why do language-users have to mark it assiduously and repetitively?". Coming again to the constructivist point of view, it seems more probable that our identity not only derives from our lives as social beings, as already mentioned, but that it exists (and not pre-exists) within our oral use of language, within our continual communicative necessity to prove who we are, how we are and why. The opposite example also proves this point: if we consider Zollna's research (2003, p. 62) with voice announcements in train stations, we find that the invisible speakers that we hear through loudspeakers in stations get rid of any indexing of individual personality by choosing to speak in a monotone, inexpressive way. That is, for this context, the unmarked choice is the monotone intonation and only those speakers that deliver an announcement with (unexpected) pitch variation will be opting for marked intonation, which will immediately betray

2. Theoretical background

certain idiosyncratic traits of the speaker. This is just another example that explains how conscious we are that specific vocal choices can give clues as to who we are in everyday conversation.

Last but not least it should be mentioned that a lot has been written about psychological markers of voice in the field of voice therapy. A quick look into manuals that explain how to improve the use of our voice shows us that these publications always insist first and foremost on the fact that our voice is a mirror of our soul and our personality and gives away a lot about us. These manuals are often contradictory because, on the one hand, they insist on the fact that our voice is unique and very individual and that is why they always suggest that we be ourselves and not misuse our voice to sound like somebody else, but on the other hand, they expose clearly the aspects of voice which can be manipulated and improved in everyday conversation depending on the effect we want to make on the speaker. According to voice therapy the following aspects can be trained (Hammann, 1997, p. 9):

- Body of the speaker
- Body position
- Gestures accompanying speech
- Breathing
- The voice itself
- Spiritual state

These aspects can all help improve our *voice quality* and amongst them, breathing seems to be a key element. By concentrating on the expiration of air, we can strengthen our voice to make it sound relaxed and deep. Voices of this kind transmit self-confidence and persuasiveness; whereas weak expiration of air will then have a weak, thin voice as a consequence, a voice that conveys insecurity and stiffness.

A common idea in these manuals is the idea of the self-fulfilling prophecy: by using voice in a specific way people perceive us in that way, much more than by what we really are. This means that if we are for example a shy, small person, but we manage to breathe out properly and use our vocal resonators correctly then we will attract the attention of the hearer and he/she will perceive us at that moment as a self-confident communicator.³⁷

³⁷In Hammann, 1997, p. 63: "Wir erzeugen "mehr resonanz" mit mehr Resonanz in unserer Stimme. Resonanz bekommt, wer Resonanz hat."

2.4. The embodied voice

“Every man is the builder of a temple, called his body, to the god he worships, after a style purely his own, nor can he get off by hammering marble instead. We are all sculptors and painters, and our material is our own flesh and blood and bones.” (Henry David Thoreau, 1854³⁸)

2.4.1. Is voice embodied?

Talking about how our use and understanding of voice is embodied presupposes two things: first, the adherence to cognitive theories claiming that language is first and foremost a cognitive task and second, the acceptance that there is no cognitive task carried out independently of our bodies or our bodily capacities.

Relative to the first presupposition, as was mentioned in the introduction, I will be adopting a holistic position, that is, in accordance with the idea that language should be seen as an epiphenomenon of cognition. Modular theories of cognition (followed for example by generativists) claiming that language is an independent module of cognition will be discarded in my dissertation. However because this is not the objective of the dissertation I will not address the cognitive debate.

The second presupposition is the key idea of the theories of Embodiment. *Embodiment* can be globally understood as the way in which our psychology arises from the physiology of our brain and body, as a cognitive functional experience which uses bodily-related analogies to assimilate and conceptualise cognitive domains.

As opposed to traditional dualist theories, claiming that body and mind are two worlds apart, *Embodiment* fuses body and mind and shows how these two are interrelated. As Lakoff and Johnson (1999, p. 17) state: “There is no autonomous faculty of reason separate from and independent of bodily activities such as perception and movement. The evidence supports, instead an evolutionary view, in which reason uses and grows out of such bodily capacities.”

Moreover, a clear definition of what Embodiment is is given by Schulze (2004, p. 6): “The structural coupling of cognition and body forces cognition to schematise according to bodily experience and the conceptualisation of body parts.”

Once we accept this there are many implications for the way we should then conceptualise ourselves and our identity, as explained by Gibbs (2006, p. 19):

³⁸ Quoted by Hampson in <http://www.pbs.org/wnet/ihas/poet/thoreau.html>

2. Theoretical background

Part of our felt sense of ourselves as persons comes from how sensory information is correlated with experience. I know who I am, and that I am, in part, because I see my body as I move and experience specific sensations as a result of action.

But on the other hand, there are also implications for our understanding of language on the other hand: we have to start assuming that any experience resulting from the interaction of our bodies in relation with the environment can have an impact on the use we make of language. This is more or less what Lakoff and Johnson point out (1999, p. 102):

What we understand the world to be like is determined by many things: our sensory organs, our ability to move and to manipulate objects, the detailed structure of our brain, our culture, and our interactions in our environment, at the very least.

Or in the same direction, Rohrer (2007, p. 344) explains: “the experience of the body-in-the world also shapes the embodied mind. But the experiential worlds with which we interact are more than simply physical; we are born into social and cultural milieus which transcend our individual bodies in time.”

This means that aspects such as movement, perception, space and culture can have an influence on language, and more concretely here, on the expression of language through voice. Indeed, perception (as will be explained in 2.4.2.) is not only important during speech acquisition as is demonstrated by Davis and Mac Neilage (2000, p. 229) but at all stages of speech production.

According to Rohrer (2007) language can be seen as a given socio-cultural tool that shapes our experience. Because the use of our voice is also in direct relation with our environment and with our body, we can say that voice too, is inevitably embodied. This idea of the embodied voice may seem obvious or even redundant when we think that for the physical production of speech sounds we need our organs and vocal resonators but when I say voice is embodied I also mean our perception of voices, their representation and their categorisation, which in turn influences our own speech production. Just to give an example directly related with the empirical part of my

2. Theoretical background

dissertation: in our Western culture because we have grown up hearing that high squeaky female voices are extremely unpleasant it is normal then to assume that whatever is too high is bad and what is deep is good up to such a point that when hearing a high voice almost unconsciously we label it as unpleasant when perhaps it is not. The impact our social environment can have on our speech perception and speech production is sometimes called *social Embodiment* (Anderson, 2005, p. 14): “some organisms are coupled not just with a physical environment but also with a social one”.

2.4.2. Voice perception

“Talking perceptions, people. Do we really see each other for what we really are, or do we just see what we want to see, the image distorted by our own personal lenses? I lost someone today and the funny thing is, I don't even know who she was.” (Melvoin, 1994)

Perception, as in other linguistic areas, plays a fundamental role in voice, since it shapes the way we process it when we hear it and consequently how we produce it. But before explaining voice perception the concept of perception alone needs to be clarified.

The problem of perception has been discussed for a long time by many philosophers. Perception was understood as “sensory awareness” during English empirism and sensualism of the 17th and 18th century. In this regard, Locke (1690, Reedition of 1996, Ess. II, Ch. IX, section 15) said: “Perception in the first operation of all our intellectual faculties and the inlet of all knowledge into our mind”. Leibniz³⁹ then extended the meaning of perception by distinguishing it from apperception: perception is a purely immediate form of sentiency, whereas apperception is the process with which we organize what we perceive through our senses by using our memory and our attention.

For practical reasons and bearing in mind that the objective of this dissertation is not to discuss the philosophical question of perception in depth, we can reduce the existing philosophical discussion into three groups (Miller and Johnson-Laird, 1976):

- the sceptics: Hume and his followers believed that our knowledge of external reality was just a question of animal faith.
- the realists: they believed reality exists independently of observers (Descartes, Locke, Russell).

³⁹ In www.earlymoderntexts.com/pdf/leibpng.pdf

2. Theoretical background

- the constructivists: starting with Berkeley, Kant and Mill and followed by more contemporary scientists and philosophers such as Glasersfeld, Varela and Watzlawick, claim that we construct the physical reality by transposing our physical experience to physical objects around us.

As was mentioned in point 2.1.2 about the construction of identity, the constructivist point of view, and more concretely, the radical constructivist point of view constitutes the framework for my own research. Radical Constructivism is defined by Glasersfeld (1996, p. 1) as: "... the assumption that knowledge is in the heads of persons. What we make of the experience is the world we consciously live in". He also says Radical Constructivism follows two principles (2006):

1. Knowledge is not passively received but actively built up by the cognizing subject.
2. The function of cognition is adaptive and serves the organization of the experiential world, not the discovery of ontological reality.

Acknowledging these two principles means presupposing that our cognition moulds our knowledge of reality. However, Radical Constructivism does not give enough emphasis to the fundamental role perception plays in the linguistic process and this is why another approach that derives from Radical Constructivism is also needed here as a complement: *Radical Experientialism*. Schulze, founder of this approach, states that (a, p. 18): "Linguistic structures (in any form) are indirectly or directly determined by the cognitive mechanisms that at the same time control the perceptual apparatus and process its content."⁴⁰

Or another related idea that Schulze mentions (2006, p. 1): "Language is the articulation of perception via experience"⁴¹. With these ideas in mind Schulze grounds his linguistic model on Radical Constructivism, Gestalt Theory, Non-Objectivistic approaches to Cognition and Holistic Cognitive Linguistics. *Radical Experientialism* not only presupposes that cognition is a necessary condition for language to exist but also

⁴⁰ Original quote (Schulze, a, p. 18): "...sprachliche Strukturen (in welcher Gestalt auch immer) mittelbar oder unmittelbar durch diejenigen kognitiven Mechanismen bedingt sind, die zugleich den perzeptiven Apparat steuern und dessen Inhalte verarbeiten."

⁴¹ Original quote (Schulze, 2006, p. 1): "Sprache ist die Artikulation der Wahrnehmung über Erfahrung."

2. Theoretical background

that cognition cannot exist without perception, and hence the idea that language depends on perceptive strategies.⁴² It is thanks to the interaction between perception and experience that linguistic knowledge is created. According to Schulze (b, p. 2), perception can be defined as “any kind of input (world stimulus) into the cognitive domain mediated and contorted by perceptual devices”. The way the input is processed will depend on the properties of the perceptual device (our different senses). Vision and audition are according to this linguistic model the most important perceptual devices used by humans when they communicate. Applied to my dissertation, if we talk of impressions voices make on us or the use we make of voice, then audition is the main perceptual device. However, in daily life voices are not heard in a vacuum but rather interpreted in combination with gestures, for example. So in this case we will be using at least two perceptual devices (audition and vision) to process the stimulus and transform it into knowledge that is significative.

Going against more traditional views of perception, we should not forget to consider Gibson’s approach to perception (1986). For this author perception means to detect information in an environment we know well. Human perceivers are active but not in the sense that they create or recreate what they cannot perceive well, but because they use any sense available to explore the environment. He preconises direct perception because he claims perception is not aided by inference, memories or representations. Moreover, the difference between what is subjective and what is objective is not so clear-cut for Gibson (1986, p. 116): “Self-perception and environment perception go together.” This means that when we perceive objects around us, we cannot help perceiving ourselves too. In his definition of perception, Gibson (1986, p. 249) states that “perceiving is a registering of certain definite dimensions of invariance” and that “the invariants specify the persistence of the environment and oneself”. If we apply all this to voice perception, we can, on the one hand, understand that judging any voice we perceive is necessarily done through our own particular lenses and, on the other hand, that we constantly search for invariances, that is what is stable and what repeats itself from voice to voice. However, Gibson’s idea that memory or representations do not play a role in perception will not be supported in this dissertation.

⁴² Schulze (a, p.18): “Wenn Kognition in Interaktion lebt (d.h. ist) und Interaktion die Konstruktion von interindividuellen Reaktionsmechanismen auf Wahrnehmungsprozesse darstellt, dann beruht Kognition auf der Verarbeitung von Wahrnehmung.”

2. Theoretical background

Some years after Gibson and directly influenced by his work on perception, Swenson and Turvey publish “Thermodynamic Reasons for Perception-Action-Cycles” (1991). According to them, we perform activities that help us detect information, and the capacities we have to be able to do this are moulded by this search for information. We perceive in order to act, we act in order to perceive. This is why the amount of energy needed to perceive a stimulus is a key aspect of this theory. As Swenson and Turvey remark (1991: 319): “The perceptual guidance of movements and the movement enhancement of opportunities to perceive, extend to animals particular benefits in their search for, and consummation of, energy resources.”

Schulze (c, p. 14) has recently applied this theory to language in order to explain many metaphoric processes: higher objects -requiring more energy to be perceived- are marked, and lower objects -requiring less energy to be perceived- are unmarked. According to this author, this phenomenon explains then, for example why the basic metaphors UP is MORE, and DOWN is LESS appear in language. This is another case of Embodiment and applied to voice, can help explain why we correlate high voices, with what is fast (more energy needed) and why we correlate deep voices with what is slow (less energy required).

Another point that is mentioned by Schulze (a, p. 22) relative to perception is important too for voice perception: if the Figure/Ground schema is fundamental for perception, then it is also an aspect to take into account in language, and more concretely in voice perception and voice production. Figure and Ground are aspects of human cognition, more precisely a requirement of our perception and they are crucial as human concepts. As explained by Lakoff and Johnson (1999, p. 199), the figure is understood as the moving entity, whereas the ground is the stationary element. But a better explanation is found in Schulze (b, p. 9): “The Figure/Ground schema (F/G) conditions that any ws^{43} is processed with respect to a more central, salient and confined structure, the borders of which, set it apart from its ‘background’.”

The F/G schema is also understood not only in terms of movement across space but also in terms of change: *ground* is the permanent entity, whereas *figure* is the changing/variable entity. It is perhaps this interpretation of the F/G schema that is involved in everyday conversation when we analyze the voice of the speaker in order to distinguish the permanent physically conditioned aspects of voice (*voice quality* aspects) from the controllable transitory voice aspects (*voice dynamics*). Just to give an example:

⁴³ ws' = world stimulus

2. Theoretical background

when we hear a speaker with an extremely denasal voice it is only because we place this transitory denasality as *figure* in our mental schema (consequently considering all other voice aspects as *ground*) that we come quickly to the conclusion that the speaker has a cold that day. Applied to personality judgements from voice, if we for example judge a very fast voice to transmit an active personality then we are probably placing speech rate as *figure* in our mental schema amongst the other vocal quality aspects which then remain the ground when this judgement is made.

We can perhaps summarize the key ideas of Radical Experientialism in relation to other theories previously mentioned such as Radical Constructivism or Embodiment with the following figure:

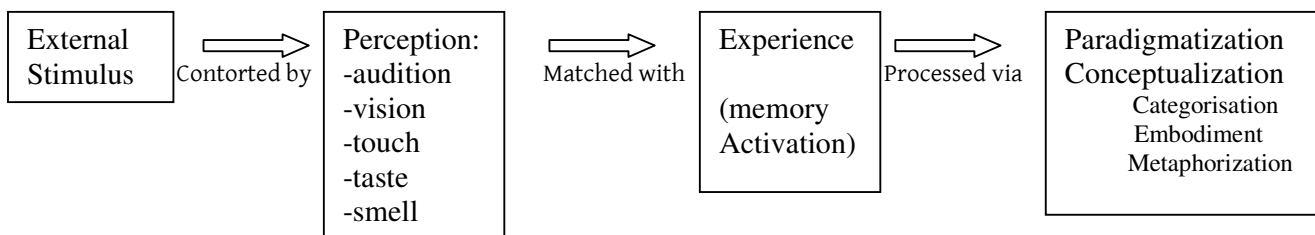


Figure 5: Schema of linguistic perception in Radical Experientialism

So from all the theories and approaches to perception mentioned above, we can say that for the purpose of this dissertation, perception will be understood here as a more or less unconscious cognitive process that reacts constantly to stimuli in the environment through our senses and contrasts the new information with similar information stored in our memory in the form of experiences. As a result of this cognitive process, representations of partial aspects of “reality” are created, forming our knowledge of the world.

Now that the concept of perception is clarified, we need to concentrate on speech perception, and more precisely, on voice perception. In the *Handbook of Speech Perception* (Pisoni et al., 2005, p. X) we find the following definition of speech perception:

To perceive speech...is a matter of hearers recognizing sound patterns coded by a conspecific speaker into an acoustic signal according to the rules of a natural language. Speech perception...is intrinsically and irradicably intersubjective, mediated by the shared code of speaker and hearer.

2. Theoretical background

Speech perception is thus about how listeners are able to recognise human sounds and decode them to understand language. In some cases in literature speech is used as a synonym of voice. However, a definition of voice was already given in 2.2 explicitly so as not to confuse this term with speech. It was defined as “the natural and distinctive tone of the speech sounds produced by a particular person” and we saw that it is manifested by a combination of *voice quality* aspects and voice dynamic aspects. So “voice perception” as opposed to “speech perception”, does not imply so much the recognition and processing of sounds in order to understand language but more the impressions and interpretation we can make when hearing the combination of vocal features produced by a particular person. It is therefore more personal, more indexical than speech perception, since it is part of a human being’s identification process and helps one to determine the gender, personality and much more about the speaker. However, when we communicate orally we must do it through the use of our voice and therefore speech perception and voice perception go hand in hand and that is why speech perception theories can often be applied to voice perception too: when we hear somebody tell us a story we are not only using the shared linguistic code to interpret what is being said but we are also picking up information on the speaker’s identity. This reminds us of Lyons’ (1977, p. 33) conceptual distinction between *informative signals* and *communicative signals*. For Lyons a linguistic signal is *communicative* when the sender is conscious that he/she is delivering new meaningful information to the hearer and it is *informative* when despite the intentions of the speaker it conveys new information to the hearer. *Communicative signals* are meaningful to the speaker and *informative signals* are meaningful to the hearer. Applying these concepts to perception, we could say that *speech perception* deals more with the *communicative signal* and that *voice perception* deals more with the *informative signal*. However, we must not forget a point that was mentioned in the introduction regarding the *digital vs. analogue* communication: the distinction between *communicative* and *informative signals*, as it happens with the *digital/analogue* distinction, is purely conceptual and practical. In reality it is too naïve to believe that we can choose only to transmit *communicative* signals since we are voluntarily or involuntarily betraying our attitude towards what is said, we cannot help being *informative* every time we speak.

In speech perception there are generally two aspects involved (Tatham and Morton, 2006, p. 194):

2. Theoretical background

- The physical domain: the acoustic signal and the way the listener accesses this signal using his hearing capacity.
- The psychological or cognitive domain: the interpretation of what the listener has said.

For my dissertation special focus will be given to the latter option, which is the domain addressed by psycho-linguistics.

According to Tatham and Morton (2006, p. 201) there are normally two basic strategies for perception, a passive and an active one: “passive strategies have little or no active cognitive listener intervention in the decoding process, whereas active strategies make cognitive intervention central to their operation.” With all the background theories previously mentioned, the second option seems the more plausible one: listeners are active in speech perception and what happens exactly at the level of symbolic representation of cognition via memory activation will produce an interpretation of what is heard. We must never forget the importance of the listener’s interpretation when dealing with voice perception and for the topic of voice and identity this implies acknowledging that the aspects of our identity transmitted by our voice cannot be considered without considering the listener as an active operator. As Podesva (2002)⁴⁴ mentions:

Speakers initiate the construction of identity by speaking in a way they feel will successfully accomplish its construction. Identity is not fully established until the perceiver interprets the speaker’s speech. Thus identity construction is a joint endeavor undertaken by speakers and hearers alike.

In speech perception it is important to mention the Motor Theory (MT). This theory claims that speech perception involves a direct reference to the listener’s production process. That is, when we hear speech, in order to interpret it, not only brain areas specialized in perception are activated but also areas involved in the production of speech, and more concretely, in articulation. Both tasks seem to be integrated when we listen to voices, as recent neuronal research has proven. If speech perception and production are strongly interrelated, it is not surprising then that the way we perceive voices and the judgements we make about them will have a direct impact on the way we

⁴⁴ In <http://www.stanford.edu/~podesva/documents/nwav2002-handout.pdf>

2. Theoretical background

will use our own voice and vice-versa in a never-ending circle. When describing the object of study of “Perceptive Linguistics of Varieties”, Pustka (2008, p. 215) includes a figure that summarizes the interrelation between perception and production. Here is a translation and adaptation of the figure for my own purposes:

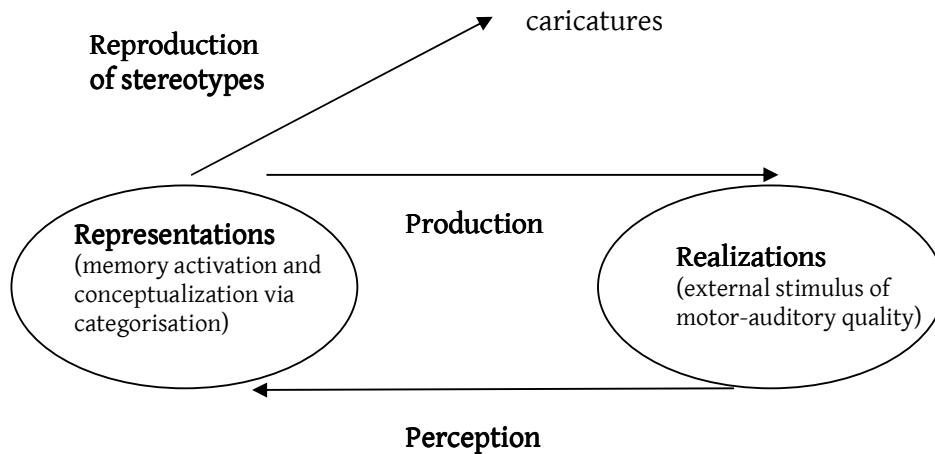


Figure 6: The interrelation of perception and production

When doing research about voice in order to find out information about the realization aspect of this process the most obvious way is to simply record voices as they speak naturally. However, in order to access the mental part of this process, that is, the representations we might have of voices, we can only operate indirectly through the use of questionnaires and interviews which might elicit information as to how the conceptualization of voices takes place. We can also carry out experiments, such as perception tests in order to shed some light on the perception process by the answers given in these tests. As for reproductions of voices, if we ask for example, somebody to act out a text with sadness or joy, then he/she will do it by recurring to the stereotypic mental representation of what a sad or joyful voice sounds like. In my perception test, this will be addressed in 5.5.2. In the experimental part of my dissertation I will be including cross-language speech perception and a point needs to be clarified here: many experts in cross-language perception, amongst them, Sebastián-Gallés (in *The Handbook of Speech Perception*, 2005, p. 546) mention that “speech perception is influenced by the phonological properties of the listener’s native language”. This means for the experimental part of my research that the fact that German and Spanish differ

2. Theoretical background

phonologically in some aspects might have perceptual consequences in the voice judgements made by non-native speakers of each language.

Last but not least some problems encountered when measuring voice perception should be mentioned. We already noted that speech perception is largely “intersubjective”. The additional problem is that there is not only an interspeaker variability in voice perception but also an intraspeaker variability: mood and health are (amongst other possibilities) varying states that may provoke changes in the perceptual process and hence, differences in voice judgements. In general, most voice perception experiments manipulate the stimuli and measure the variation in responses accordingly. These are the so-called “stimulus-driven” experiments. Kreiman (1997, p. 100) notes that the problem of these experiments is that “the changes in listeners’ perceptual processes across conditions and differences among listeners within conditions are ignored.” So the interspeaker variability, the intraspeaker variability and the variability of stimuli are all elements that have to be taken into account when experimenting with voice perception.

2.4.3. Categorizing voices

We have seen how perception is a basic cognitive process and the input for the knowledge we have on voices. Once we perceive a voice we immediately process it and contrast it with the memory we have of other voices heard (other experiences). It is at this point that categorisation is involved.

Categorisation is a key aspect of embodied cognition, and consequently of language. Lakoff and Johnson (1999) explain that we have a need to categorise to understand reality around us and that the categorisation process is always carried out within our bodies. Humans share with other animals genetic programming that helps them perceive certain inputs as being salient and to discriminate them against others. Discrimination and generalization are indeed necessary cognitive strategies in order to be able to categorize. In “Principles of Categorisation”, Rosch (1978, p. 28) explains the reason why we categorize by stating there are two general basic principles in the formation of categories:

- Cognitive economy: “to provide maximum information with the least cognitive effort.”
- To interpret the perceived world in terms of structured attributes rather than in arbitrary attributes.

2. Theoretical background

So we can expect to find these basic principles in our categorisation of voices too. Moreover, by carrying out different psychological studies on colour, Rosch (1978, p. 29) found out that: “one influence on how attributes will be defined by humans is clearly the category system already existent in the culture at a given time”.

This echoes the idea that culture plays an important role in the way we categorize, as we will also see in my dissertation.

Colour category was found to be a product of both body-brain and the reflections of objects in the world. If the way our retinas capture these reflections has an impact on how we think we see colours, so may our perception of the voices we hear involve the opinion we have of them and their consequent categorization. Just to give an example: in Western culture, since the day we are born we are used to the idea that male voices tend to be deep and that female voices tend to be high. Of course, pitch depends largely on the length, size and tension of the vocal folds and this is how a gender difference in voice appears through the constitution of our vocal folds. This difference heard through our lives is then seen as the normal case and any voice heard that does not follow this standard will be negatively perceived: a high pitch in man is then often seen as being too effeminate and a woman with a very deep voice will be seen as too masculine. Evidence for this is found in the Spanish expression *voz de camionera* (female truck driver voice) used to depict very deep female voices. In this case, the expression is to a great extent based on the social stereotype that driving trucks is a typically male profession. So if a woman happens to be a truck driver, then she is a masculine woman. By what Van Leuwen (1999) calls “experiential meaning potential”, this idea is extended to the opinion that a masculine woman will have a typically masculine voice, that is, a deeper than the average voice.

So we have seen that categorization is a human necessity and that is largely influenced by the environment in which we grow. But how is it carried out? I will now describe those strategies that may have an application for voice: image schemata, cross-modal schemas, conceptual metaphors, prototypes and markedness, family resemblance and radial categories, Ideal Cognitive Models.

In the last few decades there have been neurological experiments all pointing to an idea mentioned by Rohrer (2005), that when we talk we are actually using many more brain processes of mental, spatial and visual imagery than we had thought before. This is how scientists together with linguists start talking about “image schemata” or “schemas” in order to describe the way we use and process language. Rohrer (2005, p. 9)

2. Theoretical background

describes image schemata as “structures that link sensorimotor experience to conceptualisation and language” and as “recurrent patterns of bodily-experience”. The question arising then is, if we observe image schemata processes in the use of language in general frequently, can this be observable at the speech production and and more concretely at the speech perception level? To illustrate this with the use we make of voice labels: when we say a voice sounds “tense” are we not merely using by extension our experience of how it feels to be tense to what a voice could sound like if it is tense?

Moreover, schemas can be combined: Johnson (1999) mentions different cross-modal schemas that characterise human conceptualisation and reasoning such as *containment*, *source-path-goal*, *compulsive force*, *attraction*, *balance*, *verticality* and *scalarity*.⁴⁵ As we will see later on, in the correlations found between certain voice labels, we can apply some of these cross-modal schemas to voice perception. For example, I found the *verticality* schema for correlations between *high*, *light* and *bright* or *low*, *heavy* and *dark*.

When we characterise a sexy voice as being “breathy” are we not simply relating the breathy sounds of the sexual act with what we think is sexy? This could be an example for what Johnson (1999, p. 95) denominates “conceptual metaphor”:

Conceptual metaphor is one of the principal means by which we imaginatively extend the embodied and image schematic concepts that define most of our concrete experiences. It is a conceptual mapping of entities and structure from a domain of one kind to a domain of a different kind.

This is how for example, associations for what a *dark* voice is and what a *bright* voice is are produced: as Johnson (1999, p. 95) explains, our experience of darkness and night is carried over into our understanding of morality and we tend to associate darkness with bad things that might happen. By transposition of our moral schema we evaluate dark voices negatively and bright voices positively. This is why we typically find in films that the monster character is given a deep, gloomy dark voice and the innocent victim has a high, light childish voice. This may have such an impact in terms of credibility, that we find many examples of this coming from the TV and cinema industry. Collins (2000, p. 778) comments an article by Park from the film magazine “Empire” that mentions that for the voices of both Darth Vader and the current star wars villain, a

⁴⁵ Derks (2000, p. 143) mentions a similar case that happens when we try to organize our “social map” by using polarisation (good vs. bad), horizontal or vertical dimensions.

2. Theoretical background

“voice-over” was used because although the actors have large bodies, their voices were not deep enough to be convincing.

Traditional definitions had been describing categories as logical bounded entities which possessed a common set of criterial features as an all-or-none phenomenon. Rosch (1978) carried out research into the internal structure of categories and a new conceptualisation of categories was born. She explains (1978, p. 30) that every category system has a vertical and a horizontal dimension: the vertical dimension refers to the hierarchical structure between categories and the horizontal dimension refers to the internal structure of a given category. Applied to voice and to the vocal features involved in my dissertation, language, voice and pitch would be elements of the vertical dimension, whereas all the attributes that in general characterise voice would belong to the horizontal level. At the horizontal level, Rosch (1978, p. 30) says categories “tend to become defined in terms of prototypes or prototypical instances”. The term prototype will be used in Rosch’s sense, as the clearest case in category membership or as explained by Kleiber (1990, p. 49), as the best example commonly associated to a category.⁴⁶ The theories of prototypicality, as explained by Geeraerts (2006, p. 149) are characterised mainly by non-equality (the differences in structural weight of the members of a category) and by non-rigidity (flexibility and vagueness of each category).

If we find that prototypes appear in many categorisation processes then we are bound to find them in our perception of voices. For example, if the most frequent voice label associated to a sexy voice is “breathy”, then breathiness will be a prototypic attribute of sexiness in voice, that is, a clear example of what a sexy voice is. However with voice labels it is generally not so easy: we often find that it is a combination of voice features that transmit pleasantness or unpleasantness, for example. That is how a high and squeaky voice will have negative connotations whereas a high, sweet and soft voice will have positive connotations. Another problem appearing in voice perception is that we are dealing most frequently with *graded categories* where the boundary of what belongs to that category and what does not is *fuzzy* (Lakoff, 1987, p. 287). For example, it is hard to say if a voice we are hearing is introverted or extroverted but we can easily judge it as being more or less introverted or extroverted. This is why a graded bipolar scale can be useful when trying to measure voice judgements, as will be seen later on.

Another interesting prototype effect that can be found in voice categories is *markedness*: “certain types of asymmetries within categories...where one member or

⁴⁶ Original quote from Kleiber (1990, p. 49): “le meilleur exemple communément associé à une catégorie”.

2. Theoretical background

subcategory is taken to be somehow more basic than the other.”(Lakoff, 1987, p. 59). Markedness or saliency is frequently observed in prosody for example in pitch contours, as will be explained later on. However, we need to distinguish markedness strictly related to prosodic features (such as rising pitch, or sudden rise in intensity) and markedness in terms of use of prosodic features. That is, if for example in our Western culture we are used to a rising tone in questions, a marked intonation will be here a falling tone for a question. This means that markedness will be here interpreted as a deviation from the expected use of a prosodic feature.

Prototype theories can be useful but not for the case when we have members of a category that do not share a common trait. The solution that Kleiber (1990, p. 159) proposes is Wittgenstein’s concept of *family resemblance*⁴⁷:

The categorisation is justified by association relationships between the different members and not by a relationship between all the members and a same unit, that is, the prototype...It is a necessary and sufficient condition that the member of the category shares at least one feature with another member of the category.⁴⁸

Family resemblance can thus be used for cases where we classify different voices as belonging to the same category, for example when we find that both a deep male raspy voice and a higher female raspy voice are classified as sexy, the only shared element present here is raspiness.

Another solution for cases in which a member of a category seems to be a conventionalized extension from a central category member or from a prototype is to consider there are also *radial categories*, as defined by Lakoff (1987, p. 91): “These are noncentral extensions which are not specialized instances of the central subcategory, but rather are variants of it...extended by convention.”

⁴⁷ Quote from Wittgenstein (1953, p. 32^e): “I can think of no better expression to characterize these similarities than “family resemblances”; for the various resemblances between family members of a family: build, features, colour of eyes, gait, temperament, etc, etc, overlap and criss-cross in the same way...”

⁴⁸ Original quote from Kleiber (1990, p. 159): “La catégorisation se trouve justifiée par des liens d’association entre les différents instances et non pas par un rapport entre toutes les différences instances et une même unité, à savoir le prototype...il faut et il suffit que chaque membre de la catégorie partage au moins une propriété avec un autre membre de la catégorie.”

2. Theoretical background

Applied to voices, we might find an example for radial categories when despite the list features of what the best example of a voice category, we occasionally find a very different member associated by extension and in an arbitrary way to this category.

A last key idea of Embodiment theories to be mentioned is the Idealized Cognitive Model (ICM). ICM is defined by Lakoff (1987, p. 68) as a complex structure with which we organize our knowledge with the following four principles:

- propositional structure
- image-schematic structure
- metaphoric mappings
- metonymic mappings

Category structure and prototype effects would then be by-products of ICMs according to Lakoff (1987). We have already seen how voices too can be processed in terms of image schematas and conceptual metaphors. It is hard to find evidence for propositional structure in voice perception. As for metonymy - “a situation in which some sub-category or member is used to comprehend the category as a whole” (Lakoff, 1987) - it can be found with prototype effects. Just to give an example, if a voice is judged to be extroverted because it is loud, fast and high-pitched then this judgement can be said to be metonymic because only the prototypic features of an extroverted voice are taken (the part) instead of considering all the other voice features perceived (the whole).

All the different strategies mentioned do not exclude each other, they are not perfectly clear-cut differentiated methods of addressing categorization but rather “describable aspects of a unified phenomenon” (Langacker, 1987, p. 371). They are all different aspects of the same concept and depending on the complexity and quality of the element perceived we will apply one or more strategies to categorize it.

All the different ideas explained so far in this chapter help us understand how voice perception and speech production can be addressed from the Embodiment perspective and how the different terminology found in Embodiment theories can apply to voice. To sum up, the key idea here is the belief that the use we make of voice, as part of language, cannot be analysed without considering that it is embodied, that the way it is processed and produced is guided by bodily experiences such as movement and perception.

2. Theoretical background

2.4.4. The semiotics of voice

Peirce (1931) believed there are three kinds of signs that help us interpret “reality” around us: icons, indices and symbols. These three signs are then understood and defined in their relation to the objects they refer to. Here we find Peirce’s definitions for the three terms as explained by Pharies (1985):

- Icon: a sign that stands for something merely by resemblance. The qualities of the sign excite analogous sensations in the mind for which it is a likeness.
- Index: it is a sign which refers to the object that it denotes by virtue of being really affected by that object. Therefore there is generally a cause-and-effect relationship between the index sign and its object.
- Symbol: a sign which stands for the object by virtue of a law or convention and thus exists only because there is an interpreter.

These definitions can perhaps be visualized better with the following table (Hirage, 2005, p. 30):

Sign	Defining conditions	Signification by virtue of
Icon	Similarity	Its intrinsic characteristics
Index	Contiguity (causal or spatial)	Its existential relation to the object
Symbol	Conventionality	Its relation to the interpretant

Table 5: Icon, index and symbol

According to these definitions the linguistic sign is said to be a symbol. However there are aspects of our language where other possibilities appear, such as an iconic quality for onomatopoeias or an indexical quality in personal pronouns. As Hirage mentions (2005, p. 31): “In the real sign-object situations, a sign may involve all three types of Peircean signs-icon, index and symbol- with predominance of one over the others.”

The human voice, by its physical (embodied) quality can be conceptualised more as an icon or an index of who we are or of what we are transmitting than as a symbol. If we now apply this to the interpretations of emotions in voice, we find that if voice is seen as an *index* of a given emotion then we are interpreting that the person is actually feeling that given emotion, whereas if the voice is seen as an *icon*, we interpret that the person is acting as if he/she is being emotional (but not really feeling it).

2. Theoretical background

Another way of reinterpreting the idea of *conceptual metaphors* applied to voice is to see the case where spoken forms have a resemblance with the things they stand for as having an iconic function. In fact, Pierce classified metaphors as a subtype of icons. The term *iconicity* will be here used as defined by Mannheim (In Duranti, 2001, p. 102): “Iconicity is a relationship between a sign and its object in which the form of the sign recapitulates the object in some way.”

We can thus speak of an *iconicity code* for the voice. As Vaissière (2005, p. 251) defines it: “Iconicity involves ethology, and the development of more or less elaborate intonational “signifiés” from instinctive “signifiants” or sings that originally expressed uncontrolled primary emotion.”

Of course, Vaissière refers here to the iconicity of intonation. So does Bolinger (1983, p. 99) when he says “Intonation is iconic and grammatical uses are consonant with that iconism”. However, bearing in mind that intonation, as was previously explained, is a combination of pitch, loudness and tempo, we can infer that it is possible to speak of a *prosodic iconicity code*. And where does this then fit in with Embodiment theories? If we take into account the previous idea that our body, by means of image schemata guides our understanding and processing of information around us, and we saw how this applies to voice too, then the iconicity found for example between the feeling of tension and its vocal expression by a tightening of the vocal folds is motivated too by a sensorimotor-experience. We can therefore claim that the *prosodic iconicity code* is only iconic precisely because it is embodied. Iconicity and Embodiment go hand in hand. However, the iconic relationship is not always present in prosody. As Vaissière states (2005, p. 252): “Motivation dominates in the expression of emotion, while the expression of attitude is more conventionalized.”

This could be a reason why when hearing a foreign language, emotions are recognised more easily than attitudes. Some universals found in the prosodic iconicity code (and more precisely in intonation) for emotions are (Vaissière 2005, p. 251):

- For excitement and/or tension: tension of vocal folds
- For passive emotions or detachment: low F0 and slow rate
- For agreeable emotions: melodicality
- For disagreeable emotions: lack of melodicality

Similarly, Van Leeuwen (1997, p. 103) refers to intonation as “pitch movement” and states the following correlations with emotions:

- Rising pitch can energize.

2. Theoretical background

intonation is not always implemented in the same way across languages". We will come to this for the interpretation of emotions and attitudes in my perception test.

According to Peirce's definition, it is easy to find a link between icons and indices: if an index is characterised by a cause-and-effect relation with the object this often implies a resemblance with its object. As explained in Pharies (1985, p. 40) if wet streets are an indexical sign of rain because they are affected by the rain, at the same time we can say that wetness is an icon because it resembles the rain by its wet quality. It is precisely because we find a resemblance between what rain is and the wetness in the street that we can come to the conclusion that it has rained. Just the same happens with voice: in many cases where we speak of an indexical quality of voice features, we find an iconic basis between the sign and the object denoted.

We already saw in 2.2. that Abercrombie retook Peirce's term of index to apply it to voice, especially to refer to those aspects of voice that reveal personal characteristics. Bearing in mind the direct cause-and-effect relationship existing between age or sex for example and pitch, it is normal to say that pitch, when considered as a *voice quality* element (permanent) is an index of age and gender, which are some of the essential characteristics of our identity. Furthermore, indices in voice can also be found in the more temporal features, in *voice dynamics* aspects. Let's imagine a day when we are stressed because we have too many things to do. There are many chances that when we speak to somebody during a moment of stress we increase the speech rate in a conscious or even unconscious attempt to save time and thus the listener will probably interpret this temporary increased speech rate as an index of our stress. With the previously mentioned example of tension being transmitted by a tightening of vocal folds we also find an indexical relationship: on the one hand, this can be regarded as an icon because the tension heard coming from the tightening of the vocal folds resembles the bodily feeling of tension (by contraction of our muscles) but on the other hand, we can say there is a cause-and-effect relationship between feeling tense and tensing the vocal folds more than what is necessary.

Therefore we see that although linguistic signs are generally symbolic, at the paralinguistic level of language there are more indexical and iconic relationships than purely arbitrary symbolic ones. We can therefore claim that there is a strong possibility that prosodic features based on iconic and indexical relationships will be universally interpreted, whereas symbolic uses of vocal features, being more arbitrary by nature, will be more language-dependant. This can perhaps also shed some light as to why the

2. Theoretical background

perception of basic emotions is universal whereas the perception of many attitudes remains more culture-dependant.

Another way in which semiotics can help explain how information of our identity is transmitted is the one exposed by Wilson and Wharton (2006) in their interpretation of how Sperber and Wilson's (1986) Relevance Theory (RT) can be applied to prosody. Although RT in its foundation, is based on a modular conception of language with respect to cognition (going against the holistic approach to language that CL and my dissertation supports) there are aspects that are compatible with CL. And these are precisely the ones retaken for my own objectives. RT argues that we constantly react to encoded messages by interpreting only the information that is relevant to that particular message in a given context and that we tend to encode *relevant* information in our messages, that is, the most new information requiring less effort. This in a way in an echo of the *teleological action* described by Habermas (1987, p. 126).⁴⁹

Just as a reminder, the founders of RT (2006, p. 1565) claim that: "Relevance is characterised in cost-benefit terms, as a property of inputs to cognitive processes, the benefits being positive cognitive effects, and the cost the processing effort needed to achieve these effects."

In other words, the lower the cost and the higher the benefits are, the more relevant we say the input is. According to them, this theory then has implications in the information transmitted by prosody. As was already mentioned in 2.2., prosody is said to accomplish two main functions, a linguistic one and a paralinguistic one, called "natural" by Wilson and Wharton. These two functions are then studied by two different approaches, the grammatical one for the former function and the attitudinal one for the latter. What is interesting for my study is their semiotic interpretation of prosody: they claim there are mainly three kinds of prosodic inputs: linguistic inputs, natural signals and natural signs. Wilson and Wharton distinguish the two last options as follows (2006, p. 1561): "Natural signals, like linguistic signals, are genuinely coded and inherently communicative; natural signs, by contrast, are interpreted by inference rather than decoding, and are not inherently communicative at all."

A prosodic natural signal would be for example the use of an affective tone of voice to communicate an emotion, whereas a prosodic natural sign would be any

⁴⁹ Habermas (1987, p. 126): "Der Akteur verwirklicht einen Zweck bzw. Bewirkt das Eintreten eines erwünschten Zustandes, indem er die in der gegebenen Situation erfolgsversprechenden Mittel wählt und in geeigneter Weise anwendet."

2. Theoretical background

relevance theory applied to prosody of Wilson and Wharton (2006) on the other hand. Last but not least, it is also possible to retake Saussure's (1955) concepts of *significant/signifié* and apply it to voice: the vocal features or voice markers can be considered as *signifiants* and the different functions or kinds of information conveyed by the voice markers as the *signifiés*. What we find then is a very complex situation, because as stated by van Leuwen (1999, p. 129): "A same signifier can be used at different levels. It may realize a speech act, a sound act, constitute a habitual or prescribe characteristic of an individual or group."

An example for this phenomenon can be found in almost every vocal feature. Let's take high pitch, for example: the high pitch is an indicator (amongst many possibilities) of young age, female gender and may be used as a politeness strategy to indicate diminution. So here we have one *significant* for three different *signifiés* (amongst many others not mentioned). Vice-versa the opposite happens constantly: for one *signifié*, for example, to express dominance, we have different vocal strategies or *signifiants* such as low pitch and high intensity. What is also complex, as already mentioned, is the fact that with voice there is never a one-to-one correlation, that is, for a *signifié*, several *signifiants* are used at the same time, which recalls the idea mentioned before that *equivocal* speech markers are more frequent than *unique* speech markers.

2.5. Voice stereotypy

"In deducing fundamental traits of personality from voice we must try to disentangle the social element from the purely personal one. If we are not careful to do this, we may make a serious error of judgement." (Sapir, 1985, p. 535)

We have already seen that through the human cognitive need to categorize, we often operate via prototypes. The concept of prototype, understood as "the best example commonly associated to a category" can also be approached as Frankenstein's monster: it is about making up a concept with all the best parts gathered from our experience. This term is sometimes confused with the concept of "stereotype". In my dissertation "stereotype" will be used in Crystal's sense as (1975, p. 79): "an individual's or group's conventionally held, oversimplified mental picture of some aspect of reality; it corresponds in some respects to the reality of a situation, but distorts or ignores others."

The common aspect between prototypes and stereotypes is that they both arise from our need to categorize things and people.

2. Theoretical background

Putnam (1975, p. 249) was one of the first philosophers to deal with stereotypes as an example of how our mind understands and processes reality. She points out that: "...a stereotype is a conventional (frequently malicious) idea (which may be wildly inaccurate) of what an X looks like, or acts like or is."

So the common aspect of most definitions of what a stereotype is, is that they are conventional and that they can be negatively connotated, especially since they are understood as a distortion of reality. Prototypes involve the search of all those features that represent the best example of a category and which at the same time will be shared by most members of the category. But stereotypes imply always an exaggeration of certain aspects and the ignorance of other aspects in order to simplify a complex reality. They are often based on an illusory correlation, that is, on an association of two variables that are in fact not strictly related. In society, stereotypes are always present when we make judgements about the people around us. They arise as a means of explaining and justifying differences between groups. Fiske and Taylor (1984, p. 165) explain how this works: "Categorizing others leads to exaggerate perceived differences between groups and minimalizing perceived differences within each group."

Moreover, by doing this, that is, by exaggerating differences between groups and minimalizing the differences within the group we belong to, we are at the same time creating a sense of security by extending common opinions because we have the (illusory) impression that if everybody has the same opinion, then what they claim must be true.⁵⁰

Making certain aspects stand out as the most important ones and leaving others out implies operating with the Figure/Ground schema: out of all the features that compose the object we approach, we choose only some of them as being the "Figure" and leave the others as "Ground". What applies to stereotypes between social groups applies to many other aspects, such as voice perception: "We are extremely selective in this task, that is, we extract certain dominant perceptual values from the voice and match these against a learnt standard of stereotyped norms." (Crystal, 1975, p. 80)

Since the beginning of empirical research on voice and personality (Pear in 1931, Allport and Cantril in 1934, Kramer in 1963) voice stereotypes have been frequently found and in my dissertation we shall be dealing with these stereotypical judgements that are made on voices heard, about *voice quality* aspects and about personality, especially. In past

⁵⁰ The same is noted by Derks (2000, p. 151) for the simplifications we make when classifying our social relations: "Gemeinsam schaffen wir Menschen Sicherheit, wenn die gleiche Meinung von vielen geäußert wird, erscheint sie als wahr!"

2. Theoretical background

studies in psychology the phenomenon of what could be denominated as “voice stereotype” was already recognized, by Kramer (1963) and by Aronovitch (1976). They asked non-experts to hear voices and they already noted that there was in general an interrater consensus in the voice judgements given, despite the fact that some of these judgements were not accurate. One might wonder then why stereotypes should be given importance if they in general imply a distortion of reality. Putnam gives an appropriate answer (1975, p. 250): “Even when stereotypes go wrong, the way in which they go wrong sheds light on the contribution normally made by stereotypes to communication”.

Indeed, we cannot base their importance on their accuracy with respect to reality. If we again recall the ideas from Radical Constructivism and Radical Experientialism about the fact that reality as such does not exist out there but that we construct it little by little with our own lenses of experience, then we understand that opinions based on stereotypes are simply reflecting the subjective process of perception. Our bodies are constantly bombarded by myriads of stimuli and we need to sort them out by simplifying, we need to contrast what we perceive quickly and an effective method is to amplify similarities (generalisation) of the perceived object with other known objects and to exaggerate perceive differences with other known objects (discrimination).⁵¹ In this way we can make a swift judgement and categorisation of something that seems complex. So despite inaccuracies, judging by stereotypes, especially when applied to voice perception, seems to be a useful and even necessary strategy. It comes as no surprise then why, for example, in the field of advertising, stereotypes are so pervasive. As Saz Rubio and Pennock-Speck (2008, p. 371) explain: “Stereotypes are one of the means by which advertisers achieve the tactical goal of reaching the audience...they are an extremely effective and economical way of establishing contact with the viewers.”

If we recall a point made by Kreidman, Vanlancker-Sidtis and Gerratt (2005, p. 338) we then understand that in the research of voice perception and more concretely, research on judgements made on *voice quality* and the use of voice as an identity marker we are bound to find stereotypes everywhere: “The impressions listeners gain from voices are not necessarily accurate...Despite these mismatches, *voice quality* is a primary means by which speakers project their identity to the world.”

⁵¹ A similar process is followed to organize our world of social relations according to Derks (2000, pp. 150-151): “we need some social order or classification in our minds and to achieve this the world is simplified, social attitudes are constantly reorganized according to the different needs.”

2. Theoretical background

An anecdote that illustrates the impact voice stereotypes can have on our perception and indirectly then on marketing strategies is described by Nass (2005)⁵². He explains how a great number of BMW drivers complained about the navigation system. The reason? Clients felt uncomfortable with a synthetic female voice giving directions and they distrusted it. As a consequence, BMW switched to a male synthetic voice to please clients. As Nass explains, drivers that hear a female voice through their navigation systems automatically associate a set of beliefs and expectations that describe female behaviour, that is, stereotypic associations that are so strongly embedded in culture that drivers apply it to the voice they hear, even though they know it is only a machine. As Nass mentions (2005): “People are built to behave toward and draw conclusions about voice-based technology using the same rules and expectations that they normally apply to human beings. Voice interfaces are social interfaces”.

If we return to either Habermas’ *dramaturgical self* or to Goffman’s interpretation of the self as an actor on stage and apply it to the context of voice perception we find that by using our voice we are projecting ourselves to an audience that will interpret us according to the set of voice stereotypes it has. In a way, we can say that we are what our voice makes us be, which again brings us to the idea previously mentioned that our voices function quite frequently as a *self-fulfilling prophecy*, whether voluntarily or involuntarily, whether we like it or not.⁵³

⁵² In <http://www.pbs.org/speak/ahead/technology/voiceinterface/#>

⁵³ In Goffman (1959, p. 231): “In unsere Gesellschaft werden die Rolle, die man spielt und das Selbst, das man ist, in einer gewissen Weise gleichgesetzt.”

3. Hypothesis and objectives

3. Hypothesis and objectives

The questions underlying this project are, on the one hand to aim at “the big picture”, that is, they try to see how cognition and perception function at the level of our voice, but on the other hand, the questions focus on phonetic detail, in order to see if the “macrocosmos” of cognition can be better understood through evidence from the “microcosmos” of phonetics, linguistics and psychology.

The underlying hypothesis in this dissertation is that voice is a key element in the construction and perception of our identity in everyday life. This is a very broad and vague statement and it is not new, yet my attempt is to try and explain how this idea can be validated by carrying out an interdisciplinary qualitative study that encompasses theory and experimental fieldwork and which uses methodology from different research fields, such as psychology, phonetics, corpus linguistics and perceptive linguistics. The main objective thus is to try to answer a series of questions which have the above-mentioned hypothesis in mind:

- How do the different vocal cues reflect our identity in everyday conversation and can a paradigm of correlations between specific vocal cues and specific identity aspects be constructed?
- How are these vocal cues perceived by non experts and how are they processed in order to capture the identity (more specifically, the emotions and the personality) of others?
- Can non experts infer long-term personality traits from voice beyond short-term transient emotions?
- In this process of voice perception do voice stereotypes arise and if so, are they language-dependant?

Due to time limitations the experimental part of my dissertation will only address certain aspects of *identity*, marked in bold in the following figure:

3. Hypothesis and objectives

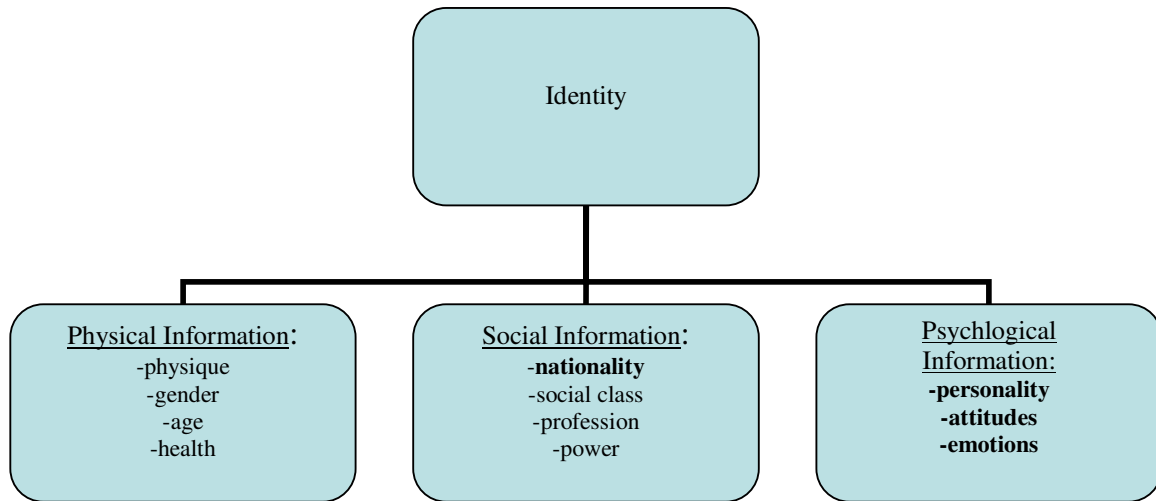


Figure 9: Aspects of identity addressed in the experimental part of the dissertation

However, the aspects not dealt with in the empirical part will still be considered, but only from a theoretical point of view with discussion from other research projects.

4. Methodology

4. Methodology

4.1. Choice of corpus and methods

In order to answer the research questions I have proposed a choice of corpus had to be made from the beginning. If one of the aims is to understand if voice perception (and more concretely, voice stereotypy) is language-dependant I had to include at least two languages in order to be able to make a contrastive study. Therefore I chose English and Spanish initially, one Germanic language and one Romance language. I wanted to include my mother tongue (Spanish) and English (the language of my undergraduate studies and my doctoral courses). But carrying out the research in Germany, it soon became clear that for practical reasons it would be a good idea to collect German samples too. It was obviously easier to find German speakers than English speakers in Munich. I was lucky enough to get in touch with a group of American exchange students in Munich and that is how I recorded twenty samples of American English for my analysis. Finding twenty Spanish candidates and twenty Germans was then much easier.

Therefore the corpus I collected includes two Germanic languages and one Romance language but the three of them belong to Western culture. This has to be mentioned because as will be explained later on, the choice of languages could have an influence on the voice labels used by candidates. For the phonetic analysis this choice of two language families must be considered: in terms of rhythm and the auditory impression rhythm produces, German and English have been classified traditionally as stress-timed languages and Spanish as a syllable-timed language. According to this rhythmic classification, in stress-timed languages the duration of syllables is different but the time between two stressed syllables is the same. In syllable-timed languages, each syllable is pronounced in more or less the same amount of time, but that can vary according to context. However, as Roach (1998) points out, this rhythmical difference has not found clear support in the research carried out so far and it could be more a matter of perception or of “illusion”, as he calls it. Arguments pointing to variation in rhythm according to social situation or personal factors may have a bigger influence than this traditional classification, as stated by Roach (1998). There will be thus an attempt in the phonetic analysis (point 5.1.) to discover whether rhythm differences across the languages of my corpus is just an illusion or a reality.

As was mentioned in the preface, a lot of research has already been carried with English corpora so one may wonder why I insisted on studying this language instead of

4. Methodology

concentrating simply on German and Spanish, which have not been studied in such depth. There are two reasons: the first one is that this dissertation was carried out partly within the doctoral programme offered by the English Department of the University of Valencia and the second one is that although English is classified as a Germanic language, it has undergone many changes as a result of the French hegemony in the past, and can thus be seen as an interesting hybrid in between Germanic and Romanic languages. Therefore, for my contrastive study in terms of a continuum of language variety it offers a middle degree:

German ←————→ English ←————→ Spanish

This project is necessarily quite interdisciplinary, not only from the point of view of the objectives or the questions to be answered, but also from the point of view of the methods used. Though carrying out this research originally within a Ph.D programme in applied linguistics and despite the fact that I have a linguistic background, it became evident from the very start, that only an open approach which would combine methods from phonetics, sociolinguistics, cognitive linguistics, corpus linguistics and psychology would be the best option to support my hypothesis. As opposed to many traditional research projects in linguistics, this one did not follow a top-down approach, but rather a bottom-up approach: with certain hypotheses and ideas in mind I decided to first collect a corpus of spoken data, to classify it, analyze it through different perspectives and use it to prepare a perception test that would help prove or discard the hypothesis and explain the questions mentioned. Only after carrying out the experimental side of the project was this then contrasted with theories and ideas from other scientific studies.

As in many studies of *voice quality*, we will see that I have included four types of methods belonging to the following studies of voice:

- Acoustic measurements (4.2.3. and 5.1.)
- Stereotyping studies (4.2.1., 4.2.2. and 5.3.)
- Perceptual studies (4.3., 5.3. and 5.5.)
- Attribution studies (5.5.)

This dissertation should thus be taken as an interdisciplinary pilot project that has the potential to be studied in more depth at a postdoctoral level, for example in a cooperative framework of researchers from different fields.

The experimental part of this dissertation is divided into two experiments which constitute two different stages of the research. Experiment 1 is constituted by 5 parts,

4. Methodology

which correspond to the collection of the corpus (from July 2006 till November 2006) and to its subsequent analysis from different perspectives (from November 2006 till March 2007). Experiment 2 was then carried out using all the information gathered from Experiment 1 from April 2007 till September 2007, followed by an analysis and interpretation of results from October 2007 till March 2008.

4.2. Experiment 1

4.2.1. The questionnaire

In general a good method to obtain information about any phenomenon is to observe. However, when dealing with voices in everyday conversations, in order to study them in detail we need to record them. In this way we are to capture something that is transitory, as is done in many scientific experiments. Of course, the most realistic voice material would be obtained if we were to record voices spontaneously in speech. However this poses legal problems when obtaining the permission from the informants and so in general informants are informed they are going to be recorded, thus triggering the “observer’s paradox” (Labov, 1972, p. 209).⁵⁴

Acknowledging the impact the observer’s paradox may have in my own research, still I chose the questionnaire as a starting point to collect my corpus of voice samples for a latter phonetic analysis and to gather information about voice stereotypes, voice perception and the mental representations of voices. Because I wanted to elicit specific information (emotions and attitudes in the voice) and I wanted to compare the data across three nationalities, the most suitable method for these purposes was a questionnaire. The target group chosen was a group of 60 female candidates aged between 20 and 30, all from a university background and divided into three nationalities: 20 were American, 20 German, and 20 Spanish. Having a relatively low number of candidates the objective here was clearly not a quantitative one but a qualitative one. The reasons for choosing only women from that age range were strictly pragmatic, since it was at the time much easier to contact that group, and later for phonetic reasons it was better not to involve the gender variable in voice -which would have been the case had I included male samples-. The questionnaire was then administered orally on a one-

⁵⁴ Original quote by Labov: “The aim of linguistic research in the community must be to find out how people talk when they are not being systematically observed; yet we can only obtain these data by systematic observation.”

4. Methodology

to-one basis because it was the means to register the candidates' voices and the information wanted at the same time. It was elaborated as a standardized set of 11 questions that had to be answered with the following objectives and considerations in mind:

- to collect “production data” (Krefeld, 2007), which would be later phonetically analysed.
- to collect “representation data” (Krefeld, 2007), in order to find out how much people know about their own voice and about voice stereotypes.
- the questions had to be as open as possible, one-dimensional, clear and not lead informants to specific answers (Gottschlich, 2005).

The following 11 questions were then asked in the mother tongue of each target group and the answers were always recorded with a digital voice recorder and then later transcribed (simply orthographically) and converted into MP3 format to be later analyzed phonetically. All questions were open but whereas questions 1 to 8 were meant to collect “production data”, 9 to 11 were to collect “representation data”:

- 1) What did you do last weekend?
- 2) Could you tell me about an annoying experience, or something that in general gets on your nerves?
- 3) Could you tell me anything sad that happened either to you, to somebody else or something sad you saw on TV?
- 4) Could you tell me about something positive? Maybe some good news?
- 5) What is your opinion about death or serious illnesses? Does it scare you or not at all?
- 6) What do you study/what have you studied?
- 7) What is the internet, how can you define it?
- 8) How many centimetres do you find in the unit of measure of a foot?
- 9) How would you describe your voice?
- 10) What is for you a sexy voice, for men, for women?
- 11) What is an unpleasant voice, for men, for women?

Table 6: Interview questions

4. Methodology

Candidates were told that they could also say “I don’t know” and that they didn’t need to give extremely long answers. On average, these questionnaires lasted between 2.41 min. and 4.13 min., being thus relatively short.

One could argue of course that question 5 is quite suggestive because the second part of the question gives a choice or leads the candidate in a certain direction, but because the objective of that question was to elicit fear (if possible) in the voice, the question had to be asked in a way that would avoid for example a philosophical answer. However, as the results would prove later on, this expectation was too naïve.

The order of the questions was planned according to certain thematic blocks: question 1 was just a warm up (to awaken curiosity or interest in the conversation), questions 2 to 5 were meant to elicit emotions in the voice wherever possible, questions 6 to 8 where to test attitudes of self-confidence versus insecurity, and 9 to 11 where to elicit concrete voice labels used by candidates and to discover any stereotypes existing. These questions, especially 10 and 11 are characteristic of all stereotyping studies. The collection of such data would correspond to what Osgood and Suci (1972, pp. 307-308) describe as “Phase I. Qualifier selection” which is necessary in any cross-cultural project that aims to collect samples of qualifiers for each language or culture involved and use them to construct bipolar scales. What I have explained so far is the standardized version of the questionnaire, however, there was a certain flexibility in the actual one-to-one interviews, so that for example if a candidate had nothing sad to say (the question being too personal) then I added “anything sad you recently saw on TV or that you heard?” or if they didn’t come up with any adjectives for what a sexy voice was, I suggested that they think of an actor /actress whose voice they liked and then describe why they liked that voice. In general, if you ask anyone to describe the voice of an actor or an actress they like, people are basically describing why they find the voice pleasant, and more specifically, why it is attractive or sexy. Out of many other possibilities, *unpleasant* and *sexy* (and not *pleasant*) were the adjectives chosen for questions 10 and 11 precisely because they are polemical and trigger easily many stereotypes. They are frequently a topic of conversation and everybody has an opinion on them.

The 60 interviews were always carried out by me as an interviewer in quiet places to avoid background disturbances or noises which could later have an impact on the phonetic analysis.

The following factors could be argued to have a certain influence on the answers given and should be taken into account when coming to conclusions:

4. Methodology

- instrumental factors: the way questions are formulated may have an impact on the kind of answers given.
- situational factors:
 - a) location: the more private and comfortable the place in which they took place was, the longer the answers were.
 - b) order of questions: theoretically the easier ones came first, but this didn't turn out to be the case for every candidate.
- interviewer effect (Gottschlich, 2005): the level intimacy/confidence between interviewee and interviewer could have an impact on the length of the answers. For example, the Spanish candidates chosen sometimes amongst friends gave much longer answers than the American candidates, who were absolute strangers to me.

Because of the impact these factors may have, together with multiple variables that occur during the interviews, the results of the questionnaires were later considered with caution and strong generalizations were avoided. Yet they were indicative of tendencies and served as a corpus for the phonetic analysis and classification of voice labels.

These 60 interviews can be listened to in the CD included in Appendix 8 (tracks 1 to 60) and can be read in Appendix 9 (transcriptions).

4.2.2. Voice label classification

As already mentioned, one of the objectives of the questionnaire was to collect “representation data” (Krefeld, 2007), that is, information about how much people know about voices, more precisely, what the words they use to describe voices are, and what the stereotypes existing on sexy and unpleasant voices are. From the beginning it was very important to collect the voice labels used by non-experts, rather than later set up my own list from the existing literature on phonetic terminology. Since one of the objectives of the project is to understand the layperson's perception of voice it seemed more logical then to search first by means of a questionnaire what the adjectives really used in the street are. It was also important to actually classify these voice labels to see from the point of view of frequency if any voice stereotypes stood out and if these were language-dependant.

Because the questionnaire (4.2.1.) was carried out in three different languages, the different voice labels had to be translated for the classification. During the

4. Methodology

translation process several problems were encountered: the most obvious one being that some voice labels in one language did not have a perfect match in another, and another one being that certain voice labels are ambiguous in their use and only context can really help decide what was meant, as happens for example, with the adjectives “low” / “bajo” in English and Spanish respectively, which were sometimes used for intensity descriptions and sometimes for pitch descriptions.

The driving force in the translation was always to try and find the adjectives that would have more or less the same function in the target language and that would be well understood and accepted later on in a perception test administered to non-expert candidates. A cognitive semantic analysis of these adjectives would perhaps prove if their translations are adequate but due to time limitations this was not carried out.

A total of 6 tables (see Appendix 1 to 6) were then produced in the classification process, the main division of labels being taken from Laver’s classification of voice labels (1991, p. 172), that is, the distinction between phonetic and impressionistic labels: phonetic labels being those that according to Laver can be divided into individual components describing how the sound is produced, such as “high” or “creaky”, the rest being impressionistic labels, those purely based on subjective criteria. As we will see, each table featuring phonetic labels contains Abercrombie’s (1967) distinction of *voice dynamics* vs. *voice quality* labels, already explained in chapter 2, and all aspects mentioned in the phonetic literature previously defined: intensity, pitch, intonation, tempo, tension, roughness, breathiness, pitch variations and nasality.

The tables containing the impressionistic labels contain four sections: personality labels, synesthetic labels, positive and negative labels, the last two being simply evaluative terms.

Furthermore, each table contains the voice labels translated into the three languages of the target groups that did the questionnaire, and ♀ and ♂ symbols specified whether these adjectives were associated with male voices or with female voice. The numbers then below those symbols are the tokens for each type of word (see Appendix 1 to 6).

4.2.3. Praat

As in many phonetic research projects, Praat was here used to analyze the voice samples that were collected by the questionnaire recordings of the 60 candidates. Praat

4. Methodology

is a free downloadable computer software programme that helps analyze, synthesize and manipulate speech, or even create graphs of vocal sounds.

In my project Praat was only used to measure the vocal features that have a clear acoustic correlate, that is, intensity (in dB) and frequency (in Hz). Speech rate was also measured, but this was done manually and counted in syllables per minute (SPM) since Praat or other phonetic programmes are not yet prepared to give speech rate. For each of these measured parameters (frequency, intensity, and rate) the average was given by the programme, and in the case of pitch also the minimum frequency, the maximum and the standard deviation in order to find out if this would have a correlation with voices being felt as more or less harmonic, more or less passive. The results were recorded in three different Excel tables, corresponding to the three nationalities of the candidates (Spanish, German, English) and a total average was also calculated for each nationality in order to find out if there were any salient cultural differences in the vocal features measured. Length (or total duration of the interview) was also recorded in the table of each nationality and a total average was calculated here again. Using the results from the excel tables I then generated graphs to visualize the information (see 5.1.). For all averages given in excel, the standard deviation (SD) function was used in order to see if differences were significant enough or not, and this is how the error bar is included in every graph to show the variation.

4.2.4. Corpus tools

As Ball explains (1996), a corpus provides us with naturally-occurring data to study a specific linguistic competence as performance. Apart from this “naturally occurring” characteristic of *corpus*, Sinclair (1991) points out that it is formed by a collection of texts in order to characterize a variety of language. So by using different corpora in linguistic research we can access natural examples of language and at the same time have a closer look at possible language variation. Bearing the previous ideas in mind, in this study different corpora and concordancer tools were used to prove if the results of my voice label classification and their frequency matched what other data suggests, by contrasting my most frequent voice labels with the information three different types of corpora and/or corpora tools give:

- the spoken corpus from *MICASE* with the gender variable.

4. Methodology

- the VIEW tool to search the BNC with the register variable (and its Spanish version *Corpus del Español* as a cross linguistic check).
- Wordsmith tools concordancer with my own corpus of 20 interviews with American women.

From the point of view of the three main types of corpus based linguistic studies (lexical/syntactic/discourse) this project involves lexical research, since the main procedure is the search for adjectives co-occurring with the noun “voice”. On a larger scale, this study aims at what Aston (1997) calls schematic knowledge, that is, the search for regularities in discourse that show fixed or semi-fixed associations, and in this case, the distinctions between situation and form (through the study of voice labels across registers).

4.2.5. Personality tests

One of the objectives of the research being to find out what some of the correlations between personality (as part of our identity) and vocal features are, the candidates interviewed orally with the questionnaire seen in 4.2.1. also had to fill in an online personality test, the so called Jung Myers Briggs typology test⁵⁵.

Jung (explained by Robertson, 1995) addressed the study of human personality by explaining that the three driving forces that form our character are “the personal consciousness, the personal unconsciousness and the collective unconsciousness”. He understood that people were driven by a mixture of these forces, by their instincts⁵⁶ and especially by their preferences in how they function. Many other psychologists continued along this path and started theorizing about “psychological types” into which people can be classified (Keirsey and Bates, 1984, p. 3). According to the authors that followed Jung’s theories of personality, there is a combination of four pairs of preferences that people might have, which makes a total of sixteen different personality types:

⁵⁵ Retrieved from www.humanmetrics.com/cgi-win/JTypes2.asp.

⁵⁶ Instinct is understood here as an innate pattern of action common to a given biological species, in this case, mankind.

4. Methodology

1.	Extroverted (E)	Introverted (I)
2.	Intuitive (N)	Sensitive (S)
3.	Thinking (T)	Feeling (F)
4.	Judging (J)	Perceiving (P)

Table 7: Four dimensions of personality types

However, the only dimension that was later taken into account in my research and matched against the phonetic results was the first one, the extroversion/introversion dimension to see if it had clear phonetic correlates. The other pairs do not seem to even have clear stereotypical vocal realizations and were thus not used afterwards in my research.

Basically, what is understood in this test by an *extroverted* person in Keirsey and Bates (1984, pp. 14-15), is the preference for sociability, the person that is energized by the contact with others, by social interaction. Whereas an *introvert* person is more territorial, desires space and more privacy and solitary activities. This does not exclude the fact that every extrovert has at times an introverted side and vice-versa, but this test simply makes the preferred attitude explicit. In theory, according to Bradway (1964), 75% of the general population prefers extroversion, however this proportion was not really represented in the results of each of my target groups (composed by a total of 60 candidates, 20 of each nationality), as we can see in this table:

Personality type	American	Spanish	German
Extroverts	10	9	8
Introverts	10	11	12

Table 8: Numbers of introverts/extroverts among the candidates

This could be due to the way the questions are formulated in the test and the fact that people are only allowed an either/or answer, instead of including the “don’t know” or “both”. In this way people are pushed in one direction when sometimes the answer depends really on the context. It is also proven that depending on the mood under which the test is done, the degree of introversion/extroversion may vary slightly.

4. Methodology

There are many other personality traits that form our character, however, only the introversion/extroversion trait was singled out from this personality test for my experiment because it seems to be the one that has more voice stereotypes associations, that is, as already mentioned, (in the western culture at least) there is a certain expectation that extroverts will talk longer, faster, louder and with a deeper tone than introverts, since deeper voices confer in general more self-confidence than higher ones (Rodero, 2001, p. 3).

Self-confidence or self-esteem has also awakened the interest of phoneticians, psychologists and sociologists, producing many studies like Rodero's, which have been mentioned previously and have shown that there are vocal correlates for self-esteem such as the adoption of a lax voice and a deeper pitch. In order to test this aspect of personality later on, candidates were also asked to take online the "Rosenberg Self-Esteem scale" (RSE)⁵⁷. Rosenberg designed it in 1965 as a one-dimensional measure of global self-esteem. It contains a total of ten questions to which a continuum of four answers is always possible, ranging from "strongly disagree" to "strongly agree". It focuses on people's general feelings toward themselves, without referring to any specific quality or attribute. The score ranges from 0 to 30, scores between 15 and 25 being within the normal range and below 15, meaning low self-esteem. After analysing the results from this test, and not finding any low self-esteem cases, my candidates were then classified as:

- a) Average self-esteem (scores between 14 and 17)
- b) Quite high self-esteem (scores between 20 and 27)
- c) Very high self-esteem (scores between 27 and 30)

This classification was useful later on for the perception test, in order to contrast people's perception of self-confidence when hearing voices with the actual results from the RSE.

⁵⁷ Retrieved from <http://www.wwnorton.com/college/psych/psychsci/media/rosenberg.htm>

4.3. Experiment 2: the perception test

Two general aims were pursued: on the one hand, to see how accurate people's voice perception is and whether there exists an interrater consistency in voice judgements, and on the other hand, to have a glimpse at the perception of emotions and attitudes across nationalities (emotions and attitudes being an important part of our identity).

The first step was to design the perception test with all the information gathered from the interviews, which implied deciding which of the recorded voices would be used as stimuli and devising some kind of questionnaire that people would fill in with their voice judgements. As for the choice of stimuli, out of the sixty female voices collected through the initial interviews (4.2.1.), six different voice extracts of around 14 seconds duration were selected. Three were from the German candidates and three from the Spanish candidates. For practical reasons and time limitation the American candidates were not used in the perception test. The three voices from each nationality were chosen according to the stereotypic standards of what was found to be a pleasant and an unpleasant voice (see 4.2.2.). That means that for both nationalities stimulus one was the supposedly pleasant one (relatively low F₀, average intensity, average speed), stimulus two the supposedly unpleasant one (high, if possible squeaky voice, fast and loud) and stimulus three was an intermediate option (neither too high nor too low, nor too loud or quiet, nor too fast or too slow). The stimuli chosen from each nationality group also belonged to different personality groups, with some introverted and some extroverted voices (see 4.2.5.).

In order to measure voice judgements I based the questioning system of the perception test on Snider and Osgood's semantic differential technique (1969): this technique was based on research on synesthesia that acknowledged that the process of translating an auditive (musical) experience to a visual response could be understood as the alignment in thinking of two or more dimensions of experience, where each one is defined by polar terms. Some years later, Osgood and Suci (1972) used this approach as an attempt to measure the connotative meaning of concepts and considered that terms are categorized in a kind of semantic space where the meaning of a sign is projected in vectors that form three "dimensions" or directions. These dimensions are said to be orthogonal in the sense that they are independent variables or meaning. The coordinates of each of Osgood and Suci's dimensions are formed by polar terms (antonyms). As expressed by Osgood and Suci (1972, p. 43): "The process of description of judgement can be conceived as the allocation of a concept to an experiential continuum, definable by a pair of polar terms."

4. Methodology

Therefore, to describe any given concept we “differentiate” its meaning from other concepts by placing it in a multidimensional scale of polar terms. Osgood (1964, pp. 171-200) claimed that people’s judgements of a concept could then be interpreted as a cube of data (three-dimensional aspect of meaning):

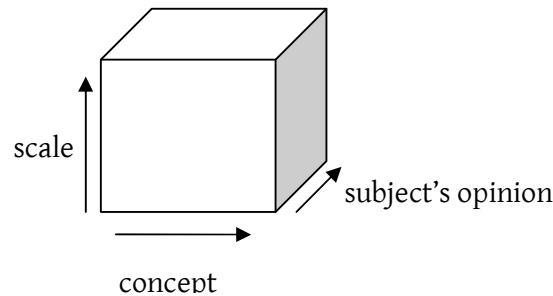


Figure 10: Osgood's semantic differential cube

Osgood (1964) applied this theory to affective judgements across cultures and to avoid bias he made each nationality determine its own scale by eliciting adjectives and then only used the common ones. He then classified the adjectives in terms of frequency, productivity and independence and any semantically redundant scale was eliminated. He found out that frequent adjectives tend to be common across languages and that the three dominant factors that create the directions of the vectors in the semantic space were:

- evaluation
- potency
- activity

When a concept was given the same qualifiers by people then Osgood (1964) saw this as example of cultural stereotypy, whereas when a concept was described with many different qualifiers by different people then it was a “culturally amorphous concept”. Osgood and Suci (1972, p. 49) stated a noticeable tendency for both activity and potency to be associated with positive evaluation. This observation will be considered in the analysis of voice judgements in my perception test.

Unlike Aronovitch (1976) who included 54 labels found in literature for his perception test, I applied Snider's and Osgood's (1969) semantic differential technique of bipolar terms (wherever possible antonyms were used, if not, negation) by including the most frequent voice labels given by the candidates in the interviews and following the classification found in appendixes 1 to 6, a list of terms was elaborated in the form of a five point bipolar scale of boxes to tick in the first part of the perception test. (For more clarity

4. Methodology

please find the perception test in Appendix 7.) Because each candidate would have to listen to three stimuli, each set of polar terms was repeated along three columns. The choice of a *five* point scale was not arbitrary; an uneven number was chosen so that candidates would have the middle option, that is, the choice for neutrality in case they hesitated. It was my intention not to force their answers in any direction since a frequent choice for number three (the neutral option) would also give me some information about the difficulty of ascribing judgements to certain voice labels or difficulty in perceiving certain vocal traits, and this was also a significant piece of information that I did not want to rule out.

In general, lists that include a set of bipolar terms have a scale that ranges from 5 to 7 points. Here the choice of 5 instead of 7 was important in order to avoid giving candidates too much choice in their answers and let them qualify the stimuli in two possible ways: as either “very”+adjective or “quite”+adjective. Too much choice would have meant longer reflection time.

The second part of the perception test was organized and formulated differently, since the aim of that part was the recognition of emotions and attitudes. The choice of the stimuli to be used for this part was also different. As I explained at the end of 5.1., there was no success in eliciting emotional answers in the interviews and thus I could not possibly use any of these recordings as emotional or attitudinal samples for the second part of the perception test. This is why, as is the case in many phonetic experiments, I chose to record some actors acting out different emotions and attitudes, which is a manipulation technique. For this purpose, a Spanish actor and German actress were given scripts containing a total of five emotions or attitudes to act out as natural as possible in their mother tongue: self-confidence, anger, sadness, insecurity and joy. Anger, sadness and joy are three basic universal emotions (Darwin, 1872) and self-confidence and insecurity are two opposed attitudes that were singled out from all the range of possible attitudes because they have clear vocal correlates such as repetitions, pauses, slow speech or higher F0 for insecure attitudes. Both actors were then recorded acting out these emotions and attitudes and their voices were used as the stimuli for the second part of the perception test. The CD contained in Appendix 8 includes all the stimuli used in the perception test (tracks 61 to 76).

The questions in the second part were more open than the ones from the first part: *voice judges* had to say what the perceived emotion/attitude/s is/are out of a list that included the following options: joy, disgust, anger, sadness, self-confidence, surprise, and insecurity. Only five of these emotions and attitudes were in fact possible correct answers and *disgust* and *surprise* were included as distractors. What is important here is that the

4. Methodology

informants were asked to tick one or more attitudes/emotions since I wanted to see how accurate their perception was or which emotions or attitudes tended to be associated and perceived in combination with others. Then the candidates had an open question which asked them to say which vocal parameters helped them come to this conclusion. The choice of an open question instead of a closed one was intended to elicit information on how much people really know about voices and which vocal parameters are more frequently used to judge the voices.

There were a total of four *voice judges* groups, 10 members in each group and a total of 40 *voice judges* that took the perception test:

- Germans with no knowledge of Spanish listened to Spanish voices (G)
- Germans with at least an intermediate level of Spanish listened to Spanish voices (GS)
- Spaniards with no knowledge of German listening to German voices (S)
- Spaniards with at least an intermediate level of German listened to German voices (SG)

This choice of four groups was meant to clarify, on the one hand, whether voice judgements are language dependant or not (by proving if judges that understand the language played come to more accurate answers than those not understanding the language) and, on the other hand, to help observe if there are nationality differences in the perception of specific emotions or attitudes.

Whereas in the first empirical part only female voices between 20 and 30 years old were recorded to avoid having too many variables in the experiment and then in order to have a homogenous group to analyze phonetically, in the choice of forty voice judges both men and women between 20 and 30 years old were included, since there have been other experiments of voice perception in the past that prove that there are no big differences between male and female voice judgements (Aronovitch, 1976). Judges heard the stimuli as many times as was necessary to come to a conclusion for both parts of the perception test.

5. Results

5.1. Phonetic analysis

A phonetic analysis of the sixty voice samples from the three nationality groups was then carried out: length, pitch, SD of pitch and intensity were analysed with Praat and speech rate in SPM (syllables per minute) was calculated manually. First the results between nationality groups were compared in the search for important national differences and then the results were contrasted in terms of personality groups (extroverted vs. introverted)⁵⁸ to see whether the personality dimension of extroversion/introversion can play a role on the use of the above mentioned vocal parameters.

The first thing I analyzed was the length of the answers given in each interview. First the average length was compared in terms of nationality groups (English, German, Spanish) and then in terms of both nationality and personality groups. The problem here is that the results could be biased by the fact that the level of intimacy between the candidates and the interviewer varied according to the nationalities: the Spanish candidates were chosen amongst my group of friends, the German ones amongst students and neighbours that knew me a little, the American candidates were absolute strangers. We find that on average Spaniards gave the longest answers (4.13 min.) followed by Germans (3.49 min.), followed by Americans (2.41min.), which definitively seems to indicate a correlation with the degree of intimacy, as can be shown in Figure 11:

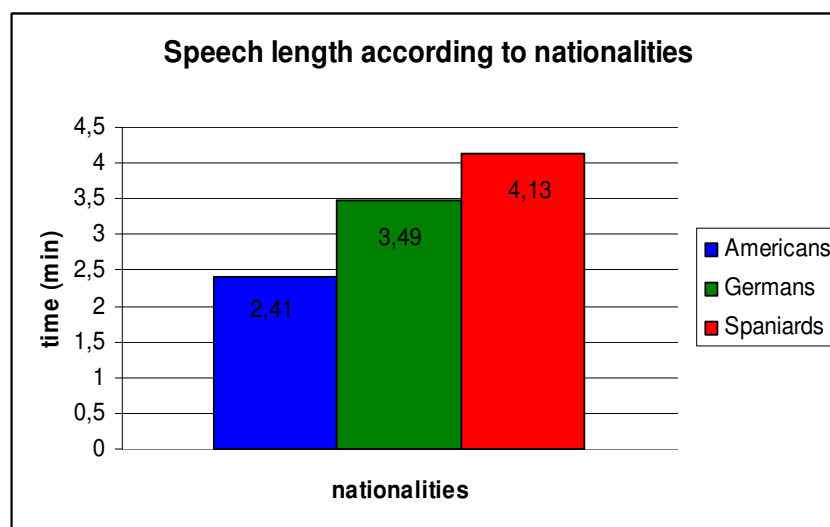


Figure 11: Speech length and nationality

⁵⁸ According to the Jung Myers Briggs typology test.

5. Results

However, if we just consider within each nationality the average length of the extroverted group and the introverted group, we do find proof for the common stereotype that in general, extroverted people, being more open, will talk more or give longer answers when asked something, as can be seen in Figure 11. We find that all extroverts gave longer answers than introverts within each nationality, the biggest difference being between Spanish introverts and Spanish extroverts.

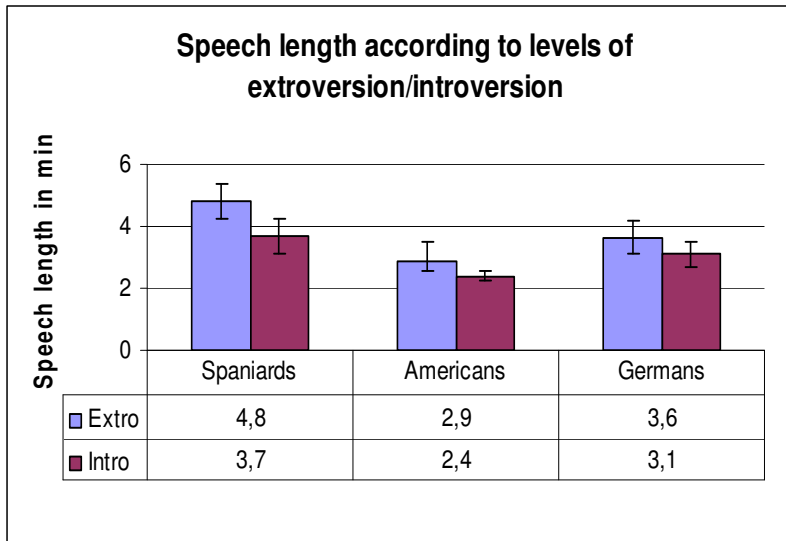


Figure 12: Speech length and levels of extroversion/introversion

Another vocal aspect analysed was the average frequency of each speaker interviewed (their pitch) and the Standard Deviation (SD). Again it was analyzed on the one hand, according to the nationality of the speaker, on the other hand, regarding the extroversion/introversion classification given by the personality test. A certain amount of variation across nationalities was found, the Spanish voices being the deepest (202.8 Hz), followed by Americans (208.6 Hz), followed by Germans (213.9 Hz), as can be seen in Figure 13. However, a difference of 11 Hz (between Spanish and German candidates) is barely audible in terms of pitch.

5. Results

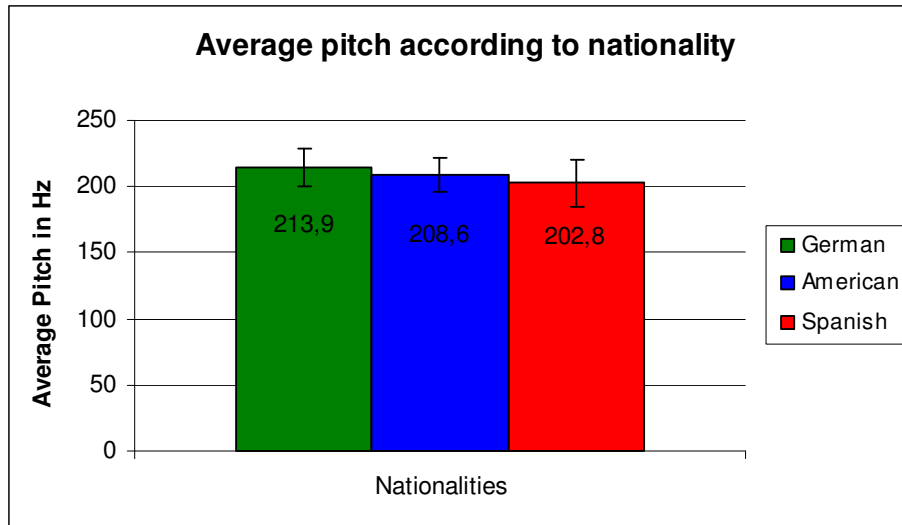


Figure 13: Pitch and Nationality

If we consider the results from the point of view of the extroversion/introversion level, we do not find a clear difference in pitch performance: we have on the one hand extroverted American and Spanish groups with higher pitches than the introverted groups, which matches the stereotype that extroverted voices should have a higher pitch than introverted ones (Argyle, 1992, p. 32) but the extroverted German group followed the opposite tendency (see Figure 14). However it must be noted that literature on correlations between pitch and level of extroversion is sometimes contradictory: Argyle (1992, p. 32) makes no gender distinction in this correlation. However, Scherer (1979, b, p. 180) notes that the correlation between high pitch and extroversion (and dominance and confidence) applies to men and not women. High pitch in women, according to him, is correlated with kindness, humour, immaturity and emotionality. This could explain then why my female German extroverted candidates did not have a high pitch in average in comparison to introverts. But it does not solve the question as to why Spanish and American extroverts did have a higher pitch in average than the introverts.

5. Results

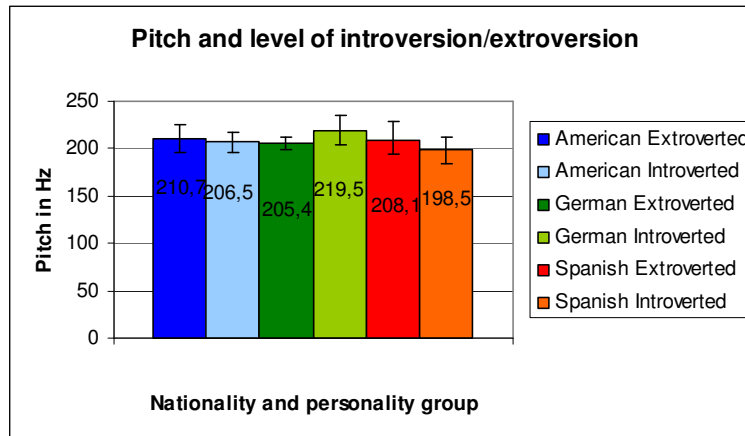


Figure 14: Pitch and level of introversion/extroversion

On the other hand, if we consider the pitch Standard Deviation (SD) according to the level of introversion/extroversion, we do not find proof for the general expectation that extroverts cover a higher range of pitch (big SD) and introverts a lower one (small SD), as we can see in Figure 15:

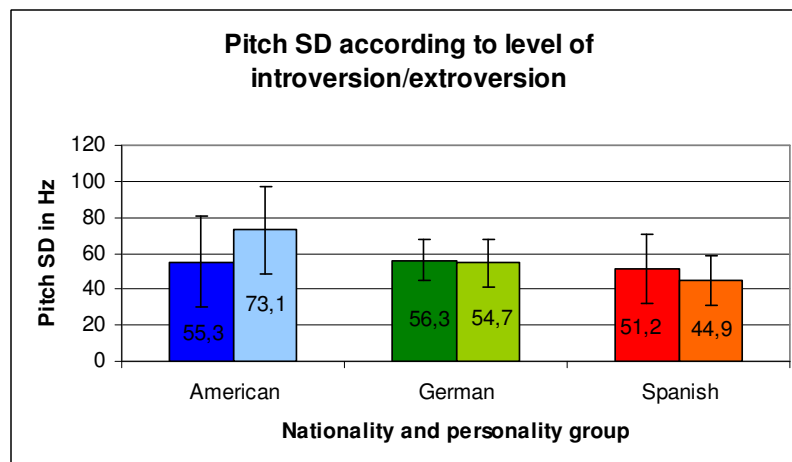


Figure 15: Pitch SD and level of introversion/extroversion

According to this figure, we find that only German and Spanish candidates confirm (slightly) the stereotype, whereas Americans (in blue) follow an opposite tendency, with introverts having a bigger SD of pitch than extroverts.

Consequently, this means that introversion or extroversion are personality traits that do not have a clear correlation in pitch alone and other voice parameters will have to be considered.

5. Results

Praat was next used to carry out the same research concerning the intensity of voice, again first to check nationality differences and then personality differences. The average intensity for the three groups was almost the same, to one decibel, the Spanish group being slightly the loudest, followed by Americans and then by Germans, as can be observed in Figure 16. A difference of one decibel is not perceptible enough to be significant.

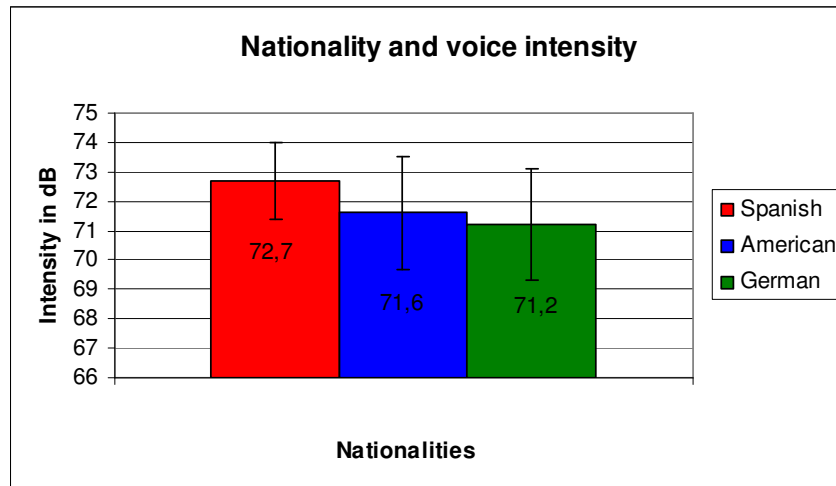


Figure 16: Voice intensity and nationality

Figure 17 then illustrates the fact that again, the results do not prove the general stereotype that introverted voices are quieter or vice versa, that extroverted voices are louder, as had been found by Scherer (1978, p. 485): “Extroversion attribution from *voice quality*...is...related to voice energy, mainly vocal effort and dynamic range”. We again find two contradictory tendencies: on the one hand, Spanish (dark red) and American (dark blue) extroverts spoke louder than their peer introverts (confirming the stereotype), and on the other hand, German introverts (light green) spoke louder than their peer extroverts, which goes against the expectations. If a similar phonetic analysis were to be carried out on a bigger scale, perhaps more generalisations could be made than what is possible with my results.

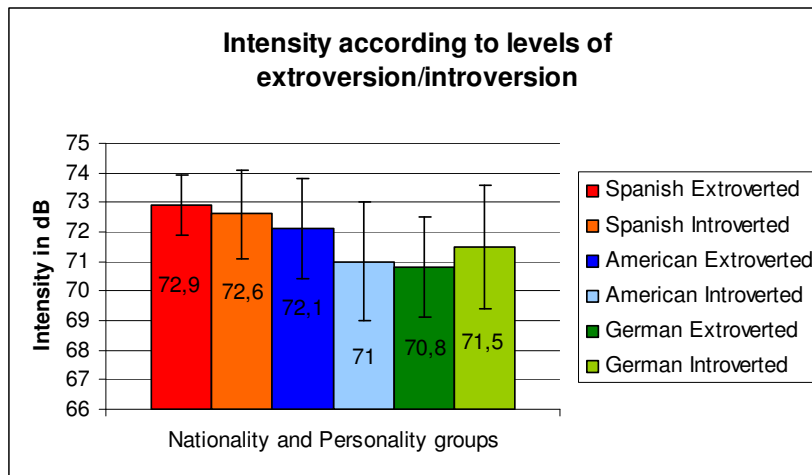


Figure 17: Voice intensity and level of introversion/extroversion

Figure 17 shows that whereas the Spanish and the American groups do point in the direction of the stereotype that extroverted voices are louder, the German group shows the opposite tendency, that is, that introverts interviewed were slightly louder. The differences in intensity ranging within a decibel and considering the background noises that may occur during the recordings, the differences are too small to be able to come to any conclusions with regard to any correlation between voice intensity and personality.

Finally the last phonetic aspect analysed, though not with Praat but manually, was the average speed for each speaker interviewed, calculated in syllables per minute (SPM). It is important to note here that the rate was calculated including pauses, since no convincing method was found to distinguish what constituted a pause and what did not. Again the results were compared between the three nationalities and also by personality groups. What was especially interesting here was that a major nationality difference was found with the Spanish candidates speaking the fastest, followed by Germans, followed by Americans. Spanish speakers were found to speak almost fifty syllables more per minute than Germans, and almost sixty syllables more per minute than Americans, as can be stated in Figure 18:

5. Results

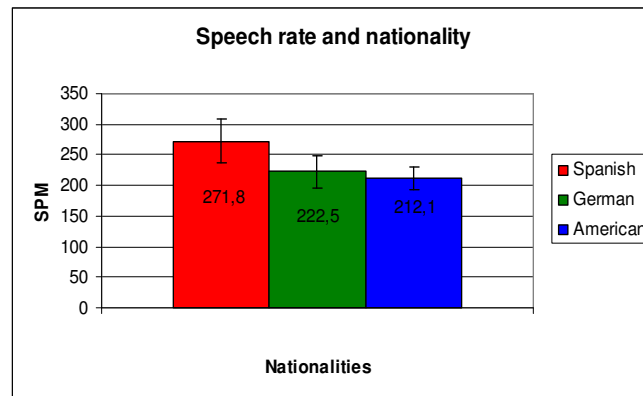


Figure 18: Speech rate and nationality

If we then consider speech rate according to the level of introversion/extroversion the results are again not so convincing. In general we expect extroverts to speak not only more but also faster, and this was confirmed only by the German extroverted candidates and the Spanish extroverted candidates, but not by the American candidates. In general the differences were never so big as to be able to prove that this stereotype has a basis in reality, as can be seen in Figure 19.

This again points in the direction that the degree of introversion/extroversion of a person is not clearly correlated by a specific speech rate either, just as speech length, frequency and intensity did not match in general this personality trait.

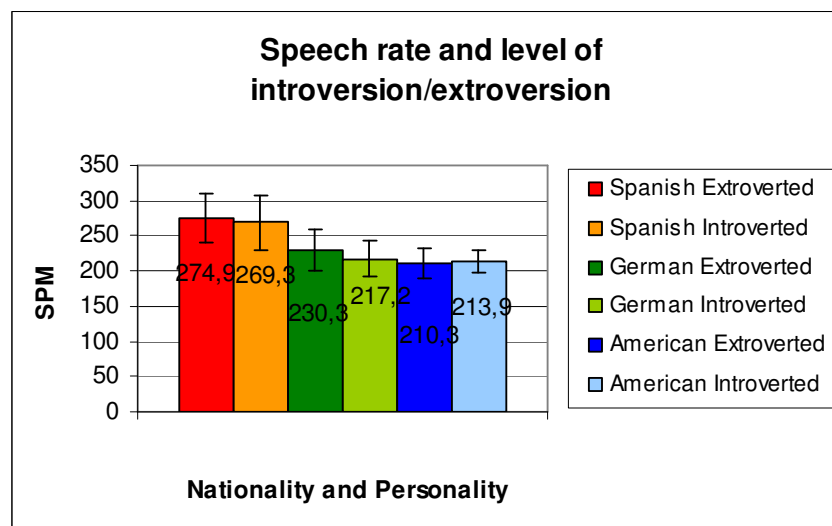


Figure 19: Speech rate and level of introversion/extroversion

5. Results

However, with speech rate one has to be careful with the answers, since we must not forget as mentioned in chapter 4 that German and English are stress-timed languages and Spanish is a syllable-timed language. As Roach (1998, p. 150) mentions: "...although counting syllables is likely to be a much more reliable way of comparing different languages for speaking rate than counting words, we should bear in mind that different languages have very different syllable structures."

This could theoretically mean that German or English having more complex syllables (with more sounds) would take longer to pronounce than Spanish ones and this could have a direct impact in the total count of SPM. However theories of word reduction in spontaneous speech also show that in languages such as German, phonemes from unstressed syllables and phonemes in either word-medial or word-final position tend to be reduced (Mitterer, 2008). This means that we shouldn't assume a correlation between syllable complexity and time to pronounce it.

The problem of speech rate perception is mentioned by some authors, Roach amongst them (1998, p. 150):

Most people feel intuitively that there is a genuine rhythmical difference between languages such as English (classed as stress-timed) and French or Spanish (classed as syllable-timed), and it usually seems that syllable-timed speech sounds faster than stress-timed to speakers of stress-timed languages.

It could therefore be that Spanish is perceived as faster when it really is not, so that it is some kind of illusion we have. However then this would contradict the relatively big difference found in the SPM of my own candidates, since my results prove that the candidates studied were not only perceived to talk faster, but they actually did utter more syllables per minute.

So through the phonetic analysis we see that although there are noticeable nationality differences in length and speech rate, we cannot confirm clear vocal correlates for the introversion/extroversion parameter, as stated by Argyle (1992, p. 32): "Extroverts, and people who are socially competent, speak in voices that are louder, faster and higher pitched and with fewer pauses."

In 4.2.1. I mentioned that questions two to five of the questionnaire were aimed at eliciting emotional answers. The purpose of this would have been to analyze phonetically

5. Results

typical vocal correlates for joy and anger (big SD in frequency, high intensity) or for sadness (low intensity, slow speech rate). However, it soon became clear, that the answers given by candidates to questions two to five were not emotional. In the act of retelling past emotional moments there was no emotion to be found, but rather people tended to give neutral answers from the point of view of prosody. This can be explained partly by the lack of intimacy between me and the speakers (an intimacy which would be needed to perhaps reveal any emotions) and partly by the temporal aspect (the more time elapses between the spontaneously felt emotion and the moment you speak about it, the fewer vocal cues for emotions are). Therefore no phonetic analysis of emotions was carried out.

5.2. Statistical analysis

All these results were then checked to see whether the differences might have been caused by pure statistical accident or not, in other terms, whether my results were significant or not. Because there were three nationalities to compare (three factors) the best method was to carry out a One-way ANOVA Test.⁵⁹ The results of this test are found in Table 9:

		Sum squared deviations	df	Mean of the square deviations	F	Significance P
Length	Between groups	86464.233	2	43232.117	7.791	.001
	Within groups	316299.950	57	5549.122		
	Total	402764.183	59			
Pitch	Between groups	1234.101	2	617.051	2.774	.071
	Within groups	12677.932	57	222.420		
	Total	13912.034	59			
SD of pitch	Between groups	2702.637	2	1351.319	3.728	.030
	Within groups	20662.329	57	362.497		
	Total	23364.966	59			
Intensity	Between groups	26.134	2	13.067	4.477	.016
	Within groups	166.375	57	2.919		
	Total	192.509	59			
SPM	Between groups	40721.387	2	20360.693	25.986	.000
	Within groups	44660.728	57	783.522		
	Total	85382.115	59			

Table 9: Results from the One-Way ANOVA test

⁵⁹ The Statistics Department of the LMU helped be out with their software.

5. Results

If we consider the column containing the significance levels and taking the standard threshold used frequently in social studies that $P < 0.05$ (P being the estimate of the probability that the results have occurred by statistical accident) then we find that there are significant differences between nationalities for length, SD of pitch, intensity and SPM but not for pitch.

In order to check the statistical significance of differences found between the two personality groups (two factors) a T-Test was carried out and no difference was found to be significant enough, which confirmed the conclusion that extroversion or introversion do not have an influence on the voice cues studied.

Finally, to test statistically the impact personality and nationality at the same time might have upon the mentioned vocal cues an Univariate analysis of variance was carried out: this analysis proved that for length both nationality and personality played a role, whereas for pitch, SD of pitch, intensity and speech rate nationality alone had a certain influence on the results but not extroversion/introversion.

5.3. Corpus analysis and voice labels

Using the classification mentioned in 4.2.2. which can be found in the appendix (1 to 6), a closer look was taken to observe which voice labels were most frequently used when candidates were asked in the interviews to describe their own voice, a sexy voice and an unpleasant one and once more, nationality differences in the preferences of voice labels were sought. Despite the margin of inaccuracy existing due to the difficult translation of certain words, the following interesting observations were made:

- In describing their own voice and sexy voices, there was a clear tendency for candidates of the three nationalities to choose *phonetic labels* more often than *impressionistic labels*, with *voice dynamics* and pitch labels, being the most frequent ones. Even though, as Laver mentions (1991, pp. 171-183), *impressionistic labels* are far richer in number than *phonetic labels*, candidates decide more often than not to describe voices using the most “objective” labels.
- In the description of unpleasant voices there was again a clear preference amongst the three nationalities for *phonetic labels*, but this time *voice dynamics* labels and *voice quality* labels were equally preferred. Two adjectives were found to be the most frequent in all three nationalities: *high* and *squeaky*, which were the stereotypes for

5. Results

unpleasant voices. It should be noted that the label *high* was used slightly more frequently for unpleasant male voices and that *squeaky* was more frequently associated with unpleasant female voices (see Table 10).

- A stereotypical sexy voice seems to be the *deep and raspy* kind in the case of all the languages studied (see Table 10). This then would be, at least for western culture, to which the languages studied belong, the perceived factors pointing to sexiness in voice. Though these adjectives are common for both men and women, the tokens for *deep* are slightly more frequent for sexy male voices than for sexy female voices, which matches the social unacceptability of high pitched voices, especially for men in Western Europe and the USA. This same idea can be found in Rodero's (2001, pp. 8-9) study of pleasant voices in radio news. Research carried out in the field of sexual selection (Collins, 2000, p. 777) also proves that women systematically find that "men's voices with harmonics that are closer together and lower in frequency more attractive". Grammer et al. (2003, p. 398) give biological evidence for the fact that women are more attracted by deep male voices: "The biological background for such an attractiveness rating might lie in the fact that usually the size of the voice-producing apparatus correlates with body size, which is sexually dimorphic and thus again prototypical for males."
- What is interesting is that there is no symmetry between the stereotypical unpleasant voice and the stereotypical sexy voice (implicitly pleasant), that is, if for example *deep* and *raspy* are the prototypical adjectives for sexy voices, maybe one should expect *high* and *smooth* for unpleasant voices. Yet this does not seem to be the case. (see
- Table 10)

Ranking	Voice label	Frequency (%)
1	Low/deep	17.58
2	Squeaky	15.69
3	High	14.85
4	Raspy	5.86
5	Slow/calm	4.81
6	Loud	3.77
7	Soft	3.35
8	Breathy	3.14
9	Childish	2.93

Table 10: Frequency of voice labels

5. Results

- Another interesting observation is the perception of *nasality* as unpleasant only for the German and American candidates. *Nasal* was only used once by a Spanish speaker, whereas, it was used by three different Germans and by five different Americans. This seems to show that only in the phonological systems where nasality is strongly present (at least here for American English and German), can this aspect be perceived as unpleasant. One cannot assume that nasality is not unpleasant then for Spaniards but rather, that it is not an aspect which they are confronted with in daily life, and that they therefore have not made many judgments about it.
- A last point to be mentioned from the study of labels is the use of synesthetic labels: here there is a striking preference for Spanish candidates to equate *smooth* and *sweet* with sexy voices. Why Spaniards more than Germans or Americans have this preference, still remains to be explained. Being a native speaker of Spanish with frequent contact with the Anglo-Saxon and German cultures, I can only venture to say intuitively and subjectively that Spanish seems to be a language where its speakers enjoy using it through their five senses, more than in the case of English or German. But it could simply be that the adjective *smooth* or *sweet* does not collocate as much with *voice* in German or English as in Spanish (see chapter 6).

Having found out what the preferred voice labels by the candidates interviewed were, the next step was to compare my results with three bigger corpora to see if the preferences found could be representative at all, as mentioned in 4.2.4.

5.3.1. Use of MICASE:

Two kinds of research were carried out using the Concordance Search Option of MICASE⁶⁰. First one in which the word “voice” was searched for in the spoken corpus. The first problem was already encountered at this level, when no matches were found if the speaker and speech event attributes were specified. So in order to find any matches at all with “voice” I had to leave all the choices unmarked with “all”. Only then did I obtain a list with a total of 89 matches. A second problem was that under the “Context word or phrase” option, only specific words can be given and not a category, such as “adjective”, which would have been more useful. However, once the list of 89 matches of sentences containing the word “voice” was obtained, I had a careful look at the words mentioned

⁶⁰ MICASE: <http://micase.umdl.umich.edu/m/micase/>

5. Results

close to it, especially immediately to its left, which is the normal adjectival position. I then counted a total of 29 tokens of adjectives or words functioning as adjectives (adjective nouns) for a total of 14 different types and then listed them in terms of frequency, as can be found in Table 11:

Adjectives (Types)	Frequency(Tokens)
female	6
natural	5
male	5
falsetto	5
loud/loudest	2
artificial	2
sweet	1
courageous	1
raggedy sounding	1
melodious	1
mechanical sounding	1
clearer	1
narrative	1
child's	1

Table 11: Frequency of the fourteen types of labels found

I also selected the gender option from the “choose result settings” in order to see if there was an important difference in the choice of adjectives depending on the gender variable, but there was no significant observation to be made, no clear tendencies in the choice of the 14 adjectives mentioned, except for the fact that all the occurrences of “natural” and “falsetto” were from male speakers, which curiously all belong to the same transcript, one from the Peking Opera Colloquium. Still with only five samples of each of these words and not knowing how many men and women took part in this colloquium, I wouldn't venture to say that this information is relevant and would just see this as mere coincidence.

The next step was to compare the information from Table 10 with the data I already had about voice labels. If in my interviews I had noticed a clear preference for what Laver (1974) calls *phonetic labels*, all the labels found with MICASE (except “falsetto” and “loud/loudest”) belong to what Laver (1974) calls *impressionistic labels*, that is, those that do not match specific phonetic settings and that imply a subjective observation, some being *synesthetic*, such as “clearer” or “sweet”, others related to personality, such as “courageous”. Most of these adjectives coincide with the ones I collected from my

5. Results

interviews but curiously, my most frequent ones, “high” and “deep”, were nowhere to be found in *MICASE*

5.3.2. Use of *VIEW*

*VIEW*⁶¹ is an online corpus tool created by Mark Davies from Brigham Young University. It searches the BNC for words or word combinations and the interesting thing about this tool is that it enables any user to search for frequency of word combinations in different registers and even shows up the results simultaneously if two registers are being compared.

Here I introduced “voice” in the “search string” and chose “surrounding: adj.ALL” in the display option in order to obtain all the surrounding adjectives used with “voice”. These were the options that remained fixed but then I carried out different searches comparing the main six registers they offer under the “Register 1” option and “Register 2” option: spoken, fiction, news, academic, non fictional miscellaneous, other miscellaneous. This is one of the result pages:

	WORD	# REG 1	# REG 2	% REG 1	MI SCORE		WORD	# REG 2
1	GOOD	16	55	22.5%	-0.18	1	LOW	302
2	DIFFERENT	10	44	18.5%	-0.13	2	SOFT	197
3	DEEP	10	54	15.6%	1.41	3	QUIET	153
4	FUNNY	8	11	42.1%	2.05	4	SMALL	137
5	NORMAL	7	36	16.3%	0.88	5	DEEP	137
6	LITTLE	7	68	9.3%	-0.57	6	HUSKY	101
7	RIGHT	5	2	71.4%	-1.40	7	HIGH	94
8	ONLY	5	8	38.5%	-1.96	8	HARSH	87
9	LOW	5	37	11.9%	0.23	9	CLEAR	81
10	LOUD	5	77	6.1%	2.19	10	COLD	80
11	ALRIGHT	4	0	100.0%	0.70	11	GENTLE	77
12	DODGY	4	0	100.0%	4.00	12	LOUD	77
13	VOLUNTARY	4	0	100.0%	1.46	13	FAMILIAR	76
14	OTHER	4	1	80.0%	-2.12	14	OTHER	75
15	HIGH	4	18	18.2%	-0.82	15	FLAT	68
16	SURE	4	23	14.8%	-0.33	16	LITTLE	68

Figure 20: Matches found with *VIEW*

⁶¹ *VIEW*: <http://view.byu.edu/>

5. Results

Once the search was done for the six different registers (two at a time, as above) I had a look at the ten most frequent adjectives of each list and wrote a summary table which would allow me to compare the ten most frequent adjectives of the six registers at the same time. This is what came out:

	Spoken	Fiction	News	Academic	Non-fict. misc.	Other misc.
1	Good	Low	Video-taped	Different	Loud	Good
2	Different	Soft	Old	Passive	New	Other
3	Deep	Quiet	New	Narrative	Other	Loud
4	Funny	Small	Good	Single	Powerful	Small
5	Normal	Deep	Other	Other	Inner	Great
6	Little	Husky	British	Political	Good	Quiet
7	Right	High	Big	Female	inc	Powerful
8	Only	Harsh	Great	leading	Female	New
9	Loud	Clear	Local	consequent	National	Strong
10	low	cold	long	authorial	local	inner

Table 12: Ten most frequent adjectives of “voice” according to register

Highlighted in blue is the word that seems to be common to almost all the registers, that is, “good” seems to be used frequently in spoken, news, non-fictional miscellaneous and “other miscellaneous” registers. However, this frequent adjective was not mentioned at all in my own corpus as a label for voice. Highlighted in yellow I have selected the words that do coincide with my own corpus. My corpus (being collected from interviews) was purely spoken. So the fact that some of my most frequent words coincide with the most frequent ones in the spoken register according to *VIEW* could be expected. However, the interesting thing is the fact that the strongest coincidences occur within the fiction register. The fiction register includes transcripts from drama, poetry and prose and yet this is the register where I can find more common points. If we look at the ten labels from the fiction register, they are mostly *phonetic labels* (Laver, 1974) rather than *impressionistic* (as in the news, academic and non-fictional

5. Results

miscellaneous registers). This preference for *phonetic* rather than *impressionistic* labels is a tendency I had already observed within my corpus, which probably comes from the desire for precision and objectivity. The other miscellaneous register contains transcripts from adverts. If we consider the importance of the choice of voices in advertising and their description in the advert transcripts, it comes as no surprise that I would find here common points with my own corpus.

Another interesting observation is the fact that none of the adjectives belonging to the academic register (highlighted in grey) have anything to do with the actual physical voice, but rather with the metaphoric use we make of the word “voice”.

5.3.3. Use of *Corpus del Español*

The *Corpus del Español*⁶² is another tool created by Prof. Mark Davies from Brigham Young University, in some ways similar to *VIEW* and in other ways different: it does allow a register search for certain word combinations, although it is limited to oral communication, literature and texts (from newspapers and encyclopedias) and it cannot show the results from two registers at the same time as in *VIEW*. The main difference is that this tool can help users do diachronic research, because it offers the possibility of searching through corpora from different centuries, from 1200 till the 20th century. I did a search for the adjectives appearing with “voz” by introducing: “voz *.ADJ” and limited the hits to ten since I was only interested in the ten most frequent ones, and focused the search on the 20th century. The following table contains the results of this search, ranged by frequency:

⁶² El Corpus del Español: <http://www.corpusdelespanol.org/>

5. Results

Rank	Adjectives appearing with “voz”
1	voz alta
2	voz baja
3	voz exterior
4	voz ronca
5	voz humana
6	voz cantante
7	voz femenina
8	voz grave
9	voz suave
10	voz quebrada

Table 13: Collocations of “voice” according to *El Corpus del Español*

Because I had chosen the “sort by” section with the 1900s, I had the list of adjectives ordered in terms of frequency in the 20th century, while still getting the matches in the centuries before in the historical section of the grid. One of the problems that can arise with this tool is if the matches for a given century exceed 2000, in this case one cannot see them in context. In my search, having a maximum of 619 (1800s section) I was also able to choose the “see context” option and see examples of the word combinations.

Having a look at the list above and especially, at the ten most frequent words, I found out that adjectives 1, 2, 4, 8 and 9 coincided with the ones in my corpus of interviews with Spanish females. Except 3, 5 and 7, all of them are more *phonetic* than impressionistic, which is a common point with the preference for *phonetic labels* found in my corpus.

I then decided to also search the other way around, that is, by writing the * sign and writing any specific adjective to its right in order to see how frequently the noun “voice” was associated with each adjective. Here is an example using the adjective “ronca” (raspy):

5. Results

The screenshot shows the 'CORPUS DEL ESPAÑOL' search interface. The search term is '* ronca' and the results are sorted by '1900s'. The interface includes fields for SEARCH, SORT BY, LIMITS, INDEX, #, GROUP BY, SHOW, VERIFY, and RESET. Below the search bar is a table with columns for 'WORDS / PHRASES', 'HELP', and 'HISTORICAL' (1200s, 1300s, 1400s, 1500s, 1600s, 1700s, 1800s). The table lists 22 phrases containing 'ronca' and their frequency in each century, along with total counts and oral/lit/text indicators.

WORDS / PHRASES	HELP	1200s	1300s	1400s	1500s	1600s	1700s	1800s	Total	Oral	Lit	Text
1 VOZ RONCA	<input checked="" type="checkbox"/>			3	8	3	4	85	46	2	43	1
2 QUE RONCA	<input checked="" type="checkbox"/>				1			2	6	4	2	
3 AMALIA RONCA	<input checked="" type="checkbox"/>								5	5		
4 LA RONCA	<input checked="" type="checkbox"/>			1	11	3	4	12	5	1	3	1
5 Y RONCA	<input checked="" type="checkbox"/>				12	2	1	15	5	2	3	
6 MÁS RONCA	<input checked="" type="checkbox"/>				2		1	2	3		3	
7 CON RONCA	<input checked="" type="checkbox"/>				13	6	2	11	3	1	2	
8 TOS RONCA	<input checked="" type="checkbox"/>							1	2		2	
9 SU RONCA	<input checked="" type="checkbox"/>				2		1	1	2	1	1	
10 ES RONCA	<input checked="" type="checkbox"/>			1					2		2	
11 ERA RONCA	<input checked="" type="checkbox"/>							1	2		2	
12 ALGO RONCA	<input checked="" type="checkbox"/>							4	2		2	
13 CUAL RONCA	<input checked="" type="checkbox"/>						1		1	1		
14 ESCUCHA RONCA	<input checked="" type="checkbox"/>								1		1	
15 CARCAJADA RONCA	<input checked="" type="checkbox"/>								1		1	
16 ANTONIO RONCA	<input checked="" type="checkbox"/>								1	1		
17 BARRIOS RONCA	<input checked="" type="checkbox"/>								1		1	
18 AHORA RONCA	<input checked="" type="checkbox"/>								1		1	
19 ENTRE RONCA	<input checked="" type="checkbox"/>				1			1	1		1	
20 NOCHE RONCA	<input checked="" type="checkbox"/>								1		1	
21 ESTOY RONCA	<input checked="" type="checkbox"/>								1	1		
22 INEVITABLEMENTE RONCA	<input checked="" type="checkbox"/>								1		1	

Figure 21: Matches found with adjective “ronca” in El Corpus del Español

Just as with my searches with “nasal” and “chillona” (squeaky), this example was found to appear first and foremost together with the noun “voice”, which is a good indicator of typicality in voice labelling and shows how prototypical voice labels are. This could also explain why in my own corpus these labels seem to be the most frequently ones used.

5.4. Self perception of voice

“The more faithfully you listen to the voice within you, the better you hear what is sounding outside. And only he who listens can speak.” (Hammarskjöld⁶³)

Of all the labels used by candidates to describe their own voices, those related to pitch, intensity or speed were selected and contrasted with the results of the phonetic

⁶³ Quote retrieved from <http://www.people.ubr.com/misc/by-first-name/d/dag-hammarskjold/dag-hammarskjold-quotes/the-more-faithfully.aspx>

5. Results

analysis of their voices in the interview recording (and the correspondent averages for the group), as seen in 5.1. The most impressionistic labels could not be compared with phonetic data because they lack a one-to-one correlation with voice parameters. However, in the section of impressionistic labels an exception was made with the label “childish” because childish voices are clearly characterized by a higher than average pitch. So every self perception of the voice being “childish” was also matched up against the measured frequency. The objective of this comparison was to see how accurate people are in the perception of their own voice, that is, if someone claims for example to have a deep voice, is this really true or is it simply perceived as deep? In order to calculate the accuracy of these voice judgements the labels used were compared with the average of a specific phonetic aspect of that group. So if a candidate described her voice as deep and actually had an average pitch below the group average, then her own perception was considered as accurate and a point was given to this candidate for accuracy. The total number of successful guesses were then summed up and converted into a percentage of accuracy for each nationality. The results obtained are given in the following table:

Nationality	Accuracy (%)
Spanish	75
American	69.23
German	53.33

Table 14: Accuracy in self perception of voice (%)

As can be seen from Table 14 Spanish candidates were the most accurate in perceiving and describing their own voices, followed by Americans and finally, by Germans. The most accurate descriptions were those who said they had a childish voice. These informants, irrespective of their nationality, indeed proved to have the highest-pitched voices in their group.

German women failed more frequently than others in the perception of their own pitch, thus having the lowest success rate in self perception. An explanation for this lack of accuracy in pitch perception still needs to be found. On the one hand, this result may not be representative at all because only 20 candidates compose this group, and on the other hand, this group may simply be taking a different reference point as to what constitutes for them a deep/high voice.

5. Results

However, despite the differences in accuracy across the nationalities it can be concluded that there is a relatively correct self perception of voice, all of the percentages being above 50%.

It is worth mentioning that at least 80% of the candidates noted the fact that there is a difference between the perception of pitch in their voices *in vivo* as they speak, and later if they hear their voices recorded. Most of them even said their *in vivo* voices were deeper than their recorded voices, which reinforces the idea of an accurate self perception of voice. This perceived difference is what Maurer and Landis (1990, pp. 226-229) attribute to the role of bone conduction, which makes us perceive our own voice at the moment of its production as deeper than it really is received and perceived by the hearer.

If the self perception of voice proved to be quite accurate then it could be expected that people would have no problem in perceiving and judging other voices. In order to test this and to understand more about the role voice perception plays, a second empirical study was necessary and the best option was to carry out a perception test.

5.5. Perception test

To be able to interpret the results from the perception test, the answers given by the 40 voice judges were included in an Excel table that could calculate the average points given to each voice label for each stimulus heard for the first part of the perception test and the number of correct and wrong guesses of emotions and attitudes in the second part.

5.5.1. Voice labels and voice correlations of personality

As for the answers given in the first part of the perception test, I will follow the classification of bipolar terms of the test:

a) Phonetic labels

Within judgements made using labels from the *voice dynamics* section, it was clear that labels referring to pitch and speech rate were more easily recognised and used than those related with intensity and harmony, which were often received with more neutral answers. Pitch and speech rate did not only induce clear answers in one way or the other but they were also successfully rated, when comparing the answers with the previously studied frequency and speech rates for those stimuli (5.1.). Moreover, in general, stimulus two (the high-pitched female voice) was judged as both *high* and *fast* by all four

5. Results

judges groups. These two voice labels belong to the *activity* dimension of attitudinal psychology (Osgood et al. 1957). This correlation of vocal cues is also stated by Frick (1985, p. 15): “Activity or arousal seems to be signalled by increased pitch height, pitch range, loudness and rate...”

In the ratings related to *voice quality* labels it was also clear that breathiness and squeakiness provoked more judgements than tenseness, huskiness or nasality. The frequent neutral answers given for these last three types of labels suggests that these vocal aspects are either difficult to perceive or difficult to understand. Spanish voice judges often judged stimulus two (stereotypical unpleasant voice) as being both *high* and *squeaky*, whereas Germans listening to their stimulus two judged it to be *high* but not *squeaky*. This necessarily implies that candidates differentiate these two terms well since the choice of one does not imply the choice of the other.

b) Impressionistic labels

There were several common judgements made regarding personality labels that were interesting:

Voices perceived as *self-confident* were also perceived as *strong*, *adult* and *extroverted*, which might imply a certain correlation between these personality aspects. In any case there is enough evidence from different specialists that supports the correlation between self-confidence and extroversion, such as the study carried out by Cheng and Furnham (2002) amongst adolescents. As was mentioned in the phonetic analysis, the research carried out by Argyle (1992, p. 32) pointed to the idea that extroversion as well as self-confidence is manifested by the use of a higher pitch. But Scherer (1979, b, p. 180) then said this applied mainly to men and not to women, amongst which a higher pitch suggests kindness more than self-confidence according to him. Let's have a look at the results from my perception test, by comparing the ratings given to pitch, extroversion and self-confidence. I include the ratings, as they were given according to the five point scale. Three points is considered as a neutral answer and anything above three, especially those answers closer to 4 and to 5, will be considered as an affirmative answer that the voice is either high, extroverted or self-confident. It should be reminded that stimulus two for both nationalities judging the voices displayed the highest female pitch and that is why we will concentrate in observing the correlations for the voices that were judged to have the highest pitch. If any correlation

5. Results

is found between high pitch, extroversion and self-confidence, results will be underlined with a grey background.

Voice judge group	Voice stimulus	High	Extroverted	Self-confident	Friendly
G	1	2	3.2	4	3.6
	2	4	4.2	3.1	3.6
	3	1.5	2.6	1.7	3.5
GS	1	2.4	3.3	4.3	4.3
	2	4.5	3.9	2.5	3.8
	3	2	2.3	1.9	3.5
S	1	2.8	3.6	4.1	3.9
	2	3.3	4.1	4.4	2.6
	3	2.6	3.6	3.4	3.8
SG	1	3.1	3.3	4.1	3.9
	2	3.3	4.4	3	2.6
	3	3	3.3	3.5	3.2

Table 15: Ratings given for pitch, extroversion and self-confidence

In general we find that those voices that obtained the highest ratings in extroversion were the ones with the highest pitch (stimulus two), which would correspond to Argyle's correlation between extroversion and high pitch. More problematic is the affirmation found in literature⁶⁴ that generally extroversion is correlated with self-confidence. Spaniards, much more than German voice judges, did in general judge voices that were extroverted as being self-confident too but the same tendency cannot be found amongst German judges. In general those voices that were rated as being self-confident happened to have deep pitch (with ratings for pitch below 3).

Voices categorized as *friendly* were also judged to be *honest* and *kind*, which makes sense since at least two of these labels are almost synonyms. There have been studies, such as the one carried out by Brown, Strong and Rencher (1975) that state that an increase of pitch variability (what I called the standard deviation of pitch in the phonetic

⁶⁴ For example, in Argyle (1992) and in Cheng and Furnham (2002).

5. Results

analysis) is correlated with higher ratings of benevolence, whereas an increase of the fundamental frequency is correlated with a decrease of benevolence. I will now see if this is right for my own data in the following table, taking the ratings given for the adjectives “high” and “kind” (as closest synonym of benevolent) and comparing them with the phonetic analysis of the Standard Deviation (SD). Again results closer to 4 and above 4 will be considered as positive answers. Correlations found or interesting points will once more be highlighted with a grey background.

Voice judge group	Voice stimulus	High	Kind	Standard Deviation
G	1	2	3.4	55.7
	2	4	3.7	54.3
	3	1.5	3.7	16.2
GS	1	2.4	3.7	55.7
	2	4.5	3.8	54.3
	3	2	3.2	16.2
S	1	2.8	3.8	65.1
	2	3.3	3	57.9
	3	2.6	3.5	55.4
SG	1	3.1	4.1	65.1
	2	3.3	3	57.9
	3	3	3.5	55.4

Table 16: Correlations between ratings for pitch, kindness and standard deviation

According to the study mentioned before, if we have a look at higher pitched voices (stimulus two for all groups) and compare them to the deepest voices (stimulus three for all groups), we should find that stimuli 2 should obtain the lowest ratings in kindness. My results show that this was only the case for judgements made by Spaniards (S and SG) on German voices heard. Within these two groups we find at the same time that the highest rating of kindness was not only given to the voice with the deepest rated pitch but also to the voice with the highest SD, which matches the theory of Brown, Strong and Rencher (1975) perfectly. However, the results given by German judges are not so satisfactory because stimulus two (with the highest pitch) was chosen by both G

5. Results

and GS groups as the kindest one. If we have a look at the SD of pitch for stimulus two we find that it is not the highest of the three but it is above the average of the measured SD of Spanish voices (47.7 Hz). We can perhaps interpret this as an argument that proves that the perceived high SD in pitch is more important than fundamental frequency when making a judgement of benevolence. But it may well be the case that there are other vocal aspects in stimulus two (for G and GS) that have played a role in the rating of kindness, for example the fact that their stimulus two sounds like a soft, childlike voice. In consequence, we can find certain support for Brown, Strong and Rencher's theory (1975). However, it is often hard to reduce the perception of benevolence to two factors (the increase in the SD of pitch and the decrease of the F0) because there are many more vocal cues used at the same time. These vocal cues when combined in a specific way may either reduce the negative effect a high F0 would have for benevolence (case of stimulus two of G and GS) or decrease the positive effect an increased SD would have for benevolence. Stimulus two for S and SG is perceived as squeaky, so it could be that the squeaky quality of this voice prevents us from judging the relatively high SD positively for benevolence. Another correlation was found between stimuli that were felt as *aggressive*, *emotional* and *squeaky*, which corresponds to the *potency* dimension of attitudinal psychology (Osgood et al. 1957). Finally, voices felt to be *active* were also judged as *fast*, both terms classified frequently as belonging to the *activity* dimension of attitudinal psychology. These common judgements were found in all four groups of voice judges.

Concerning more specifically the ratings for extroversion and self-confidence, a closer look was taken at the voice judgements, on the one hand, and the results from the Jung's Myers Briggs Typology test and the Rosenberg Self-Esteem (RSE) test, on the other hand (only for those voices from the interviews that were used as stimuli in the perception test). There were similar tendencies in all four groups, that is, that there were common judgements saying that the stimulus heard was either insecure and introvert or else self-confident and extrovert but then these judgements were often not proven by the personality tests.

Table 17 contrasts the results from both the Jung Myers Briggs typology test (JMB) and the RSE with the judgements given in the perception test and includes a brief phonetic description for each stimulus. Stimuli judged correctly are marked with a grey background and the legend is found below the table:

5. Results

Stimulus		Results from JMB	Results from the perception test	Results from RSE	Results from the perception test
Spanish (as judged by G and GS)	1 slightly deep+attractive voice	Intro	Extro	Average SE	Very self-confident
	2 high voice	Extro	Extro	High SE	Self-confident
	3 very deep+slow+hesitant voice	Extro	Intro	Very high SE	Insecure
German (as judged by S and SG)	1 Slightly deep+attractive voice	Extro	Extro	Average SE	Self-confident
	2 High+fast+squeaky voice	Intro	Extro	Very high SE	Self-confident (according to S, not SG)
	3 Deep voice	Extro	Extro	Average SE	A bit self-confident

Legend: Intro=Introverted, Extro=Extroverted, SE=Self-esteem, G=Germans with no Spanish, GS= Germans speaking Spanish, S=Spaniards with no German, SG= Spaniards speaking German

Table 17: Perception of extroversion/introversion and self-esteem

Overall we can observe that only two stimuli (Spanish number two and German number three) were guessed correctly and for the others there were mismatches for

5. Results

either the extroversion/introversion judgement or the degree of perceived self-confidence. For example, Spanish stimulus one was judged as slightly extrovert and quite self-confident when in fact the stimulus belonged to an introverted candidate according to Jungs Myers Briggs and stimulus two (the high pitched female voices) were judged as clearly extroverted and slightly self-confident when in fact one of these voices belongs to an introverted candidate. Interestingly, Spanish stimulus three (quite deep female voice) was perceived as very insecure and slightly introverted, when in fact the voice belongs to an extroverted woman with very high self-esteem. It could be argued that this seems to match the evidence saying extroverted voices are in general high-pitched and introverted more low-pitched. It is certainly a good example for the *self-fulfilling prophecy*, that is, that speakers are judged to be either self-confident and extroverted because of their high-pitched voice (possibly in combination with high speech rate) or insecure and introverted because they have a deeper tone, speak slower and leave more pauses, whether or not it is really true.

Out of all the synesthetic labels used in the perception test, *warm* and *soft* were the best recognized labels for all four groups because they did not provoke neutral answers. This might indicate a correlation between voices felt as *warm* and *soft*. Furthermore, another correlation was found: voices that had been previously rated as *high* were then rated as *light* and *bright* in the synesthetic section. This constitutes a fascinating example our how our visual perception and conception of space can have an influence on the representation and use of certain voice labels:

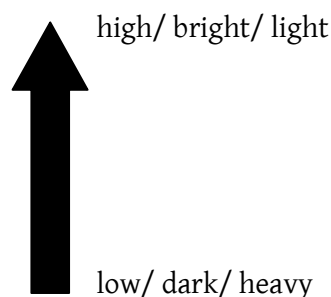


Figure 22: Spatial conception of synesthetic voice labels

This example recalls several points mentioned in chapter 2: it echoes Schulze's (2007) cognitive interpretation of questions and it echoes the theory of Perception-Action-Cycles (Swenson and Turvey, 1991) applied by Schulze (c, p. 14) to explain why the metaphors <UP> is <MORE> and <DOWN> is <LESS> are so pervasive in language. If for

5. Results

pitch we found that there was an iconic representation of insecurity by the use of rising tones and that UP is associated with what requires more energy to process (in terms of perception), whereas DOWN with what requires less energy, it comes as no surprise that the associations between the synesthetic voice labels mentioned are made in the same direction: a *high* voice (with vocal folds vibrating more frequently), is associated with what has more light, and with what is lighter (less attached to the ground), whereas a *low* voice (with less vibration of the vocal folds) is associated with what has less light (dark) and sinks more towards the ground (heavy). So we have again the same pervasive metaphoric associations (<UP> is <MORE> and <DOWN> is <LESS>) that show how embodied the use of voice labels is.

Regarding the section of evaluative terms, voices that were positively perceived were said to be first *pleasant*, then *beautiful*, then *natural*, always in this order for all four judges groups. One possible reason for this order of preference in the use of these labels could perhaps be that *pleasant* is the vaguest term, whereas *beautiful* or *natural* are much more specific. In general, stimulus one (the deeper female voices) was perceived as pleasant by both nationalities, whereas stimulus two (high voices) was perceived as unpleasant. This tendency which was observed in all voice judges confirms that the stereotypes found in 5.3. were right, that is, that higher pitched voices are in general felt to be unpleasant and that lower pitched voices are felt to be pleasant. However, these associations involving an evaluative dimension of attitudinal psychology (*high-unpleasant* or *low-pleasant*) cannot be interpreted with the metaphoric association explained before which involved purely the activity dimension.

Within the section of evaluative terms, uniqueness of voice was hard to judge, that is why in general people opted for a neutral answer here. Finally it should be mentioned here that all stimuli 1, positively perceived, were judged to be *natural*, which indicates that “natural” is a stereotypical positive *voice quality*.

5.5.2. Perception of emotions and attitudes

As previously mentioned, candidates taking the perception test listened to five different voice samples of actors displaying a different emotion or attitude each time and had to tick which emotion/s or attitude/s had been recognised and then say which vocal cues helped them come to this conclusion. Again all the answers given were noted in an Excel Table which gave me the percentages of the guessed emotions and attitudes.

5. Results

The results were once again very homogeneous and the success rate in guessing each emotion or attitude correctly was very high for all four groups of voice judges: sadness was recognised correctly by 97,5% of the candidates, joy by 85% of the candidates, insecurity by 90%, anger by 87,5% and self-confidence by 72,5% (Figure 23).

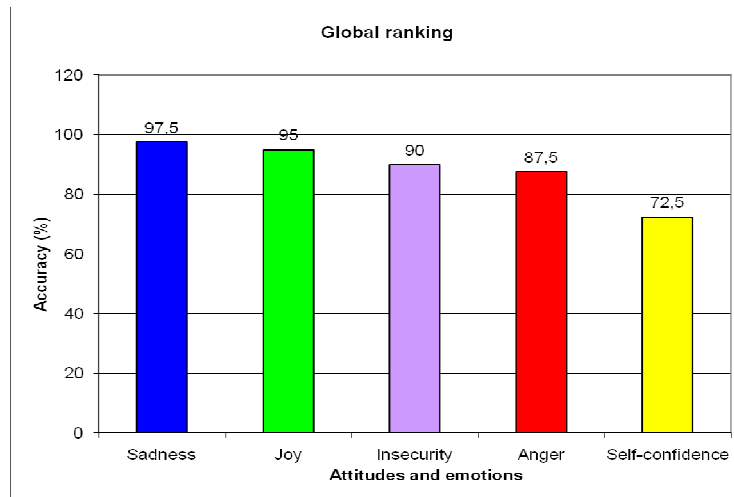


Figure 23: Accuracy in the perception of attitudes and emotions

My results echo part of Truong and Van Leeuwen's ideas (2007) about their mental map of emotions (mentioned in point 2.3.3), where they stated that sadness, being placed the furthest apart in respect to the other emotions in the mental map of emotions, would be easier recognised than other emotions. However, if we look at the results for the recognition of joy (95%) there is a contradiction with both Scherer et al.'s findings (2001, p. 83) that suggest that recognition rates for anger, sadness and fear recognition were high but not so much for joy and with Truong and Van Leeuwen's explanation as to why joy and anger are frequently mistaken. Having carried out the perception test amongst only 40 participants, perhaps a change from quality to quantity would offer slightly different results in the ranking of emotions.

Because there are certain differences in the accuracy of emotion recognition, I agree with Scherer et al.'s statement that "recognition accuracy depends largely on the emotion category concerned" (2001, p. 87).

It must be noted that the knowledge or not of the language heard did not have an influence in the judgement made: all four groups were in general successful in their guesses, which points to the idea that emotions and attitudes are transmitted more by the prosodic level of language than by the content level. It was observed that candidates from the GS and SG groups (those understanding the target language) took more time in

5. Results

their decision, which could mean that when it comes to guess emotions and attitudes the content level of language can even cause interferences because these candidates were trying to match their perception of prosody with the words spoken and thus needed longer than those that could only rely on prosody to come to their conclusion.

In some cases emotions were not recognised in isolation but rather in association with another emotion or attitude: for example, 55% of the Spaniards perceived anger (together with self-confidence) in the German voice sample one which was meant to display self-confidence only (see Figure 24), whereas 55% of the Germans perceived insecurity (together with sadness) in the Spanish voice sample 3 which was meant to display sadness only (see Figure 25).

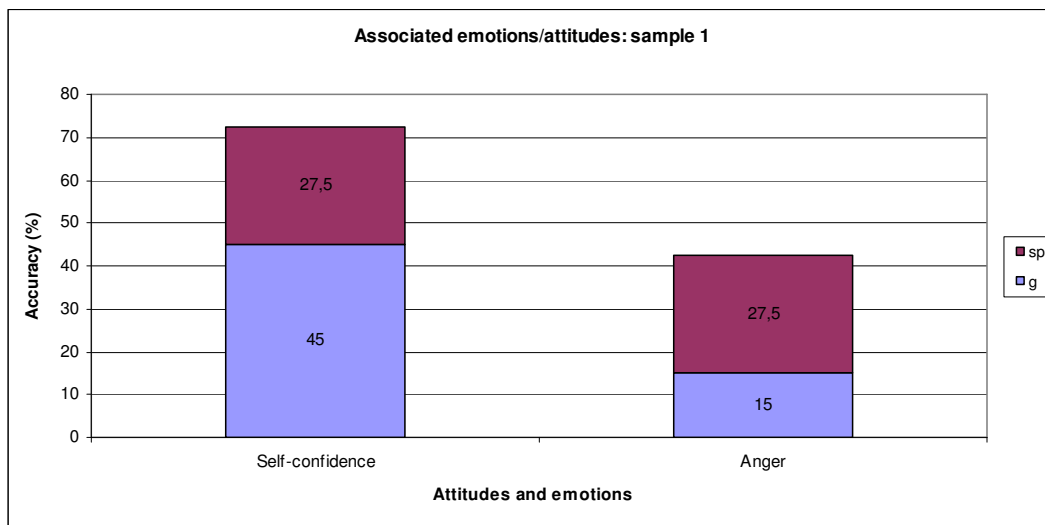


Figure 24: Associated emotion in the perception of “self-confidence”

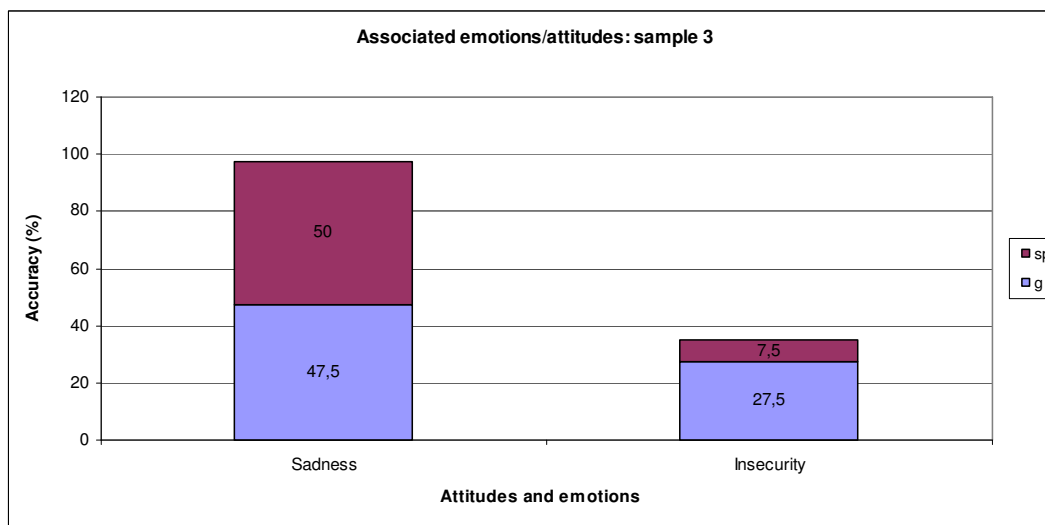


Figure 25: Associated attitude in the perception of “sadness”

5. Results

Is this due to a different perception of attitudes and emotions by these two nationalities or more due to the fact that each of these languages have different phonemic sequences and intonation patterns which influences then the way they are perceived? Scherer et al. (2001, p. 87) noted in their cross-cultural experiment of emotion inference that “there is a substantial country effect” on emotion recognition. This idea recalls what was expressed previously about crosslinguistic perception (Sebastian-Gallés, 2005, p. 546): the phonological properties of either German or Spanish have a perceptual consequence on certain voice judgements made here. Moreover, Graham et al. (2001, p. 33) in their research comparing emotion recognition success in native English speakers and in Spanish and Japanese ESL speakers mention that: “The greater the linguistic and cultural distance from the speakers portraying emotions, the more likely individuals are to confuse the actual vocal characteristics which signal the emotions.”

Bearing in mind that the two languages of my perception test are both Indo-european languages we can expect to find more similarities than differences at the prosodic level and hence the overall elevated success rate in emotion recognition found. Had the same experiment been done with Japanese candidates listening to English, the success rate would for sure have been different. An interesting observation made by Graham et al. (2001, p. 34) in the above mentioned research concerns the effects of language proficiency on emotion recognition: none. That is, in their experiments they found out that ESL speakers recognized the emotions portrayed with the same success or lack of success than native English speakers.

A closer look at the reasons given for the emotions and attitudes guessed can perhaps shed some light on this problem:

- For the first voice sample where self-confidence was the acted attitude, the reasons given by Germans for their guess were the fast speech rate and the stressed syllables. Spaniards said it was the tone, the intonation and the stressed syllables.
- For the second voice sample (displaying anger), Germans said their guess was based on the loudness, the tone, the variations in pitch, speech rate and intensity and the emotional quality. Spaniards said it was the tone, the fast speech rate and the rising/falling intonation. These reasons are exactly the ones already stated by Scherer (1979, a, p. 514): “Anger seems to be characterized by high pitch level and wide pitch range, loud voice and fast tempo.”

5. Results

- For the third voice sample (displaying sadness), Germans said it was a slow, monotone, quiet and breathy voice, whereas Spaniards said it was the slow speech rate, the low intensity and the tone that helped them guess. So speech rate and intensity were two vocal cues helping both nationalities. This again more or less matches Scherer's conclusions (1979, a, p. 515): the opposite ends of the vocal dimensions for anger are those that characterize sadness: "...low pitch and narrow pitch range, downward pitch contour, soft voice and slow tempo."
- For the fourth voice sample (displaying insecurity), Germans based their guess on the pauses, the stammering quality, the slow pace and the rising tone. Spaniards said the same but did not mention the rising tone.
- For the fifth voice sample (displaying joy as the main emotion and surprise as a secondary emotion), Germans said it was the variations in pitch, intensity and intonation and that it was globally harmonic, loud and high. Spaniards said it was loud and harmonic too and also mentioned the intonation and the exclamations.

We thus find that most of the phonetic reasons given for the guesses of emotions and attitudes are more or less the same across the two nationalities included in the perception test and that non-experts are not only accurate guessers but they also have a good phonetic intuition about which vocal cues are relevant to make each guess.

We also find that in general there are always at least two phonetic aspects mentioned in the guesses of emotions and attitudes, with pitch, intensity and speech rate being the most frequent ones. This would coincide with an idea from Frick's experiment (1985, p. 11): "Pitch alone is not sufficient to express an emotion, instead, the interaction between pitch and loudness is critical."

Moreover, the reasons given for guessing anger, joy and sadness coincide with the ones found in the study carried out by Kienast (2002, pp. 121-135) where she stated that anger and joy were typically characterised by a high speech rate (and by a very high precision in articulation which was not mentioned by my candidates) and that sadness was characterised by a slow speech rate and by the number of pauses.

The results from this second part of the perception test then seem to prove that the perception of basic emotions and attitudes is not language dependant, at least for the two languages studied. Participants were able to guess correctly by only interpreting the prosodic information. This echoes the findings from Scherer et al. (2001, p. 76) claiming that there are "similar inference rules from vocal expression across cultures." However, we must not forget that the two languages addressed in the perception test belong to

5. Results

Western culture and to the Indo-European group of languages. Perhaps this perception test applied to a very different language, for example an Asian or an African one, would lead to different results because the decoding process involved in emotion inference would be different. Scherer et al. (2001, p. 87) stated in their study of emotion recognition across many languages that the “lowest recognition rate was obtained for the only country studied that does not belong to the Indo-European language family: Indonesia”, which makes them conclude that (2001, p. 76): “Accuracy decreased with increasing language dissimilarity...Culture and language specific paralinguistic patterns may influence the decoding process.” Therefore from the results from my perception test it can only be concluded that the decoding process for emotion recognition in German and Spanish is a similar one for basic emotions even though minor cultural differences do appear.

6. Discussion

6.1. Paradigm of voice and identity

With a combination of theories discussed in the dissertation and my own findings from the empirical part of this thesis I will now try to sum up all the ideas by creating a paradigm that links vocal elements to identity elements. What is evident so far is that, on the one hand, such a paradigm cannot be created on the basis of one-to-one correlations between vocal features and identity features since we have seen that it is normally a combination of vocal features that convey the information and we must not forget the fact that in face-to-face communication we are not only interpreting paralinguistic information such as the one conveyed by voice and gestures but also linguistic information. By concentrating on *voice quality* and *voice dynamics* aspects in this dissertation there is a practical reduction of a much more complex reality. On the other hand we must consider the cultural relativity of certain aspects of the paradigm: it is true that some uses of voice seem to be universal, due to the limitations imposed by the make-up of our bodies but other uses are directly linked to a specific environment and culture.

I will now retake the practical division of three groups for the information related to our identity: physical, social, psychological. Special importance will be accorded to the vocal features measured in my experiments (intensity, speech rate, pitch) and to psychological markers.

First of all, the following table will indicate whether the perception and construction of identity features is conveyed by a predominance of *voice quality* features (understood in the broadest sense as the long-term vocal features, more biologically determined) or by a predominance of *voice dynamics* features (understood as the medium to short-term more controllable and thus variable vocal aspects):

6. Discussion

Identity information	Subdivisions of identity markers	Reflected in voice quality	Reflected in voice dynamics
Physical	Size/physique	X	
	Sex and age	X	
	Health state	X	
Social	Regional origin	X	X
	Social class/group	X	X
	Profession		X
	Politeness		X
	Power and dominance	X	X
Psychological	Personality		X
	Attitudes		X
	Emotions		X

Table 18: Identity markers according to voice quality/voice dynamics division

This classification makes sense if we consider that there are aspects of our identity that are more “given” to us by nature and upon which we have no control. This is the case of information of a physical kind. This lack of control then is reflected by vocal aspects that are also more physically based, the so-called *voice quality* features. Social markers are then a middle class that are reflected, on the one hand, by *voice quality* features and by *voice dynamics* features. The psychological markers would be then those that more truly mark us as unique individuals and are better reflected by *voice dynamics* features, those that we choose at each moment and that we control depending on our needs. Of course this division is purely practical and the distinction between *voice quality* and *voice dynamics* is problematic, since according to Abercrombie’s (1967) definition *voice quality* refers to the more permanent features and *voice dynamics* to the controllable, temporary features and we find certain ones, such as pitch that can belong to both groups, depending on whether we understand pitch as the average frequency we generally use, or pitch fluctuations as chosen for a specific context.

Despite certain problems with the terminology and the classification, the use of the distinction between *voice quality* and *voice dynamics* is useful in the sense that it mirrors perfectly the double aspect of our identity mentioned in 2.1. Those aspects of our identity which are more biological, are engraved and have a direct impact on our *voice quality*, whereas those aspects that distinguish us from the rest of the population, that are a

6. Discussion

mixture of the environment and what we make of it are reflected more by manipulable voice aspects, that is, by *voice dynamics*.

The empirical part of my research concentrated on only one aspect of identity information found in voice, the one highlighted against a grey background in the previous table, that is, the psychological information transmitted by vocal cues, and more specifically:

- For personality:
 - Extroversion/Introversion
 - adulthood/childishness
 - benevolence
- For attitudes:
 - self-confidence/insecurity
- For emotions:
 - sadness
 - joy
 - anger

These elements are certainly not enough to detect the identity of a speaker, but already part of the elements that give off an image of who we are. By considering each of them as an identity cue and then comparing them to six phonetic variables (either measured in my own research or present in the perception test), Table 19 should serve as a paradigm. This paradigm tries to simplify and give an overview of the different possible combinations found, between vocal cues (rated in terms of the activity dimension wherever possible) and the identity cues for personality, attitudes and emotions, as they are either present in literature, or in my own empirical research. It should be once again noted that the first five phonetic variables were measured only for the female candidates from the interviews and thus any generalization made should apply here only to female speakers. As for the sixth variable, intonation, although it was not included in my own phonetic analysis, it appeared as a bipolar scale in the perception test (harmonic/monotone) and was one of the reasons given for justifying the recognition of an emotion or an attitude in the second part of the perception test (see Appendix 7).

6. Discussion

		F0		SD of Pitch		Intensity		Speech rate		Speech length		Intonation		
Activity dimension		high	deep	wide	narrow	loud	quiet	fast	slow	long	short	rising	falling	Variation: Rise/fall Fall/rise
Personality	extroversion													
	introversion													
	kindness													
Attitudes	self-confidence													
	insecurity													
Emotion	sadness													
	joy													
	anger													

Table 19: Paradigm of voice and identity cues

Legend : found in literature
 stated in my experimental part

6. Discussion

What we thus observe in this table is that although not every correlation stated in literature could be observed in my phonetic analysis or in my perception test, many tendencies were confirmed in my experimental research. If we have a closer look at these correlations between identity cues (reduced here only to personality, attitudes and emotions) and vocal parameters it is not surprising to find out that they follow a logical pattern considering the points mentioned in the theory about perception, stereotypes and Embodiment:

- For extroversion and introversion, our categorization of these two dimensions (in terms of stronger or weaker activity respectively) has a direct impact on the way we believe then an extroverted or introverted voice should be and seems to be organized according to a verticality schema which recalls the pervasive metaphors <UP> is <MORE>, <DOWN> is <LESS>:

- a) extroverted voice (+activity) > high pitch/ wide SD of pitch/ loud/ fast/ long speech length/ variation in intonation
- b) introverted voice (-activity) > low pitch/ narrow SD of pitch/ quiet / slow/ short speech length/ lack of variation in intonation

This verticality schema can be visualized in the following figure:

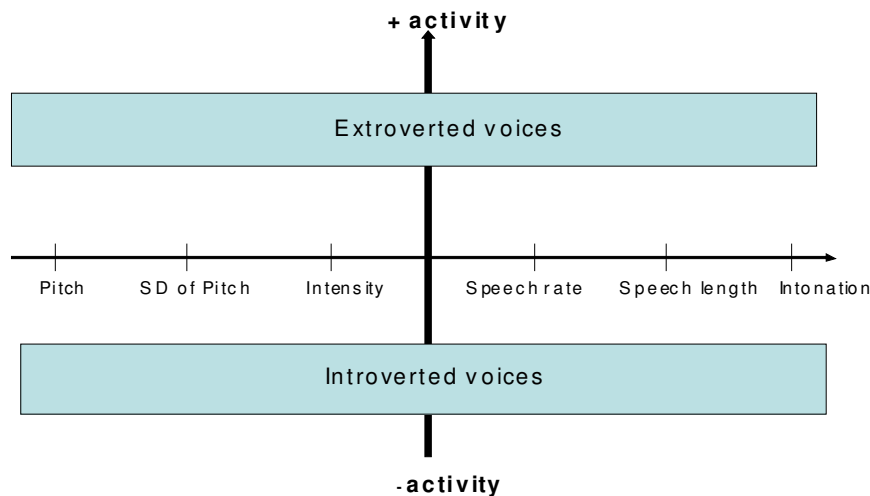


Figure 26: Verticality schema of extroversion and introversion in voice

6. Discussion

- For self-confidence and insecurity a similar verticality schema can be found in the correlations with vocal aspects, which matches the tendency in psychology to assume that in general extroverted people tend to be self-confident and introverted people more insecure. For this pair of terms the same correlations are found except for speech length, where no observation has been made. Because the vocal cues that signalize self-confidence and extroversion, on the one hand, and insecurity and introversion, on the other hand, are almost the same, we can say that they are equivocal speech markers. This explains why for example if we perceive a voice as self-confident, more frequently than not we will say it is extroverted too, and the same applies for introversion and insecurity.
- For the emotions studied we can also speak of a verticality schema if we consider sadness as the weak activity dimension on the one hand, and joy and anger as the strong activity dimension on the other hand, they follow exactly the same tendency as insecurity and self-confidence in terms of correlations with vocal cues. We see how sadness is clearly opposed to joy and anger in the use of vocal cues but Table 19 does not explain what helps us differentiate joy from anger. Surely our recognition of each of these emotions is based on the vocal cues analyzed in literature, on the one hand, but also on aspects of *voice quality* which were not measured or addressed in my experimental part, such as the musical theory suggested by Cook (2002). What I can conclude from the previous table is that the marked vocal cues are necessary conditions to express a given emotion but they are not sufficient. A much more detailed phonetic analysis of emotions would be needed to supply us with information on this topic.

It could be argued that I have only included here a paradigm that affects a small part of our identity and it is true. However I wanted to specifically comment on what came out of my experimental research. Nevertheless, in an attempt to provide an overview of other aspects of our identity and how they have correlates in voice according to what other research has proven, I will now include a brief glossary of identity aspects and their vocal correlates, as described by authors discussed in Table 2.

6. Discussion

Identity Information		Vocal correlates
Physical Info	Size	Big size> low F ₀ , Small size> high F ₀
	Beauty/attractiveness	No vocal correlates found
	Sex	Maleness> lower F ₀ , femaleness > higher F ₀
	Age	Adulthood> lower F ₀ , childhood> higher F ₀
Social Info	Regional origin	Segmental correlates and suprasegmental correlates (intonation, speech rate, pitch)
	Social class	Segmental correlates and suprasegmental correlates
	Profession	No vocal correlates found
	Religion	No vocal correlates found
	Power/dominance	In males>higher F ₀ , in females>lower F ₀ , high intensity for both
	Politeness	rising intonation

Table 20: Glossary of other correlations found in other research projects

Underlined against a grey background are those aspects of our identity for which until now no clear vocal correlates have been observed (Pear's correlations for professions from 1931 represent an odd case). If we focus on the physical information found in voice, pitch is a determining vocal correlate. If our size has a direct impact on the length and thickness of our vocal cords and this in turn, influences the average pitch we are able to produce in an inverted proportion (the longer and thicker the vocal cords, the deeper the pitch produced), it comes as no surprise that pitch stands out as our most reliable indicator for size, sex (men being in general bigger than women) and age (children being smaller than adults). We can say that in terms of physical marking, pitch is a universal cue because it cannot escape the bodily characteristics of the human race.

As for the social information, regional origin and social class are encoded in a much more complex way in our voice, with a combination of both segmental and suprasegmental aspects that vary from culture to culture. More details can be found in the works of the authors mentioned in Table 2, amongst others. The marking of power or dominance and politeness, depends largely on pitch for the former one and on the use of intonation for the latter one. In the case of power or dominance, it is interesting to note that males and females adopt opposing tendencies that complements the opposite average pitch ranges

6. Discussion

they normally have. In order to mark their relation of power or dominance to the hearer they choose the marked option that will differentiate their voice from the rest: men will choose to speak with a higher average pitch and females with a lower average pitch. Intensity is a vocal cue that appears here as a complement or reinforcer of pitch for both sexes and also seems to follow a verticality schema: the louder the voice, the more public space it covers and consequently the more power/dominance it depicts.

6.2. Points to discuss

The underlying hypothesis of this project is that voice is a key element in the construction and perception of our identity in everyday life. This implies both theoretical and empirical research on how identity is reflected in voice. More specifically, this project deals with the question of how *social markers* and especially *personality markers* exist in our voice and whether these are accurately perceived by others or not.

Existing theories give some support to the hypothesis that we create and recreate our identity, our sense of who we are, both as a unique individual and as a member of a particular society through our voice in everyday communication.

The empirical part of the project allowed me to come to several conclusions belonging more to the “microcosmos” of the global hypothesis:

- Firstly, the phonetic analysis carried out with Praat (5.1.) shows that there are some nationality differences related to vocal cues such as speech length, average F0, intensity or speech rate. This proves that a combination of these can, to a certain extent, give us information about our geographical origin, or more generally, that they act as social markers. In this way, for example Spanish women, more than Americans or Germans are characterized by the fact that they have an average lower F0, a higher speech rate and are louder, which matches the stereotype that we often hear about Spanish women perfectly.
- However the phonetic analysis also shows that a personality trait such as extroversion or introversion cannot be easily perceived on the basis of vocal cues alone. There are pre-existing stereotypes about how we expect an extrovert or an introvert to speak but these stereotypes are not always realized, at least not in my own database. This means that in order to know if the speaker is introverted or extroverted we need many more elements apart from the vocal ones to come to an accurate conclusion.

6. Discussion

- The Jung Myers Briggs typology test was used to make it explicit which candidates were extroverted and which were introverted but the results of this personality test did not always correlate with the same vocal characteristics for each of the nationalities studied.
- The study of the voice labels (see 5.3.) used by non-experts recorded in my interviews allowed me to detect what the most frequent adjectives used to describe voices in general are, and then sexy and unpleasant voices more specifically. The fact that deep and raspy are the most frequent terms used to describe sexy voices points in the direction that surely a deeper tone and raspiness are two vocal cues that stereotypically convey sexiness, whereas high and squeaky are associated with voices that are unpleasant, both for men and women. The fact that these voice labels are frequent in all the three languages under study proves that the use of voice labels is not always language specific. However, as already mentioned, the languages in this study all belong to Western culture, and could be thus representing Western stereotypes of what a sexy voice is and what an unpleasant voice is. Only a contrastive study with Oriental or Eastern languages could really prove if these stereotypes are universal or simply culture-dependant.
- Research carried out with corpora tools and certain corpora helped me contrast my limited voice label results with results from bigger and broader sources: this research reinforced the idea that people have a clear preference in the use of phonetic labels to describe voices, as opposed to the preference for impressionistic labels suggested by Laver (1991, pp. 171-183). This was confirmed by *View* and *el Corpus del Español*, but not by *MICASE*. *MICASE* helped me conclude that there were no significant gender differences in the choice of voice labels.
- It was also stated in 5.4. that candidates giving an opinion about their own voice often had a relatively accurate perception, at least in adjectives related to pitch, intensity and speech rate. In terms of the objectives of this dissertation this points to the idea that we do have reliable voice parameters to encode our identity and perceive other identities. If there is accurate self-perception it seems logical that people will be able to judge other voices relatively accurately in a perception test.
- The perception test carried out in this project confirmed the suspicion that our voice judgements follow stereotypes which constantly oversimplify reality: certain vocal cues are perceived to correlate with some personality and attitudinal aspects, whether these really apply to the speaker or not. The contrastive approach using

6. Discussion

German and Spanish voices helped confirm the idea that linguistic content does not influence our guesses of emotions and attitudes. We are able to make common judgements of personality, attitudes and emotions even if we don't understand the language of the speaker, thanks to our ability to decipher suprasegmental cues by contrasting the information with our experience.

Bearing in mind the findings of this study, I believe the following points are worth considering:

- One of the first salient points that was brought up about voice label preferences, was the fact that non experts use phonetic labels more frequently than impressionistic labels to describe voices. This choice seems to clash with the fact that the range of impressionistic labels is less limited, yet candidates tend to focus on a few vocal cues, especially on pitch, to describe voices. Because these remarks are only based on samples from 60 female candidates of the same age group, it is possible that voice descriptions from another target group would give a different insight into this question. In terms of the objectives of the thesis, this could mean that in order to identify and describe people by their voices, we rely on the phonetic information that seems more objective.
- Another point to be discussed is the preference for “high” and “squeaky” to describe unpleasant voices and “deep” and “raspy” for sexy voices. This preference shows, at least for the languages studied, that socially acceptable voices are the ones that are either closer to the average pitch for each sex or the ones that deviate towards the lower end of the pitch range, as long as this deviation is not excessively high. Men's pitch being lower than that of females, it makes sense that the label “high” is more frequently associated with unpleasant male voices and that “deep” is more associated with male sexiness. Theories correlating low pitch with dominance could give a possible explanation for this phenomenon (Puts, Gaulin and Verdolini, 2006); or vice-versa, theories relating high pitched voices with positive politeness or diminution, even in the Japanese culture can perhaps help explain the phenomenon (Henton, 1995). As already mentioned, these four most frequent voice labels point to what is either sexy or unpleasant for the three languages study, which all belong to Western culture. It therefore does not remain clear whether they are universal or not until my results are contrasted with languages from a different cultural background. It could be for example expected, that in Japan female sexy voices are higher rather than

6. Discussion

deep, since politeness is so embedded in the culture, especially for the female role, and that research shows that politeness in Japan is correlated with a high F0 (Loveday, 1981). Moreover, there are very recent studies, such as the one carried out by Zuta (2008) that bring forth arguments as to why deep male European voices are not necessarily the most attractive. Zuta (2008, p. 45) argues that we cannot reduce a male attractive voice to an average deep tone. In fact, as Zuta states, a deep male voice will only be considered attractive if it is also accompanied by an appropriate speech rate, appropriate pauses and an appropriate speech melody. As soon as any of these vocal cues deviates from the standard it will be negatively perceived, even though the average tone is perhaps deep.⁶⁵

- For Western culture, the implications of the perception of what is high and squeaky as being unpleasant in terms of identity perception are clear: as a self-fulfilling prophecy, a person whose voice sounds high and squeaky will be inevitably judged ad-hoc as an unpleasant person, no matter how nice that person will actually be. This means that in some cases, this aspect of voice might be misleading us in our perception and identification of the kind of person the speaker is.
- If the data is to be considered in any way representative, then the preference for synesthetic labels by Spaniards, in comparison to Germans or Americans, still remains to be explained. Is this preference culturally based? Does it apply only for the description of voices or does it happen in other areas? A quick search for collocations of the synesthetic labels *smooth* and *sweet* in a German database, the Cosmas II corpus from IDS⁶⁶, seems to show that these labels do not collocate frequently with the noun *voice* in the German language, but the question as to why this association of synesthetic adjectives exists in Spanish but not in German is not solved.
- When it comes to self-perception of voice, there is a striking difference between the accuracy in voice description by Spanish women (75%) and by German women (53.33%). One might wonder if such a difference is a random result due to variability between the two target groups (degree of intimacy was different), or if there is a wider gap between production and perception for the German group. A study with broader target groups and the same degree or intimacy might give more information on the self-perception differences, probably minimizing these differences.

⁶⁵ Zuta (2008, p. 45): “Weichen mehrere Eigenschaften von den Standardwerten ab, beispielsweise eine sehr langsame Sprechgeschwindigkeit oder/und sehr viele Verzögerungslaute, so hat auch eine tiefe Stimme schlechte Karten bei der Bewertung.”

⁶⁶ See <https://cosmas2.ids-mannheim.de/cosmas2-web/menu.home.do>

6. Discussion

- An interesting final point to be considered is the interrater consistency in personality judgments of voice found not only in the literature (Aronovitch, 1976) but also in the results of my perception test. Despite a lack of one-to-one correlations between personality aspects and specific vocal cues, non-experts do tend to come to the same conclusions, based on widespread cultural stereotypes about voices and do seem to react in a similar way when hearing voices, whether they understand the language spoken or not. On a larger scale, we can take this as an evidence of what is stated in the theory of Radical Constructionism: we do not find reality around us, we invent it. In a similar way, voices are not to be found out there objectively, but we perceive them auditorily and categorize them in a certain way that will be meaningful for us. In this process, we operate inevitably via stereotypes, that is, by discrimination and generalization, which are necessary cognitive strategies for categorization. At the same time, this reflects the core idea of Radical Experientialism: our knowledge of voices emerges from the interaction between perception and experience.

7. Conclusions and future outlook

7. Conclusions and future outlook

In an era of what Coleridge (1983) called “despotism of the eye”, we are constantly bombarded by images from the TV or the cinema, followed by the invisible eyes of cameras, and we tend to think that images have incredible power in everyday communication and we seem to forget that voice is one of the most effective tools for conveying information about who we are, the index of our identity. It is a double-edged sword that perfectly matches the sense of ourselves: on the one hand, its biological physical qualities help us define ourselves as unique individuals and, on the other hand, every time we speak the acquired uses of the voice help us recreate ourselves as social beings that belong to a certain group. In this respect, research carried out over the last decades by scientists and specialists of different fields has given supporting evidence that different vocal cues can help hearers infer many things from the identity of the speaker.

It is in this direction that this dissertation is built. The hypothesis is that voice is a key transmitter of our identity and this thesis is an attempt to prove why and how. On the one hand, in my review of literature (chapter 2) I focused on philosophical, psychological, phonetic, linguistic and cognitive approaches that can help us understand firstly what identity is (2.1), secondly which vocal features shape our voice (2.2) and thirdly how these two combine to form the image we “give” to others or the image we “get” from others (2.3).

Identity is a relational term that constructs a parallelism between two domains: the domain of individuality (our consciousness of being a unique individual) and the domain of collectiveness (consciousness of being a social being that belongs to a system). The fact itself that identity is a mixture of individuality and collectiveness is mirrored then in the dichotomy existing in most classifications of vocal features, which distinguish *voice quality* (more physical, biological and individual aspects of voice) from *voice dynamics* features (the learnt, social aspects/uses of voice). We thus find certain vocal cues which act as an index for the hearer to know who the speaker is (physical information) and other vocal cues that seem to point to the collectiveness to which the speaker belongs (social information). Psychological information seems to be conveyed more by *voice dynamics* features. For practical reasons this dissertation has conceptualised *identity* as being formed by three kinds of information (physical, social and psychological) and has then searched examples that prove the existence of physical, social and psychological speech markers in voice.

At the same time, the theoretical part of this dissertation, under the umbrella of the so-called Embodiment theories (2.4.), has proven how perception first, followed by categorization processes work to form our knowledge of voices. We have seen that when dealing with voice it is very hard to distinguish production from perception, so much great is their mutual influence.

7. Conclusions and future outlook

That is why in order to understand what our voice is like (our production) we have to look at our reaction to other voices (perception) and vice-versa. In our processing of voices, at the categorization level, different approaches have been studied here, two of which stand out because they have been reflected in the experimental part: our verticality schema in the conceptualisation of certain vocal aspects (high-bright-light vs. low-dull-heavy, etc.) as an example of basic metaphors of Embodiment, and stereotypy (as the result of discrimination and generalization strategies).

The experimental part of this research has not tried to prove all the aspects mentioned in the different theories (calling for a much broader perspective and project design), but rather has concentrated on a few aspects such as voice and nationality, voice and personality (extroversion and introversion) and the perception of emotions and attitudes (with the case of self-confidence and insecurity). It is divided into two phases: a phonetic and corpus analysis during the first stage and a perception test during the second stage.

The phonetic analysis of sixty female voices belonging to three nationalities supports the idea that there are certain nationality differences amongst *voice dynamics* features (in pitch, speech rate, intensity) but that as soon as correlations are sought between a specific personality trait (here the example was introversion/extroversion) and vocal cues, no concluding statements can be made: we do have expectations of how an introvert or an extrovert typically speaks but my own corpus did not prove the correlation with sufficient consistency. This does not contradict the fact that there are voice stereotypes about how we expect an extrovert or an introvert to typically speak but this proves that these judgements are based on a combination of vocal aspects rather than on single vocal aspects and that it is more a case of *self-fulfilling prophecy*, that is, as soon as people speak, they are judged consistently as introverted or extroverted, for example, even though they might not be, but their voices give that impression. Using my experimental data I analyzed the personality trait of introversion/extroversion and tried to find acoustic correlates but did not find enough evidence that predicts general tendencies. Perhaps further studies with other personality traits such as dominance/submission, activeness/passiveness could shed some light as to whether personality can be transmitted on the basis of vocal cues alone or not.

Secondly, a careful study of voice labels used by laymen helped me come to two general conclusions: on the one hand, that people prefer using phonetic labels (the more objective ones) rather than impressionistic ones (the subjective ones), that is, there is a general desire to try to be more precise and objective when describing voices. On the other hand, there are common voice stereotypes as to what an unpleasant voice is and what a sexy one should be like for all three

7. Conclusions and future outlook

nationalities studied, that is, there is an expectation for unpleasant voices to be *high* and *squeaky*, and for sexy voices to be *deep* and *raspy*, both for men and women. These voice stereotypes are thus not language dependant but they could be culture-dependant, since, as explained above, all three languages considered belong to Western culture.

It was also observed that speakers giving an evaluation of their own voice did this with a relatively high level of success. If a speaker is able to judge his/her own voice quite accurately then it comes as no surprise when the speaker applies the knowledge of his/her own voice to the voices produced by others to be able to make a judgement. Precisely this was one of the objectives of the second stage of the empirical part. If we recall the aims expressed in chapter 3, one objective was to see how non-experts perceive voices, if voice stereotypes arise in this process and whether this was language-dependant. The voice perception test was the best option to be able to answer this: on the one hand it was proven that in our voice judgements we function quite frequently with stereotypes. For example, we hear a high, fast voice and we tend to assume it is an extroverted speaker, whether the person is actually classified as an extrovert or not in psychological tests. Several correlations found in the perception test give evidence for stereotype in voice judgements: voices felt to be self-confident were judged to be adult, extroverted and strong and voices which were friendly, were judged as honest and kind too. It is a quick method we seem to use to oversimplify the complexity of information received. On the other hand, if we interpret the same answers in terms of the activation dimension, we seem to conceptualize many aspects according to a verticality schema: at the top we place high/bright/light/fast/extroverted/self-confident and at the bottom we place low/dark/heavy/slow/introvert/insecure. The reason why extroversion and self-confidence are associated with the first group of adjectives and introversion and insecurity are associated to the second group of adjectives may be found in the idea of the conceptual metaphor mentioned in chapter 2: the experience of darkness and night is transposed to morality, so that we associate what is bright with what is good and what is dark with what is bad. Whether we like it or not, in Western society extroversion and self-confidence seems to be encouraged, whereas introversion and insecurity are generally discouraged. This is why they are then placed in the verticality schema in such a way. The verticality schema found is nothing but a clear case of Embodiment, of how the way our bodies perceive and move have an impact on the way we perceive voices or we talk.

The second part of the perception test (by contrasting the answers given by voice judges that understood the target language with those that did not) has shown that basic emotions and attitudes can be accurately guessed (though in different degrees of accuracy) on the basis of

7. Conclusions and future outlook

prosody alone. We can claim that the decoding process for emotion and attitudinal recognition in German and Spanish is very similar. It can be assumed that very basic emotions and attitudes are encoded the same way universally and can thus be decoded using our common prosodic knowledge. However, one surprising outcome of the perception test was the fact that often emotions or attitudes were not perceived in isolation but rather in combination with others, and this happened to be quite language specific. Whereas very basic level of emotions and physical features that affect all humans (size, age, gender) are encoded with universal prosodic cues, more complex emotions and attitudes, personality traits and social information in voice become more culture specifically encoded. At this second level I did find interferences between L1 and L2: the phonological system and the prosody of our mother tongue did seem to be used (at least in part) as a model against which the voice we hear in an L2 is contrasted, which could explain why some Spaniards perceived anger in the “self-confidence sample” of German voices. Most probably a study of the perception of emotions and attitudes amongst bilingual people in their two languages would show interesting results to be compared with my own results based on people having learnt an L2 but not being bilingual.

To complete the remarks in this section, let me consider the questions mentioned in the objectives (chapter 3):

- The “microcosmos” of voice in relation with our identity has shed some light on the “macrocosmos” of cognition: processes observed here in the perception and categorisation of voices such as the verticality schema or stereotypy are surely not only limited to voice but operate at other levels, linguistic and non-linguistic.
- Findings in philosophy, psychology, neurology and cognitive linguistics (amongst others) give enough evidence that supports the idea that identity and its expression is a human need and as such, is inevitably manifested in our vocal expression through different cues.
- However, the attempt to put identity cues and vocal cues side by side (6.1.) is bound to be vague and overly simple since there are never pure one-to-one correlations: we always use the stock of possible vocal cues in multiple combinations to convey different aspects of our personality, our emotions and our attitudes towards what we are saying or to whom we are saying it, depending on the context. This is why any project aiming to find correlations between voice and identity has to acknowledge the multiplicity of variables that operate simultaneously.

7. Conclusions and future outlook

To pin down exactly which dose of each ingredient is needed to form the end product one must adopt an interdisciplinary approach that embraces aspects from very different fields and contrasts diverse languages. It is evident from all the arguments given so far that our voice and our identity are intimately interrelated: of course our identity exists, even if it is not voiced, but our voice cannot help “betraying” who we are every time we speak. There is no voice without identity and our diverse cognitive abilities are there to help us perceive and produce identity in voice.

Last but not least, let’s not forget that voice is a human feature that evolves with our growth, our personality, our attitudes, that is, our identity. And that is why it always offers new research possibilities.

8. References

- Abercrombie, D. (1967). *Elements of general phonetics*. Edinburgh: Edinburgh University Press.
- Allport, G. W. & Cantril, H. (1934). Judging Personality from Voice. *Journal of Social Psychology*, 5, 37–55.
- Anderson, M. L. (2005). *How to study the mind: an introduction to Embodied Cognition*. Retrieved September 29, 2008, from <http://cogprints.org/3945/>.
- Argyle, M. (1992). *The Social Psychology of Everyday Life*. London: Routledge.
- Arndt, H., & Janney, R. W. (1987). *InterGrammar: Toward an integrative model of verbal, prosodic and kinesic choices in speech* (Vol. 2). Berlin: Mouton de Gruyter.
- Aronovitch, C. (1976). The Voice of Personality: Stereotyped Judgements and their Relation to Voice Quality and Sex of the Speaker. *Journal of Social Psychology*, 99, 207–220.
- Aston, G. (1997). *Teaching and Language Corpora*. London: Longman.
- Ball, C. N. (1996). *Tutorial: Concordances and Corpora*. Retrieved May 10, 2007, from <http://www.georgetown.edu/faculty/ballc/corpora/tutorial.html>.
- Barthes, R. (1977). *Image-Music-Text*. London: Fontana Press.
- Battachi, M., Suslow, T., & Renna, M. (1996). *Emotion und Sprache*. Frankfurt am Main: Peter Lang.
- Battaner, E., Carbó, C., Gil, J., & Llisterri, J. (2004). VILE: Estudio acústico de la variación inter e intralocutor en español. In *VI Congreso de Lingüística General*, Santiago de Compostela.
- Bauer, L., & Trudgill, P. (Eds.) (1998). *Language myths*. London: Penguin.
- Benzon, L. W. (2000). *First Person: Neuro-Cognitive Notes on the Self in Life and in Fiction: PSYART: A Hyperlink Journal for the Psychological Study of the Arts*. Retrieved November 03, 2005, from http://www.clas.ufl.edu/ipa/journal/articles/psyart/2000_benzon01.shtml.
- Bolinger, D. (1983). The inherent iconism of intonation. In J. Heiman (Ed.), *Iconicity in Syntax* (pp. 97–109). Amsterdam: Benjamin.
- Bolinger, D. (1989). *Intonation and its uses: melody in grammar and discourse*. London: Arnold.
- Botinis, A. (Ed.). (2008). *Proceedings of ISCA Tutorial and Research Workshop on Experimental Linguistics*. Athens.
- Bradway, K. (1964). Jung's Psychological Types. *Journal of Analytical Psychology*, 9, 129–135.
- Brown, B. L., Strong, W. J., & Rencher, A. C. (1975). Acoustic determinants of the Perceptions of Personality from Speech. *International Journal of the Sociology of Language*, 6, 11–32.
- Brown, P., & Levinson, S. (1987). *Politeness: Some universals in language usage*. Cambridge: Cambridge Univ. Press.
- Caffi, C., & Janney, R. W. (1994). Towards a Pragmatics of Emotive Communication. *Journal of Pragmatics*, 22, 325–373.
- Cameron, D. (1995). *Verbal Hygiene*. London: Routledge.

- Cameron, D. (2000). Styling the worker: gender and the commodification of language in the globalized service economy. *Journal of Sociolinguistics*, 4, 323–347.
- Campbell, N. (2005). *Listening between the Lines: a Study of Paralinguistic Information Carried by Tone of Voice*. Retrieved June 01, 2006, from <http://feast.atr.jp/nick/pubs/tal-Campbell.pdf>.
- Chambers, J. K., Trudgill, P., & Schilling-Estes, N. (Eds.) (2002). *The Handbook of Language Variation and Change*. Great Britain: Blackwell Publ.
- Cheng, H., & Furnham, A. (2002). Personality, Peer Relations, and Self-Confidence as Predictors of Happiness and Loneliness. *Journal of Adolescence*, 25, 327–339.
- Coleridge, S. T. (1983). *Biographia Literaria*. London: Routledge.
- Collins, D. (2000). Men's voices and women's choices. *Animal Behaviour*, 60, 773–780.
- Cook, N. D. (2002). *Tone of Voice and Mind*. Amsterdam: John Benjamins Publishing.
- Croft, W., & Cruse, D. A. (2004). *Cognitive linguistics*. Cambridge: Cambridge Univ. Press.
- Cruttenden, A. (1997). *Intonation*. Cambridge: Cambridge University Press.
- Crystal, D. (1969). *Prosodic Systems and Intonation in English*. Cambridge: Cambridge University Press.
- Crystal, D. (1975). *The English Tone of Voice: Essays in Intonation, Prosody and Paralanguage*. London: Edward Arnold.
- Culpeper, J. (2005). Impoliteness and entertainment in the television quiz show: The Weakest Link. *Journal of Politeness Research*, 1, 35–72.
- Dalgleish, T., & Power, M. J. (Eds.) (1999). *Handbook of cognition and emotion*. Chichester: Wiley.
- Daly, N., & Warren, P. (2001). Pitching it differently in New Zealand English: speaker sex and intonation patterns. *Journal of Sociolinguistics*, 5, 85–96.
- Darwin, C. (1872, Reedition of 1965). *The Expression of the Emotions in Man and Animals*. Chicago: University of Chicago Press.
- Davis, B. L., & MacNeilage, P. F. (2000). An Embodied Perspective on the Acquisition of Speech Perception. *Phonetica*, 57, 229–241.
- Derks, L. (2000). *Das Spiel sozialer Beziehungen: NLP und die Struktur zwischenmenschlicher Erfahrungen*. Stuttgart: Klett-Cotta.
- Descartes, R. (1637), Weissman, D., & Bluhm, W. T. (Edition of 1996). *Discourse on the method and meditations on first philosophy*. New Haven: Yale University Press.
- Dunn, L. C., & Jones, N. A. (1994). *Embodied voices: Representing female vocality in Western culture* (1. paperback ed.). Cambridge: Cambridge Univ. Press.
- Duranti, A. (Ed.) (2001). *Key Terms in Language and Culture*. Great Britain: Blackwell Publ.
- Eckert, H., & Laver, J. (1994). *Menschen und ihre Stimmen: Aspekte der vokalen Kommunikation*. Weinheim: Beltz Psychologie-Verl.-Union.

- Ekman, P. (1999). Basic Emotions. In T. Dalgleish & M. J. Power (Eds.), *Handbook of cognition and emotion*. Chichester: Wiley.
- Erikson, E. H. (1971). *Identity, youth and crisis*. New York: W.W.Norton.
- Euler, H. A. (1983). *Emotionspsychologie: Ein Handbuch in Schlüsselbegriffen*. Munich: Urban & Schwarzenberg.
- Fabbrichesi, R. (2006). *Semiotics and philosophy in Charles Sanders Peirce: [papers presented to the International Conference on Semiotics and Philosophy in C. S. Peirce held at the State University of Milan in April 2005]*. Newcastle: Cambridge Scholars Press.
- Fährmann, R. (1960). *Die Deutung des Sprechausdrucks*. Bonn: Bouvier und Co. Verlag.
- Fauconnier, G. & Sweetser, E. (1996). *Spaces, Worlds and Grammar*. Chicago: Chicago University Press.
- Fauconnier, G. (1997). *Mappings in Thought and Language*. Cambridge: Cambridge Univ. Press.
- Fauconnier, G., & Turner, M. (2003). *The Way We Think: Conceptual Blending and the Mind's Hidden Complexities*. New York: Basic Books.
- Fay, J., & Middleton, W. C. (1940). Judgement of Kretschmerian Body Types on the Voice Transmitted over a Public Address System. *Journal of Social Psychology*, 12, 151–162.
- Fiske, S. T., & Taylor S. E. (1984). *Social Cognition*. New York: Random House.
- Foulkes, P. (2002). *Current Trends in British Sociophonetics*. Retrieved March 10, 2008, from <http://www-users.york.ac.uk/~pf11/PennWP2002.pdf>.
- Frick, R. W. (1985). Communicating Emotion: the Role of Prosodic Features. *Psychological Bulletin*, 97, 412–429.
- Geeraerts, D. (2006). Prototype theory. In D. Geeraerts (Ed.), *Cognitive Linguistics: Basic Readings* (pp. 141–167). Berlin: Mouton de Gruyter.
- Gibbs, R. W., JR. (2006). *Embodiment and Cognitive Science*. Cambridge: Cambridge Univ. Press.
- Gibson, J. J. (1986). *The ecological approach to visual perception*. New Jersey: Lawrence Erlbaum Associates.
- Gil, J., & Llisterri, J. (2004). Fonética y fonología del español en España (1978-2003). *Lingüística Española Actual*, 26, 5–44. Retrieved December 09, 2008, from http://liceu.uab.es/~joaquim/publicacions/Gil_Llisterri_04_Fonetica_Espanol.pdf.
- Giles, H., Scherer, K. R., & Taylor, D. M. (1979). Speech markers in social interaction. In K. R. Scherer & H. Giles (Eds.), *Social Markers in Speech* (pp. 343–381). Cambridge: Cambridge Univ. Press.
- Giles, H., & St.Clair, R. (Eds.) (1979). *The Social Psychology of Language*. London: Blackwell.
- Glaserfeld, E. (1981). Einführung in den Radikalen Konstruktivismus. In P. Watzlawick (Ed.), *Die Erfundene Wirklichkeit*. München: Piper.
- Glaserfeld, E. (1996). *Radical Constructivism: A Way of Knowing and Learning*. London: Routledge.
- Glaserfeld, E. (2006). *Constructivism in Education*. Retrieved September 30, 2008, from <http://www.vonglaserfeld.com/>.
- Goffman, E. (1981). *Forms of Talk*. Oxford: Blackwell.

- Goffman, E. (1983). *Wir alle spielen Theater: Die Selbstdarstellung im Alltag* München: Piper.
- Goffman, E. (1955). On Face-work: An Analysis of Ritual Elements of Social Interaction. *Psychiatry: Journal for the Study of Interpersonal Processes*, 18, 213–231.
- Gottschlich, P. (2005). *Methoden der Datenerhebung II: Der Fragebogen*. Retrieved February 05, 2007, from www-old.wiwi.uni-rostock.de/~polreg/content/methoden05folien0706.pdf.
- Graham, C. R., Hamblin, A. W., & Feldstein, S. (2001). Recognition of emotion in English voices. *International Review of Applied Linguistics*, 39, 19–37.
- Grammer, K., Fink, B., Møller, A. P., & Thornhill, R. (2003). Darwinian aesthetics: sexual selection and the biology of beauty. *Biological Reviews*, 78, 385–407.
- Gunderson, K. (1975). *Language, mind, and knowledge* (Vol. 7). Minneapolis, Minn.: Univ. of Minnesota Press.
- Habermas, J. (1987). *Handlungsrationalität und gesellschaftliche Rationalisierung*. Frankfurt am Main: Suhrkamp.
- Haiman, J. (Ed.) (1983). *Iconicity in Syntax*. Amsterdam: Benjamins.
- Hamann, C. (1997). *Stimme*. München: Gräfe und Unzer.
- Hampe, B. (Ed.) (2005). *From perception to meaning: Image schemas in cognitive linguistics* (Vol. 29). Berlin: Mouton de Gruyter.
- Hanks, W. F. (2001). Indexicality. In A. Duranti (Ed.), *Key Terms in Language and Culture* (pp. 119–121). Great Britain: Blackwell Publ.
- Harrington, J., Palethorpe, S., & Watson C. I. (2007). *Age-related Changes in Fundamental Frequency and Formants: A Longitudinal Study of four Speakers*. Retrieved October 04, 2007, from <http://www.phonetik.uni-muenchen.de/~jmh/research/papers/interspeechage07.pdf>.
- Heiman, J. (Ed.) (1983). *Iconicity in Syntax*. Amsterdam: Benjamin.
- Henton, C. (1995). Pitch Dynamism in Female and Male Speech. *Language and Communication*, 15, 43–61.
- Hiraga, M. K. (2005). *Metaphor and Iconicity: A Cognitive Approach to Analyzing Texts*. Great Britain: Palgrave Macmillan.
- Hirst, D., & Di Cristo A. (1998). *A Survey on Intonation Systems*. Retrieved June 15, 2007, from <http://www.lpl.univ-aix.fr/~hirst/articles/1998%20Hirst&DiCristo.pdf>.
- Hobbes, T. (1915). *Grundzüge der Philosophie/1: Lehre vom Körper*. Leipzig: Felix Meiner Verlag.
- Holmes, J. (1995). *Women, Men and Politeness*. London: Longman.
- Hualde, J. I. (2005). *The sounds of Spanish*. Cambridge: Cambridge Univ. Press.
- Izard, C. E. (Ed.) (1979). *Emotions in personality and psychopathology*. New York: Plenum Press.
- Janney, R. W. (1996). *Speech and Affect: Emotive Uses of English*. Unpublished manuscript, Munich.
- Johnson, K., & Mullennix, J. W. (Eds.) (1997). *Talker variability in speech processing* (Ed. 1.). San Diego: Academic Press.
- Johnson, M. (1999). Embodied Reason. In G. Weiss (Ed.), *Perspectives on embodiment: The intersections of nature and culture*. New York: Routledge.
- Kant, E. (1781). *Critique of pure reason* (Unabridged ed. Reedition of 1965). New York: St. Martin's Press.

- Karpf, A. (2006). *The Human Voice*. New York: Bloomsbury.
- Karwowski, T. F., & Odbert, H. S. (1938). Color-music. *Psychological Monographs*, (50), 1-ff.
- Keirse, D., & Bates, M. (1984). *Please understand me: Character & temperament types*. Del Mar, CA: Prometheus Nemesis Book.
- Kenny, A. (1968). *Descartes: A study of his philosophy*. New York: Random House.
- Keupp, H. (2006). *Identitätskonstruktionen: Das Patchwork der Identitäten in der Spätmoderne*. Reinbek bei Hamburg: Rowohlt-Taschenbuch-Verlag.
- Kienast, M. (2002). *Phonetische Veränderungen in emotionaler Sprechweise*. Aachen: Shaker.
- Kleiber, G. (1990). *La sémantique du prototype: Catégories et sens lexical*. Paris: Presses Univ. de France.
- Kramer, E. (1963). Judgement of Personal Characteristics and Emotions from Nonverbal Properties of Speech. *Psychological Bulletin*, 60, 408-420.
- Krefeld, T. (2007). *Der Fragebogen als Technik der Datengewinnung: Unpublished Powerpoint presentation for the LIPP Seminar "Methoden Linguistischer Forschung Teil II"*. Unpublished manuscript, Munich.
- Krefeld, T. (Ed.) (2008). *Sprachen und Sprechen im städtischen Raum*. Frankfurt am Main: Peter Lang.
- Kreidman, J., Vanlancker-Sidtis, D., & Gerratt, B. R. (2005). Perception of voice quality. In D. B. Pisoni & R. E. Remez (Eds.), *The handbook of speech perception: Blackwell handbooks in linguistics*. Malden, Mass.: Blackwell Publ.
- Kreiman, J. (1997). Listening to voices: Theory and Practice in voice Perception Research. In K. Johnson & J. W. Mullennix (Eds.), *Talker variability in speech processing*, San Diego: Academic Press.
- Kronk, G. (2005). *George Herbert Mead (1863-1931): The Internet Encyclopedia of Philosophy*. Retrieved November 02, 2007, from <http://www.iep.utm.edu/m/mead.htm>.
- Labov, W. (1966). *The social stratification of English in New York City*. Washington: Center for Applied Linguistics.
- Labov, W. (1972). *Sociolinguistic Patterns*. Philadelphia: University of Pennsylvania Press.
- Ladefoged, P. (1967). *Three areas of experimental phonetics: Stress and respiratory activity, the nature of vowel quality, units in the perception and production of speech* (Vol. 15). London: Oxford Univ. Press.
- Ladefoged, P. (2003). *Phonetic data analysis: an introduction to fieldwork and instrumental techniques*. Malden: Oxford Blackwell.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to western thought*. New York: Basic Books.
- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: Univ. of Chicago Press.
- Lander, K., Hill, H., Kamachi, M., & Vatikiotis-Bateson, E. (2007). It's not what you say but the way you say it: Matching faces and voices. *Journal of experimental psychology. Human perception and performance*, 33, 905-914.
- Langacker, R. W. (1987). *Foundations of Cognitive Grammar*. Stanford: Stanford University Press.
- Langacker, R. W. (1990). *Concept, image, and symbol: The cognitive basis of grammar* (Vol. 1). Berlin: Mouton de Gruyter.

- Laplante, D., & Ambady, N. (2003). On how things are said: Voice Tone, Voice Intensity, Verbal Content, and Perceptions of Politeness. *Journal of Language and Social Psychology*, 22, 434–441.
- Laver, J. (1974). Labels for Voices. *Journal of the International Phonetic Association*, 4, 62–75.
- Laver, J. & Trudgill, P. (1979). Phonetic and Linguistic Markers in Speech. In K.R.Scherer, & H. Giles (Eds.), *Social Markers in Speech* (pp. 1–32). Cambridge: Cambridge Univ. Press.
- Laver, J. (1980). *The Phonetic Description of Voice Quality*. Cambridge: Cambridge Univ. Press.
- Laver, J. (1991). *The Gift of Speech: Papers in the Analysis of Speech and Voice*. Edinburgh: Edinburgh University Press.
- Lewin, K. (1952). *Field theory in social science: Selected theoretical papers by Kurt Lewin*. London: Tavistock.
- Link, G. (Ed.) (in press). *Reduktionismus in den Wissenschaften*. Paderborn: Mentis.
- Locke, J. (1690) & Winkler, K. (Reedition of 1996). *An essay concerning human understanding: Abridged and edited, with an introduction and notes*. Indianapolis, Ind: Hackett Pub.
- Longfellow, H. W. (2000). *Poems and other writings* (1. Print.). New York: Literary Classics of the United States.
- Loveday, L. (1981). Pitch, Politeness and Sexual Role: an Exploratory Investigation into the Pitch Correlates of English and Japanese Politeness Formulae. *Language and Speech*, 24, 71–89.
- Lucas, S. (2004). *The art of public speaking* (8th ed.). New York: London McGraw-Hill.
- Luchsinger, R., & Arnold, G. E. (1965). *Voice -Speech - Language. Clinical Communicology: Its Physiology and Pathology*. Belmont: Wadsworth Publishing.
- Lyons, J. (1977). *Semantics*. Cambridge: Cambridge Univ. Press (Vol.1).
- Maalouf, A. (1998). *Identités Meurtrières*. Paris: Grasset.
- Mannheim, B. (2001). Iconicity. In A. Duranti (Ed.), *Key Terms in Language and Culture* (pp. 102–106). Great Britain: Blackwell Publ.
- Marrero, V., Gil, J., & Battaner, E. (2003). Inter-Speaker Variation in Spanish. An Experimental and Acoustic Preliminary Approach. In *Proceedings of the 15th International Congress of Phonetic Sciences*. 703–706. Barcelona.
- Martin, R., & Barresi, J. (2006). *The rise and fall of soul and self: An intellectual history of personal identity*. New York: Columbia Univ. Press.
- Maturana, H. R., & Varela, F. J. (1984). *Der Baum der Erkenntnis: Die biologischen Wurzeln des menschlichen Erkennens*. Munich: Goldmann.
- Maurer, D., & Landis T. (1990). Role of Bone Conduction in the Self-Perception of Speech. *Folia Phoniatica*, 42, 226–229.
- Mauss, M. (1950). *Sociologie et Anthropologie*. Paris: Presses Univ. de France.
- Mauss, M. (1938, 2004 Reedition). *Fait Social et Formation du Caractère: Sociologie et Sociétés*. Retrieved October 08, 2007, from http://classiques.uqac.ca/classiques/mauss_marcel/fait_social_formation_caractere/fait_social_caractere.html.
- McRae, R. (1976). *Perception, Apperception and Thought*. Toronto: University of Toronto Press.

- Mead, G. H. (1934). *Mind, self & society*. Chicago, Ill.: Univ. of Chicago Press.
- Melvojn, J. (Author) (1994). *Northern Exposure: Lovers and Madmen* [Television broadcast].
- Mendoza-Denton, N., & Jannedy, S. (1998). Implementation of Super-Low tones in Latina Gang Girl Speech. In *Proceedings of Perceiving and Performing Gender Conference*. Kiel.
- Mendoza-Denton, N. (2002). Language and Identity. In J. K. Chambers, P. Trudgill & N. Schilling-Estes (Eds.), *The Handbook of Language Variation and Change*. Great Britain: Blackwell Publ.
- Mendoza-Denton, N. (2008). *Homegirls: Language and cultural practice among Latina youth gangs* (Vol. 2). Malden, Mass.: Blackwell.
- Miller, D. L. (1982). *George Herbert Mead: The Individual and the Social Self: Unpublished Work of G.H.Mead*. Chicago: Chicago University Press.
- Miller, G. A., & Johnson-Laird, P. N. (1976). *Language and perception*. Cambridge, Mass.: Cambridge Univ. Press.
- Mitterer, H. (2008). How are words reduced in spontaneous speech. In A. Botinis (Ed.), *Proceedings of ISCA Tutorial and Research Workshop on Experimental Linguistics*. Athens.
- Mühlhäusler, P., & Harré, R. (1990). *Pronouns and people: The linguistic construction of social and personal identity* (Vol. 15). Oxford: Blackwell.
- Muñoz, J., Mendoza, E., Carballo, G., Fresneda, M. D., & Cruz, A. (2001). In *Revista de Logopedia, Foniatría y Audiología*, 138–144.
- Nass, C. (2005). *Machine voices*. Retrieved November 04, 2008, from Macneil Lehrer Productions: <http://www.pbs.org/speak/ahead/technology/voiceinterface/#>.
- Oatley, K., & Johnson-Laird, P. N. (1987). Towards a Cognitive Theory of Emotion. *Cognition and Emotion*, 1, 29–50.
- Ohala, J. (1983). Cross-language Use of Pitch: an Ethological View. *Phonetica*, 40, 1–18.
- Osgood, C. E. (1964). Semantic Differential Technique in the Comparative Study of Cultures. *American Anthropologist*, 66, 171–200.
- Osgood, C. E., & Suci, G. J. (1972). Factor analysis of meaning. In J. G. Snider (Ed.), *Semantic differential technique: A sourcebook*. Chicago, Aldine: Atherton.
- Osgood, C. E., Suci, G. J., & Tannenbaum, P. H. (1957). *The measurement of meaning*. Urbana, Ill.: Univ. of Illinois Press.
- Watzlawick, P. (Ed.) (1981). *Die Erfundene Wirklichkeit*. München: Piper.
- Pakosz, M. (1983). *Emotive Intonation*. Lublin: UMCS.
- Pear, T. H. (1931). *Voice and Personality*. London: Chapman.
- Peirce, C. S., Hartshorne, C., & Weiss, P. (1931). *Collected Papers of C.S. Peirce*. Cambridge: Harvard University Press.
- Pennock-Speck, B. (2005). Styling the Voice, Selling the Product. In *Proceedings of 4th International Contrastive Linguistics Conference*. Santiago de Compostela.

- Pennock-Speck, B. (2006). Voice and the construction of identity and meaning. In I. Navarro Ferrando & M. N. Alberola Crespo (Eds.), *In-Roads of Language. Essays in English Studies*, (pp. 91–102). Castellón: Publicacions de la Universitat Jaume I.
- Pharies, D. A. (1985). *Charles S. Peirce and the Linguistic Sign*. Amsterdam: John Benjamins Publishing.
- Pike, K. L. (1967). *Language in relation to a unified theory of the structure of human behavior*; (2nd Ed.). The Hague: Mouton de Gruyter.
- Pisoni, D. B., & Remez, R. E. (Eds.) (2005). *The handbook of speech perception*. Malden, Mass.: Blackwell Publ.
- Podesva, R. (2002). *Falsetto and the Use of Phonation Type as a Stylistic Variable*. Retrieved May 23, 2006, from <http://www.stanford.edu/~podesva/documents/nwav2002-handout.pdf>.
- Pustka, E. (2008). accent(s) parisien(s) – Auto- und Heterorepräsentationen stadtsprachlicher Merkmale. In T. Krefeld (Ed.), *Sprachen und Sprechen im städtischen Raum*. Frankfurt am Main: Peter Lang.
- Putnam, H. (1975). *Mind, Language and Reality* (Vol. 2), 2. Cambridge: Cambridge University Press.
- Puts, D. A., Gaulin, S., & Verdolini, K. (2006). Dominance and the Evolution of Sexual Dimorphism in Human Voice Pitch. *Evolution of Human Behaviour*, 27. Retrieved February 08, 2007, from http://www.anth.ucsb.edu/faculty/gaulin/Puts_Gaulin_Verdolini_2006.pdf.
- Quilis, A. (1993). *Tratado de fonología y fonética españolas*. Madrid: Gredos.
- Radden, G. (Ed.) (2007). *Aspects of meaning construction*. Amsterdam: Benjamins.
- Roach, P. (1998). Some Languages are Spoken more Quickly than Others. In L. Bauer & P. Trudgill (Eds.), *Language myths*. London: Penguin.
- Robertson, R. (1995). *Jungian archetypes*. York Beach: Nicolas-Hays.
- Robinson, P. (1979). Speech markers and social class. In K. R. Scherer & H. Giles (Eds.), *Social Markers in Speech* (pp. 219–249). Cambridge: Cambridge Univ. Press.
- Rodero, E. (2001). *El Tono de la Voz Masculina y Femenina en los Informativos Radiofónicos: un Análisis Comparativo: Congreso Internacional de Mujeres, Hombres y Medios de Comunicación*. Retrieved March 11, 2008, from www.bocc.ubi.pt/pag/rodero-emma-tono-voz-femenina.pdf.
- Rohrer, T. (2005). Image Schemata in the Brain. In B. Hampe (Ed.), *From perception to meaning. Image schemas in cognitive linguistics: Vol. 29. Cognitive linguistics research*. Berlin: Mouton de Gruyter.
- Rohrer, T. (2007). The body in space: dimensions of embodiment. In T. Ziemke, J. Zlatev, & R. M. Frank (Eds.), *Body, language and mind: Cognitive linguistics research* (pp. 339–3278). Berlin: Mouton de Gruyter.
- Rosch, E. (1978). Principles of Categorisation. In *Cognition and Categorisation*. New Jersey: Lawrence Erlbaum Associates.
- Russell, B. W., & Slater, J. G. (1997). *Human knowledge: Its scope and limits* (Reprinted.). London: Routledge.
- Sapir, E., & Mandelbaum, D. G. (1985). *Selected writings of Edward Sapir in language, culture and personality* (1. pbk ed.). Berkeley: Univ. of California Press.
- Saussure, F. de (1955). *Cours de Linguistique Générale*. Paris: Payot.







- Saz Rubio, M. M., & Pennock-Speck, B. (2008). Male and Female Stereotypes in Spanish and British Commercials. In M. Muñoz-Calvo, C. Buesa-Gómez & M. Á. Ruiz-Moneva (Eds.), *New Trends in Translation and Cultural Identity* (pp. 369–382). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Scherer, K., Banse, R., & Wallbott, H. G. (2001). Emotion Inferences from Vocal Expression Correlate Across Languages and Cultures. *Journal of Cross-Cultural Psychology*, 32, 76–92.
- Scherer, K. L. (1978). Personality Inference from Voice Quality: the Loud Voice of Extroversion. *European Journal of Social Psychology*, 8, 467–487.
- Scherer, K. L., & Wallbott H. G. (1990). Ausdruck von Emotionen. In K. R. Scherer, C. F. Graumann, & N. Birbaumer (Eds.), *Psychologie der Emotion* (pp. 345–422). Göttingen: Hogrefe.
- Scherer, K. R. (1979, a). Nonlinguistic Vocal Indicators of Emotion. In C. E. Izard (Ed.), *Emotions in personality and psychopathology* (pp. 495–529). New York: Plenum Press.
- Scherer, K. R. (1979, b). Personality markers in speech. In K. R. Scherer & H. Giles (Eds.), *Social Markers in Speech* (pp. 147–209). Cambridge: Cambridge Univ. Press.
- Scherer, K. R. (1979, c). Voice and Speech Correlates of Perceived Social Influence in Simulated Juries. In H. Giles & R. St.Clair (Eds.), *The Social Psychology of Language* (pp. 88–120). London: Blackwell.
- Scherer, K. R., & Wallbott, H. G. (1986). Cues and Channels in Emotion Recognition. *Journal of Personality and Social Psychology*, 51, 690–699.
- Scherer, K. R. & Giles, H. (Ed.) (1979). *Social Markers in Speech*. Cambridge: Cambridge Univ. Press.
- Scherer, K. R., Graumann, C. F., & Birbaumer, N. (Eds.) (1990). *Psychologie der Emotion*. Göttingen: Hogrefe.
- Scherer, K. R., & Giles Howard. (Eds.) (1979). *Social markers in speech*. Cambridge: Cambridge University Press.
- Scherer, T. M. (2000). Stimme, Emotion und Psyche: Untersuchungen zur emotionalen Qualität der menschlichen Stimme. Retrieved 19, from <http://archiv.ub.uni-marburg.de/diss/z2000/0413/>.
- Schmidt, S. J. (1992). *Kognition und Gesellschaft: Der Diskurs der Radikalen Konstruktivismus 2*. Frankfurt am Main: Suhrkamp Taschenbuch Wissenschaft.
- Schröder, M., Cowie, R., Douglas-Cowie, E., Westerdijk, M., & Gielen, S. (2001). Acoustic Correlates of Emotion Dimensions in View of Speech Synthesis. In *Proceedings of Eurospeech, Proceedings of Eurospeech* (pp. 87–90). Aalborg.
- Schulze, W. (a) (in press). Einfalt (in) der Vielfalt: Reduktionismus in den Sprachwissenschaften und die Fraktale der Sprache. In Link (Ed.). *Reduktionismus in den Wissenschaften*. Paderborn: Mentis.
- Schulze, W. (b) (in press). *Cognitive Transivity: The motivation of basic clause structures*. Unpublished manuscript, Munich.
- Schulze, W. (c) (in press) *Sprache als kommunizierte Wahrnehmung: Ein Essay in sieben Teilen*. Retrieved March 05, 2009, from www.lrz-muenchen.de/~wschulze/fsjnz.pdf.
- Schulze, W. (1998). *Person, Klasse, Kongruenz*. Munich: Lincom Europa.

- Schulze, W. (2003). *Syntax and Cognition: Towards a Cognitive Typology of Attention Information Flow (AIF) 'templates' in Udi narratives*. Retrieved November 10, 2007, from <http://www.lrz-muenchen.de/~wschulze/syncog.pdf>.
- Schulze, W. (2004). *The Construction of Language: Radical Experientialism and the phenomenology of linguistic knowledge*. Retrieved September 30, 2008, from <http://www.lrz-muenchen.de/~wschulze/Bolzano%20I.pdf>.
- Schulze, W. (2006). 'Radical Experientialism' und Kognitive Typologie: Zur Frage der Transitivität in Kognition und Sprache. Retrieved September 30, 2008, from <http://www.lrz-muenchen.de/~wschulze/kogtrans.pdf>.
- Schulze, W. (2007). Communication or memory mismatch?: Towards a cognitive typology of questions. In G. Radden (Ed.), *Aspects of meaning construction* (pp. 247–264). Amsterdam: Benjamins.
- Sebastián-Gallés, N. (2005). Cross-language speech perception. In D. B. Pisoni & R. E. Remez (Eds.), *The handbook of speech perception: Blackwell handbooks in linguistics* (pp. 546–567). Malden, Mass.: Blackwell Publ.
- Sendlmeier, W., & Bartels, A. (2005). *Stimmlicher Ausdruck in der Alltagskommunikation*. Berlin: Logos-Verlag.
- Shalom, A. (1985). *The body mind conceptual framework & the problem of personal identity: Some theories in philosophy, psychoanalysis & neurology*. Atlantic Highlands, NJ: Humanities Pr. Internat.
- Shoemaker, S., & Swinburne, R. (1984). *Personal identity* (1st publ.). Oxford: Blackwell.
- Sinclair, J. (1991). *Corpus, concordance, collocation*. Oxford: Oxford Univ. Press.
- Snider, J. G. (Ed.) (1972). *Semantic differential technique: A sourcebook*. Chicago, Aldine: Atherton.
- Snider, J. G., & Osgood, C. E. (1969). *Semantic differential technique: a sourcebook*. Chicago: Aldine Publ.Co.
- Sperber, D., & Wilson, D. (1986). *Relevance: communication and cognition*. Oxford: Blackwell.
- Swenson, R., & Turvey, M. T. (1991). Thermodynamic reasons for Perception-Action Cycles. *Ecological Psychology*, 3, 317–348.
- Tatham, M., & Morton, K. (2006). *Speech production and perception*. Basingstoke, Hampshire: Palgrave Macmillan.
- Trask, R. L. (1996). *A dictionary of phonetics and phonology*. London: Routledge.
- Trudgill, P. (1974). *The social differentiation of English in Norwich* (Vol. 13). Cambridge: Univ. Press.
- Trudgill, P. (1978). *Sociolinguistic patterns in British English*. London: Arnold.
- Trudgill, P. (2000). *Sociolinguistics: An introduction to language and society* (4. ed.). London: Penguin Books.
- Truong, K. P., & van Leeuwen, D. A. (2007). Visualizing Acoustic Similarities between Emotions in Speech: an Acoustic Map of Emotions. In *Proceedings of Interspeech 2007*. Antwerp.
- Tusing, K. J., & Dillard, J. P. (2000). The Sound of Dominance: Vocal Precursors of Perceived Dominance during Interpersonal Influence. *Human Communication Research*, 26, 148–171.
- Vaissière, J. (2005). Perception of Intonation. In D. B. Pisoni & R. E. Remez (Eds.), *The handbook of speech perception: Blackwell handbooks in linguistics* (pp. 236–264). Malden, Mass.: Blackwell Publ.
- van Breitenstein, C., Lancker, D., & Daum, I. (2001). The Contribution of Speech Rate and Pitch Variation to the Perception of Vocal Emotions in a German and an American Sample. *Cognition & Emotion*, 15, 57–59.
- van Leeuwen, T. (1999). *Speech, music, sound*. Basingstoke: Macmillan.

- Vernon, P. E. (1962). *Personality tests and assessments* (2nd ed.). London: Methuen & Co.
- Vygotsky, L. (1979). Consciousness as a problem in the psychology of behaviour. *Soviet Psychology of Behaviour*, 17, 3–35.
- Ward, N., & Okamoto, M. (2003). Nasalization in Japanese Back-Channels Bears Meaning. In *Proceedings of the International Congress of Phonetic Sciences*. Barcelona.
- Watts, R. J. (2003). *Politeness*. Cambridge: Cambridge Univ. Press.
- Watts, R. J., Ide, S., & Ehlich, K. (2005). *Politeness in language; studies in its history, theory and practice* (2nd Ed.). Berlin: Mouton de Gruyter.
- Watzlawick, P. (2005). *Vom Unsinn des Sinns oder vom Sinn des Unsinn*. München: Piper.
- Watzlawick, P., Beavin, J. H., & Jackson, D. D. (1982). *Menschliche Kommunikation: Formen, Störungen, Paradoxien* (6th ed.). Bern: Huber.
- Weiss, G. (Ed.) (1999). *Perspectives on embodiment: The intersections of nature and culture*. New York: Routledge.
- Wilson, D., & Wharton, T. (2006). Relevance and Prosody. *Journal of Pragmatics*, 38, 1559–1579.
- Wittgenstein, L., & Anscombe, G. (1953). *Philosophische Untersuchungen, Philosophical investigations*. Oxford: Blackwell.
- Wittgenstein, L., & Conte Amedeo, G. (1994). *Tractatus logico-philosophicus*. Milano: Ed. CDE.
- Wittgenstein, L., & Wittgenstein, L. (1969). *Preliminary studies for the 'Philosophical investigations': Generally known as the Blue and Brown books* (2. ed.). Oxford: Blackwell.
- Ziemke, T., Zlatev, J., & Frank, R. M. (Eds.) (2007). *Body, language and mind*. Berlin: Mouton de Gruyter.
- Zlatev, J. (2006). *What's in a schema? Bodily mimesis and the grounding of language*. Retrieved September 29, 2008, from http://www.sedsu.org/Pdf/Zlatev_05b.pdf.
- Zollna, I. (2003). *Stimmen der Distanz*. Tübingen: Stauffenburg.
- Zuta, V. (2007). *Männerstimmen Müssen nicht Tief Sein*. Retrieved November 27, 2007, from <http://www.muk.uni-frankfurt.de/pm/pm2007/0207/013/index.html>.
- Zuta, V. (2008). Warum tiefe Männerstimmen doch nicht sexy sind: Das Geheimnis unserer Stimme.

9. Appendix

App. 1: Phonetic labels for question 9, how would you describe your voice?

Phonetic Voice labels		German			Am.English			Spanish		
Voice dynamics	intensity	Leise, ruhig	4		Quiet	2		Baja	2	
		laut			loud	1		Fuerte, alta	2	
	pitch	hoch	3		High, high-pitched	2		aguda	4	
		tief	8		Low, deep	7		grave, profunda	4	
	intonation	Monoton, eintönig	2		monotone	1		monótona		
		harmonisch			Harmonic, with a lot of inflections	2		Cadenciosa, harmoniosa		
tempo	Langsam, ruhig	1		Show, calm			Lenta, pausada, serena			
	schnell			fast			rápida			
Voice quality	tension	angespannt			tense			tensa		
	roughness	Rauhe/heiser	1		Raspy, husky	1		Ronca, rasgada, afónica		
	breathiness	Rauchig/flusternd			Breathy/whispery			Susurrante/cn gemidos		
	pitch	Quietschend, piepsig, kreischig, schrill	3		Squeaky, squitchy, screechy	2		Chirriante, chillante, chillona, estridente, picuda	3	
		nasality	nasal			nasal	2		Nasal, gangosa	

App. 2: Phonetic labels for question 10, what is a sexy voice, for men, for women?

Phonetic Voice labels		German	♀	♂	Am.English	♀	♂	Spanish	♀	♂
Voice dynamics	intensity	Leise, ruhig			Quiet	3	4	Baja	1	2
		laut	1		loud			Fuerte, alta		1
	pitch	hoch	1		High, high-pitched	1		aguda		
		tief	9	14	Low,deep	9	14	grave,profunda	4	8
	intonation	Monoton, eintönig			monotone			monótona	1	2
		harmonisch	1	1	Harmonic, with a lot of inflections	1	2	Cadenciosa, harmoniosa		2
tempo	Langsam, ruhig			Slow, calm	4	5	Lenta, pausada, serena	3	5	
	schnell			fast			rápida			
Voice quality	tension	angespannt			tense			tensa		
	roughness	Rauhe/heiser	5	2	Raspy,husky	4	1	Ronca, rasgada, afónica	2	3
	breathiness	Rauchig/flusternd	6	2	Breathy/whispery	3	1	Susurrante/con gemidos	1	2
	pitch	Quietschend, piepsig, kreischig, schrill			Squeaky, squitchy, screechy			Chirriante, chillante, chillona, estridente, picuda		
	nasality	nasal			nasal			Nasal, gangosa		

App. 3: Phonetic labels for question 11, what is an unpleasant voice, for men, for women?

Phonetic Voice labels		German	♀	♂	Am.English	♀	♂	Spanish	♀	♂
Voice dynamics	intensity	Leise, ruhig	2	2	Quiet	1		Baja		
		laut	2	3	loud	2	2	Fuerte, alta	2	3
	pitch	hoch	9	10	High, high-pitched	13	15	aguda	6	7
		tief	1		Low,deep	3	1	grave,profunda	1	1
	intonation	Monoton, eintönig	1	1	monotone	1	1	monótona		
		harmonisch			Harmonic, with a lot of inflections			Cadenciosa, harmoniosa		
tempo	Langsam, ruhig			Show, calm			Lenta, pausada, serena			
	schnell		1	fast	2	2	rápida			
Voice quality	tension	angespannt			tense			tensa		
	roughness	Rauhe/heiser	2	1	Raspy,husky			Ronca, rasgada, afónica	3	3
	breathiness	Rauchig/flusternd			Breathy/whispery			Susurrante/cn gemidos		
	pitch	Quietschend, piepsig, kreischig, schrill	16	11	Squeaky, squitchy, screechy	7	7	Chirriante, chillante, chillona, estridente, picuda	16	10
		nasality	nasal	2	1	nasal	5	5	Nasal, gangosa	1

App. 4: Impressionistic labels for question 9, how would you describe your voice?

Impressionistic Voice labels	German	♀	♂	Am.English	♀	♂	Spanish	♀	♂
personality	Sicher/ selbstbewusst			confident			segura		
	Stark/ temperamentvoll			Strong/sultry			Fuerte, con energía		
	freundlich			friendly			amable		
	ehrlich			honest			honesta		
	ironisch			ironic			irónica	1	
	stofflig			unfriendly			antipática		
	Gefühllos/leer			empty			Vacía, apática	1	
	Kindlich			childish, girly	2		Infantil, de niña de 5 años, de pitufo, nenita, niñaata	5	
aggressiv			Aggressive, rough	2		agresiva			
Synesthetic/ metaphorical	warm			warm			cálida		
	hell			light			ligera		
	dunkel	1		dark			oscura		
	rund	1		round			redonda		
	dick	2		thick	1		gruesa		
	sanft			soft,gentle,kind			suave	4	
	süß			sweet			dulce	2	
positive	attraktiv			attractive			atractiva		
	einzigartig			Unique, weird			Única, rara		
	angenehm			pleasant			Agradable/comfortable		
	sensuel			sensual			Sensual/suntuosa		
	Misteriös/exotisch			mysterious/exotic/with accent			Misteriosa/con acento		
negative	kitschig			Bourgeois			cursi	2	
	unnatürlich			Unnatural/fake	2		artificial		
	hässlich			Ugly, creepy	1		fea	2	
	Unangenehm, störend			Unpleasant, annoying whiny	1		Desagradable, molesta		


App. 5: Impressionistic labels for question 10: what is a sexy voice, for men, for women?

	German	♀	♂	Am.English	♀	♂	Spanish	♀	♂
personality	Sicher/ selbstbewusst	2	1	confident		1	segura		1
	Stark/ temperamentvoll	2	2	Strong/sultry		2	Fuerte, con energía	2	1
	freundlich			friendly	2		amable		1
	ehrlich			honest			honesta		
	ironisch			ironic			irónica		
	stofflig			unfriendly			antipática		
	Gefühllos/leer			empty			Vacía, apática		
	Kindlich			childish, girly	2		Infantil, de niña de 5 años, de pitufo, nenita, niñaata		
aggressiv			aggressive			agresiva			
Synesthetic/ metaphorical	warm		1	warm		2	cálida	1	2
	hell	2		light			ligera		
	dunkel	1		dark		2	oscura		
	rund			round			redonda		1
	dick			thick			gruesa		1
	sanft	1		soft,gentle,kind	2	2	suave	4	3
	süß			sweet			dulce	4	3
positive	attraktiv			attractive	1	0	atractiva	1	1
	einzigartig			Unique, weird	2	2	Única, rara		
	angenehm	1		pleasant			Agradable/comfortable	2	2
	sensuel			sensual			Sensual/suntuosa	2	
	Misteriös/exotisch	1		Mysterious/exotic/with and accent	2	3	Misteriosa/con acento	1	
negative	kitschig			Bourgeois			cursi		
	unnatürlich			Unnatural/fake			artificial		
	hässlich			ugly			fea		
	Unangenehm, störend			Unpleasant, annoying whiny			Desagradable, molesta		

App. 6: Impressionistic labels for question 11, what is an unpleasant voice for men, for women?

Impressionistic Voice labels	German	♀	♂	Am.English	♀	♂	Spanish	♀	♂
personality	Sicher/selbstbewusst			confident			segura		
	Stark/temperamentvoll			Strong/sultry			Fuerte, con energía		
	freundlich			friendly			amable		
	ehrlich			honest			honesta		
	ironisch			ironic			irónica		
	stofflig		1	unfriendly			antipática		
	Gefühllos/leer			empty			Vacía, apática		
	Kindlich			childish, girly	2	3	Infantil, de niña de 5 años, de pitufo, nenita, niñata		
Synesthetic/metaphorical	aggressiv			aggressive			Agresiva, rencorosa	1	
	warm			warm			cálida		
	hell		1	light			ligera		
	dunkel			dark			oscura		
	rund			round			redonda		
	dick			thick			gruesa		
	sanft			soft,gentle,kind			suave		
süss	1		sweet			dulce			
positive	attraktiv			attractive			atractiva		
	einzigartig			Unique, weird			Única, rara		
	angenehm			pleasant			Agradable/comfortable		
	sensuel			sensual			Sensual/suntuosa		
negative	Misteriös/exotisch			Mysterious/exotic/with and accent			Misteriosa/con acento		
	kitschig			Bourgeois			cursi		
	unnatürlich	1		Unnatural/fake			artificial		
	hässlich			ugly			fea		1
	Unangenehm, störend			Unpleasant, annoying whiny	1	1	Desagradable, molesta		

App. 7 : Perception test

Voice perception test 

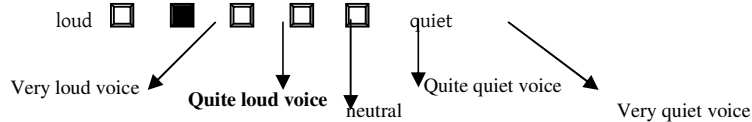


All the information given will remain strictly anonymous and will only be used for research puposes.

Name and Surname: Age: Male/Female: Job/occupation: E-mail: Languages:

Please listen to the following voice simples and tick the appropriate box.

Example:



1. Phonetic labels

	Sample 1	Sample 2	Sample 3
Voice dynamics	loud <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> quiet	loud <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> quiet	loud <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> quiet
	high <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> deep	high <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> deep	high <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> deep
	harmonic <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> monotone	harmonic <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> monotone	harmonic <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> monotone
	fast <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> slow	fast <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> slow	fast <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> slow
Voice quality	tense <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> lax	tense <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> lax	tense <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> lax
	husky <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> smooth	husky <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> smooth	husky <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> smooth
	breathy <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not breathy	breathy <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not breathy	breathy <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not breathy
	squeaky <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not squeaky	squeaky <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not squeaky	squeaky <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not squeaky
	nasal <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not nasal	nasal <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not nasal	nasal <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> not nasal

2. Impressionistic labels

	Sample 1	Sample 2	Sample 3
Personality labels	Self-confident <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> insecure	Self-confident <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> insecure	Self-confident <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> insecure
	strong <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> weak	strong <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> weak	strong <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> weak
	friendly <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unfriendly	friendly <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unfriendly	friendly <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unfriendly
	honest <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> dishonest/false	honest <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> dishonest/false	honest <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> dishonest/false
	emotional <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unemotional	emotional <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unemotional	emotional <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unemotional
	adult <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> childish	adult <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> childish	adult <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> childish
	aggressive <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> calm	aggressive <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> calm	aggressive <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> calm
	Extroverted <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> introverted	Extroverted <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> introverted	Extroverted <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> introverted
	Kind <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> cruel	Kind <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> cruel	Kind <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> cruel
	energetic <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> lazy	energetic <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> lazy	energetic <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> lazy
Synthetic labels	warm <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> cold	warm <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> cold	warm <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> cold
	light <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> heavy/thick	light <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> heavy/thick	light <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> heavy/thick
	sweet <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> tasteless	sweet <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> tasteless	sweet <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> tasteless
	soft <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> rough	soft <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> rough	soft <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> rough
	bright <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> dull	bright <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> dull	bright <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> dull
Evaluative terms	attractive <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unattractive	attractive <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unattractive	attractive <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unattractive
	Pleasant <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unpleasant	Pleasant <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unpleasant	Pleasant <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unpleasant
	unique <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> common	unique <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> common	unique <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> common
	natural <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unnatural	natural <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unnatural	natural <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> unnatural
	beautiful <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ugly	beautiful <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ugly	beautiful <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> ugly

3. Emotions

Listen to the next voice samples to try and recognise the emotions or attitudes expressed

Sample 1

a) What emotions or attitudes do you recognise? (tick one or more)

- joy
- disgust
- anger
- sadness
- self-confidence
- surprise

-unsecurity

What helped you come to this conclusion?

Sample 2

a) What emotions or attitudes do you recognise? (tick one or more)

- fear
- joy
- disgust
- anger
- sadness
- self-confidence
- surprise
- unsecurity

b) What helped you come to this conclusion?

Sample 3

a) What emotions or attitudes do you recognise? (tick one or more)

- fear
- joy
- disgust
- anger
- sadness
- self-confidence
- surprise
- unsecurity

b) What helped you come to this conclusion?

Sample 4

a) What emotions or attitudes do you recognise? (tick one or more)

- fear
- joy
- disgust
- anger
- sadness
- self-confidence
- surprise
- insecurity

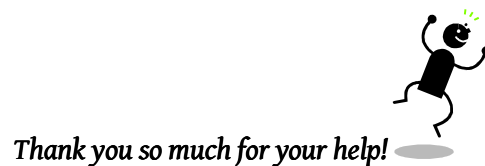
b) What helped you come to this conclusion?

Sample 5

a) What emotions or attitudes do you recognise? (tick one or more)

- fear
- joy
- disgust
- anger
- sadness
- self-confidence
- surprise
- insecurity

b) What helped you come to this conclusion?



App. 8 : Audio material

The CD can only be found in the printed version of this thesis, not in the electronic version!!!!

a) Interviews:

- Tracks 1 to 20: Spanish candidates
- Tracks 21 to 40: German candidates
- Tracks 41 to 60: American candidates

b) Stimuli of the perception test:

- Tracks 61 to 63: Spanish stimuli for G and GS
- Tracks 64 to 66: German stimuli for S and SG
- Tracks 67 to 71: Samples of emotions and attitudes, Spanish actor
- Tracks 72 to 76: Samples of emotions and attitudes, German actress



App. 9 Transcriptions of the audio material

The following texts are only rough word for word (and not phonetic) transcriptions of what was said. Orthographic rules are not followed strictly, since the main purpose of the transcriptions was the syllable count and the detection of certain adjectives.

Track 1

- Ana. Qué has hecho este fin de semana?
-Este fin de semana fui al(...) desfile de la Oktoberfest, el sábado y el domingo,(...) y pues no mucho, hablar con mis papás y dormir porque eh (...)con el curso que estoy tomando ahorita, está super pesado y (...) como que necesitaba descansar y desafanarme de todo.
-hmm,eh alguna situación molesta, algo que te haya enfadado, eh de alguien? si no te acuerdas de nada particular puede ser incluso cosas que en general te moleste que haga la gente.
-pues ahorita (...) lo pesado del curso que estoy tomando, eso me tiene muy estresada, muy muy de malas, el clima ahorita, bueno hoy no pero (...)como muy nublado, todo muy (...) gris.
-hmmm.eh algo triste o alguna experiencia triste de, tuya, de alguien cercano, algo que hayas visto o oído?
-Pues(...) yo te acabo de hablar de una pelí, bueno de una película que vi, La ciudad de dios, ya la había visto antes, pero (...)como que me cause una, un impacto fuertísimo que que(...) cómo pueden haber tanta tanta violencia y(...) cosas así todavía,no?
-hmm.em alguna noticia positiva, algo que te haya alegrado?
-em
-si no es ahora reciente, bueno cualquier cosa puede ser, puede ser algo que tú recuerdes, buah este día me alegré un montón.
- no sé pues(...) como que todos los días trato de buscar una noticia buena.
-eh que has estudiado?
-de (...) pero de
-como carrera.
-aha, hasta ahorita preparatoria, no sé si se dirá así.
-hmm, que a qué equivale preparatoria aquí?
-como (...) no sé (...), es como antes de universidad.
-hmm, eh que es Internet?
-internet, un medio de comunicación, em que (...)como que (...)por así decirlo, uno a todo el mundo y (...)no sé (...) es como otro mundo.
-sí y un pie en centímetros?
-ní idea.
- qué piensas sobre la muerte y las enfermedades graves?
- pues la muerte yo la la pienso, bueno pienso como(...)como que es un paso hacia otro(...) lugar, no sé, como que avanzas (...)y las enfermedades graves, pues a mi como que sí me dan miedo, prefiero más bien (...) si se puede, eutanasia o algo así para no sufrir, pero le tengo miedo a sufrir.
-hmm, em cómo describes tu voz?
-mi voz como que de repente de flojera, como muy baja, muy (...) como si nada me interesara, aunque así, aunque sí me interesan las cosas, pero siento como que de repente se me hace muy apática.
-hmm,y una voz sexy para hombres y para mujeres?.
-para mi para hombres es em, grave pero ronca(...) y mujeres(...) pues más suave pero no tan, no tan aguda, igual ronca.
-hmm, y una voz desagradable, para hombres y para mujeres?
-para ambos a mi se me hace chillante,las voces chillantes son(...) horribles.
-hmm, vale ya está, gracias.
-ok.

Track 2

-Ana , ¿Ana, qué has hecho este fin de de semana?

- Ah pues me he pasado todo el fin de semana lavando, (je,je,je), es que como llevamos 3 semanas sin (...) poder estar en casa en realidad, pues el sábado de (...) fregoteo total, Maruja y (...) el domingo (...) leí, salí con una amiga, y luego por la tarde(...) fuimos a visitar a un amigo que se ha comprado una casa y nos mostró, es una pasada, bueno en fin, eso, nada especial, vaya.

-hm, eh, ¿alguna situación molesta, por ejemplo la última semana, algo por ejemplo, algún alumno que te haya hecho, que te haya molestado, o yo que sé, algo que te haya molestado de alguien? si no sabes nada concreto, por ejemplo cosas que te molesten en general de la gente

-Noo, bueno, yo que sé, las dos últimas semanas han sido un poco estresantes claro con los chicos, no? Pero(..) y (...) No, sobre todo eso, que no estoy acostumbrada (...) a los nenes, porque hace siete años que no les doy clases, entonces me molestan que charren entre ellos, que (...) yo qué sé, que no estén atentos, sobretodo lo que, en realidad lo que me molesta más es que no estén motivados,no? Que estén ahí perdiendo el tiempo, mirando las musarañas, y piensas, chaval no es obligatorio, o sea que te largas y punto.

-hmm, y, ¿una situación triste, o si no es nada personal, que le haya pasado a alguien que tu conozcas o algo triste que a lo mejor hayas visto en la tele?

- ¿ahora hace poco o cuando?

-Sí o hace un mes, o yo qué sé, no sé

-Algo triste, no algo que me impresionó mucho en realidad, fue (...), hubo una explosión en Tarragona, de gas, y (...) un tipo se quedó sin familia, y(...)porque se murió su mujer y sus tres hijos, y uno de los tres tenía un mes, acababa de nacer, casi.no? Y no sé, me impresionó mucho en realidad, me quedé (...), a veces pienso en él. En realidad, o sea, me levanto y pienso, ostia, pobre tipo,no? el también se habrá levantado y(...) y la vida que, que tiene que llevar,no? Como lo puede sobreponer, todo eso, me afectó mucho, en realidad pienso bastante en ese señor.

-eh una, ¿algo positivo, una buena noticia, eh, , a lo largo de yo que sé,del último mes, algo que de repente te alegrara?Puede ser cualquier tontería.

- ¿Una buena noticia?(...)

-algo positivo.

- hmmm(...), me gustó, este fin de semana me llamó mi suegra, (jeje), entre comillas, estuvo bien porque pude hablar con ella un poquito más de lo normal y, no sé, me preguntó qué tal, que como me va, que no sé que, y, es la primera vez que intercambiamos más de cuatro palabras (jeje), así que, no, estuvo bien, yo que se, quizás no es nada del otro mundo pero a mi me alegra, no?

- eh, ¿qué has estudiado?

- Estudié filología hebrea y clásicas junto, y luego hice (...) el segundo ciclo de románicas.

- y ¿qué es Internet?

-¿ qué es Internet? Es un chollo, (jeje), eso es lo que es (jeje), es genial, es una red donde encuentras un montón de informaciones, un montón de imágenes sobretodo, yo utilizo mucho para las clases (...respira), no sé, es, es un gran invento, el invento del siglo(jeje).

-em, que cuantos centímetros eh son, hay en un pie?

-¿Cuántos centímetros hay en un pie? Depende del pie,no?

-No, el pie inglés.

-ahhhh, de acuerdo, oy, no tengo ni idea, ¿habrá unos treinta?

- ¿qué piensas sobre la muerte y las enfermedades graves, es algo que te da miedo, que no te da miedo?

-Yo pienso mucho sobre la muerte, y (..) (ji ji), pienso que es el paso a otra dimensión y no tengo ni idea,no?es como,me gustaría saberlo antes de morirme en realidad, o sea.

-hm

-Y si me da miedo? No, no me da miedo porque todos tenemos que pasar por ahí así que (...), me da mas miedo que se muera mi,mi novio, o mis padres, sabes? Que no el hecho de morirme yo en sí, por, por, por vivir si ellos,no?eso es lo que me da miedo, vivir sin la gente que quiero.

-hmm. ¿Cómo describirías tu voz?

-Mi voz? Pues depende, yo sé que cuando hablo en francés es más aguda que cuando en español, creo que es bastante suave, no sé. Y cuando es en catalán es cortante, un poco.

-hm, ¿y que es para ti una voz sexy, para hombres y para mujeres?

-¿una voz sexy? Y, para hombre una voz grave, me encanta, hmm, en serio, y no sé, y que destile bondad, en realidad es que para mi lo que es sexy es lo que es bondadoso (jeje), es lo que tiene, no? Porque la gente agresiva me da miedo,no? Entonces todo lo que destila bondad, con una voz aterciopelada, pues para mi eso es sexy. Y para una mujer(...) pueesss(...) misteriosa,sí.

-eh, y lo contrario ahora, que es lo último ¿Qué es una voz desagradable para ti, para hombres, para mujeres?

-para una mujer una voz desagradable es una voz estridente, no soporto, es que me pone nerviosa. Y para un hombre,eh, los que se comen las palabras, sabes? Que, que no entiendes mucho y así como un murmuro, y ughh...no (...), no me gusta.

-hmm, ya está, gracias

-de nada.

Track 3

- Begoña, ¿me puedes decir lo que hiciste el fin de semana pasado?
- (...)eh, no me acuerdo mucho, a ver que piense, recapacite (...) el sábado
- Segovia, no?
- Ah, sí, este fin de semana pasado, si, el sábado me fui a Segovia (...) fui a ver un ballet por la noche (...)y a ver la ciudad, y (...), y comí y cené por ahí, en una terraza en la calle. Y al día siguiente, me marché (...) a Cuenca, pasando primero, visitando la Granja de San Ildefonso, en Segovia, y luego ya en Cuenca visité la ciudad (...) y (...) y al día siguiente ya venir hacia casa.
- Vale. ¿me podrías decir alguna situación así ,que te haya molestado ul en ah, yo qué sé, en el último mes, o algo así, o alguna situación que te haya...?
- Sí, hombre, un incidente que he tenido con un perro esta mañana.(jejeje)
- ¿Qué ha pasado?
- (jajaja) Estando en la sala de espera del veterinario ha salido uno de la consulta con un bulldog que casi se tira, que me quería morder a mi perra y además estaba de, le salía sangre de (...) de una cura que le habían hecho y ha llenado todo de sangre y queriendo morder a mi perra, y ha sido una situación de lo más desagradable.
- Muy bien. Emm ¿me podrías decir, algo...algo triste que hayas, eh que te haya pasado en el último, o sea bueno algo triste que hayas visto, que te haya pasado a ti o que le haya pasado a alguien cercano a ti?
- ¿pero de hace poco?
- O de hace mucho, lo que tú quieras, algo que...
- Hombre, como triste, más triste la muerte de (...) de familiares queridos,no? De mis abuelos.
- Sí, ya bueno,lo que tú quieras.
- Y hechos tristes, pues bueno, cuando tienes también problemas (suspiro) con tu pareja o con tus hijos también son tristes.
- Y, y también el enterarme que mi madre tiene un principio de Alzheimer, también.
- Hmm, ¿y alguna noticia positiva o algo así bueno?
- Hombre,sí, claro, que Jorge ha acabado la carrera cuando creíamos que no la había terminado, ha sido una gran alegría.
- Muy bien.
- Y que haya llegado mi hija aquí de Alemania (jeje) a pasar el verano.
- Bien.eh, ¿qué estudiaste?
- Farmacia
- Bien. ¿cómo definirías en pocas palabras lo que es Internet?
- Pues, una manera (...) muy, (...) muy rápida de buscar información o comunicarte con la gente.
- Eh, ¿qué piensas sobre la muerte o las enfermedades graves?
- (...) eh pues hombre, que a mi me dan miedo particularmente, eh (...) no sé,hombre, que (...) es, aún la muerte, mejor si es, si es repentina, pero si tienes que pasar delante una enfermedad grave, pues es una situación en fin bastante triste,para, para, para el que la pasa y para los familiares que le rodean.
- Hmm. ¿cómo describirías tu voz?
- Una voz (...) o sea, suave, que ,que no suena mucho, porque muchas veces no me oyen, hablo, mi tono es hablar bajo, y (...) no sé (...) creo que no es una voz autoritaria,ni (...)no sé, no sé qué adjetivo le pondría, autoritaria no es, y más bien un tono bajo.
- Hm. Eh, ¿qué es una pulgada, en metros?
- no lo sé exactamente (jeje)
- Vale. ¿y qué es para ti una voz sexy, cómo tiene que ser, como la describirías para hombres y para mujeres, si distingues?
- No sé, hay alguna voz que cuando la oigo me parece cálida, un tono que me gusta, pero no sé definirlo ahora, eh (...) Y hay voces
- Para hombres y mujeres.
- Bueno no sé, es que en concreto hay una, hay una periodista o algu, o una presentadora de la radio que tiene una voz, para mí, muy agradable, un tono agradable. Y la voz de un chico quizás me gustan las voces así un poco graves.
- Hm ¿y al contrario, una voz desagradable, cómo la describirías?

- Como el veterinario de (jeje) de esta mañana, una voz (...) hablando muy fuerte (...) eh (...)no sé, también un poco amanerada,(...) no sé qué más, porque hablar fuerte, o un poco rasposa la voz también.
- Hmm, vale ya está, gracias

Track 4

- Cora, Cora que hiciste el fin de semana pasado?
- Eh (...) me fui a Cullera con Sonia y estuvimos casi todo el fin de semana bañándonos en la playa.
- Muy bien. Eh, me puedes decir alguna situación, a lo mejor en el último mes, algo que te haya molestado, una situación que te haya hecho enfadar, si no se te ocurre algo concreto, piensa si no más bien en algo que te moleste de la gente.
- Eh (...) algo que me haya molestado un poco es que (...) me siento muy retrasada en las clases de la academia(jejeje)
- Eh...y algo por ejemplo,triste, más bien una situación triste, si no es algo personal que te ha pasado en las últimas semanas a ti, a alguien muy cercano, y si no, algo a lo mejor que hayas visto en la tele que, que te haya impactado como triste.
- Pues ahora mismo no caigo en nada triste, especialmente.
- En la tele, alguna imagen así...triste?
- (...) No, la verdad es que no. Puedo pasar,no?
- Si se te ocurre, luego volvemos.
- Vale, pues paso.
- Alguna noticia positiva, algo que te haya alegrado de repente en las últimas semanas?
- Eh (...) personal, nada especial. Mmm(...) por ejemplo que hayan bajado un montón los (...) muertos por accidente de tráfico gracias al carnet por puntos.(jejeje)
- Vale. Qué has estudiado?Presentámelo.
- Ahora? O sea...
- Todo de tu trayecto, qué has estudiado, en la universidad, vamos.
- Ah, derecho y criminología, y ahora preparo oposiciones en una academia que voy muy retrasada (jejeje).
- Eh, qué es Internet para ti?
- Messenger (jejeje)
- ¿cuánto es en centímetros una pulgada?
- No tengo ni la más remota idea (jejeje)
- Eh...¿qué piensas sobre la muerte y las enfermedades graves?
- La muerte me da un miedo horroroso y cuando pienso en ella me entra mogollón de angustia y las enfermedades, un poco menos pero no (...) no quiero ni pensarlo.
- Eh, como describirías, describirías tu voz?
- Mi voz? (...) pues creo que tengo el tono alto, y una voz de lo más corriente, ni demasiado grave ni demasiado aguda.
- Y para ti que es una voz sexy, en hombres y en mujeres?
- Una voz sexy? (respiro...) Más que sexy lo, creo que lo importante es una voz agradable, que no sea chillona ni nada de eso, ni que te imponga las cosas, una voz dulce, tranquila, y una voz agradable.
- Muy bien. Y lo contrario, para ti qué es una voz desagradable?
- Uff, una voz muy aguda con un pito de esos ahí que (...) o sea y chillona, eso no me gusta nada.
- Para hombres también?
- Para hombres una voz desagradable, una voz muy grave, demasiado grave.
- Muy bien, ya está todo. Gracias.

Track 5

- Rocío, ¿qué hiciste el fin de semana pasado?
- El fin de semana pasado fui al cine.
- aha. Eh, ¿algo, una historia molesta que te haya sucedido a lo mejor desde que estás en Munich o algo que te de rabia de la gente o?

-¿Qué me de rabia de la gente? No sé que son muy brutos de pronto a la hora de (...) relacionarse con el otro y (...) en el U-bahn son muy toscos y te empujan, se te enciman, este (...) que, no únicamente el trato bruto de la gente.

-sí.

-Tosco, más que bruto, tosco.

-sí, aha, eh ¿algo triste que te haya pasado a ti o a alguien que conozcas, o algo triste de la televisión?

-Triste (...) algo triste (...) ah pues hace poco una, a una amiga le tuvieron que operar, entonces sí estábamos un poco, un poco (...) preocupadas por ella, pero nada grave.

-bueno, eh, ¿alguna noticia positiva en este último año, algo que te haya alegrado mucho?

-¿en este último año?(...) úchale, hmm (...).

-no tiene por qué ser algo muy grande, puede ser algo, puede ser alguna cosa pequeña que te haya alegrado.

-No sé, algo tonto quizá que se haya publicado una reseña, yo creo que me dio gusto que saliera ya publicada por fin la reseña que man, que mandamos juntas, este, una compañera y yo, y que pensé que no la iban a sacar y ya salió.

-ah muy bien.

-es muy pequeñita.

-aha, eh ¿qué has estudiado?

-qué estudié? Como licenciatura?

-sí.

-ah lengua y literatura de Hispanoamérica en Tijuana, Baja California.

-hmm, eh ¿y qué es Internet, cómo defines Internet?

-Internet (...) aggg, una red que está en todos lados y no está. Sí.

-aha, ¿cuántos centímetros encuentras en la unidad de medida de un pie?

- (...) de un pie, ¿Cómo qué serán? Cuaren (...) más de treinta centímetros yo creo que cuarenta o algo así.

-aha, ¿qué piensas sobre la muerte o las enfermedades graves, es algo que te da miedo, o no..?

-mi muerte no me da miedo, yo creo que me da más miedo la muerte de los seres queridos.

-hmm.

-la mía no.

-Y, ¿cómo puedes describir tu voz?

-Mi voz? Uyy (...) muy chillante (...) la siento de pronto muy chillante, hablo muy fuerte, este (...), de pronto (...) hay, hablo demasiado alto y creen, la gente cree que estoy enojada (...) pero (...) no, así hablamos la gente del norte, y (...) pues aguda, de pronto la siento demasiado aguda.

-aha, ¿cómo son las voces sexys, para hombres y para mujeres?

-gruesas, (...) graves, sí sí.

-¿para los dos?

-gra, síiii, sí sí una voz grave en una mujer se (...) se oye, sí se oye mejor.

-aha, ¿y desagradable para hombres, para mujeres?

-ahh (...) pues demasiado aguda (...) demasiado aguda, sí.

-¿para los dos?

- para los dos, sí, sí sí, demasiado aguda.

-muy bien, gracias.

-de nada.

Track 6

-Eva, ¿qué has hecho este fin de semana?

-el (...) domingo estuve en Augsburg con unos amigos de mi hermano y hicimos una (...) paella todos juntos, y el sábado (...) no me acuerdo (jejeje)

-el viernes?

-el viernes por la noche fuimos, (...) me fui con los (...) tumis a (...) de bares por ahí.

-hmm, eh ¿alguna experiencia así, que te haya cabreado, algo que te haya pasado aquí a lo mejor desde que estás en Munich, algo así molesto, una situación o algo q te haya enfadado?

-sí, que me encuentre el (...) en mi rellano con la basura (jejeje) por fuera, es decir, la gente en vez de poner la basura dentro del con, dentro del agujero para la basura, la deja ahí fuera y huele muy mal.

-aha, eh ¿alguna experien, algo, algo triste que te haya pasado a ti, a alguien cercano, o algo triste que hayas visto o oído en la tele?

- (...) algo triste (...) eh ffff (...) no sé, por ejemplo que (...) que a mi abuelo le dijeran que tenía un cancer.

-hmm, eh ¿algo positivo que te haya pasado este último año?

-Positivo? Venir aquí a Munich.

-eh, que has estudiado?
 -Ingeniería industrial.
 -¿cómo definirías Internet?
 -mmm (...) un espacio abierto donde puedes encontrar y (...) muchas cosas.(jejeje)
 -eh,¿cómo puedes definir la felicidad?
 - la felicidad? Eh (...) Un (...) estado de mmm(...) de a ver, agg (...)de (...) sentirme a gusto conmigo misma y con (...) todo lo que me rodea.
 -aha.¿eh, cómo,qué piensas sobre la muerte y sobre las enfermedades graves, es algo que te da miedo o no?
 -(...) me da miedo, sí (...) o sea (...) no me gusta que los demás lo (...), o sea que gente de mi alrededor lo(...) lo sufra, supongo que(...) si lo tuviera yo (...) me daría igual, o sea, no me daría igual, pero que no me afectaría tanto.
 -aha, eh ¿cómo describes tu voz?
 -uff, no lo sé(...) (jejeje)
 -ni idea?
 -no tengo ni idea.
 -eh, dime como, como tiene que ser para ti una voz sexy, de hombres y de mujeres?
 -dulce, supongo y
 -¿pero para hombres y mujeres, o solo para...?
 - (...) sí para los dos.
 -aha.¿y desagradable, una voz desagradable, para hombres, para mujeres, como te la imaginas?
 -muy grave, (...)bueno, para mujeres muy grave, para hombres (...) no sé (jejeje).
 -vale, gracias.

Track 7

-Helena. Helena, ¿qué hiciste el fin de semana pasado?
 - El fin de semana pasado, eh (...)pues eh el sábado era mi día libre y caí enferma de anginas así que tuve que ir al médico y luego tuve que pedir libre el día del domingo también porque seguía enferma o sea que me lo pasé muy bien en mi casa.
 -hmm. Eh ¿alguna situación o algo que haya molestado últimamente, algo que te haya hecho enfadar?, y si no se te ocurre algo concreto, pues si no, algo general que te moleste de la gente, si no
 -hmm (...) a ver, uff (...) Podría decir muchas cosas pero algo que me molesta mucho últimamente relacionado conmigo y mi trabajo es que nos hagan trabajar a 38 grados de temperatura constante y no nos pongan aire acondicionado porque dicen que no se puede y tienen a 60 personas contratadas trabajando a esa temperatura día tras día. Me parece indignante.
 -hmm.muy bien.eh, eh ¿algo, algo triste, puede ser reciente o no reciente,pero algo que en el momento te pareciera triste?
 - hombre lo más triste (...) últimamente es cuando me enteré que la abuela (...) tenía Alzheimer, me pareció muy triste. Me quedé super (...) chafada, y no sé, me quedé, muy muy triste, así. Es lo más triste que me ha pasado recientemente.
 -hmm.Eh, ¿una noticia positiva o algo que de repente te hayan dicho en las últimas semanas o a lo mejor en el último mes que te haya alegrado?A lo mejor no a ti directamente si no a alguien cercano?
 - hmmm (...) a ver que piense (...) es que en el último mes (jeje)-
 -Yo qué sé acabar la carrera, o algo de eso.
 - Pero la acabé muy tristemente porque casi suspendo así que (...) Bueno, en el momento en el que después de estar suspendida y no poder licenciarme, la profesora se apiadó de mí y me dijo “bueno, va, te voy a poner un cinco” y yo dije “gracias” y me dijo, “no te puedo poner más nota” y yo, “no,no,no, no hace falta,mi cinco, mi cinco”, y salí y ya era licenciada.
 -hmm. ¿eh, qué estudias?
 -Ya no estudio.
 -¿bueno, qué estudiabas?
 - Traducción e interpretación.
 -Pero ¿y qué vas a estudiar?
 -Y voy a hacer un master en interpretación de conferencias.
 -hmm. ¿eh cómo definirías en pocas palabras Internet?
 -¿Internet en pocas palabras? Que, lo que es?
 -O las que quieras, define Internet.
 -Pues Internet es una red que nos (g...)conecta a todos, eh (...) estés donde estés desde cualquier punto del mundo y (...) facilita la (...) comunicación, básicamente su utilidad es la (...) comunicación fácil y rápida en esta gran sociedad de información en la que vivimos.
 -eh ¿cuántas, cuántos metros son una pulgada?
 -No ni la más remota idea (jajaja). Y además no lo quiero saber. (jejeje) Porque los ingleses, bueno es igual.

- ¿qué piensas sobre la muerte o sobre las enfermedades graves? ¿es algo que te da miedo o?
- Me da mucho más miedo la, tener una enfermedad grave, que la muerte en sí, o sea mi muerte, no (...) no me da, no me da miedo, me daría mucho más miedo padecer una enfermedad grave o la muerte de personas, la mía no, pero la de personas queridas, sí. Pero una enfermedad grave (...) me da más miedo casi, creo.
- hmm. ¿cómo describirías tu voz?
- (...) pero eso es muy subjetivo porque la que yo oigo no es la que oyen los demás.
- Ya ya, ¿pero tú cómo crees que es?
- ¿cuándo la he oído grabada?
- como... lo que quieras, dame toda la información que me puedas dar, si quieres grabada o no grabada.
- (...) me parece una voz fea, me parece que hablo como una niña, pronuncio mucho las eses (...) y no me gusta nada. Y es grave, me parece a mí, que es la que
- en comparación con otras personas
- en comparación con lo que oigo, pero claro, cuando te oyes tu voz desde fuera, no es lo mismo.
- eh, ¿para ti que es una voz sexy? O sea, y claro, sexy para hombres, sexy para mujeres.
- gua, pero no sé cómo definir una (...) o sea (...) uy, sexy
- lo que me puedas decir, pues adelante.
- hombre, de mujer supongo que hablar así en un tono neutro, bajo, digamos, y así de una manera, suave, así, como tú (jejeje), más o menos como hablas tú. Así hablando bajito, y todo pronunciado bien, y con un tono bien, así que no te alteras, así muy, no sé.
- Bien ¿y para hombres?
- Y de hombre (...) puesss (...) también a mí me gusta así que hable pausado, o sea que el tono no (...) nnn, eso que no varíe mucho el tono, si no una persona que te habla pausado, que te explica las cosas así calmada, pausadamente, con sus pausas cuando toca y su (...), que no varía casi el tono, que te deja así tranquilo, que te habla, y no te altera.
- hmmm. eh, y lo último, ¿para ti que es una voz desagradable?
- bua. (...) pues a ver, está la voz de mujer carajillera, de las que tienen cuarenta años y parece que llevan toda su vida fumando y bebiendo carajillos, muy desagradable. Luego está la voz de pito, que es muy desagradable también (...) y los que están permanentemente afónicos, que cuesta muchísimo escuchar a una persona permanentemente afónica. Eso diría que son los 3 muy desagradables.
- en hombres, en concreto? Porque vas, has descrito el panorama más...
- son más de mujeres, es que creo que las mujeres tienen las voces más desagradables que los hombres. Hombre, en un hombre, tener la voz muy, muy afeminada, poco, poco grave en un hombre, pero tampoco es desagradable, es más bien fea, más que desagradable. Pero también hay hombres que están roncos toda su vida, afónicos toda su vida y eso es desagradable, se hace, se hace difícil de seguir, una persona que siempre te habla heee.
- sí si sí. Vale.
- pues eso.
- ya está, gracias.
- de nada.

Track 8

- Ines. Ines ¿Qué hiciste el fin de semana pasado?
- Pues (...) fui a Oktoberfest.
- Hmm, ¿eh, me puedes contar a lo mejor alguna experiencia molesta, algo que te haya enfadado, por ejemplo en la última semana, a lo mejor puede ser algo en el trabajo, o si no te ocurre un caso concreto, a lo mejor cosas que en general te molesten de la gente.
- Hmm (...) en general (...) bueno, me costó (...) un poco entrar en (...) en la caseta de Oktoberfest y estuve dos horas por fuera esperando y (...) ffff, cómo los alemanes son altísimos y tal, yo estaba ahí (jejeje) con mi tamañito (...) español de un metro (...) (jejeje) y poco más (jejeje) y entonces eso me enfadó un poco, esa situación. Pero bueno, eh (...) estaba ahí porque quería también, o sea que...
- Claro. eh ¿alguna experiencia triste o a nivel personal o prim, a lo mejor de alguien que conozcas, si no es a lo mejor, algo que hayas oído que sea triste en la televisión o que hayas visto?
- Bueno, en la televisión no es difícil encontrar algo triste, o sea que (...) mmm basta (...) encender (...) la tele y ver el telediario para encontrar algo que (...) que no te guste, no? O sea las cosas que están pasando en el mundo y (...) la inmigración, por ejemplo, la gente que viene a Canarias en pateras, bueno, (...) hay muchas razones para no estar muy contento (jejeje).
- Sí, eh ¿alguna noticia buena, que hayas recibido por ejemplo este año, algo que te haya alegrado de repente?
- Hombre, cuando llegué aquí a los pocos meses, le dieron a v (...) Ignacio, al (...) jefe digamos del grupo, le dieron el (...) el premio Príncipe de Asturias y aunque no lo conocía muy bien, ni (...) ni había trabajado con él,

- con lo cual tampoco es que hubiera contribuido a ello, pero la verdad es que me alegré bastante de (...) de la noticia.
- Hmm.
 - Porque lo poco que lo conozco (...) ya (...) sé que es una persona que vale mucho y que (...) vamos, que lo merecía.
 - Si si.eh ¿qué has estudiado?
 - Eh (...)Estudié física y (...) sí, física solamente (jejeje).
 - Y ahora qué estás haciendo?
 - Ya, no,el Postdoc, o sea(...) ya terminé el doctorado en octubre de (..)del año pasado, y ahora estoy haciendo un postdoc aquí.
 - Hmm.eh ¿qué es Internet, cómo definirías Internet?
 - Como defino Internet? Pues (...) Es un (...) organismo (jejeje), es un(...), es una red,una red gigante virtual de (...) muchos ordenadores conectados entre sí, a través de los cuales habla la gente y se conecta entre sí, da información, o sea, es un (...) una gran red de información.
 - Hmm ,muy bien, eh, cómo, eh cuanto es en centímetro un pie?
 - ¿cuánto es en centímetros un pie?(...)buff, buena pregunta,pues no sé treintay(...), supongo que las (...) los números estarán en(...) centímetros,no? o sea treinta y siete, trein, por ahí.
 - Sí. Aha. ¿qué piensas sobre la muerte y las enfermedades graves, es algo que te da miedo, o no piensas en ello...?
 - (respira) (...) sí, sí he pensado en ello, hubo (...) parte de mi vida en la que (...)en la que pensé mucho sobre ello, pero (...) intento no pensar demasiado, porque entonces me (...) me angustia bastante. Y (...) sobre las enfermedades me da bastante miedo, o sea es algo que (...) supongo que (...) al final tendremos que pasar por (...)algu(...)na experiencia así,o bien de un familiar o bien propia, pero prefiero no pensarlo porque tampoco es muy productivo (jejeje)
 - Eh, ¿cómo describes tu voz?
 - (..) (respira) bastante grave, yo creo (...) para ser una mujer, y (...) y sí, un poco(...) más grave de lo habitual,diría (jejeje)
 - ¿Cómo tiene que ser para ti una voz sexy, de hombres y de mujeres?
 - Aha (...) pues de hombres, grave, y de mujeres (...) no me gustan las que son así muy chillonas, tampoco, (...) me ponen muy nerviosa. (...) a mi en general, hombre, queda un poco chulo decirlo (jejeje) pero,me o sea, me gusta mi voz, no me importaría que fuera un poco más aguda, pero(...) en ese rango más o menos.
 - Sí, y, y ahora lo contrario, aunque bueno ya me lo has contestado un poco, qué es para ti una voz desagradable para hombres y para mujeres?
 - (...) (respira) hombre la,en ambos casos una voz muy aguda, en (...) las mujeres, hay mujeres que tienen una voz así como muy(..) de (...),em, barítono?no, barítono es de hombres, o sea de (...)
 - Soprano?
 - Soprano, exacto, típica voz así como wawawa, de falsete (...) que (...) no me gusta, o sea, (...) sobretodo si va acompañado de alguien que habla mucho (jejeje) Pero bueno (...) que son (...) a lo mejor es un prejuicio y luego conoces a la persona y te olvidas, no?
 - Sí, sí sí.
 - Y en hombres pues un poco igual.
 - Pues ya está gracias.
 - De nada.

Track 9

- Irene. Irene, ¿qué hiciste el fin de semana pasado, bueno este fin de semana?
- Esté fin de semana nos hemos ido a la playa con mis padres y hemos tenido una comida familiar con todos mis primos, mis tíos y (...) luego el domingo nos hemos venido a la piscina con unos amigos y hemos estado bañándonos.
- muy bien.eh.... segunda pregunta ¿Me puedes decir una situación a lo mejor, si no es esta semana, el mes pasado,alguna situación molesta, algo que te haya cabreado, alguna putada que te hayan hecho en algún sitio...?
- eh (...) fuimos antes de ayer, teníamos que ir a ver un piso y simplemente nos plantaron, no vino nadie, no nos llamaron y les llamamos (...) y nos dijeron que no podían venir y ya está.
- ¿y como te sentiste?
- Y(...) me sentí (...) pues (...), decepcionada y (...) cabreada.

-Ya. Y algo por ejemplo, una situación triste, alguna si no es para ti personalmente, o a lo mejor alguien cercano, algo que hayas dicho, o igual si no, algo que hayas visto, eh a lo mejor alguna imagen en la tele o algo, a lo mejor has dicho, oye esto es triste.

-ehh(...)me acuerdo de (...) cuando fuimos a Sevilla (...) nos encontramos a un chico muy joven, muy joven que estaba tirado en la calle y, eh(...) estaba tiritando y (...) muerto de hambre, y (...)nada, me dio mucha mucha pena. Fuimos y le compramos un bocadillo.

-ah muy bien.

-eh, una noticia buena, así enn, puede ser en la última semana, en el último mes, algo que haya sido...?

-hace casi casi nueve meses que nos dijeron que mi tía está embarazada y ya vamos a tener a un primito. Más gente en la familia.

-aha. Eh que has estudiado?

-eh (...) filología inglesa.

-muy bien. ¿eh Cómo defines Internet?

- (...) Internet, una cosa muy útil que (...)si no eres inteligente puedes convertirlo (...) en una pérdida de tiempo.

-aha ¿ qué piensas sobre la muerte o enfermedades graves?son cosas que te asustan, o cual es tu opinión?

- No, la muerte no es algo que me asuste porque tenemos que llegar todos, las enfermedades graves (...) eh, me asustan (...) en cuanto a algunas pueden ser, hmm(...), muy dolorosas y pueden resultar (...) eh horrible, durante mucho tiempo, pueden resultar muy largas.

-hmm, eh ¿cómo describirías tu voz?

-Mi voz? (...) (jejeje) dicen que es dulce. Emmm (...) sí, supongo que dulce, y depende mucho de mi estado de ánimo.

-vale. Eh ¿cómo definirías una voz sexy, para ti, para hombres y para mujeres, ¿Cómo tiene q ser?

- (...) las dos? (...) Atractivas y (...)y (...) y confortables, que te conforten.

-Y una voz desagradable, para ti,¿Cómo es?

-chillona,(...) las voces chillonas no me gustan.

-hmm, vale pues ya está todo, gracias.

- nada.

Track 10

- Isabel. Isabel, que hiciste el fin de semana pasado?
- El fin de semana pasado (...) me fui a Alcocebre todo el fin de semana, fui el viernes y volví el domingo, estuve tomando un poquito el sol, y (...) nada, estuve con mis padres y punto.
- Muy bien, eh, me podrías decir algo que en la última semana o a lo mejor en el último mes te haya enfadado, te haya molestado mucho?
- El trabajo (...) porque la chica que está en caja no me ayuda mucho, tampoco me enseña y eso, pues (...) me cabrea bastante.
- Y has tenido alguna discusión con ella?
- No discusiones,no, porque yo(...) paso bastante del tema y intento no (...) cabrearme, pero (...) en el fondo me molesta.
- Hmm. ¿alguna noticia positiva, a lo mejor para ti o para alguien cercano, algo que te haya alegrado de repente en el último mes a lo mejor,en la última semana?
- Hmmm (...) no se me ocurre nada.
- No?
- De momento.
- Eh ¿qué estudias, o qué has estudiado hasta ahora?
- Eh estudio económicas, me quedan 3 asignaturas y luego hacer las prácticas integradas.
- Muy bien, eh ¿cómo definirías Internet?
- Internet? (...)ufff (...) no sé.
- En pocas palabras?
- Novedad, eh (...) revolución. No sé.
- Vale, eh piensas de la muerte o de las enfermedades graves, les tienes miedo o que, cual es tu opinión, acerca de la muerte, por ejemplo?
- Hombre, todo el mundo se tiene que morir, está claro, de una cosa o de otra. Pues (...) si tienes suerte y te mueres de repente, bien, pero si tienes (...),si tienes la mala suerte de tener una enfermedad grave pues (...) hay que pasar por ello.Si tiene solución y puedes (...) hay medicamentos y, que te puedan curar, bien, pero si no pues (...) mala suerte.
- Aha, eh, ¿Cómo describirías tu voz?

- (...) mi voz? (jejeje)(...) pues no lo sé. Hombre es que yo me oigo, pero es que realmente cuando lo oigo, no me suena, no no la reconozco entonces (...) Está ocupado.
- Si, un momento. Un minuto.
- Eh, ¿para ti que es una voz sexy?
- (...)una voz sexy (...)pues no lo sé.
- De hombre?por ejemplo, una voz que
- De hombre (...) ahora no (...) no se me ocurre nada.
- De mujer?
- De mujer (...) no lo sé.
- Y lo contrario, una voz que te sea desagradable?
- Pues una voz (...) chillona, bueno,eh (...) como se puede decir?
- Si, chillona
- Chillona,eh (...)ahora no se me ocurre nada (...)no lo sé.
- Bueno,vale ya está gracias.

Track 11

-Julia.

-soy yo.

-eh, ¿me puedes decir que hiciste ayer?

- ayer (...) eh (...), ayer fue lunes, no ayer fue domingo. Pues (...) qué hice ayer? Por la mañana (...) no sé lo que hice. Por la tarde estuve (...) ah, sí, sí, fui a nadar. Estuve nadando con la Bego un kilometrito, que cada vez nos cuesta menos, luego fui a mi casa, estuve haciendo las lentejas que se me quemaron, comí, dormí un poco, contesté emilios de hace mil años. Estuve hablando con mi hermana por teléfono, estuve haciendo cosas de mi tesina, bajé a comer un helado con la Bego, que parece que no me separo de ella. Y (...) mm (...) y luego estuve traduciendo, y fffff(resoplo) recogiendo y esas cosas, me cené las lentejas que me sobraron y me metí en la cama. Eso hice.

- hmm. ¿me podrías contar algo triste del pasado? no tiene por qué ser, simplemente, corto, no tiene por qué ser?

-buff, emm(...) buff buff buff, (..)triste? Sí,lo primero que me venga es la ruptura con Pablo. Pero joder, eso de corto no tiene nada.

-Pero, ¿me podrías describir algo? Un par de frases...

- Creo que esa pregunta me la tienes que hacer otro día.Porque ahora no estoy como para no (..)ni soy tan buena actriz para ponerte voz de triste,ni (..),no sé, es que ahora no sé me ocurre nada.

- Pero cómo, solamente ahora dime, si, si no me explicas las razones, me puedes decir simplemente cómo te sentiste en el momento en qué supiste...?

-Fatal, abandonada. Me sentí como, como que se me hubiera perdido la mitad de mi yo por algun lado, o sea como que me quedara de repente sola en el mundo.(...) No sé, me sentí, además me sentí que habían engañado, me sentí que (...) eh buff, o sea me sentí que en ningún momento me había querido o que todo lo que me había dicho que me había querido, en realidad no me había querido, y buff (...)no sé me sentí como que no sabía por dónde volver a empezar a hacer las cosas, no tenía ganas de hacer nada, no tenía ganas de empezar nada, no tenía...

-Muy bien,muy bien. Emm,¿me podrías contar algo que te haya, que te haya molestado o que te haya enfadado? puede ser reciente, o pasado.

-Sí, que Oli no creyera en mi trabajo, que pensara que estaba aquí en Munich medio de vacaciones.

-Y que le dijiste?

-Que bueno, que me medio levantaba por las mañanas,iba un rato a la biblioteca y volvía, pero no me cansaba. ¿qué qué le dije? Que se fuera a tomar por culo (jejeje).Le dije que, que (...) en la vida no sólo la física es importante y que (...), buff que no, que mi trabajo también lo es, y que por el hecho que sea filosofía o de que sea (...) arte, o cosas menos tangibles como lo suyo,que, que por eso no es importante, que es tanto trabajo intelectual como el suyo y que para mi es así de importante.

-hmm. Muy bien

-Te podría seguir contando más porque ya sabes que me enrolló mucho,sss, sigue haciendo preguntas.

- Ya, son preguntas breves, emm ¿me podrías decir qué has estudiado hasta ahora, así un recorrido rápido?

-ffff, estudié en un jardín de infancia...(jejeje)

-no,no, me refiero a partir de los estudios universitarios exactamente.

-eh(...) sí, estudié dos años en Salamanca y empecé a hacer filosofía, luego estuve un año de Erasmus en Colonia estudiando también filosofía, o intentándolo buff, porque no sabía casi alemán, el cuarto año me volví a Salamanca a vivir la vida Padre porque tenía muy pocas asignaturas, y el quinto año me dieron la beca del Maximilianeum y me vine a Munich a acabar la carrera. Y (...) una vez acabada empecé a escribir la tesina, que es en lo que estoy ahora.

-hmm. Muy bien. Ehh.Y lo último, ¿me podrías definir en pocas palabras Internet o un browser?

-bfffff, (jejeje).Browser cómo he traducido hace veinte minutos, es un navegador web (jejeje) Ehhhh (...) Internet, Internet, ¿quieres la, la respuesta oficial de diccionario de que es una red que nos comunica con el mundo, blá, blá, o la respuesta filosófica de que es lo que nos permite acercarnos a los otros y a la vez ocultarnos?

-no, pongamos que alguien en la calle te pregunta, alguien que de verdad...

-mi abuela.

- tu abuela te pregunta, ¿hija, que es Internet? Hija,no, nieta, ¿qué es Internet?

-jejeje.eh no, también me llama hija, eeeeh qué es Internet,abuela, pues (...) pues es, es un intercambio de información, no, no le diría eso a mi abuela. Es (...) hmm (...) buff, em una forma de comunicarse con el resto del mundo a través del ordenador, donde la información y y todo eso va a través de cables, como el teléfono, pero también con imágenes, algo así le diría a mi abuela, supongo.

-vale. Muy bien.Y lo último que tengo que preguntarte que no es ya que me cuentes cosas de tu pasado, si no más bien...

- de mi futuro (jejeje)

- no, de tu voz.

-sobre mi voz.

-¿cómo en general, ahora no has tenido tiempo de pensarlo, pero, en general, qué piensas, cómo describirías tu voz?

- (suspiro...).Pues, ¿cómo yo me la oigo o como me la oigo cuando oigo un cassette porque cuando me la oigo a través de un cassette, no me la reconozco como supongo que es lo que le pasa a todo el mundo.

- no, al natural, tu vas por la calle y hablas...

-hmm(...) Creo que es bastante grave, o tirando a grave para lo que es una voz femenina. Creo que en general la hago muy irónica, o sea utilizo el, el,el tono, o sea la la entonación irónica la utilizo muy muy a menudo. Y no sé, es posible que eso le de, le confiera un tono de, de poca seriedad pero en realidad creo que mi voz es bastante seria, o sea da sensación de seriedad y responsabilidad y cómo de algo que se asienta, que se...

-¿dirías que es sexy?

- sexy? No, creo que no. Creo que más que para unnnn (...)una, doblar una peli porno, creo que valdría más para leer unas noticias o algo así. Creo además que tengo una buena dicción. Bueno, igual ahora mismo no, pero en general creo que tengo una buena dicción. Creo que valdría más para leer noticias, o algún comentario de prensa, o algo así. Algo más serio.

- Sí. Y lo último, ¿Qué es para ti una voz molesta? ¿Qué tiene una voz molesta?

-Ay, las que son demasiado altas,(...) las que tienen una entonación, un tono en el que llevan dentro (...) bfff rencor o bffff o algo que (...) hace daño, o sea no por la voz, sino por la entonación que se emplea,eh (...) y voces, de estas voces que son como picudas, que que, como que están afiladas, que que (...) se te clavan. Eso es la, voces molestas.

-¿Las asocias más en general con hombres o con mujeres? O indiferente?

-hmm (...) creo que indiferente. Quizás más con mujeres, no lo sé, porque suelen ser más agudas, pero no, hay muchos hombres que conozco que tienen esas voces picudas. ¿te cuento también lo que es una voz dulce y sexy o no? O en la proxima entrevista?

-hmm, sí, sí dime dime. Por qué no? Para ti que una voz sexy, pero o, para, haces, y primero haces distinción entre hombres y mujeres en la descripción que me vas a hacer ahora, o para ti la idea de una voz sexy que me vas a dar...?

-sexy o dulce?

- sexy.

-sexy o sea que te puede llegar a ser un poco erótica.

-si.

-hmm (...) eh, en una mujer, cuando es suntuosa, cuando cuando emplea (...) sonidos como la "ese" a menudo, por ejemplo si es (...) hm (...) como que se deja arrastrar, como,o sea como que la lo deja caer, o sea que no arrastra, pero como que lo va dejando caer las cosas. Y en un hombre, que sea cadenciosa, que que juegue con con el tono de hmm(..) que sea melodiosa.Creo

-sí. Y suave para ti?

- suave y dulce, hmm (...) que el timbre, que el tono, el timbre sea, o sea no sea ni muy alto ni muy grave, ni muy agudo ni muy grave, y que (..) hmm (...) que sea redonda, pero claro es que no sé como explicarte como es que sea redonda, que sea como, como que se cierra en si misma, como que (...)bueno como que (...), lo contrario a lo que te molesta en realidad, que no va lanzando pullas a través de, de la entonación sino que es algo como, como que te acompaña, como que te envuelve, eso me parece una voz dulce.

-vale gracias.

-vale de nada.

Track 12

- Marcela. ¿Qué has hecho este fin de semana?
-Este fin de semana (...) he ido a la Oktoberfest y mmm (...) he estado de mudanza, (...)no, no he hecho mucho más.
-vale, eh alguna situación molesta, algo que te haya pasado así en Munich en las últimas semanas, algo que te moleste de la gente?
-pues (...) bueno me molesta de la gente (...) sí, bueno por ejemplo hoy fui a la tintorería (jejeje), no o sean son muy (...) son muy legalistas, no? entonces se apegan a la letra, (...) y se sale de la letra, nada, no? O sea tienes que (...) o sea no, no son flexibles no (...) no son capaces de mirar más allá. Eso me molesta.
- sí, eh algo triste que te haya pasado a ti o a alguien cercano, eh algo que hayas visto en la tele o en la radio que haya sido triste?
- (...)mmm (...) pues mira ayer estaba leyendo sobre esto de los (...) curas pederastas (jejeje), no, unas historias ahí que a mí eso me (...), ese tema me (...)me deja muy mal, o sea leo eso y me quedo (...) y justo estaba leyendo un libro donde venía otra vez ese tema entonces (...)sí.
-eh algo positivo, alguna noticia buena que te haya pasado este año, que te hayan dado, algo que te haya hecho feliz?
-algo que me haya hecho feliz es el nuevo piso al que voy (...)que está muy bien, es muy bonito y (...) sí, pues que mi hermano ha tenido un bebé(...), y también pues todas las noticias del bebé son buenas.
-muy bien, eh que estás estudiando?
-estoy haciendo (...)la tesis de filosofía sobre (...) Schelling.
-aha, eh que es Internet?
- qué es?(...) Un(...) sistema (...)de comunicación (...) por ordenador.
-hmmm.eh, ¿cuantos centímetros hay en la unidad de medida del pié?
-treinta y tres?
-puede ser. eh, que piensas sobre la muerte y las enfermedades graves, es algo que te da miedo o no?
-(...)pues la muerte, sí, (...) claro la enfermedad grave te puede llevar a la muerte pero (...) no pienso mucho en ello, o sea no no lo siento como algo que me puede pasar a mí aunque (...)
-sí. Como describes tu voz?
-como describo mi voz? Pues (...) igual (...) dulce (...) eh (...) femenina (...) suave.
-muy bien, eh que es para ti una voz sexy para hombres y para mujeres?
-em, una voz ronca.
-para los dos?
-sí, bueno obviamente para los hombre es otro tipo de ronquez pero (...) una voz baja para hombres y (...) para mujeres, sí (...) que no sea aguda.
-hmm y desagradable para hombres y para mujeres como es una voz?
-aguda (jejeje)pa los dos, sí.
-sí y también gangosa (...) para los dos también.
-muy bien, gracias.

Track 13

- María, que has hecho este fin de semana?
-ah (...) este fin de semana (...) estuve en casa (...) no he hecho mucho, estuve (...) por la Oktoberfest, ahh (...) fui con unos amigos, y estuvimos en los juegos, estuvo divertido, pero no (...) no mucho más.
-eh ¿me podrías contar una situación molesta, a lo mejor aquí en el, algo que te haya sucedido aquí en el trabajo, algo en ge, si no algo que en general te moleste de la gente?
-ahhm (...)uy (jejeje) algo que me moleste de la gente?ohh(...) O sea en el trabajo los únicos problemas que he tenido es, (...) ha sido en el momento de preguntar unas cuestiones, mm (...) la gente reacciona un poco (...) antipático, como, ah, no sabes eso, como puede ser, y te quedas un poco (...) o sea te sientes mal porque te dices “ey (...) no tengo por qué (...) pero bueno.
-hmm., eh ¿algo triste que te haya pasado a ti o a alguien cercano o algo triste que hayas visto en la tele, o oído?
-(...) uff, bueno (...) en la tele últimamente connn (...) todas las cosas que están pasando (...) en muchos sitios, todos (...) los problemas que hay, las guerras (...), las (...) ehhhh (...)
-Vale, algo, una noticia positiva? algo bueno que te haya pasado en el último año, algo que te alegrara de repente, algo bueno?
-mi hermana se casa el próximo año (jejeje).
-ah, eh ¿qué has estudiado hasta ahora?
-ammm (...) hice la carrera en físicas y (...) empecé aquí el (...) doctorado.
-aha, ¿qué es Internet, cómo defines Internet?

-ahh(...) como una gran (...) biblioteca de (...) cualquier cosa, deee (...)o sea biblioteca porque es (...)visual, como lo ves, pero (...) que puedes encontrar cualquier cosa y también (...) para comunicarte con la gente.
 -aha.em, ¿Cuántos centímetros son un pie, la unidad de medida del pie, en centímetros?
 -uy,no tengo ni idea.
 -ehh, ¿qué piensas sobre la muerte y las enfermedades graves, es algo que te da miedo o es algo en lo que no piensas?
 -hmm (...) no es algo,mmn, o sea, a veces lo pienso y (...)amm (.....) y fffff, o sea, depende mucho (...)del ánimo en el que (...) en el que me encuentre, creo,la idea que tenga sobre el tema, pero (...) o sea, es algo que también (...) por circunstancias en las que he estado en diferentes momentos, ha estado muy (...) muy cercano.
 -aha, eh ¿cómo describirías tu voz?
 -Mi voz?mi voz es muy re, yo cuando me oigo hablar es muy diferente de cuando la oigo una vez cuando está grabada y la oigo muy (...), es como un poco (...) o sea, no ronca, pero es, como muy grave, no sé (...) y no sé, a veces me, me oigo y sueño que (...) me parece que soy muy seria hablando (jejeje).
 - eh, ¿qué es para ti una voz sexy para hombres y para mujeres?
 -ammmm (...) creo que es diferente (...) para uno y para otro. Para una mujer es que sea una voz un poco más (...) o sea con algo de (...) con una dulzura y un (...) no sé. Hay cosas difíciles de explicar.Para un (...) para un hombre ya sería como algo, una voz un poco más profunda, y como que hay algo que te (...), que te tira, no sé.
 -hmm,¿y una voz desagradable para hombres y para mujeres, como tiene que ser?
 -una voz muy aguda.
 -para ambos?
 -para ambos, eh (...) a mi, a mi me resulta muy molesto al oírlo, pero bueno.
 -muy bien ya está

Track 14

-Marián. Eh Marián,¿me puedes decir lo que hiciste el fin de semana pasado?
 - Sí, el fin de semana pasado (...)estuve en(...) Jávea y pasamos unos días tomando el sol por la playa, por la (...)tarde descansábamos,nos tomábamos alguna cercecita y por la noche salimos.
 -Muy bien, eh ¿me podrías decir algo que a lo mejor, yo que sé en el último mes te haya enfadado, alguna situación o algo o un detalle de alguien que te haya hecho rabiar o que te haya molestado, si no se te ocurre algo concreto, simplemente por ejemplo algo que te fastidie en general que la gente hace?
 -(...)a ver, déjame pensar (...) mmmm (...) un momento (...) me fastidia (...)cuando la gente se esfuerza poco, por (...) fomentar la amistad, o por hacer el bien por el resto de personas (...) Eso en general y algo que me haya fastidiado últimamente, (...)supongo que alguna pelea con mi hermano, pero que no me acuerdo.
 -muy bien.eh ¿alguna, algo así, algo triste que, no tiene por qué ser reciente, puede ser lejano, pero algo que te pareciera triste?
 -Muy triste, el accidente de metro que hubo (...) hace (...) un mes, apenas,un mes.
 -hmm,y ¿o sea Cuándo te enteraste como te sentiste?
 - sí, vale, me enteré en casa, en un principio parecía que era un simple accidente de metro en el que no habían resultado demasiados heridos, pero poco a poco, fueron diciendo las cifras de muertos,y (...) te entristece como (...) un accidente por (...) causa humana haya ocasionado tantas muertes,(...) y sobretodo cuando te vas enterando de las historias de las personas, te metes un poco más en la vida de esa persona que ha fallecido y (...) como, se hace más personal.
 -hmm, eh ¿una noticia positiva,algo que te haya alegrado en las últimas semanas, a lo mejor no a ti o a alguien muy cercano, algo positivo, algo, una historia feliz?
 -algo positivo?(...) Pues (...) cuando salieron las listas de admitidos de la facultad.
 -como te sentiste?
 -muy contenta.
 -hmm. Eh, bien, que,que estudias? Bueno primero la pregunta que has estudiado, que estudias?
 -he estudiado enfermería (...) y (...) ahora voy a empezar medicina.
 -hmm.muy bien, eh podrías definir en pocas palabras que es Internet?
 -Internet? (...) Internet es como si fuera(...), a ver, es un método de (...) (jejeje) espérate porque es que cuando luego se oiga la respuesta va a ser, a ver Internet es (...)em (...) una vía de comunicación entre (...) todas las partes del mundo, diferentes partes del mundo(...) de la que puedes obtener mmm(...) casi toda la información que quieras (...)de forma rápida(...) y gratuita.
 -Y ahora,¿podrías decir más o menos en centímetros o en metros,lo que quieras cuanto mide un pie? La unidad anglosajona.
 - Un pie?
 -Un pie.
 -Ay (jejeje)eh (...) siete metros? (jejeje).

-vale, eh que, que piensas de, acerca de, de la muerte o de las enfermedades graves?
 - que pienso respecto a qué?
 -pues por ejemplo si te da miedo, o cual es tu opinión. Cuando por ejemplo piensas en la muerte o en las enfermedades graves.
 -de lo trágicas que son. Vale sí. Eh, me dan miedo, como a todo el mundo, pero sobretodo lo que siempre he dicho que me da más miedo el sufrimiento que pueda ocasionar a los de alrededor (...) porque abandones este mundo que tú misma, porque tu pues, al fin y al cabo te mueres y(...) dejas de sufrir, pero la gente que se queda, puede que continúe sufriendo toda su vida.
 -hmm, eh como describirías tu voz?
 - mi voz? (...)Me parece (...) realmente me parece cursi y (...) y no me reconozco, cuando me oigo no me reconozco, yo me oigo más grave que luego cuando me escucho, o sea cuando me escucho (...) Me oigo en vivo más grave (...)que luego a posteriori.
 -hmmm y ¿Cómo la describirías cuando dices que es cursi?
 - La veo cursi, la veo (...)eh (...) un poco aguda,(...) suave, le falta fuerza (...)
 -bueno, para ti que es una voz sexy?
 -una voz sexy?
 -a lo mejor si haces distinción entre hombres y mujeres, pues dime para una mujer la voz sexy es tal y para un hombre tal.
 -vale, la voz (...) sexy de una mujer la veo, pues (...) eso con energía pero pausada, (...)sensual (...)mmmm(...)
 vocalizando. Y para un hombre,más (...) grave, (...) y eso, con fuerza también vamos.
 -muy bien, y la última pregunta, ¿para ti que es una voz desagradable, como describirías una?
 -desagradable? (...)Una voz (...) chirriante,una voz (...)que(...) molesta, que (...) funa,mmm (...)fuerte en el sentido de un tono alto. (...) Una voz chillona.
 -muy bien ya está todo, gracias.

Track 15

-Milu
 -sí
 - Milu,¿me podrías decir que hiciste el fin de semana pasado?
 - El fin de semana pasado salí con unas amigas de Buenos Aires.
 -aha,muy bien.eh, ¿alguna buena noticia,eh, o algo que te haya pasado interesante en estos últimos días, positivo...?
 -Positivo realmente,nada (jajaja)
 -bueno, ¿una historia, una historia triste, no tiene por qué ser del presente, puede ser de hace mucho tiempo, de ti o de alguien?
 -ahhhhhh (...) que haya fallecido mi tío el invierno pasado en un accidente de auto.
 -vale. hmm¿eso cómo te sentó?
 -y (...) fue muy repentino porque estaba (...), estaba (...) estaba muy bien de salud y (...) lo positivo que pasó es que nos volvimos a encontrar con toda la familia que está repartida por todo el globo, entonces eso fue, la, la parte linda.
 - y, alguna, algo que te suela molestar o, de la gente, o puede ser algo que te haga rabiar o no sé
 -arrogancia
 -sí? Pero bueno describeme un poco...que tipo de gente o que tipo de actitudes o un ejemplo
 -ahm (...) me molesta la gente arrogante (...), poco humilde, aunque suele ser lo mismo, y que (...) no acepten ideas nuevas.
 -Bien, ¿y qué estudias?¿o que has estudiado hasta ahora?
 -em, empecé a estudiar música y ahora estudio filosofía y letras.
 -hmm.¿cómo definirías en pocas palabras lo que es Internet?
 - Internet. Una (...) biblioteca virtual (...) gigante,(jejeje) a la que tiene todo el mundo acceso que tiene una computadora y un, y conexión al tel teléfono (jajaja).
 -muy buena de, muy buena definición.¿ cómo describirías si tuvieras que describir tu voz?¿como piensas que es?
 -ah, mi voz tiene un acento raro en cualquier idioma, hasta en mi lengua materna.
 -jeje, pero aparte del acento, ¿tiene más cosas tu voz?
 -ehh(...)no, lo que quería decir con el acento raro es que hasta los porteños, o sea, la gente de Buenos Aires no sabe de dónde vengo. O sea tengo, tengo una mezcla muy rara de acentos.
 -aha, bien eso es lo que, lo que destaca para ti de tu voz
 -sí
 -y si no?
 -(gemido...) creo que es una voz común, femenina (jejeje).
 -¿cómo tiene que ser para ti una voz sexy?

- ¿de un hombre?
-Por ejemplo de un hombre, y luego me dices si quieres de una mujer.
-ah (...) de las mujeres me gustan la voces que sean un poco más graves de lo que suele ser una voz femenina, o sea no me gusta esa voz chillona americana (jeje), de las cheerleaders que van corriendo por el patio (jeje). Y De los hombres me gusta que hablen pausado (...), y (...) pausado y que (...) bueno, y también un poco más graves, eh (...) Pero creo que nada inteligente se dice rápido y entre dientes.(jeje) lo sé.
-vale, pues muy bien muchas gracias, Milu
-de nada.

Track 16

-Mireya, ¿Qué hiciste el fin de semana pasado?
-oh (...) estuve en casa, eh(...) arreglando el apartamento el sábado, después fui al cine, y el domingo (...) oh, el domingo no me acuerdo.
-em, ¿alguna situación molesta en el último mes o algo que te haya pasado por ejemplo aquí por la ciudad, en Munich, que te haya molestado?
-sí ayer ayer, exactamente fue un día difícil porque por el trabajo que tengo, las clases de español privadas, eh (...) bueno, una persona me dijo que quería una clase privada para poca, un grupo pequeño y resultó un grupo gigante y ahora tengo el (...)tuvimos que discutir un poco porque yo esperaba un grupo de tres, cuatro personas y llegaron 10 y bueno, fue una discusión supremamente (...) acelerada, no sé cómo decirlo, sólo que (...) fue horrible.
-hmm. Eh, ¿una situación triste, una experiencia triste personal o de alguien que tú conozcas, o algo triste que hayas oído o visto?
-Bufo, muchas cosas, no me acuerdo de todas, pero (...), bueno, lo (...) Lo último que me acuerdo así que me pareció bastante, bastante (...), bastante difícil, fue (...) la historia de la hermana de una amiga mía que tiene cáncer de seno.
-hmm. Eh, ¿y algo positivo, una noticia, algo bueno que te haya pasado, a lo largo de este último año que te haya alegrado mucho?
- (...) (suspiro) No sé (...), bueno digamos que hoy recibí regalos, (...) eso me alegró.
-hmm. ok. Eh, ¿que has estudiado?
- eh (...)
-hasta ahora en la universidad.
-ah (...) mi carrera.
-sí.
- eh, alemán como lengua extranjera y ahora estoy con romanística.
-eh, que es Internet? Puedes definir Internet?
-oh dios mío (jejeje) No lo sé, no sé cómo definirlo. O sea, lo podría definir pero no (...) en términos específicos, o algo así, no sé.
-Y que, ¿que es un pie en centímetros?
-de medir.
-jajaja. Un pie en centímetros (...) no sé, como 25, no sé. Claro que el mío sería (...) no sería un pie. (Jajaja)
-¿qué piensas sobre la muerte y las enfermedades graves, es algo que te da miedo o nada o?
- La muerte. No sé, la muerte (...) hmm (...) me produce (...)un poco de (...) no miedo, pero sí (...), bueno, sí podríamos llamarlo miedo o temor, qué sé yo.(...)Un poco.
-hmm. Eh, ¿Cómo describirías tu voz?
-oh (...) ni idea, no sé. (...) no sé.
- ¿qué es para ti una voz sexy para hombres, para mujeres?
-una voz sexy(...), es, es diferente, no hay (...) mm voces que me gustan y no necesariamente son sexys, eh (...) una voz de un hombre(...)hmm, (...) no sé.
-hmm. eh ¿qué es una voz desagradable?
-ah (...) no sé si entiendas cuando digo chillona,
-sí.
-o sea una voz que (...) te molesta cuando hablas de pronto, o a veces cuando hablan con un tono muy alto, no, muy fuerte, no? Que tú dices está gritando, no está hablando, no? Y la chillona así como con, no sé como (arggg) no sé, eso no me gusta.
-hmm, muy bien, ya está.
-ah bueno.

Track 17

-Nydia. Nydia, ¿me podrías decir que hiciste el fin de semana pasado?

-Bueno, el fin de semana pasado, (em)(...) estuve con mi novio, él se levantó muy tarde entonces leí en la mañana y luego nos fuimos al lago que queda cerca de nuestra casa. Eso fue (...) el sábado. En la tardecita fuimos a hacer compras, lo esencial, eh (...) lo del mercado y el domingo fuimos donde el hermano y allá hicimos un asado.

-aha, eh me podrías decir algo que te haya molestado, alguna situación así molesta que te haya pasado estos días o algo, si no te acuerdas, algo que te moleste en general que haga la gente, que no soportes.

-eh, (...) sí, me di cuenta hace poco, exactamente ayer en un seminario que (...) aunque estudiemos juntos la gente no se, o sea no permite que uno entre en sus vidas, o sea como que no (...) no dejan que uno sea amigo de (...) de ellos y ayer me di cuenta precisamente de eso, me molesta un poco que después de (...) conocernos un poco la gente no se integre a lo que no esté acostumbrada, porque vengo de Colombia, es una cosa totalmente diferente a eso, ah que es molestar, eh (...)ya (...)me sorprende.

-hmm, muy bien, eh algo, alguna, algo, una situación triste, alguna noticia triste o algo así que simplemente te dijeras, va esto...

-sí, eh (...) hoy en Internet, o sea, todos los días veo noticias de mi (...) país, de Colombia (...) y me doy cuenta que hay una protesta de campesinos, em, o sea, están en (...), en un parque esperando que el gobierno vaya y hable con ellos y (...) sí, eso me entristece mucho porque estando tan lejos no puedo hacer nada y de todas maneras se lee, y como escribe un periodista tan cruel y tan seco, me pone triste, soy como muy sensible en eso, y estando fuera del país, más porque siempre escucho (...) noticias feas de mi (...) de mi país y eso me pone triste.

-muy bien. ¿alguna noticia positiva o algo que te haya alegrado en los últimos días?

-síiiii, ay, sí, yo creo que esta semana fue de noticias buenas y noticias malas. Mis hermanas pueden venir (jeje) (...) por fin, eh (...) vienen en jue, bueno el trece de Agosto, están llegando acá. Y Fue la mejor noticia que he recibido en este mes y además que tenemos un nuevo apartamento con mi novio y entonces super feliz, super feliz de que vengan.

-muy bien, eh que estudias o que has estud? Mejor dicho, que has estudiado primero y que estás haciendo ahora?

-bueno yo estudié (...) en Bogotá estudié, hmm (...) filología alemana, sería así la traducción más o menos, eh (...) estudié ya (...) bueno terminé mi (...) mis estudios, luego me vine acá, y estoy haciendo un doctorado en lingüística aplicada en LIPP.

-muy bien, eh ¿cómo definirías en pocas palabras lo que es Internet?

-(respiro) (...) Internet es un mundo abierto, inte, Internet es un mundo donde no hay fronteras, donde no hay puertas, donde no hay (...) candados, uno puedo en un solo, en un solo clic, llegar a la biblioteca más importante del mund, de de una universidad. (...) Internet (...) yo creo que no imaginaría la vida sin Internet, (...) y estar cerca (...) yo siempre lo lo veo desde el punto de vista, o sea, de estar lejos de mi casa, saber que (...) puedo escribir emails todos los días y que mis hermanos lo pueden leer y responder, o sea, esa comunicación (...) increíble.

-sí. Que piensas sobre la muerte y la, las enfermedades graves?

-la muerte yo creo que soy una persona que le teme a la muerte. Eh (...) me asusta (...) pensar en (...) en ese tema y me asusta llegar (...) a decir, "oh, no, no aproveché mi vida", la muerte pero yo creo que es algo muy natural, y también sería muy aburrido vivir toda la vida, no sé, yo creo que (...) no se colocarían metas, entonces nos parecería también entre comillas aburrido.

-y luego las enfermedades graves.

-el sida, eh (...) lo que pasa en África puff es (...) impresionante. Eh (...) pero más que todo, el sida claro, pero cuando se transmite a los niños, o sea los niños pueden sonreír sin saber que (...) se van a morir muy pronto, eso me pone muy triste. Pero bueno, o sea (...) la tecnología avanza cada vez más y yo creo que hay buenas posibilidades para las enfermedades, bueno, eso espero.

-hmm, eh como describes tu voz? como piensas que es?

-eh, cuando yo escucho mi voz y cuando la graban es de una niña de 5 años, impresionante, y (...) toda "waigg" chillona, eh (...) y yo creo, incluso te voy a contar algo me pasó que, una vez estando en casa, contesté el teléfono y me dijeron que si podían hablar con una persona mayor. (jejeje) entonces como que, sí tal vez porque fui, soy la menor y fui muy consentida por mis padres y siempre tengo la voz de "nanana" de nenita, entonces por eso em (...) creo que es chillona y (...) no se reconoce que soy que es de una persona mayor.

-sí, y dos preguntas más, que es para ti una voz sexy, como de, para, como tiene que ser una voz sexy?

-mm (...) que..

-para hombre y para mujer.

-así sería así eh una voz em (...) que no sea chillona "wawawa" que sea (...) que tenga una tonalidad (...) suave, no sé como describirlo pero que sea constante (...) y que al hablar (...) se hable despacio, pero también como, em (...) con, ruidos, con gemidos, eso me parece sexy.

-muy bien y como es para ti una voz desagradable?

-eh, (...)que sea chillona, no tanto como la mía, más chillona que la mía, eh (...) y que (...) no articule, no sé si eso tiene que ver con la voz, pero(...)me, me choca mucho que la gente no se, no pueda articular bien. No me (...) o sea no me gusta

-hmm, muy bien. ya está todo, gracias.

-bueno.

Track 18

-Patri,¿patri, que hiciste el fin de semana pasado?

- (...)pues a ver que piense que tengo muy mala memoria. El fin de semana pasado viernes fue mi despedida, me montastéis una, madre mía, lo pasamos muy bien muy bien, nos reimos un montón, que mas hice? (...) el sábado? (...)que hice el sábado? (...) ah el sábado nos fuimos al pueblo de Sergio, de mi novio, de mi futuro marido y (...) por la noche. Durante el día estuve muy mala porque me bajó la regla, por cierto,(...) tirada en el sofá toda (...) toda la tarde y por la noche nos fuimos al pueblo, y el domingo estuvimos todo el día en el pueblo y yo también estuve un poquito así mala pero bueno, estuvimos ahí. Y ya está.

-eh, dime algo que, algo molesto o algo que te haya hecho rabiar en la última semana o el último mes, algo que te haya hecho alguien o si no que le hayan hecho a alguien que te sea cercano, algo que te haya molestado, y si no se te ocurre algo concreto, pues si no,algo que en general te moleste de la gente.

-mmm(...) me molesta mucho de Sergio que sea tan (...) lento en hacer las cosas, que yo soy muy rápida, y él es muy lento, pero es porque él es muy tranquilo, nos compen, nos compenentramos mucho en eso, que lo sepas.Más cosas.

-jejeje, eh algo, algo triste, o sea, algo.puede ser reciente o puede ser pasado, algo simplemente que te pareciera triste, si no,no es nada personal pues si no algo que hayas visto en la tele que te haya parecido triste.

-bueno, pues lo más triste del mundo fue lo de mi papi, que me pasó (...) que ya lo sabes, y que (...)bueno, es algo triste pero(...) con el tiempo (jejeje) se superará, (...)seguimos.

-pero,lo contrario ahora, algo positivo algo que te haya alegrado en, en la última semana, en el último mes o?

-psobretudo lo de mi boda, estoy super contenta y super ilusionada y todo todo todo todo es ilusión.

-hmmm, eh que has estudiado?

-filología inglesa (jejeje). Una más.

-eh, qué es Internet?

-ay dios mio! Internet es un vicio (...) muy malo (jejeje) (...) no, a mi me sirve mucho para trabajar online, todo eso, para buscar información y todo eso, lo que pasa que, yo me engancho al Messenger y no puede ser.Me trae muchos (...) muchos disgustos.

-emmm qué es una pulgada en centímetros?

-(...) no tengo ni idea,Bego, eso que es??? Una pulgada en centímetros? Pues (...) mira,50 centímetros, no tengo ni idea. (jejeje)

-que piensas sobre la muerte y sobre la enfermedad grave en general, es algo que te de miedo,no te da miedo, o que piensas?

-ehh(...) la muerte no me da miedo y (...) la enfermedad grave, pues (...)hmmm(...) no sé.Miedo?(...) pues sí,si es algo (...) que afe, o sea si es a mí, pues (...) no sé,pero si es a alguien cercano a mí,pues sí que me da miedo por lo que(...)conllea, no? Pero (...)vamos que la muerte en mí, me refiero que Mi muerte no me da miedo, me da más miedo el dolor por ejemplo.hmm

-eh, como desca, describirías tu voz?

-(respiro) mi voz no me gusta absolutamente nada, no me gusta nada, la he oído en, al, a lo mejor alguna vez que grababa cosas y yo que sé, y y no me reconozco en ella, o sea pero la gente dice que es graciosa,no sé (jejeje).

-y, que es para ti una voz sexy, para hombres y para mujeres?

- (...)ostras,no me lo había planteado nunca, yo creo que es una voz suave, que me tranquilice, sé que he oído alguna vez a algún amigo mío hablando y he dicho, ostras “me encanta tu voz” y sobretudoo es eso, que suave, así serena,me gusta.

-eh y para una mujer? Lo mismo?

- (...)sí.hmm

-Y ya lo último, lo contrario,que qué es una voz desagradable para ti?

-ehh, psi (...) supongo que una voz muy (...) aguda, muy(...) así muy chillona, (...)no sé, que se te clave así un poco, lo contrario de lo que he dicho antes.

-hmm.Ya está.

-ya está? Vale!

Track 19

- Trini, Trini ¿qué has hecho este fin de semana?
-ehh(...) el fin de semana pasado, pues estuve (...) en el cine y estuve estudiando para el examen.
-hmm, eh ¿me puedes contar algo que en las últimas semanas te haya molestado, algo que te haya hecho rabiar, o sea algo que te sentara mal.
-algo que me sentara mal (...)mmmm (...) no se me ocurre nada.
-o piensa si, o sea, puedes volver atrás, aún hay tiempo, si no es en las últimas semanas, yo que sé, mira así, mira así hacia atrás y piensa si hay algo que alguien te hiciera alguna vez, si no se te ocurre algo en concreto, por ejemplo algo que te moleste en general de la gente.
-algo que me moleste (jejeje) (...) mmm (...) pues no sé, por ejemplo me ha molest, me molesta que las del trabajo me digan que ellas no quieren ir los fines de semana (...) porque ellas sólo tienen cuatro horas y me toca ir a mi.
-hmm.bien, eh, ¿algo triste que te haya pasado a ti o a alguien cercano, o si no, que hayas visto en la tele?algo triste?
-algo triste? (...) pues (...) em (...) jolín...
-no tiene por qué ser, yo qué sé, radical, en plan alguien que se ha muerto pero algo que simplemente en su momento te hayas dicho jolín, esto es un poco triste.
-me haya preocupado
-pues (...) no sé me pareció triste lo que te he contado antes, cuando se cayó el bebé el otro día un poco de pena, que tan pequeñito y ya se pegara un golpecito.
-hmm ¿eh algo positivo que te haya pasado, yo qué sé, a lo largo del último año, una noticia buena que te dieran y que te alegrara mucho?
-Pues (...)bueno cuando me enteré que había aprobado el último examen, que ya había sacado muy buenas notas,m, acabar con un sobresaliente, fue buena noticia.
-Muy bien, eh, ¿qué has estudiado?
-eh (...) filología inglesa y alemana.
-¿qué es Internet?
-eh (...) una red (...) de (...) una red internacional de ordena, sí, por la que todos los ordenadores están unidos.
-hmm, eh ¿cuántos centímetros tiene un pie, la unidad de medida del pie?
- (...) Ni idea (jejeje). Ni idea.
- eh, ¿qué piensas sobre la muerte y las enfermedades graves? ¿es algo que, que te preocupe, o para nada, que te dé miedo o no?
-Pues sí, me preocupa, no sé, me parece una pena que la gente(...) tenga esas enfermedades, no es justo.
-¿y de la muerte?
-bueno, la muerte (...) tenemos que pasar todos por ahí, pero las enfermedades no todos, entonces.
-eh ¿cómo describirías tu voz?
-Pues de pito, de pitufo, de niño, no sé, hmm (...) infantil, no sé.
-eh ¿cómo tiene que ser para ti una voz sexy para los hombres y para las mujeres?
-Para los hombres, me gustan (...) las voces,y quizás también para los hombres, una voz así rasgada, no sé me parece (...), me parece bonita.
-eh para los dos, te parece que más o menos tiene que ser lo mismo?
-hmm, quizás más bien para los hombres,no?para la mujer nnnn(...) no sé, pues que hablé (...) no un tono muy agudo ni un tono muy grave,no sé un tono normal. Ni idea.
-vale, y la última pregunta ¿Qué como tiene que ser, cómo es una voz desagradable para ti, para hombres y para mujeres?
-Una voz desagradable (...) pues, no sé quizás demasiado grave para un hombre (...) así que se note que haya estado fumando mucho años. Y para mujeres, quizás también, así esta voz de por la mañana, de brggg (...) no sé.
-muy bien, gracias.
-uyy.

Track 20

- Vera, Vera, ¿Qué hiciste el fin de semana pasado?
- Pues (...) la verdad es que no mucho porque (...) he estado enferma, entonces, me he pasado el fin de semana en casa, estuve en Benicassim y (...)estuve en casa de mi tío tomando paella el domingo y un rato en la piscina y tal, pero vamos (..)poquito.

-hmmm, eh alguna situación en la última semana que, o en el último mes que te haya molestado, algo por ejemplo, una persona que te haya hecho, que te haya molestado en el trabajo, fuera del trabajo, que te haya, que te haya dado rabia, por ejemplo.

-hmm, (...) en el trabajo, sí, eh (..) una (...) una de las becarias, bueno, como en todos los sitios, no? Pues una de ellas, no (...) no es muy (...) no es muy agradable y (...) pues (...) es de estas que (...) cuando estás (...) mmm (...) hablando y tal, enseguida aprovecha para (...) pues lanzar algún puñal o algo de esto, y bueno un poco desagradable, no?

-hmm, y te lanzó uno?

-sí sí.

-jeje. Eh A ver, ¿alguna situación triste o si no es personalmente a lo mejor que le haya tocado a alguien que tu conozcas, si no se te ocurre ahora nada en concreto o, pues algo que hayas visto en la tele que te haya parecido triste, que qué ha sido o como te has sentido?

-vale. Pues (...) hombre hace poco, en Pascua (...) murió mi abuela y (...) pues, hombre más que, fue triste porque claro, pues (...) es una persona, un familiar que cuando muere, obviamente siempre es difícil, pero (...) sobretodo fue difícil porque mis padres estaban de viaje, estaban en Chile, que estaban lejos, yo estaba sola, o sea bueno, estaba mi familia, estaban mis tios tal y cual, pero no es lo mismo, y pues eso (...) fue (...) fue difícil porque ya tienes tú bastante con, (...) con lo que estás pasando y tal, como para que encima no tengas el apoyo (...) que (...) consideras más (...) más necesario y más cercano.

-hmm, bien, eh y una noticia positiva algo o a ti que te haya pasado o a alguien cercano, en el último mes, algo que te haya alegrado?

-algo que me haya alegrado? sí me ha alegrado mucho (...) por, por una amiga mía, por Marie, por mi amiga de (...) de París, le, bueno le han pasado cosas malas porque le han pasado, también murió su abuela a los dos días de volver (...), pero bueno, yo creo que le están pasando ahora cosas buenas, y (...) yo estoy muy contenta por ella. mucho. jejeje

-hmm, muy bien, y que qué estudias o qué has estudiado también?

-he estudiado farmacia y (...) ahora estoy, sigo estudiando, he hecho los cursos de, durante este último curso, he hecho los cursos de doctorado en microbiología (...) y el año que viene, pues eh haré la fase de em (...) de investigación, o sea los, los créditos de laboratorio de investigación.

-muy bien, eh como defines Internet?

-como defino Internet? (...) pues (...) para mi no era, wewe, era algo poco útil, la verdad, lo he tenido desde siempre, en casa, desde que salió casi, pero no es algo que yo (...) accediera, o sea tenía acceso pero yo no me interesaba nunca (...) y ahora realmente creo que es una fuente de información, hmm (...) super necesaria, muy útil para todo el mundo y sobretodo (...) una vía de comunicación para la gente que está en el extranjero y tal (...) que, pues eso que te permite acercarte, pues eso con mi amiga de París, ahora, es que a diario casi, si no es en el Messenger, un mail, un tal, un cual, o sea que.

-hmm, eh que es una pulgada en centímetros?

-que es una pulgada en centímetros? (...) pues eso debe ser unos cuatro centímetros o así, no? Por ejemplo (jejeje)

-eh, que piensas sobre la muerte y la, las enfermedades graves, es algo que te da miedo o no te da miedo o que?

- (...) la muerte sí, la muerte me da (...) bastante miedo y además, últimamente he tenido varias muertes cercanas y (...) y lo he estado comentando hace poco con mis amigos tal y cual, y es algo que en esta (...) que eso, que en esta sociedad no tenemos para nada asumido, que (...) y que yo, pues como pertenezco a esta sociedad, pues eso, no (...) no la tengo nada asumida. Las enfermedades graves (...) pues por supuesto me, me dan miedo padecerlas porque he tenido familiares pues con (...) con cancer, con tal, mi abuela murió de Alzheimer, (tose) perdón, y (...) pues es algo que sabes siempre está y que está planeando y que te da (...) que te da miedo. Me dan mas miedo las que son invalidantes mentalmente que las físicas. Yo (...) desde luego aspiro a calidad de vida, si (...) no tengo calidad de vida, creo que no merece la pena vivir.

-hmm, ahora ya sobre tu voz, como describirías tu voz?

-pff (..) yo yo me la oigo horrible pero supongo que le pasa a todo el mundo, no yo me la oigo (...) muy (...) me oigo muy aguda, de normal me oigo bastante aguda, por, ahora por ejemplo, lo que te he dicho como estoy medio constipada y tal me oigo más grave que que de normal, pero yo normalmente me oigo, (...) muy estridente, muy aguda.

-sí. Y que es para ti una voz sexy, para hombres y para mujeres?

- (...) pfff (...) param, pff, una voz sexy (...) en hombres, para mí, una voz sexy es una voz, eh, mm (...) grave, (...) cálida (...) y segura, sabes? De (...) de que lo que te estaba diciendo, que no titubea, que no tal (...) y en mujeres (...) pff en mujeres es que lo me da más rabia es lo de las estridencias y como yo me oigo así, no (...) no sé.

-y que es una voz desagradable?

-una voz desagradable, las (...) las voces de pito, en, en chica (...) las voces de pito, en hombre (...) no sé (...) los altibajos, esos que pasan en la adolescencia también, pero vamos que no es que sea desagradable, pero que (...) (tose) eso. jejeje

-gracias

Track 21

- Andrea. Andrea, eh was hast du am Wochenende gemacht?
- Eh (..) am wochenende hab ich Besuch gehabt von einer Freundin von mir, (...) die ist am Freitag gekommen und dann Freitag abend habn wir ansein gemütlichen abend gemacht, waren hier in der Wohnung, wir haben zusammen gegessen, sind dann ziemlich bald ins Bett gegangen, weil wir alle, weil wir beide ziemlich müde waren von der Arbeit um am (...) Samstag (...)habe ich den Tag über eine Fahrradtour gemacht mit ihr und abend sind wir in nen club gegangen.
- Hmmm,em, hast du irgend eine ärgerliche Situation in der letzte Zeit gehabt, vielleicht in der Arbeit,plötzlich etwas die dir genervt hat?
- Ja (...) ja ja, em (...) diese Woche zum Beispiel bin ich ziemlich ungerecht behandelt von meinem Chef, also einfach ungerecht fertig kritisiert worden und (...) ja, (...) musste irgendwie versuchen damit klar zu kommen.
- Was hast du dann gemacht?
- Em (...) ich hab versucht mich rechtfertigen aber (...) em (...) er hat das ganze trotzdem nicht eingesehen und im Enddefekt er (...)war ich dann verärgert und konnte eigentlich nichts machen, obwohl es ist mein Chef.
- Hmm.,eh irgendeine traurige Situation in der letzte Zeit für dich oder für irgendeine Freundin, Verwandte, sonst vielleicht etwas trauriges, die du gese, die du einfach gesehen hast.
- Ja,also (...) was trauriges, was, was was kommisches, dass in letzter Zeit passiert, ist ich bin vor ungefähr zwei oder drei Wochen zu nem Fahrradunfall gekommen,also ich bin über die Ampel gefahren und vor mir war einer der ist vom Auto überfahren worden und (...) ich konnte gerade noch bremsen und musste dann erste Hilfe leisten und das war irgendwie kommissch, war unangenehm.
- Em, irgendeine glückliche oder positive Nachricht in der letzte Zeit gehabt oder etwas die dir gefreut hat?
- Ja (...) einfach,em (...) ja ich habe vor (...)vier Wochen eine Zusage zu meinem Job bekommen zum Beispiel (...) genau, und (...)generell (...) ja.
- Ok.ehm was hast du studiert?
- Ich hab eh(...) BWL studiert.
- Was ist internet?
- Internet ist ein (...)modernes Kommunikationsmedium.
- Aha. Weisst du wieviel centimeter ist ein Fuss?
- Ein Fuss ist, (...)em (...) weiss ich nicht, aber ich glaube ist so lang wie er (..)der Unterarm. Hab ich immer gehört.
- Hmm, was denkst du über den Tod und schwere Krankheit?Ist es etwas die dir so Angst eh?
- Ja, auf jeden Fall. Also ist was
- Mehr Tod als schwere Krankheit oder was ist deiner Meinung?
- Em (...) schwere Krankheit.
- Hmm, em wie beschreibst du deine Stimme?
- Meine Stimme ist em (...) leise, sehr oft leise und (...) mm (...) ja ich mag meine Stimme eigentlich nicht besonders, also wenn ich meine Stimme irgendwie höre dann mage ich sie nicht.
- Emm, was ist für dich eine sexy Stimme, für Frauen, für Männer?
- Em (...) beim Frauen eingentlich schon tiefe Stimmen, (...)tiefe em (...) klare Stimmen und bei Männern (...) eigentlich auch tiefe Stimmen, also bei Frauen dunkel.Ja
- Em, und unangenehme Stimme für Männer für Frauen.
- Unangenehme Stimmen sind für mich bei Frauen (...) em (...) generel laute helle Stimmen (...) und bei Männern (...) würd ich sagen (...) ähnlich, ja.
- Hmm.Ok. danke.

Track 22

- Andrea. Was hast du dieses Wochenende gemacht?
- Dieses Wochenende habe ich Plätzchen gebacken.
- ok, kannst du mir über irgendeine ärgerliche Situation erzählen, etwas die dir in der letzte Zeit genervt hat?
- Wenn die Leute über die Strasse gehen,ohne zu schauen.
- ok,eh, em irgendeine traurige Erfahrung, Situation,Geschichte die, die dir passiert oder jemand anders oder einfach im, in der Zeitung gelesen,im Fernseh gesehen,etwas traurig?
- mmm(...) ja wenn Menschen sehr krank sind, ohne dass man ihnen helfen kann.

-Ok irgendeine positive Nachricht dieses dieses Jahr gekriegt?
 -(...)
 -was gutes, in deinem Studium vielleicht?
 - vieles (hehehe) ja,dass ich jetzt mit dem Diplomarbeit bald fertig bin.
 -Ok, em was hast du studiert?
 -Ich habe Jura studiert.
 -em, was ist Internet?
 -Was ist Internet? Em (...)
 -Eine Definition
 -mmm(...)Ja, ein(...) Portal wo jeder Informationen einstellen kann,em (...) die (...) von fast jeder der Zugang hat, ab (...)abgerufen werden kann.
 -Ok, em wie viele Centimeter kannst du auf die Einheit, also englische Einheit ein Fuss,Fuss finden?
 -Ich glaub (...) ungefähr dreizig Centimeter.
 -Ok, was denkts du über Tod und schwere Krank Krankheiten?
 -mmm (...) ja, dass ma mehr oder weniger ausgeliefert ist.
 -aha, em wie könntest du deine Stimme beschreiben?
 -meine Stimme?(...)Manchmal tief (...)manchmal schrill.
 -ok, em was ist für dich eine sexy Stimme bei Männern bei Frauen?
 -(....) ja bei Männer nicht zu tief und bei Frauen (...)hmm(...) ja nicht schrill und ja nicht so herrschend.
 -ok, und letzte, letzte Frage, was sind unangenehme Stimmen bei Frauen, bei Männern?
 -(...) bei Männer wenn es hoch und quietschig ist, und bei Frauen (...) mmm (...)ja, wenn sie tief ist oder (...)ja wenn es sehr, sehr schrill und dann gebrochen wird.
 -ok, danke.

Track 23

-Anke, Anke kannst du mir sagen, was du letztes Wochenende gemacht hast?
 -Letztes Wochenende (..) war ich (...) daheim bei meinen Eltern (..)und em (..) ja, erst hab ich am Samstag meine Oma besucht (...)und am Sonntag ist noch mein Freund gekommen.ja
 -ok.eh, könntest du mir über eine ärgerliche Situation erzählen oder etwas die dir in der letzte Zeit genervt hat, etwas die du vielleicht hast von Leute?
 -mm (...) ja also ich war momentan bei einem Projekt, das heisst „ susanna tanzt und das ging iner wochen und (...) wir waren so zehn studenten und habe mitgearbeitet und waren so zu assistenzen haben sehr viel gemacht sehr viel kabels und im Enddefekt haben wir es nichts bekommen und es wurde (...) auch nicht renoviert unser Engagement und(...) also die Motivation ist nicht wirklich bezahlt worden und das fand ich sehr schade und ist irgendwie discriminerend(...) und einfach nicht anerkannt,und das hat mich in der letzte Zeit sehr genervt.hmmmm
 -em und jetzt vielleicht über irgendeine traurige Geschichte, vielleicht muss,em zu dir passiert oder zu jemand anders oder etwas die du dachtest, o das ist aber traurig?
 -hmm, em also meine Oma liegt momentan am sterben und em (...) ich hab ihr den ganzen Samstag besucht und sie lag da da am bett und sie hat zwei kleinere Herzanschläge also kann ihre Arm noch nicht bewegen und (...) da (...) war schon schlimm, also ich dachte, da habe ich eigentlich gedacht, es ist besser wenn sie sterben würde weil (...)es einfach kein Leben mehr ist, also es ihre (...) sie ist voll gepumpt von Medikamenten ist nicht mehr wirklich ansprechbar und sie trocknet aus, also ihre Zunge felkt ab,weil es schon so augetrocknet ist, und eigentlich wünsche ich ihr nur den Tod, (...) dass sie nicht mehr (...) leiden muss.
 -hmmm.und eine glückliche oder positive nachricht in der letzten Zeit?für dich oder für jemand anders die du kennst? Über etwas, über den du dich plötzlich gefreut hast?
 -also, worüber ich mich gefreut hab, war jetzt zum Beispiel dass in der Sprechstunden meinen Professoren war und da habe ich von verschiedene Seiten nur Lob bekommen, vielen dank für deine Hintarbeit und er (...)war super dass du dabei warst und solche Geschichten, und es gibt einem bei diesem Feedback, weil man weisst super man hat etwas getan und dazu hat das Seminar viel vorgebracht, und das war schon sehr schön, also da war auch ich(...) auch irgendwie glücklich damals so ein Feedback zu bekommen. Ja.
 -Ok, em was studierst du?
 -Also ich studiere im Hauptfach Theaterwissenschaft und habe auch da für Tanz spezialisiert mach jetzt meine Magisterarbeit über Tanz und in Nebenfach mache ich Skandinavistik, also dann ist vor allem(...) skandinavischen Sprachen, so Schwedisch, Norwegisch,nicht Dänisch halfoeimo und dann mache ich norde deutsch Literatur, also germanistik.
 -ok, em wie könntest du in wenige Wörter, das Internet bezeichnen?
 -Internet?
 -ja.

-das Internet ist eine Weltweite Kommunikationsplattform für (...) viel verschiedene Bereiche, ein modernes Medium, dass (...) heute nicht mehr weg zu denken wäre.

-hmm, was ist deine Meinung über Tod und schwere Krankheiten?

-Tod und schwere Krankheiten sind alltäglich immer da, so muss man mit daran denken und (...) für mich ist in letzter Zeit greifbar weil meine Oma wie gesagt eben sehr krank ist und weil ich jetzt auch sehr krank war und em (...) ja (...) em also es gehört auch mit dazu irgendwo muss man es akzeptieren und ich glaube je mehr Schutzansätze man drinnen hat desto besser verarbeitet man es doch am Ende.

-hmm, em wie würdest du deine Stimme beschreiben?

- also wenn ich es selber höre dann merke ich heraus, dass ich also, ich merke heraus woher ich komme, also ich merke genau wo ich ausgewachsen bin, welche, welche, welche Redewendungen ich verwende, welche, und (...) und welchem Dialekt (...) ich noch habe.

- aber von Stimmqualität, also nicht so Akzent oder die Wörter die du wählst sondern nur so deine Stimme.

-meine Stimme (...) em kommt darauf an, also ich kann manchmal sehr ruhig und sehr gedemft reden, (...) wie nachdem wie es eben, wie man es gerade braucht, und manchmal wenn ich in der Gesellschaft bin oder so dann (...) für mich es ist auch ein bisschen schriller mal oder für Effekt da ich getze meine Stimme gerne ein, gerade als wenn man Theater spielt kann man viel irgendwie machen oder kann je nach gesellschaftliches Anlass.

-hmm, eh was ist für dich eine sexy Stimme?

-Sexy Stimmen (...)?

-für Männer und für Frauen

-em (...) also bei Männern mag ich Bass stimmen ganz gerne, also je tiefer, desto besser.

-ok. Und bei Frauen?

-also bei Frauen finde ich auch die tieferen eher schöner.

-hmm und dann die letzte Frage, was sind dann unangenehme Stimme für dich?

-unangenehme Stimme sind für mich wenn sie besonders laut sind, aber auch wenn sie besonders leise sind und wenn sie (...) schrill oder gebrochen sind, also wenn die (...), die Stimme und die Modulation nicht wirklich passen, wenn da irgendeiner schiefer Töne sind die mich einfach stören also man (...) da kann auch nicht zuhören weil es einfach, irgendwie, egg, (lacht) irgendwie nervt.

-ok, vielen Dank.

-gern geschehen.

Track 24

-Anna, Anna kannst du mir eh kurzmal erzählen, was du letztes Wochenende gemacht hast?

-Letztes Wochenende habe ich gearbeitet, weil, also ich arbeite für eine (...) Frau, die sitzt im Rollstuhl, (...) die ist auch nur zwei Jahre älter als ich, und wir kennen uns schon länger und em (...) weil ihr Betreuungsperson war weg und deswegen em (...) war ich das ganze Wochenende da, aber (...) wir haben ganz tolle Sachen gemacht, wie den ganzen Tag im Schwimmbad liegen, (...) also es war (...) weniger Arbeit als mehr angenehm.

-aha, em kannst du mir kurz vielleicht über eine ärgerliche Situation in der letzte Zeit oder etwas die dir genervt hat, etwas die du hast, die die Leute machen...?

-Ja (...) also ich habe die letzte Woche zum Beispiel eins (...) eins von vielen Gruppe Referaten gehalten für die Uni und ich habe immer das Glück (...) em (...) mit Leute zusammen zu kommen die entweder es auf die Reihe nicht kriegen oder die sich auch nicht besonders interessiert, um em (...) so dass letztendlich die ganze Arbeit an mir hängen bleibt und em (...), ich mache sie dann natürlich auch aber meine Name steht dann unter auf dem Papier, deswegen will ich auch dass es so gut wie möglich wird, aber ärgern tut es mir trotzdem.

-hmm. Ja, und eine traurige Situation, vielleicht nicht in der letzte Zeit oder vielleicht nicht unbedingt zu dir passiert, aber etwas die du dachtest, oh das ist aber traurig?

-ja, ich glaub vor ein Jahr ist die (...) Mutter von ner Freundin von mir gestorben und ihr Vater ist schon gestorben als sie irgendwie zwölf war und das heisst sie war, weiss ich nicht sie vier und zwanzig und das ist schon weise, sie musste sich dann, sie hat noch eine Schwester, die ist (...) em geistig behindert (...) und muss sich irgendwie jetzt da um sie voll kümmern, und dann sind die ganzen Verwandten von den sie vorher noch nie was gehört hat, sind plötzlich angekommen und wollten, was von Erbe wissen, (...) sie wollten was weiss ich, also für mich weniger aber für sie total schlimme traurige Zeit.

-ok und irgendeine glückliche oder positive Nachricht in der letzte Zeit? Oder etwas über die du dich plötzlich gefreut hast?

-Ja, vorgestern, sass ich, ich hatte meine letzte dänisch Stunde und dann sass ich noch mit ein paar Leute von mein Kurs ein Kaffee trinken um em (...) habe festgestellt, dass ich sehr sehr nette Leute in den Kurs hab, und dann haben spontan beschlossen eine Woche nach Denmark zu fahren alle zusammen und das ein Häusschen zu mieten und ich

glaube es wird total toll (..)em (...) vor allem auch, weil ich dachte das ich gar kein Urlaub hinkrieg dieses Jahr deswegen (..) ja.

-cool, eh was studierst du?

-Ich studiere Nordische Philologie, Skandinavistik

-Hauptfach?

-Am Hauptfach.

-Und Nebenfach?

-(...) Nebenfach germanistische Linguistik und Didaktik.

-em, wie würdest du das Internet in wenige Wörter bezeichnen?

-em, unglaublich viele Informationen(..)ob sie war sind immer (...) weiss ich nicht, und so wahr wo das, zum Beispiel für die Uni oder für private Interesse, unglaublich toll ist darauf zugreifen zu können, und man kann zum Beispiel, ich kann schwedische Zeitungen lesen ohne jetzt nach Schweden fahren zu müssen,(...) auf den anderen Seite wird es auch wahrscheinlich das also weil es so unkontrollierbar ist an viele Stellen zu Misbrauch.

-Ok, em was ist deine Meinung über Tod und schwere Krankheit?

-hmm (...) ja also Tod em (...) gehört einfach zum Leben dazu und em (...) schwere Krankheit ist natürlich ein Weg, die das unglaublich erschwert und (...)nicht wünschenswert ist.

-hmm.ok eh wie beschreibst du deine Stimme?

-meine Stimme (...) erst wenn ich sie auf Band höre, total (...) also ein bisschen küdlich ein bisschen festchen, also ich dachte immer sie ist (...) also nicht sehr hoch (...) wie beschreibe ich meine Stimme?em (...) aber ich glaub so passt zu mir.

-ok, eh wie beschreibst du eine sexy Stimme bei Frauen und bei Männern?

-eine sexy Stimme? (..)Also ich finde bei Frauen Stimmen sind sexy wenn sie eher tiefer sind und (pac) uhh, (...) und also selbsbewusst,em (...) vielleicht auch ein bisschen weiss ich nicht rauchig oder so, bei Männern finde ich tiefe Stimmen auch unglaublich anziehend.

-ok, und dann im Gegensatz dazu eine unangenehme Stimme?

-oh die sind hoch(...) und so(..) nasal und em (...) besonders unangenehm finde ich wenn man hört, dass em (...)die Person sich nicht natürlich gibt, dass das irgendwie falsch ist, was sie sagt oder wie sie gerade spricht.

-ok, wunderbar, das war alles, vielen dank.

Track 25

- Bärbel, bärbel kannst du mir sagen, was du, was du am Wochenende gemacht hast?

-emm (...), letztes Wochenende bin ich nach Hause nach Regensburg gefahren und dann hab mich mit meinen Freundinnen getroffen.

-hmm. Ah, hast du irgendeine gute Nachricht, irgend etwas positives ein der letzte Zeit gehört?

-mmm (...) nein, in der letzte Zeit eigentlich (...) nicht unbedingt, nee (hehehe).

-mmm, irgend traurig von der Vergangenheit, oder...Gegenwart oder...

-hmm (...) aber mit fällt jetzt eine gute Nachricht ein, darf ich es immer noch sagen? (hehe) Ich fahre mal im Urlaub, das ist eine gute Nachricht. Genau und ne traurige erfahrung (...) eigentlich nichts das mir spontan einfallen würde.

-ja,ok, ok irgend etwas die dir normalerweise nervt, von Leute vielleicht die du hast?

-mm (...) ja momentan nervt mich eher so ein bisschen die Uni, weil viel zu tun ist, und viele Abgabe hinter einer andere (...) und (...)wenn das mal vorbei ist, dann das past es.

-hmm. Ok, was studierst du und was hast du bis jetzt studiert?

- Architektur.

-hmm, was ist, wie würdest du Internet in wenige Wörter beschreiben?

-mmm (...) ist ne offenes Portal, dass jederman zugreifen kann (...) genau (...) sehr viele Informationen (hehe) ok

- wie würdest du deine Stimme beschreiben?

- (.....) hmm vielleicht ruhig und leise.

-hmm glaubst du deine Stimme ist sexy oder nicht unbedingt?

-nee, glaub ich nicht (hehehe).

-und was glaubst du ist eine sexy stimme zum Beispiel?

-(....)

-In Frauen in Männern.

- also ich glaub dass bei, bei Frauen es ist mehr so (...) vielleicht (...) irgendwie was eine starke, also gleich ein bisschen stärkere Stimme die auch eine starke Persönlichkeit (...) darstellt, denke ich eher. (...) und bei Männern ist eher das tiefe, rauhe vielleicht (...) ja, (...)würd ich sagen.

-hmm.

-danke.

Track 26

- Carolina, was hast du am Wochenende gemacht?
- Ich war in Torin.
- ok,eh kannst du irgend eh kanns du mir irgendeine ärgerliche Situation erzählen, etwas die dir in der letzte Zeit vielleicht genervt hat in der Arbeit oder...?
- diese Streit mit meinem Freund.
- ok. Eh irgendeine traurige Erfahrung in der letztes Jahr sozusagen gehabt oder jemand die du gut kennst hatte eine traurige Geschichte gehabt oder Nachrichten die vielleicht traurig waren?
- Ja, Problem in der familie, Krankheit und ein Freund von mir ist gestorben vor kurze Zeit.
- Ok, em irgendeine positive Nachricht em in der letztes Jahr gehabt?
- ja em,ich war gerade auf einem Kongress und es war sehr schön und es war sehr interessant und es wahr wahsinning schön eben in Torin.
- ok. Was hast du studiert?
- Ich habe italienische Sprachwissenschaft studiert.
- ok. Eh Was ist internet für dich?
- em (...) eigentlich immer noch ein Geheimnis ein bisschen aber sehr nützlich, was ich oft habe Problem mit dem Computer, das wirkt sich auch im Internet aus.
- Ok eh wieviele centimeter kannst du auf einem Inch finden?
- weis ich nicht.
- ok em wie beschreibst,ah ne, was denkst du über Tod und schwere Krankheit,ist es etwas dir dir Angst macht oder überhaupt nicht,oder?
- doch, ich denke schon oft drüber nach und es macht mir auchAngst auf einer gewisse Art.
- ok, em wie beschreibst du deine Stimme?
- ich glaube sehr tief und rau, ich weis es aber nicht.man denkt es aber anders als anders es finden.
- ok was ist für dich eine sexy stimme bei Frauen bei Männern?
- Bei Männern tief und warm und bei Frauen eigentlich eher eine höhere Stimme.
- Ok eh und was ist eine unangenehme Stimme bei Frauen bei Männern?
- Bei Frauen eine schrille Stimme und bei Männern,(...) wenn sie zu hoch ist, für ein Mann.
- ok, wunderbar, danke.

Track 27

- Dagmar. Dagmar, was hast du am Wochenende gemacht?
- Ich kann nicht nimmer daran erinnern.
- ok,em eh kannst du mir irgendeiner ärgerliche Situation erzählen, etwas die dir in der letzte Zeit plötzlich genervt hat?
- oh (...) als Paul geschrien hat.
- aha. Wie hast du dann dich gefühlt?
- emm(...) ich war traurig und war genervt.
- hmm.ok. em irgendeine traurige Erfahrung eh, gehabt in der in das letzte jahr, im diesen Jahr vielleicht oder wenn nicht zu dir passiert , dann zu jemand anders? Oder etwas traurig im Fernseh gesehen?
- em (...) dass ich letzten Freitag mit meiner Familie nicht aufs Oktoberfest gehen konnte.
- ok irgendeine positive Nachricht in der letzten Jahr gehabt?
- oh (...) das ich schwanger mit Paul war.
- ok, em was hast du studiert?
- em Lehramt Biologie und Chemie für Lehre Schule.
- ok was ist internet?
- Internet ist die Ver(...)knupfung von (...) Computern zu Datenvermittlung.
- ok eh wie kannst du em, also welche,wie viele centimeter gibts in einem Fuss?also zum Beispiel, also alsEinheit zum, also als Masseinheit, ein Fuss dann im centimeter, wie viele gibts?
- also wie lang ein ce, ein Fuss ist?
- genau.
- (...) zwanzig.
- hmm, eh was denkst du über Tod und schwere Krankheiten, ist es etwas die dir Angst macht oder gar nichts oder?
- (...)em.(...)doch mach mir schon Angst (...)ja.

-ok, em wie kannst du deine Stimme beschreiben?
-hmm (...)anders als ich es selber höre und (...) höher als ich das denk.
-ok, was ist für dich eine sexy Stimme für Männer für Frauen?
-em, bei Männern(...)ruhig und (...) langsam und bei Frauen (...)em (...) eher hell.
-ok, und eine unangenehme Stimme für Frauen für Männer?
- bei Frauen sehr quietschig sehr sehr hoch
-ok
-und bei Männern (...) em wenn sie so stofflig ist.
-ok vielen dank.

Track 28

-Esther.Esther,was hast du am Wochenende gemacht?
-Ich war bei meinem Freund und habe meine Zero fertig gemacht für meine Abgabe am Dienstag.
-ok,em kannst du vielleicht kurz über eine ärgerliche Situation in der letzte Zeit, etwas die dich genervt hat oder wenn, wenn, wenn du weisst nicht vielleicht etwas die du normalerweise hast die die Leute machen oder dich nervt?
-die Abgabe am Dienstag hat mich genervt, weil wir drei Abgaben machen müssen und das war total stressig,(...) aber jetzt bin zur Zeit froh, dass es endlich weg ist.dast ist ganz nicht mehr so nervig,hehe.
-ok,eh irgendeine traurige Situation vielleicht nicht zu dir passiert also zu jemand anders, etwas die du hast geglaubt in der letzte Zeit,oh das war das war traurig oder?
-als meine Oma gestorben ist vor zwei Jahren war traurig.
-mmm,ok, emmm irgendeine glückliche oder positive Nachricht in der letzte Zeit gekriegt?
-wahrscheinlich als ich nee(...) gehört hab, dass ich nach Paris fahren darf.
-wie hast du dich dann gefüllt, gefühlt?
-sehr schön, sehr gut.
-ok, was studierst du?
-Architektur
-hmm,eh keinen so Nebenfach.
-nee, haben wir nicht.nur Architektur einfach, da gibts keine Nebenfächer.
-in welchem Semester?
-im Sechsten.
-ok, was em, wie dürdest du in weniger Wörter das Internet definieren?
-(...) schnell, gross(hehehe)
-ok, emm was denkst du über den Tod und die schwere Krankheiten?
-Ja (...) ist ne schlimme Sache, was soll man da sagen (hehehe)
-hast du Angst oder?
-Ja, klar, (...) ich habe vielleicht mehr Angst, dass jemand anders stirbt sogar als ich selber, oder wenn jemand anderes was schlimmes hat,(...) als ich.
-ok,em wie würdest du deine Stimme beschreiben?
-(...) so wie ich sie kenne ist sie ok, aber wenn ich Aufnahmen höre dann ist sie total anders.
-hmm, was glaubst du ist anders?
-manchmal ist sie ein bisschen tief und manchmal wieder quietschig, sehr komisch.
-ok, aber wie du es jetzt so ohne Gerät hörst, wenn jemand dir fragen würde.
-es ist ein bisschen tief, finde ich jetzt aber (...) ist sie normal.
-ok,und was ist für dich eine sexy Stimme für Männern, für Frauen?
-(...) auch ein bisschen tiefer,(...) volle Stimme so
-für die beiden?
-ja,(...) schon.
-und eine unangenehme Stimme?
-wenn so rumquietscht.Vielleicht so bei Amerikanerinnen, so quietchend (hehe) also hoch einfach sprechen.
-hmm.ok vielen dank.

Track 29

-Was hast du am Wochenende gemacht?
- ich (...) habe am Wochenende (...) ein Ausflug nach Ingoldstadt gemacht.

-ok,eh kannst du mir über irgendeine ärgerliche Situation erzählen, etwas die dir vielleicht in der Arbeit genervt hat oder etwas die dir von den Leuten nervt manchmal ab und zu...?

-ja (...) und zwar in der Arbeit, ich muss die Kaffeemaschine täglich putzen und das finde ich wirklich nervig, weil andere Leute genau so viel Kaffee trinken wie ich und (...) ja, nur weil ich ne Frau bin muss ich den Job übernehmen und das ist nicht fair.

-hmm, irgendeine eine traurige Erfahrung von dir oder von jemand anders oder etwas traurig im Fernseh gesehen oder im Radio gehört?

-Ja im Moment gibts ziemlich viele traurige Situationen oder Geschehenisse,(...) was mir gerade im Kopf vorkommt ist das Unglück mit dem (...) Transrapid, (...) wo ziemlich viele Menschen gestorben sind.

-ok.em, irgendeine positive Nachricht in der letzte Jahr zum Beispiel gehabt?

- Ich freu mich das ich Besuch bekomme dieses Wochenende.

-ok, em was hast du studiert?

-Bauingenieurwesen.

-em Was ist internet? Wie kannst du Internet definieren?

-Eine Vernetzung von verschiedenen Computern und deren em Speicher.

-ok, em was denkst du über Tod und schwere Krankheit?

- (...) gehört zum Leben wie Freude, Geburt (...)und Gesundheit.

-hmm was wieviele Centimeter gibt es in einem Fuss?

- (...) hmm (...) ich denk mal so (...) ungefähr (...)zwanzig bis dreizig (hehehe).Ach ein Fuss wie viele Centimeter? Ich weiss es gar nicht genau (hehehe).

- wie beschreibst du deine Stimme?

-em (...) leicht leiernd (...) und eher tief als hoch und vielleicht ein (...) ein bisschen samft.

-ok, was ist eine sexy Stimme für Frauen für Männer?

-Ich finde bei beiden Geschlechtern dass eine rauhe Stimme sexy ist und (...) und so auch bei beiden Geschlechtern eine tiefe Stimme sexy ist.

-ok. Und unangenehme Stimmen für Frauen für Männer?

- bei Frauen extrem hohe Stimmen(...) und bei Männern (...) ja es gibt schon so so krachendes oder knatzendes Stimmen (...) die unangenehm sind.

-ok das war alles,danke

-ich dank dir auch.

Track 30

-Ini. Ini was hast du am Wochenende gemacht?

-uhhh das ist schon lange her, ich muss nochmal überlegen (...)em(...) oh gott mir fällts gar nichts ein, ich weiss nur, dass ich nicht mit Martin auf der Wiesen gegangen bin,ehh(...) mir fälltsts nichts mehr ein.

-ok

-entschuldigung.

-egal.hehe.eh irgendeiner Ärgerliche Situation gehabt,hier in der Arbeit oder im Moment...?

-ja, doch da war em(..), da war,was ärgerliches die von(...) die haben hier gefilmt, und dass hat mich so extrem geärgert weil die die anderen geschwungen haben irgend welche doofe Interviews zu geben.

-eh,eh irgendeine traurige gefah Erfahrung in der letztes Jahr gehabt, oder zu dir oder zu jemand anders passiert oder traurig im Fernseh gesehen?

-Ja,schon (...) hmm ja schon traurige Sachen passiert.

-hmm,eh irgendeine positive Nachricht dieses Jahr?

-ja (hehe)(...),ja ich hab diesen Preis gewonnen und sowieso habe ich so viel Glück hier gehabt,so ein tollen Job bekommen(...) gute Prüfungen gemacht.

-ok.hehe,eh was hast du studiert bis jetzt?

-Ich bin dammschneiderin.

-hmm.em was ist Internet?

-emmm(...) Internet Informationsbörse eh(...)online (...)weltweit (...) Computer, weiss nicht (hehe).

-ok, wie viele Centimeter gibt es in einem Fuss?

-ungefähr (...)dreizig(...)würd ich sagen.

-ok,em was denkst du über Tod und schwere Krankheite,Krankheite,Krankheiten,ist es etwas die dir Angst macht oder nicht?

-Tod nicht, Krankheiten,ja.

-hmm

-die will man natürlich nicht haben(...)aber ich mmm(...) ich setzte mich dann nicht so extrem mitauseinander, ich mache mich damit verrückt.
 -hmm,ok, wie beschreibst du deine Stimme?
 -hmmm(...)wenn ich die irgendwo aufgenommen höre, find ich fürchtbar, weil sie so anders anhört, als ich das höre (...) und ich würd sagen es ist kein Traumstimme.
 -hmm,eh was ist eine sexy Stimme bei Frauen,bei Männern?
 -tiefe Stimmen.
 -für die beiden?
 -ja, bei Männern hohe Stimmen ist fürchtbar und bei Frauen(...)na ja.
 -eh unangenehme Stimmen war die letzte Frage für Frauen für Männer?
 -schrill (...) schrill und kreischig und laut.
 -danke.
 -gut.

Track 31

-Isabel, Isabel könntest du mir sagen, was du letztes Wochenende gemacht hast?
 -(...) uhh dass muss ich überlegen (...)letztes Wochenende (...)also jetzt gerade dass davor da war ich zuerst auf einer Fortbildung in Nürnberg (...) über em (...)Notfälle im Kindesalter und dann bin ich nach München gefahren und hab euch hier besucht und war (...) hat gegrillt auf dem Dach und (...)ja (...) hab lang geschlafen.
 -hmm,ehm kannst du mir über eine ärgerliche Situation oder etwas die dir in der letzte Zeit genervt hat, plötzlich genervt hat,oder, oder sonst wenn du, oder etwas die du hast, oder die nervt dich?
 -hmm (...)
 -etwas vielleicht die die Leute machen, oder vom Charakter aus?
 -mmm also genervt hat mich bei der Arbeit, dass em (...) ein (...) Vater mit einem Kind gekommen ist und das em (...)aus einer grüner Flasche ein, ein (...)einem Reinigungsmittel getrunken hat, was er in einer Spülflasche gefüllt hat und er hat angelogen und gesagt er war das nicht und er wüsste nicht was in der Flasche ist, und das Kind hatte eine Vergiftung und ich habe nicht gewusst was es war, weil er gelogen hat und gesagt em (...) er weiss nicht was es in der Flache ist, dabei er hatte selber rein gefüllt.
 -hmm
 -und den Kind ging halt nicht gut und es kam erst später raus, dass hat mich sehr geärgert.
 -hmm und kannst du mir über irgendeine glückliche oder positive Nachricht, die vielleicht dir passiert ist oder vielleicht andere Leute, etwas positives?
 -Positives? (...)eigentlich gibts ganz viele Sachen aber da fällt mir jetzt spontan gar nichts ein.
 -ok dann du kannst auch später...
 -ja doch,also (...) glücklich oder froh war ich wo ich wieder hier im Wohnheim war und alle Leute gesehen hab und alle so nett waren, irgendwie, als wäre ich gar nicht weg gewesen
 -ok,em was hast du studiert?
 -em ich hab (...) Humanmedizim studiert und noch 3 Semester Tiermedizin.
 -aha, em wie könntest du in em weniger Wörter das Internet definieren?
 - (...)hmm internet ist schnell, praktisch em (...) grösser Informationsfluss (...) em kommunikativ und (...) erweiterter Horizont.
 -ok, em was denkst du über den Tod und die Krankheit, die schwere Krankheiten?
 -mmm (...) also bei dem Tod mmm (...) ja, ich hab nicht so viel Angst vor dem Tod, früher hat ich auch eine andere Einstellung, da habe ich gedacht em (...)also auch wenn man früh stirbt,ist egal so lange man die Zeit genutzt hat bis da, jetzt denke ich abers anders drüber, dass es schon schön ist wenn man ein langes Leben hat, (...)em, schön es ist halt wenn man nicht lange krank ist davor sondern wenn man einfach so stirbt aus Gesundheit heraus, (...)em (...) ja.
 -hmmm, wie würdest du deine Stimme beschreiben?
 -(...) oh schwierig (hehe) also ich (...) hab das Gefühl manchamal dass ich lischpe, ich hoffe es stimmt nicht (hehe) ich glaube ich habe eher ne tiefe Stimme und (...)ung (...)ja ruhige Stimme, (...)denke ich.
 -hmmm, was ist für dich eine sexy Stimme für Frauen und für Männer?
 -sexy Stimme für Frauen ist für mich wenn sie oft tief aber so rauh und em (...)ja, tief und rauh sind die sexy stimmen und bei Männern es ist so(...) so ein Bass, ein ganz(...) ganz tiefer (...)klangvoller Bass.
 -hmm, und was ist für dich eine unangenehme Stimme?
 -unangenehm ist so qwäckig,also (...)
 -für Männer also auch für Frauen?
 -em, für Männer wenn sie so sehr hoch sprechen und für Frauen wenn sie, also entweder so so nach hoch piepstimme ham oder so qwäcken,das sind für mich unangenehm.
 -ok, das war alles, vielen dank.

Track 32

-Jana. Was hast du am Wochenende gemacht?

-mmm(...)am letzten Wochenende war ich im Deutschen Museum und(...) abends dann noch im Kino in (...) Wer Früher stirbt eh (...) ist länger tot, das war sehr lustig und ja sonst habe ich an meiner Seminararbeit gearbeitet.

-ok.eh kannst du mir über irgendeine ärgerliche Situation erzählen, die dir in der letzte Zeit in München passiert ist, zum Beispiel, oder etwas die dir von den Leuten nervt?

-Ich wurde neulich beinahe von einem Autofahrer angefahren, obwohl ich grün hatte, es hat mich etwas aufgeregt, zumal dass er sich auch aufgeregt hatte, und dass hat mir überhaupt nicht gefallen.

-ok, eh kannst du mir über eine traurige Situation erzählen, wie, vielleicht persönlich oder, oder etwas traurig die zu jemand die du kennst passiert ist, oder etwas einfach traurig in Fernseher gesehen?

-mmm(...)im fernseh sieht man jeden Tag viele traurige Situationen, so traurig macht den (...)Armut, oder dass, dass ich selbs das Gefühl habe, ich kann nicht viel dagegen tun als andere arm sind und ich denke ich bin relativ reich, oder (...)Umwelt Verschmutzung macht auch traurig, ja.

-ok eh irgendeine positive Nachricht in der letzte Zeit gehabt, etwas die dir, emm froh also oder glücklich gemacht hat?

-mmm(...)ja, meine Schwester hat jetzt einen Freund,es hat mich sehr gefreut.

-ok, eh was studierst du?

- Theologie und Philosophie.

-Ok, was ist internet?

-Internet? (hehehe) (...) also (...)Internet ist eine, ein riesiges fiktionales Gebilde in der man sich sehr sehr viele Informationen holen kann.

-ok, eh was denkst du über den Tod und schwere Krankheiten?Ist es etwas die dir Angst macht oder nicht?

-(...) nnn zum Teil ja aber (...)es es betrifft mich, ich habe nicht das Gefühl dass es mich jetzt schon so sehr betrifft, zu einem dass ich so jung bin, aber ich habe schon oft davon geträumt, wie es ist zu sterben.

-hmmm.ok eh eh, was ist eh ein Fuss im im Centimeter?

-mm(...)

-also ich meine die eh, die eh, die eh also die Unit of a Feet, feet?

-(...) ach so, oh weiss ich nicht.

-em wie beschreibst du deine Stimme?

-mm (...) sie ist recht tief und (...)ist ist vielleicht ein bisschen eintönig,(...)ja.

-ok, was ist für dich eine sexy Stimme für Männer, für Frauen?

-hmm (...) bei Männern (...) schon eher tief und bei Frauen so zwischen drinn nicht so piepsig aber ja (...) ja ein bisschen (...) ein bisschen volumen (...)da hinter, ja.

-ok.und unangenehme Stimmen bei Frauen bei Männern?

-Bei Frauen sehr hoch und piepsig und bei Männern (...) weiss nicht.

-ok. Danke

Track 33

-Judith. Was hast du am Wochenende gemacht?

-Am letzten Wochenende (...)egg, ich hab so viel (...) ah, am Samstag waren wir badminton spielen und dann abend (...) eh Oktoberfest, genau, nee des war am Sonntag abend, am Samstag abend war ich, ach meine Mutter war zu Besuch und mit ihrem Freund und waren dann, haben meine Zimmer neu gerichtet und am abend waren wir beim Mexikaner essen und am Sonntag (...) haben noch gefrühstuckt dann warn wir im Park, und dann war ich noch mit Freunden auf`em Oktoberfest und am abend war ich k.o.

-hehe, eh irgendeine ärgerliche Situation gehabt in der letzter Zeit, oder etwas die dir von die Leute genervt hat?

-eh (...) ne Freundin von mir hat em (...) gesagt dass sie mit mir über etwas sprechen muss, und dann wusste ich schon, dass es etwas unangenehmes ist,und(...) das ist jetzt aber hinter mir, war auch nicht so schlimm aber ich wusste eben, dass dass sie irgend etwas gestört hat, und sie könnte es mir nicht sofort sagen und dann hat das mich so über zwei drei Tage belastet, ich hab da drüber nachgedacht.

-hmm,ehh irgendeine traurige Erfahrung von dir oder von jemand anders,oder traurig im Fernseher?

-hmm,(...)dehh(...), dass mit dem(...) Unglück da, was war, jetzt hab ich vergessen,em (...) genau, dieses Transrapidunglück, sind einige Tote gewesen und (...)dann so was ist natürlich schlimm, aber persönlich hab ich jetzt nichts.

-hmm,em irgendeine positive Nachricht in der letzte Zeit gehabt, was?
-ja, mein Freund aus England kommt mich besuchen,(...)yuhu!
-hehehe, was hast du studiert?
-Ich habe Tiermedizin studiert.
-Was ist internet?
-Internet ist em (...) globales Netzwerk, Communication (...) es gibt alles im Internet, Internet ist universel einsetzbar(hehe), absolut essentiell geworden.
-ok, ehh was ist ein „inch“ in centimeter?
-drei comma irgendwas
-(hehehe) was denkst du über Tod und schwere Krankheit?
-schlimm (...) ja
-macht dir Angst?
- macht mir Angst,ja, auf jeden Fall.
-hmm, wie beschreibst du deine Stimme?
-(...) meine Stimme (...)hört sich heute morgen sehr verschlafen an und sonst ist sie sehr hoch und em (...) also für mich ist sie tiefer als für andere Leute glaube ich klingt, aber wenn ich es auf Aufnahmen höre, dann merke ich,wie hoch sie eigentlich ist,und so hoch ist sie mir nicht bewusst jeden Tag.
-ok, wie soll eine se, eine sexy Stimme sein, für Männer,für Frauen?
-Männer, tiefe Stimmen und (...) weich, (...)also sehr sehr warme Stimmen eben, und Frauen eher so rauchig und dann (...) ja ich glaube auch mit Akzent viel, wenn die Leute viel mit Akzent arbeiten, das ist auch (...) kann auch sehr sexy sein.Aber auf keinen Fall zu hoch.
-ok, und unangenehme Stimmen bei Frauen, bei Männern?
-piepsig und schrill bei Frauen, mit (...)bestimmte Betonungen so mit scharfen Lauten auch (...)und em (...) also wenn jemand das „s“ zu scharf spricht oder so,das finde ich sehr unangenehm und em (...) bei Männern wenn sie auch zu hoch sind oder sehr laut, wenn sie eben sehr laut werden, dann
-ok danke.

Track 34

-Mareike. Was hast du am Wochenende gemacht? Letztes Wochenende?
-(...)mmm eigentlich gelesen.
-mmm ok,em kannst du mir über irgendeine ärgerliche Situation erzählen etwas die dir in der letzte Zeit plötzlich genervt hat?
-(...)
-Vielleicht mit Leute oder allgemein etwas die dir normalerweise von den Leuten nervt?
-oh (...) schwierig (hehehe). Die Leute nerven mich nicht, mich nervt nichts, irgendwie letzte Woche war ich krank so was nervt mich dann (hehehe)
-ok emmm irgendeine traurige Erfahrung personal oder von jemand die du kennst oder etwas traurig im Fernseh gesehen?
-oh (...) meine Oma ist sehr krank und das finde ich traurig.
-ok eine positive Nachricht in em sagen wir mal letztes in dieses Jahr gehabt?Etwas die dir sehr glücklich gemacht hat?
- (...)emm (...)
-einfach was positives?
-ach positiv ist einfach dass ich in München wohne (hehehe)
-ok.em was studierst du?
-Musik. (...) Chelo.
- Ok, em was ist internet, wie kannst du Internet definieren?
-em,(...)Verbindung zu Freunden.
-ok, em wieviele Centimeter gibt es eh auf einem Fuss als Masseinheit? Die amerikanische System also auf Centimeter übertragen?
-em, neun und dreizig?
-ok, was denkst du über Tod und schwere Krankheiten?ist es etwas die dir Angst macht oder nicht?
-mmm(...) doch schon aber man sollte das Leben mal jeder Moment geniessen.
-mmm,ok, eh wie kannst du deine Stimme beschreiben?
-(...) oh das fällt mir schwer.Habe mich selten Gedanken gemacht (...) eh (...) normal, also (...)ja.
-em (...) was ist für dich eine sexy Stimme für bei Frauen bei Männern?

-hmmm(...) ja, bei Frauen eher flusternd. Und bei Männern (...) tief und bestimmt.
-Ok,em unangenehme Stimmen bei Männern bei Frauen?
-em (...) bei Frauen eigentlich zu hoch und ja (...)und bei Männern so rau vielleicht.
-ok, das war alles, danke.
-(hehehe)

Track 35

-Michaela. Was hast du letztes Wochenende gemacht?
-eh letztes Wochenende hab ich brav an meiner Doktorarbeit gesessen, habe gearbeitet, ja.
-ok, eh könntest du mir irgendeine ärgerliche Situation erzählen die dir in der letzte Zeit passiert ist, zu dir, zu jemand anders, etwas die hat dich genervt, einfach.
-Richtig genervt?hmm(...)
-oder ein bisschen.
-also da muss ich überlegen (...)
-und wenn nicht dann vielleicht dann etwas die die einige Leute machen die dir prinzipiell nervt.
-(...)Ja, also was mich ein bisschen nervt ist, dass ich wohne in nem Wohnheim und dann also wie die meisten Studenten halt in München und was mich wirklich manchmal stört ist em(...) na ja, die Wohnung ist ein bisschen hellhörig und meine Mitbewohnerin nimmt überhaupt keine Rücksicht und redt manchmal die Stereoanlage laut auf und dann muss ich immer eingreifen, das ist nervig,ja
-ok emm irgendeine traurige Erfahrung persönlich oder unpersönlich, etwas im Fernseh oder gelesen?
-hmmm,also was mir als letztes einfällt ist das (...)em das war vor ungefähr drei Wochen(...) hab ich mit nem Freund telefoniert, den ich lange nicht erreicht hatte und ich wusste die ganze Zeit nicht wieso (...) und dann hat er mir erzählt, dass sein Vater in Urlaub gestorben ist, als er ist mit seiner Mutter weggefahren und dann ist noch seine Mutter im Leben zurückgekommen und hat gesagt also(...)tja, dass der Papa im Sack nach kommt.
-ok, eh irgendeine positive, positive Nachricht im letzten Jahr gehabt, etwas die hat dir...?
-ganz viele, also ich habe ein wirklich ganz ganz tolles Jahr gehabt. Ich bin wirklich ziemlich glücklich jetzt so grade (...) und also, dass allerletzte, was mich wirklich super gefreut hat,war dass ich jetzt ein Stipendium, ein Stipendium jetzt gekriegt hab für meine Doktorarbeit (...)ja.
-ok, gut.em was hast du studiert?
-ich hab eh (...) in Heidelberg studiert(...) meine Fächer waren Germanistik, romanische Sprachwissenschaft, slavische Sprachwissenschaft und (...)Erziehungswissenschaft, Pädagogik.
jetzt bin ich auch nicht so(...) eh so technik bewandert, dass ich hmm (...)na ja, ich finde es ne jetzt ehh(...) für Studenten in so ganzgreffig ich finde es eine ganz tolle Sache ist und ganz ganz tolle Informationsquelle wo man sich vorinformieren kann, natürlich muss man alles überprüfen und em nochmal woanders nachlesen aber für die erste Information finde ich es echt gut.
-ok, eh und eh wieviele Centimeter kannst du auf die Einheitmass Fuss finden, auf einem Fuss finden?
-pfffff(...)auf nem Fuss?(...) also bevor ich jetztmal was ganz blöde sag, sage ich lieber gar nichts(hehehe).
-ok
-ein Fuss (...) einfach, nein (...) ein Fuss (..)ne, das ist, ne, ich glaub ich red, ich werd blödsinn reden, ich hab das irgendwann, haben wir das ungerechnet im Englischunterricht(...)
-keine Problem, kein Problem. Eh
-ich glaub es ist so ein englisches
-ja ja es ist ein englisches Mass
-ein Mass,ne?
-eh was denkst du über Tod und schwere Krankheiten, ist est etwas die dir Angst macht oder überhaupt nicht oder?
-mmmm(...)also ich muss sagen so biographisch hatte ich schon ziemlich Verwirrungspunkte also auch in der Familie als ich junger war, deswegen also kann ich jetzt nicht so sagen, also ja es gehört zum Leben dazu,ne also eigentlich nicht.
-ok.
-ist natürlich nichts angenehmes (hehe)aber gehört dazu.
-wie beschreibst du deine Stimme?
-euhh(hehehe)
-wie nimmst du deine Stimme wahr?
-oh ja(...) mm(...) das ist eh (...)mmm also ich hab sie sehr oft gehört auf Band auch weil ich mach mich nicht mehr darüber so viele Gedanken einfach, also ich meine es klingt jetzt ganz komisch aber ich hab sie es jetzt so oft auf Band gehört, einfach durch meine eigenen Transkriptionen, weil ich so viele Leute, dass ich-
-und wie ist das?

-eh ja (...)also wie gesagt so dass ich jetzt keine Gedanken mehr drüber mache.Jetzt ganz im Ernst, also es ist jetzt nicht so, dass ich em ich(...)ja em,also ich kenne Leute die zum Beispiel meine Schwester hat einmal eine Video Aufnahme oder irgendetwas ich weiss nicht mehr ganz genau gemacht im,im,also irgendwo in in ne neue Wohnung eingezogen ist , so als Spass, und dann hat sie, ja ihre Stimme hat ihr nicht gefallen, oder so was würde ich nie sagen,also mein ich generell, würde ich es nicht, aber emm (...)ich mache mich darüber wirklich nicht so viel, weil ich so viel transkribieren muss und dass ist schon so im Unterbewusstsein, dass ich ständing am Schreibtisch sitzte und

-ok,ok.und was ist für dich eine sexy Stimme bei Frauen bei Männern?

-pffff(...)eh person jetst am besten, wahrscheinlich,ne?also(...)irgendeine Person wo,hmm(...)

-vielleicht überlegt jemand vielleichtganz berrümt,die du glaubst ok, der hat eine sexy Stimme und warum dann?

-(...)emm(...)ehrlich gesagt da muss ich ganz viel nachdenken, das ist immer so ziemlich situativ abhängig aber ehrlich gesagt sowas wo ich wirklich gemerkt hab

-ein Schauspieler, der vielleicht hat eine sexy Stimme?oder Frau auch,egal.

-hmm, hmm,also ich weiss schon,tut mir Leid, jetzt so so spontan kann nicht mehr, ich, grade bei emm(...)na klar, doch gibt es, em(...)ja doch,em(...).Hmm, also da gibst eine Frau die finde ich,sie ist eine Sängerin und die Stimme finde ich richtig gut(...) wie heisst sie nochmal (...) ich glaub Norah Jones.

-Ja ich kenne sie.

-Die finde ich richtig cool.

-aber könntest du sagen warum?oder welche Merkmale hat ihre Stimme?

-(...)tt, haa(...) es ist schwer, schwer zu beschreiben irgendwie(hehehe)

-ok und eine unangenehme Stimme was ist es für dich, bei Frauen bei Männern?

-ohh, da da fällt mir,(..)he,hab ich so ne, vielleicht hab ich lange Zeit in Romänien gearbeitet nachdem ich eh(...) in Heidelberg mein Studium beendet hatte und em (...) da war ein Techniker der hat auch, also ich hab bei der Caritas in der Pressestelle(...) gearbeitet für ein Paar Monate und em (...)da war so nem, ja so nem eh, also ich weiss(...)ich weiss nicht mehr wie er hiess aber ich weiss nur dass er, es ist mir wirklich seit Jahren in Erinnerung, es bleibt mir immer, ich glaub ich werde es nie vergessen, er hatte so eine richtig kratzende em unangenehme unmelodische Stimme gehabt(...) und ich fand es so unangenehm, der war eigentlich ein ganz ganz netter Mensch, aber wenn er angefangen hat zu reden,oh ich hab die gressel gekriegt(...)oh, das war wirklich so schlimm und em das hat mir irgendwie, das das (...)ich hatte immer diese Empfindung mir hat es total leid getan, weil der wirklich richtig nett war aber so unmelodisch und gelaiert, das war ein Techniker im Romänien der em(...)also er war nicht bei der Caritas angestellt sondern der hat nur em(...) der wurde in nem Kloster so rumgeburt, (...)im Hof und dann wart er da und da war in der nähe da habe ich gewohnt und auf jeden Fall ich hatte bei ihm öfter zu tun und immer wenn was kaputt war,war er auch bei der Caritas und er (...)es war ganz schlimm(hehehe)

-vielen dank.ich überprüfe nur ob alles...

Track 36

-Sarah, was hast du am Wochenende gemacht?

-Letztes Wochenende? (...)em , ich bin nach Basel gefahren und war mit ein paar Leute so wandern, ganz schön draussen, wir haben Feuer gemacht

-ok, em kannst du mir über irgendeine ärgerliche Situation erzählen, also etwas die dir in der letzte Zeit plötzlich genervt hat?

-Meine Mitbewohnerin nervt mich öfter,em (...) weil sie immer viele Sachen mit mir machen will und ich möchte lieber meine Zeit für mich haben, wenn ich nach Hause komme und sie will immer zusammen essen, zusammen kochen oder reden die ganze Zeit und ich möchte lieber meine Ruhe haben.

-mmm,ok, irgendeine traurige Erfahrung in der letzte Zeit gehabt oder vielleicht nicht zu dir passiert sondern jemand die du kennst oder etwas trauriges im Fernseh gesehen?

-(...) ja ich habe mich von meinem Freund getrennt em vor ein paar Monate und das zieht sich immer noch zuhin und das ist (...) ein bisschen schwierig,ja.

-em irgendeine positive Nachricht in der zum Beispiel in, letztes Jahr, in der letztes Jahr gehabt etwas, etwas positiv?

-mmm(...) positive Nachricht? (hehehe)Tut mir leid es fällt mir nicht so schnell ein.

Aber gut, zum Beispiel gestern habe ich mich gefreut, da war ich noch in Freiburg, wo ich wohne, und dann habe ich die email von Kirsten bekommen, dass sie hier sind und aufs Oktoberfest gehen und dann habe ich ganz spontan beschlossen dass ich auch hierher fahre, und das war eigentlich eine so positive Nachricht.

-ok,cool. Em was hast du studiert oder bis jetzt studiert?

-ich studier jetzt Psychologie in Freiburg.

-ok, was ist Internet? Wie kannst du Internet so definieren?

-Internet ist ne Verbindung zwischen ganz vielen Menschen überall auf der Erde, wo man sich(...) Informationen austauschen kann.genau.

-ok, emmm wieviele centimeter gibts in einem Fuss?
 - (...)Dreizig, glaub ich.
 -ok, was denkst du über Tod und schwere Krankheit, ist es etwas die dir Angst macht oder überhaupt nicht?
 -Macht mich schon Angst, vor allem Menschen zu verlieren, die mir die mir wichtig sind.
 -ok, und wie beschreibst du deine Stimme?
 -em (...) ich höre immer von anderem, dass sie samft klingt und em (...) weich, für mich klingt sie eher dunkel eher tiefer(...) also nicht so hoch.
 -ok,ee was ist für dich eine sexy Stimme bei Frauen bei Männern?
 - bei Frauen noch ne tiefere Stimme als ich hab und em(...)auch so ein bisschen verrauht, em(...) bei Männern auch eher ne tiefe Stimme.
 -ok, und was ist eine unangenehme Stimme dann bei Frauen bei Männern?
 -bei Frauen wenn sie ganz hoch ist und so piepsig, das kann ich nicht haben und bei Männern (...) ich glaub auch wenn sie zu hoch ist und nicht so richtig männlich.
 -ok, wunderbar, das war alles.
 -ok,super.

Track 37

-Steffi, was hast du am Wochenende gemacht?
 -(...) am Wochende war ich bei meinen Eltern (...) und habe eigentlich nicht viel gemacht (...) eher gemütlich und gefaulenzt
 -ok, eh kannst du mir irgendeine ärgerliche Situation erzählen, etwas die dir in der letzte Zeit genervt hat?oder etwas die die manchmal die Leute machen die dir nervt?
 -genervt hat mir, dass ich so viel Ärger hatte wegen dem Arbeitsamt und dem Praktikum, dass das Arbeitsamt das Praktikum nicht fördern will.
 -ok irgendeine traurige si, traurige Erfahrung für dich oder für jemand die du kennst?oder etwas traurig im Fernseh gesehen?
 -in letzter Zeit, nein.
 -ok, em irgend dann etwas glückliches in der letzte Zeit oder positive Nachricht gekriegt?
 -das ich das Praktikum gekommen hat.
 -ah ok, em was hast du bis jetzt studiert?
 -angefangen habe ich mit Wirtschaftsinformatik aber hab es nicht fertig gemacht.
 -hmm.em, was ist internet?wie kannst du Internet definieren?
 -(...) mmmha (...) mmm hehe ohje, em (...) ah das ist schwierig zu (...) beschreiben. Ein mmm(...)elektronische Netz, emm (...) dass sehr weit verbreit ist (hehe)
 -ok, was ist emm ein Inch in Centimeter?
 -(...)oh, da muss ich raten (...)dreizig comma eins vier ja (hehe)
 -ok, em was denkst du über Tod und schwere Krankheiten,ist es etwas die dir Angst macht oder nicht?
 -ja, ja, macht mir Angst.
 -ok,em wie beschreibst du deine Stimme?
 -mmm(...) nicht zu hoch denk ich,also ich denk eher für ne Frau tiefere Stimme em (...) und dann schwirig, wenn es mir gut geht eine (...) gute Stimme und morgens etwas (hehe) übermüde noch.(hehe)
 -ok, wie soll eine sexy Stimme sein, bei Frauen bei Männern?
 -(..) auf keine Fall zu monoton (...) und bei Männern auf jeden Fall tief.
 -ok, und unangenehme Stimmen für Frauen für Männern?
 - (...) unangenehme Stimmen sind em (...)ganz hohe Stimmen oder so piepsige Stimmen(...) oder so ganz monotone Stimmen.
 -ok, danke.

Track 38

-Susi, was hast du letztes Wochenende gemacht?
 -Letztes Wochenende war ich beim wandern am Herzogstand.
 -ok.eh kannst du mir über irgendeine ärgerliche Situation in der letzte Zeit vielleicht in der Arbeit etwas dass jemand gemacht hat das hat dich genervt oder...?

- es ist bereit viel Stress in der Arbeit weil ein Kollege von mir gerade weggeht und dann kommen alle Anfragen auf mich und ich habe so das Gefühl dass ich kann gar nicht (...) eh ich weiss gar nicht was ich tun soll (...) und das ist vielleicht eine ärgerliche Situation manchmal.

-hmm, eh irgendeine traurige Situation, Erfahrung von dir oder von jemand die du gut kennst, oder einfach etwas trauriges die du im Fernseher vielleicht gesehen hast oder gehört.

-am (...) ich hab gehört von einem Unfall, also eine Familie war beim bergsteigen und die Mutter ist vor den Augen des (...) Vaters und der der beiden Kindern abgestürzt und tödlich verunglückt.

-hmm, eh eine positive Nachricht, etwas glücklich in der letzte Zeit passiert, die hat dich total gefreut?

-ehhh (...) (hehe)

-oder vielleicht kann es eine Kleinigkeit sein, etwas die dir plötzlich eh gefreut hat.

-eh (...) jetzt fällt mir gerade nicht ein, also (...)

-ok ok, kein Problem. Was hast du studiert?

- Ich habe Mathematik studiert, (...) Finanz und WirtschaftsMathematik.

-ok, eh was ist Internet?

- (...) Internet? Eh (...) Internet ist ein, ein weltweites Netz in dem man Informationen austauschen kann und alles mögliches finden kann.

-ok, eh was ist ein eh ein Fuss in centimeter?

- (...) ein Fuss die Einheit Fuss?

-hmm.

-Ich weiss es nicht, ich würd mal schätzen dreizig centimeter?

-ok was denkst du über den Tod und schwere Krankheiten, ist es etwas die dir Angst oder nichts?

-Kommt auf meiner Stimmung an, wenn ich genauer drüber nachdenke dann ja.

-hmm, wie beschreibst du deine Stimme?

-Meine bestim, emmm (...) wie ich sie beschreibe (...) also wenn ich mich selber höre dann komm sie mir ganz eigenartig vor (...) und ansonsten werd ich sie als (...) vielleicht etwas eher monoton beschreiben.

-ok was ist eine sexy Stimme für dich, für Männer für Frauen, wie soll eine sexy Stimme sein?

-zum Beispiel bei Frauen diese Susi Stimme aus dem Herzblatt die ein bisschen, die ein bisschen was rauchiges hat, und bei Männern eher eine tiefe Stimme.

-ok, und eine unangenehme Stimme für Frauen ...?

-eine schrille Stimme bei Frauen ist sehr unangenehm und bei Männern auch eine hohe Stimme.

-ok, das war alles.

Track 39

-Ulrike. Ulrike, Was hast du am Wochenende gemacht?

-uy, ich war in Frankfurt mit meinem Freund, (...) seine Familie besucht, die Stadt angeschaut.

-ok, em kannst du mir über irgendeine ärger, ärgerliche Situation in der letzte Zeit eh erzählen oder etwas die dir genervt hat, oder etwas die du gehast hast? vielleicht nicht zu dir passiert sondern jemand an die war neben dir?

- (...) mmmm (...) lass mir überlegen (...) also was mir ein bissl geärgert hat war zum Beispiel heute dass mir keinen gesagt hat dass dem schwein von gestern so schlecht gegangen ist, und ich im Endeffekt im Moment dafür verantwortlich bin seit gestern, es war ein bisschen ärgerlich.

-hmm, eh kannst du mir über eine traurige Situation, etwas traurig von der Vergangenheit, vielleicht nicht unbedingt zu dir passiert oder jemand anders?

-nicht unbedingt.

-hmm, eh eine glückliche oder positive Nachricht in der letzte Zeit gekriegt?

- (...) hmmm (...)

-eh, was studierst du, was hast du studiert und was machst du jetzt momentan?

-Tiermedizin studiert und im moment mache ich mein Doktorarbeit im Badesfeld draussen (...) mit diesen transgenischen Schweinen, und (...) die werden geklont und mein Thema ist er in Vitro fertilisation (...) so beschäftige i mich momentan damit, deswegen den Schwein von vorher. (hehe)

-ok, em kannst du in weniger Wörter eh das Internet definieren?

- (...) oh pu si (...) internet? tja (...) Internet Information auf allen Ebenen, also man kriegt viel Information, kannst du mit anderen verständigen (...) Austausch (...) so würd i ungefähr das Internet benutzen, ja

-ok, was denkst du über Tod und Krankheit, was ist deiner Meinung?

-Tod würd ich sagen (...) ist das wie spät es ist es kann eh (...) eine Lösung sein, aber genau so ganz schlimm wenn irgendein jünger (...) lebendiger Mensch plötzlich stirbt und Krankheit, (...) ja kommt immer darauf an welche Krankheit (...) also leichte Krankheiten ganz normal und schwere Krankheiten (...) tchi hmmm (...) nicht so schön.

-em, wie beschreibst du deine Stimme? wie kannst du deine Stimme beschreiben, Ulrike?

- meine Stimme?
 -ja.
 -keine Ahnung, em (...) ich rede relativ viel (hehehe) aber (...) amsonsten...
 - von Qualität aus?
 - was meinst du also höhen tiefen?
 - genau. Solche Sachen, wie stellst du dich vor, dass deine Stimme klingt?
 - also ich denk sie geht relativ viel auf und ab, also(...) ruhig ist sie denke ich nicht aber (...)ja.
 -ok was ist für dich eine sexy Stimme? und vielleicht, also vielleicht es ist nicht das gleiche für Männer als für Frauen, also wie würdest du eine zum Beispiel männliche sexy Stimme und eine weibliche sexy Stimme beschreiben?
 -(...)also (...)sexy Stimme denke ich mal ist für mich einfach ne angenehme Stimme und die sollte nicht schrill sein und nicht brummend ansonsten (...) denke ich ist es so abhängig.
 -hmm,ok und zuletzt dann was ist für dich eine unangenehme Stimme?
 -wenn sie schrill ist oder boomt oder quietscht(hehe) so was mag ich gar ned.
 -ok, vielen dank.
 -ja.

Track 40

-Wencke, was hast du am Wochenende gemacht?
 -Ich hab Wohnungen angeschaut, denn ich muss umziehen.
 -Ok,ehh kannst du mir über irgend irgendeine ärgerliche Situation in der letzte Zeit erzählen, vielleicht etwas die dir genervt hat?
 -(...) oh, genervt hat mich, dass ich auziehen muss, aus meiner schönen Wohnung,ja.
 -ok, und irgendeine traurige Erfahrung em von dir oder von jemand die du gut kennst in letztes Jahr sagen wir mal oder etwas traurig im Fernseh vielleicht gesehen?
 -mmmm(...) da muss ich überlegen (...) was trauriges (...) im Moment fällt mir gar nicht trauriges ein (hehe)
 -ok,kein Problem, irgendeine positive Nachricht in der, letztes Jahr gehabt?etwas, ja glückliches, oder positiv und...?
 -emmm(...) doch da fallen mir viele Sachen ein, aber im Moment (...) was positives (...)
 -entweder personal oder oder von Studium,oder...
 -Ja positiv auf alle Fälle, dass ich ehhh(...) in LIPP aufgenommen wurde und dass damit sozusagen mein Traum(...) also weiter voran immer mit meinem Traum weiter machen kann, das war positiv, ja das stimmt.
 -stimmt.ehh was hast du studiert?
 -Ich habe Deutsch als Fremdsprache und Erziehungswissenschaften studiert.
 -ok, was ist internet?wie kannst du Internet definieren?
 -Internet ist ein Medium, dass es ermöglicht em (...) ja von jedem Ort auf der Welt aus an jedem anderen Ort auf der Welt em (...) ja(...) zu korrespondieren oder mit jedem anderem Ort der Welt zu korrespondieren.
 -ok, emm, eh wieviele Centimeter gibts in einem Fuss als Einheitsmass?
 -die Amerikanische?
 -hmmm.
 -(...) ich weiss es nicht (hehehe)
 -Ok, was denkst du über Tod und schwere Krankheiten? Ist es etwas die dir Angst macht oder nicht oder?
 -(...) Tod macht mir nicht so viel Angst aber schwere Krankheiten sehr.
 -ok, em wie beschreibst du deine Stimme?
 -mmm(...) das ist eine schwierige Frage, ehh (...) wahrscheinlich hast du die Antwort schon öfters gehört, aber (...) es fällt mir schwer meine eigene Stimme zu hören, weil sie dann zu (...) zu hoch finde, also ich empfinde sie als hoch.
 -ok emm was ist für di, für dich eine sexy Stimme bei Frauen bei Männern?wie soll das sein?
 - bei Männern ist eine sexy Stimme am (...) am Tag nach (...)einigen Bieren und (...) bei Frauen (...)emm (...) eine sexy Stimme (...) ja ebenfalls nach einer Nacht mit vielen Zigaretten und einigen Getränken.
 -ok, und eine unangenehme Stimme bei Frauen bei Männern, was ist es?
 -(atmet) ehh(...) also unangenehme Stimmen finde ich wenn sie wirklich extrem hoch sind, so ganz (...)piepsige, leise aber auch gleichzeitig hohe Stimmen wo man, das ganz genau sich konzentrieren muss, um alles gut zu verstehen.
 -für die beiden, Männer und?
 -genau, für beide,ja.
 -vielen dank.

Track 41

-Catherine. Catherine, what did you do last weekend?
-er, last weekend I (...)di, I went to Oktoberfest.
-hmm any annoying experience here in Munich since you've been here?
-I think the only annoying experience has been people in our group,(hehe).
-yeah?
-they are particularly wild and (...) in inappropriate situations, and just(...) generally being with(...) really annoying people all the time.
-hmm ok. Em any sad experience err that has happened to you, to somebody close to you, something sad you've seen or heard on TV?
-emm(...) I have a lot of like gay friends and things and we were (...) talking about some gay tourists in Prag who were beat up and that is (...)pretty unsettling.
-hmm.ok any positive news you've had in the last year, something that made you suddenly very happy?
-mt emm (...) my sister got a job as a chef and it took her a while to figure out what she wanted to do with her life,so (...)
-ok, very good.em what are you studying now?
-here we are just studying German but at my university I study history and gender studies.
-ok, em what is internet?
-Internet is emm(...) a network on the computer, (...) lots of information, and (...)communication and(..) yeah.
-ok, what is the measure of a foot in centimetres?
- a foot in centimetres? I don't know (CREAKY VOICE).
-ok. Em what do you think about death and several, em serious illnesses, it's something that scares you or?
-I don't really think about it too much,I mean, the only people who have died in my life have been my grandparents and(...) it's just one of these things that I guess is inevitable, so there's no real point in (...) dwelling on it.
-ok,em, how would you describe your voice?
-my voice? (...) em (...) well, it sounds (...) pretty low to me, but I know (...) that it is really funny when I listen to voicemail message I've left.
-hmm,em how should a sexy voice be according to you, for men for women?
-hmm, well (...)I guess some then that television both are pretty low.
-hmm and an unpleasant voice?
-(...) nasally.
-ok, for men and for women?
- yeah, I also hate when women like have (...)“squeaky eses”
-ok,
-yeah
-that's it, thank you.

Track 42

-Christina. Eh Christina, what did you do last weekend?
-em (...) this last weekend we went to Oktoberfest.
-hmm
-yeah, (...)em we also then went to eat at an Italian place that was in the city.
-hmm, we walked around Marienplatz and then (...)went shopping.
-ok, em could you tell me of anything annoying that has happened to you maybe since you are in Munich, something that got on your nerves,somebody something that somebody did?
-Oh I know, to tell you about, I went to Markfeld, to go buy like(...) you know, groceries and stuff and em, and I didn't know that you are supposed to get the sticker to put on like your fruits and vegetables to tell them how much it costs,(...) and I forgot, so em,(...) I got up there was a lady like, hey ye,you need to have a sticker but you know,but in German, and I didn't know what she was saying, so she was like kind of yelling at me for a while and then finally I run over to the information desk and then they did it for me but,(...) it was really embarrassing (hehe)
-hmm em anything sad maybe that happened to you or to somebody close to you, that you thought oh that's a sad story or maybe something you saw on TV or?
-oh,em (...) oh, it's kind of upsetting like em, everything with the pope that just happened, like(...) like what he said like about Muslims and Islam made everybody kind of unhappy and others like protesting him, everything was like(...) harder that it was before I think.
-hmm,em anything positive in the last week, anything that really made you happy suddenly?good news...

-em(...) my computer speakers started working again, so (...) they were broken and they just finally (...)started working (hehe).

-hmm, what have you studied until now?or what are you studying?

-em German and physics.

-ok, what is internet?

-em (...)like what is it?

-define it.

-oh,em (...)it's a er (...) a web linking computers all over the world so we can communicate (hehe).

- hmm. Ok, Em what is eh the measure of a foot in centimetres?

-em I have no idea.

-ok em what is your opinion about em death em and severe illnesses, is it something that scares you, that doesn't scare you, something you don't think about?

-em I don't think about it a whole lot, actually.Like I don't (...) noone close to me has really died and em I don't think about it.

-ok, em how would you describe your voice?

-my voice?(..)I think it's kind of deep and a little bit congested sounding (hehe).

-ok, what is for you a sexy voice for men and for women?

-em a sexy voice? In a guy, it's kind of deeper, I don't know, like people that like rumbly(hehe),em for a girl (...)I think it's more kind of(...) breathy.

-ok, and an unpleasant voice, for men, for women?

-ehhh nasal (hehe)yeah (...) nasal or just loud.

-ok, thank you very much.

Track 43

-Kritine.what did you do last weekend?

-last weekend it was my birthday, so em (...)on Friday night we had a party and then on Saturday I just went out to lunch and dinner with one of my good friends and (...) then at night we watched this really weird movie (hehe) and then I went to bed.

-ok and can you tell me any annoying experience since you are in in Munich, something that maybe got on your nerves, something german maybe people do that may not...?

-em(...)well on the subway, like everybody is looking at each other, which is kind of weird, em but it's not like that is too annoying, but in the supermarket,(...) sometimes I have problems, like when I had to weigh out vegetables and stuff like that I didn't know how to use the machine,so I don't know,yeah..

-hmmm.ok,em could you tell me of something sad, maybe something that's happened to you or to somebody close to you, in the last year, or something sad you saw on TV?

-em well (...) my grandpa died last year, so (...) it was like kind of hard for my family, but yeah (...)

-ok, em a positive news you had, something very good that happened to you in the last year and you were really happy about it?

-well, I moved to Munich.(hehe)yeah.

-em what are you studying?

-em right now I am studying foreign languages and literature but (...) I am not really sure if I wanna keep on doing it.

-ok what is internet, how can you define the internet?

- the internet, it's err(...)(hehe) emm(...)em it's a bunch of computers,like (...)hooked up to one main (...) it's called the world wide web.

-ok hmm,ok, what is the measure of a foot in centimetres?(heheh)

-err(...) I have not idea (hehe).

-ok em what do you think about death and serious illnesses, is it something that scares you, something you don't think about?

-well(...) I mean (...)I try not to think about it fervently myself, like to me,to myself, but it's a natural part of life.

-ok, how would you describe your voice?

-em (...) I don't know.(hehe) I think I have a weird voice, I don't know(hehe).

-(hehe) wha what is a sexy voice, for men and for women?

- that's hard.it depends (...)

-think if maybe of an actor, somebody famous you know has a sexy voice and then try and tell me why that is sexy.

-I guess like for guys like deeper voices, I don't know.

-hmm

-like change (...) change, err(...)like pitches, like not, not like a monotonous and yeah.
-yeah, and for women the same you think?
-yeah, yeah.
-ok and the last thing what is an unpleasant voice for you?
-really high pitched,like(...) I don't know squeally,like annoying.
-ok,thanks a lot.
-you are welcome.

Track 44

-Cindy, Cindy, what did you do this weekend?
-emm,...) see on Friday I went to a party, em(...)from a new housewarming party, from a couple of guys,em (...) and buff(...)stayed there for a while (hehe), em,met some (...) some nice people, em and then em(..) Saturday I slept much of the day in recovery, am (...) and then Saturday night(...)eh I made dinner with some friends and now it's Sunday and I am em just trying to catch up with some work that I didn't get done (..)all weekend.
-hmm, em can you tell me of something annoying that has happened to you maybe in the last week or somebody who got on your nerves because they did something you didn't like?
-em (...)yeah let me think for a second (...) yeah em here in my house we have a microwave,which I think it's broken,...) it's smokes every time somebody uses it and(...) it stinks and it's a microwave so I think that's probably really dangerous, and there's a guy that continues to use it, even though I ask him not to, and he thinks it's fine but he turns it on and leaves the room and I am standing there cooking and I think it is very dangerous for me(...) and he's (..) he continues to use it and kind of gives me attitude and I think that's a bit rude.
-hmm, em could you tell me of anything, anything sad, whether in the last week, in the last month, if it is not something personal then something that happened to somebody close to you that you thought was sad?
-hmmm, em (...)a friend of mine is,...) em has been looking for work for a while and he (...) actually got a job, but he wasn't able to get a Visa so he couldn't take the job. He is still looking, hasn't found anything else yet and (...)em the worse part is that his mother, em who lives in in another country, that he is a foreigner, em calls him everyday and kind of errr(...) complains that he hasn't found work and she doesn't believe that he is trying and (...)em he is already having a hard enough time dealing with the rejection and (...) she she doesn't actually understand what it's like here and she is accusing him of just partying and it's(...), it really affects of course, it's his family who he loves and it's,it's, it's sad to see that.
-hmm,em could you tell me maybe now of a posi, positive news or something good that happened to you in the last, say month? something that, or just something that you thought at that moment, hey that made me happy.
-hmm, em (hehehe),let me think a second (...) emm (...) can you just turn it off for a second while I think?no,ok, buff....(...) something good (...) I can't think of anything right now, I am sure there is something, we can go back yeah.
-em, what, what have you studied until now?
-what have I studied?
-yeah.
-in college?
-yeah.
-em(...)fffirst chemistry(...) then em politics(...), then german as a foreign language,...)(hehehe)then literature,eh(...) general literature, and now Nordic philology is my(...) major.
-hmm, what is internet?
-Internet (...)is (...)well I'm not really sure what it is, but(...) I guess it doesn't really exist in any kind of visible way (...)em but it's eh(...)a means of connecting people.
-emm eh what is a foot in centimetres?
-a foot in centimetres is about thirty centimetres.
-ok,em what is your opinion about death or very serious illnesses, is it something that scares you, don't scare you at all?
-em (...) well,...) of course it's a bit scary but I think I have a pretty good handle on it em in this sense of, I'd thought about it enough that I
I think that (..) I'll deal with it as well as anybody can when the time comes.
-hmm, em how would you describe your voice?
-em, well (...) to me it sounds pretty normal but when I hear it on a(...) on a recorder it,it sounds really young to me.
-em you think there is a big change when you speak in German to when you speak in English, just in terms of your voice?
-the the tone of my voice, you mean?
-hmm.

-yesss(...)maybe really not a big change, but certainly, certainly different.
 -what is for you a sexy voice for men, for women? How should it be?
 -emm(...) well definitely not high,(hehe)(...) lower, lower is probably better, especially for men.
 -ok, for women?
 -for women,em (...)not shrill.
 -ok,and what is em an annoying voice?
 -(...) I would say an unpleasant voice would be very nasal (...)and (...)shrill.
 -ok, thanks, eh anything positive by the way, that you remember or we just leave it?
 -em, we'll have to leave it for now, sorry.
 -ok,thanks.
 -hmm.

Track 45

-Emily.Emily what did you do last weekend?
 -em (..) I went (...)oh, I went to Oktoberfest with some friends and watched the parade.
 -ok em any annoying experience since you are in Germany,something that got on your nerves?
 -em (...) nothing that gets on my nerves but I find it really funny that I, that the Ei that the eggs aren't in the refrigerator (hehe).
 -(hehe)em any sad experience that happened to you,to somebody close to you, or something sad you've seen or watched on TV?
 -em (...) I can't think of any right now.
 -ok any good news that you've heard you had last, in the last year, say something that made you happy?
 -em that I got to go on this exchange programme.
 -ok.em, where are you studying?
 - I am studying here at the Ludwig Maximilian University and in America I study at the university of Pittsburg.
 -ok em what is internet?
 -(hehe) the internet is (...) em a billion little micro-cables connecting everything.
 -ok, em what is the measure of a foot in centimetres?
 -oh christ(...)thirty three centimetres?
 -ok, em what do you think about death and serious illnesses, is it something that that scares you or something?
 -em (...) I guess not really because you can't really control it, so it not (...) worth worrying about.
 -ok. Em how would you describe your voice?
 -my voice? Em(...) In my head in sounds good but when I hear it on recorders it's really kind of squeaky and annoying.
 -ok em what is a sexy voice for men, for women?
 -em (...)for men er deeper but not too deep and (...) speaking slowly and for women em (...)errr(...)like a middle range voice.
 -ok, and unpleasant voices for you,for men for women?
 -em(...) for anyone like kind of a high pitched (...)squeaky voice.
 -ok, thanks a lot.

Track 46

-Emily,em what did you do last weekend?
 -em I went to the Alabama halle (...)and we tried to go (..)to a beer tour but we kind of missed it cause we(...)stopped to wait, but (...)yeah.(hehe)
 -ok. Any annoying experience happened to you since you are in Germany?
 -em(...) not really that I can think of, not anything in particular.
 -ok.anything that maybe gets on your nerves,something that people, some people do, that you don't like?
 -em (...) I'm sure there's lots of things I don't like (...)
 -think maybe of personality traits, something you don't stand.
 -em it's so hard (hehe)(...)I can't think of anything in particular right now.(...)sorry.
 -ok, any any sad experience happened to you or to anybody you know, or anything sad you saw on TV maybe or heard?

- em my sister got a DY, that was kind of (...)sad, yeah
 -hmm, ok,any positive news this year?something that made you suddenly really happy?
 -em, my family is coming for Christmas and that's really exciting, (hehe)
 -ok em, what are you studying?
 -I am studying(...) German, Spanish and Wirtschaft.
 -ok em what is internet?
 - that's it. sorry (hehe) I said that in German, economics, but anyway, em what was the question?
 -em that wha, what is internet?how do you define internet?
 -canIwish in the world everything is so connected, it connects everything to any and ever and everything is(...) yeah
 -ok how many centimetres are there in the unit of measure of a foot, of a foot?
 -like thirty(...)three?
 -ok, what do you think of death or serious illnesses?is it something that scares you or not?
 -em kind of but I do not think about it, I try to (...) just move each day instead of worrying about what might happen.
 -ok, em how do you describe your voice?
 -(..)em(..) I don't know it's (...)hard cause what I hear is different from what other people hear so, (..)let say it's pretty (...) normal more or less (...) (hehe)
 -em what is a sexy voice, for men for women?
 -em for guys kind of a deeper, like (...) deep, I don't know,(...) it's a sexy voice(hehe) for women, I don't(...) a little bit deeper but not too like smoker's deep or anything(...)yeah.
 -ok, and unpleasant voices, for men, for women?
 -squeaky voices like(...) annoying squeaky voices (hehe)
 -for both?
 -yeah (...) like too high, like even for girls,(...) squeally and (..)annoying(hehe)
 -ok, thank you very much.
 -(hehe)

Track 47

-Gabrielle. Gabrielle, what did you do last weekend?
 -(...) last weekend, I (...)went to the gym.
 -ok could you tell me any annoying experience you've had since you are in Munich?
 -oh yeah, there's this guy next to me, and he plays his freaking electric guitar (...)at seven, eight o'clock in the morning, every morning and he's awful, and I really can't stand him.
 -hmm, em any sad experience that happened either to you or to somebody close to you? Or something sad you saw on TV?
 -em(...) I guess it's just been sad dealing with being here a little bit but (...) it's exciting and sad at the same time.
 -hmm.ok em any positive news you've had in the, say in the last year, something that suddenly made you really happy?
 -em (...) I'm still passing college, that's a good thing.
 -ok, what have you studied until now?what are you studying in, back in the USA?
 -German and Arabic.
 -ok, em what is internet?
 -it's this thing (...) that you lock your computer up to and it's a beautiful thing, I don't know (hehe).
 -ok em how many centimetres do you find in the measure of a foot?
 -(...) thirty?
 -ok, em what do you think...oh I forgot to ask to that one, what do you think about death and serious illnesses, is it something that scares you?
 -(...) I don't think that something like death or serious illness is real until you are faced with it (...) I don't know.
 -ok, how would you describe your voice?
 - oh I think I sound like a five year old child.
 -hehe, anything else that strikes you?
 -em no (...) I think it's kind of (...)soft.
 -ok, what is for you a sexy voice in men and women?
 -em(...) I don't, I don't know what sexy is, in a guy I guess it's just(...) a warm voice. Something nice, and women, anything that is not too low because that kind of freaks me out.
 -ok and unpleasant voice, for men, for women, how are they?
 -em (...) any type of whining(...) is bad, other than that(...) is usually pretty good.

-ok, thanks, that's all.

Track 48

-Jessica. what did you do last weekend?

-(hehe) last weekend I was at Oktoberfest with a couple of friends from school,(...) one is going to school for a year in northern Germany and the other one is in Prague.

-ok em any annoying experience you've had since you are in Germany?

-hmm(...) well, I've been housesitting for the last two weeks and (...)em the cat, em decided that it didn't like me so it(...) protested by(...) throwing up and then not eating,(...) and then it started having seizures, and so it's been a very annoying experience.(hehe)

-(hehe) em any any sad experience you've had either personally or seen on TV?

-sad experiences?

-hmm

-lately?

-yeah or in the last year, or sad news you heard or saw...

-hmm(...)well, the last year with the hurricane Katrina, that was a really sad thing, it hold for like three days, I thought that was really wrong.

-ok, em any positive news you've had, any good stuff that has happened to you in the last year that made you happy?

-emm(...) gosh, yeah I got(...) em(...) I don't know, there's so, so many things that made me happy, em coming here, made me happy. I was happy to get accepted to(...) the Louise and Clark Programme, I also got a scholarship that covers all our fees.(hehe)

-ok em what are you studying?

-economics.

-hmm, em what is internet?

-what is the internet?

-how do you define it?

-em(...)oh gosh,it's like (...)super information highway, it's ridiculous,it's like,(...) it has pretty much anything you can think of wanting to learn, and (...)I love it,it's amazing, it boggles my mind.

-ok, em what is, how many centimetres in a foot?

-thirty?

-ok, what do you think about death and se and serious illnesses?

-emm(...) they are part of life, I mean, I've never known anybody close to me who has had a serious illness, so I mean,it might change,(...) but there you are,(...) they are all part of life.

-ok, how would you describe your voice?

-em (...) I don't know.kind of (...)once in a while kind of monotone but for the most part I don't know, it's pretty normal.

-ok, a sexy voice for men, for women?

-haaa, sexy voice for men (...)em, I don't know, it's like when they are soft spoken (...) just really kind and gentle.

-ok, an unpleasant voice for men, for women?

- em(...) high pitched,annoying and whiny (...) fast, if they speak fast and high, and high pitched and whiny,then I don't, that is really annoying.

-brilliant, thank you.

Track 49

-Karie.Karie what did you do last weekend?

-Last weekend I went to Oktoberfest (hehe).

-ok,em could you tell me of any annoying experience you've had maybe since you are in Munich?

-em(...)let me think (...)one, well it wasn't so much annoying but I had a german girl reach over and fix my hair for me,(...) I'd never met her before,(...)that was, that was odd.

-ok,eh any any sad experience that happened to you in the last year, to you, to somebody close to you, something sad you heard or you saw?

-em actually I've had two deaths (..)recently last year (...)within my family and one of my closest's friends family, so that's been a little sad.

-em any positive news, something good that you that happened to you this last year,that made you happy suddenly?

-I'm here, that's pretty happy,yeah(...)

-ok em what have you been studying until now?

-em history and german.
 -ok, eh what is internet?
 -what is the internet?(...)It's(...)(hehehe)what's the internet, I don't have really a definition for it.
 -Ok, what is the measure of a foot in centimetres?
 -The measure of a foot in centimetres?(..)ehh I'm gonna say twelve(..) but I don't know if that's right (hehe)
 -Ok, what do you think about death and serious illnesses?Is it something that scares you, something you don't think about?
 -It's something I think happens nat, I mean everyone is going to die eventually,so it's something I've come to accept as (...)yeah, something that will happen.
 -hmmm,ok how would you describe your voice?
 -my voice? (...)It's quiet(...) I know that much, I'm always surprised when I hear it on a machine cause I don't hear myself sounding that way,but (...)you know, quiet, I don't really know what else.
 -ok what is for you a sexy voice, for men, for men,for women?
 -(hehehe) sexy voice?
 -yeahh how should it be?
 -emm(...)
 -If you can't think maybe just think of an actor or somebody you already know who has a sexy voice and try and describe why?
 -It's(...) like what Angelina Jolie does(...)it's it's deeper, I think
 -for a woman?
 -for a woman,yeah, it's like a deeper,(...) like slower(...)
 -and for men?
 -for men a sexy voice?(...)usu, I think it's slower also, but not so deep,too deep a voice for a man,is sexy.
 -ok,ehh an unpleasant voice then, voices you hear that you don't like?
 -high.
 -high?
 -high voices,yeah
 -for men and for women?
 -yeah for both
 -ok.thanks,that's all.
 -that's all,cool.

Track 50

-Kendra.Kendra, what did you do last weekend?
 -em (..) I went to Oktoberfest, er two of my friends visited from Strasbourg, France
 -ok, em any sad, no any annoying experience you've had in Munich?
 -em (...) I I have to say (...)I'm kind of getting run over a lot of the times,(...) people instead of saying excuse me, are jut kind of hiting or not,(...)it doesn't feel very friendly.
 -ok, any any sad experience that happened to you, to somebody close to you or something sad you've seen on TV?
 -em (...) to a two family member close friends died last year, so (...)
 -ok, em any positive experience, any positive news you've had this last year, something that made you happy?
 -em (...) my dad was working in Alabama, which is many hours away from California, so seeing him again this summer was good.
 -ok, em what are you studying?
 -I'm studying English literature and em, german language.
 -ok,what is internet?
 -em (...) what is internet? Internet is a way to procastrate and keep the contact with my friends.
 -ok.how many centimetres are in a foot?
 -(...) thirt teen? I don't know (hehe)
 -ok, em what do you think about death and serious illnesses, is it something that scares you or doesn't scare you at all?
 -em it scares me but as a young person(...) I generally think of cancer as being the big death but that's(...) that's a long way of.
 -ok how would you describe your voice?
 - em(...) right now it's(...) a little nasally and sick, but I'd say it's generally lower than most girls.
 -ok, a sexy voice for men, for women?
 -eh,(...) deeper, and slower.
 -ok and an unpleasant voice,for men for women?

-em, very(...) high pitched and fast for the system.
-ok thank you very much.

Track 51

-Kerstin.what did you do last weekend?
-Last weekend I went out with a bunch of friends and (...) we went dancing and had a lot of fun.
-ok, any annoying experience you've had em say the last year, anything that really got on your nerves, maybe, maybe and experience with German people, something that got on your nerves.
-yes,(...)em,I've had (...) a lot of difficulty finding a Vei Ge, I've er (...)em and quite a few unreliable(...) room mates and I'm still on the search.
-ok,em any any sad, sad thing happened to you in the last year, to you or to somebody close to you, or something sad you saw on TV?
-em(...)I don't think in the last year.
-ok,em any positive news you've had also maybe not, in the last year, something that made you happy?
-yes, definitively, em(...) my sister is pregnant and my step-sister just had a baby,(...) and a lot of my friends(...) have got engaged and are very happy.
-ok, good,em what have you studied until now?
-em(...) international economics, French and german and how to be an English teacher.
-ok,em what is internet? How do you define internet?
-(hehe)how do I define internet?(hehe) em(...)when I go on the computer and want to go on the world wide web.
-ok,how many centimetres do you find in the measure of a foot?
-twelve.
-ok.what do you think about death and severe or serious illnesses is it something that...
-oh no, 12 inches, not a foot, owwww(hehe) shit. (...) Ok, I don't know. To the last question?
- and about death and serious illnesses, is it something that scares you...
-than than what?
-what do you think about death or serious illnesses, is it something that scares you,something that doesn't scare you at all?
-well, it's something that makes me very sad (..)em I've lost a lot of people (...) sad thing.
-hmm.ok, em how do you describe your voice?
-errr(..) I think (...)I sound really nasal(...) and I probably speak too loud.
-(hehe) what er what is a sexy voice for you, for men, for women?
-probably deeper.
-for both?
-yeah, deeper,maybe raspy.
-ok,good.em what is an unpleasant voice then, for both, for either of them?
-errr (...) probably even louder than mine,(...) screechy and high pitched.
-ok,thank you.
-you are welcome.

Track 52

-Kim. What did you do last weekend?
-I (...) went to Oktoberfest.
- hmm, em could you tell me an annoying experience that has happened to you maybe since you are in Germany?
-em (...) I was on the train em on Wednesday and em I was trying to fall asleep on the bench and some policeman came by and told I couldn't put my feet on(...) the chair, which is (...) a little bit different to what I am used to.
-hmm, yeah. Em any sad experience that happened either to you or to somebody close to you, or something sad you saw or heard on TV?
-em(...) not that I can remember right now.(hehe)
-mmm, em any any positive experience, any good news you've had in the last year that, something that suddenly made you really happy?

-emm(...) my brother decided that he's gonna go to school and we know it is really good that he figured that out, so (...)that was exciting.

-ok em what have you studied until now, what are you studying?

-environmental studies.

-ok, em how do you define internet?

-(...)the internet?

-hmm

-How do I find it?

- how do you define it, how can you explain what it is?

-em it's a network on your computer(...) where you can(...) get a lot of information (...)and communicate with people.

-ok.what is em, how many centi,centimetres are in a foot, the measure of a foot?

-no idea.

-ok

-(hehe)

-what do you think about death and serious illnesses, is it something that scares you, something you don't think about?

-em I would say that(...) it's something to think about (...) but (...) try to keep a positive attitude.

-ok, how would you describe your voice?

-em(...) I would say it's a little (...)em lower than I think most, especially girls em, and sometimes a little, it gets a little (...) raspy

-hmm.em what is a sexy voice for you, for men for women, how should it be?

-em I would say,(...) example George Clooney, one of the sexiest voices on a guy and then I think for girls I think lower tone of voices are sexier.

-but what do you think you like about George Clooney's voice?

-em (...) it's it's kind of, it's like (...)kind of base and sort of (...)flows well and (...) just sounds fantastic.(hehe)

-ok, em last question what is an unpleasant voice? for men, for women.

-for women I hate the baby high pitched voice, I think that's awful and for men em(...) probably the same sort of thing, it'd be, you don't get the baby part but sort of like(...) the higher(...) tone of voices.

-ok, that 's it, thank you.

-ok no problem.

Track 53

-Lean.what did you do last weekend?

-last weekend I went out to Oktoberfest and we had a good time and did a bit of homework.

-ok.hmm, em any annoying experience, any some, something that bothered you since you are here in Germany?

-I had a stalker for a couple of weeks and that was pretty terrible, em(...) but otherwise, no everything has been pretty good.

-mmm, em any sad experience, either personal or something that happened to somebody else, something you saw on TV that you thought, that was sad?

-one of my friends here found out that his daughter got (...) drugged to death behind his (...)dad's auto,(...) so that was pretty terrible.

-hmmm,em any positive news you've had in the last year, something that made you really happy, good news about something?

-em (...) good news from my dad, just with his job and everything.

-ek, em what have you studied until now?

-German and political science.

-what, how can you define internet?

-Internet (...) yeah, my brain isn't working right now (...) too much german.

-(hehe) yeah, probably, em how much is, how many centimetres are in a foot, in the unit of measure of a foot?

-(...) no idea.

-ok, em what do you think about death and serious illnesses, is it something that scares you, something you don't think about?

-em(...) the act itself, yes(...) but I'm (...) a Christian to my faith,it's different.

-ok, em how would you describe your voice?

-Em(...) a little bit rough and aggressive.

-mmmh, ok em how is for you a sexy voice for men for women?

-em (...) for men I love accents,(...)for women (...) honesty.

-ok what is an unpleasant voice then, for men for women?

- a very high, shrill voice
- both, for both?
- for both.
- ok, thanks, that's all.

Track 54

- Liz, what did you do last weekend?
- I did my homework.
- ok, eh any annoying experience you've had since you are in Germany?
- (...) people bumping into me and not saying I'm sorry or Entschuldigung.
- ok, eh any sad experience that happened to you, to somebody else or something sad you saw on TV?
- eh (...) having pets die.
- hmm ok any em positive news you've had in the last...?
- (...) yeah coming to Germany, that's positive.
- ok em what are you studying?
- I am studying German and a little bit of chemistry.
- ok, what is internet?
- internet is the world wide web.
- ok em what is how many centimetres in a foot?
- thirty-two.
- ok, what do you think about death and serious illnesses, is it something that scares you?
- not particularly at this point in my life.
- ok, em how would you describe your voice?
- I would describe it as (...) a little bit deep and (...) em very inflect, has a lot of inflection.
- ok, em and what is a sexy voice for men and for women?
- a sexy voice for a man is dark and deep and (...) mysterious and a sexy voice for a woman is breathy and em (...) a little bit deep.
- ok and an unpleasant voice, for men, for women?
- em (...) nasal for both, very high or through the nose.
- ok, thank you very much.

Track 55

- Melanie. What did you do last weekend?
- em last weekend my friend who is studying in France came to visit me, so (...) we went to Oktoberfest, tried to get in, couldn't so we, (...) er, I took her to the chinesisicher turm in the English gardens.
- ok any annoying experience has happened to you since you are in Munich?
- em well (...) annoying was that em the first thing I did in Munich when I got here was to throw up cause I had food poisoning so I threw up for the first two days and (...) my room was really dirty when I got here so it was very upsetting to be both sick and dirty.
- hmm, em any any sad experience, maybe in the last year for you, for somebody close to you, or something you saw on TV that you thought was sad?
- em (...) well I had to break up with my boyfriend to come here.
- ok, em any positive news you've had in the last year, something that made you happy?
- well I'm going to Budapest in a few weeks and em we got a really cheap, cheap train ticket so (...) I'd say that's positive (hehe).
- brilliant, em could you tell me what you are studying?
- I'm studying German and classics.
- ok, what is internet?
- the internet, em (...) it's a big, online database, (...) er station that a few computers (...) er scattered throughout the world across the computers that you can download or upload...
- ok how many centimetres in a foot?
- em er (...) I (...) wish I knew that, I don't know, about thirty? I've no idea
- ok, how would you describe your voice?
- em (...) I am not really sure, I think I speak relatively clearly em, some of my friends tell me I have a higher voice but I don't hear it so (...) I don't know (hehe).

-ok a sexy voice for men, for women?
-em sexy voice for men is definitively very deep, very low voice, em(...)women(...) I guess there's like (...)two types, either like the low,husky voice or sort of the high, whispery voice can be considered sexy.
-ok, brilliant, and em an unpleasant voice, for men for women?
-em anything that's high or nasal em sort of grates on your nerves.
-brilliant, that's it,thank you.
-ok.

Track 56

-Michelle.what did you do last weekend?
-em (...)I drank with some friends, I just hang out, you know, nothing big.
-ok em any annoying experience that happened since you are in Munich, something you...?
-ok, there are a bunch of little kids living in my floor of Studentenstadt and they make a lot of noise and cry a lot,(...) so that's pretty annoying.
-ok em anything em sad that has happened to you or somebody close to you or something you saw on TV you thought was sad?
-em,not really em(...)I don't know, em my friend Shenay, was pretty upset, and she was pretty stressed out, so that was kind of sad, you know it was not fun to see that so...
-hmm.ok any any positive news you've had, something that suddenly made you happy, good news?
-yeah em I just found out today that a friend of mine is going to Budapest with me after we, after the whole group goes to Bullow, so that will be really good fun to have a friend with me while I'm in Hungary.
-ok,brilliant any, any, what are you studying in the USA?
-em political science and philosophy.
-ok, what is internet for you?
-internet it's a(...) a database that is connected to the rest of the world through like phonewires and stuff.
-ok em what, how many centimetres do you find in a foot?
-oh it's er(...)I think it's like thirty six(...)
-ok what do you think about death and serious illnesses, is it something that scares you or not?
-death?(...) em not really, I'm pretty young and I am really healthy so I'm not too concerned with it right now.
-ok em and how do you describe your voice?
- how do I describe my voice?er(...) I think it's a little low for girls (...) em, (...)I don't know.
-ok and a sexy voice for men, for women?
-em ,what would a sexy voice be?
-em accents are always really hot (...) I guess,(...) yeah maybe I think sort of unique.
-ok an unpleasant voice for men, for women?
-em (...) really high voices are kind of weird(...) people who stutter a lot.
-ok. Thanks a lot.

Track 57

-Noequia.what did you do last weekend?
-I am not too sure (hehe)I forgot already,em(...)I am pretty sure I hung out...
-to the Oktoberfest?
-no I haven't gone yet. I only did the carnival thing but I haven't gone to Wiesen so (...) maybe tomorrow,(...)last day.
-ok any any annoying situation happened to you since you are in Munich?
-I've been here em(...)
-em maybe I don't know, an experience with the Germans or when you've been shopping, I don't know.
-ok, this is the only things that aderates me, every time I come to Germany, people stare at you. I think it's because I'm from somewhere else, cause I'm from America, I don't know.
-really?
-but yeah, like I sit on the train and they just stare at me and that, and I think that is probably the most annoying thing, but other than that, it's pretty good.
-aha,em any sad situation or sad experience has happened to you, to somebody close to you, or something sad you saw on TV?
-em, unfortunately, well fortunately now I can say that nothing bad has happened to me so far, only sad thing is the train crashing up north and a couple of people died, I thought that was really sad,so

-ok,em, any positive experience you've had,em or in the last year, or good news, something good that happened to you, that made you happy,good news, basically?

-I got to come here for another year, so I came here a couple of years for a year, and now I'm back like five years later, but em, it's great, I'm really excited to start at LMU,so (...) that was good news when I got to come.

-fantastic,em what have you studied or what are you studying until now?

-em, I'm studying German and sociology.

-ok.em what is internet, how do can you define or explain what the internet is?

-how can I explain what internet is? (...) em, world wide web (hehe)but there it is, technical term.

-ok,em how many centimetres do you find in the unit of a measure of a foot?

-I don't know(hehe)

-what do you think about death and and serious illnesses, is it something that scares you?

-it doesn't, I think that we all have our time and when our time comes, it's just how it goes, I don't look as death as necessarily a bad thing.

-ok,em how do you describe your voice?

-my voice? I don't know, I thought it was so interesting to do this cause I can hear it on a tape recorder, but em (...)I don't know, I guess kind of creepy and (hehe) I don't know.

-ok, what is for you a sexy voice for men for women?

-I have no sexy voice, I just talk and laugh and

-no no no, but I don't mean your voice, but if you try and imagine what a sexy voice for you would be in men and women, how should it be?

-oh gosh(...)

-maybe think of an actor or an actress you think, oh they have a sexy voice and try and describe a bit what's going on.

-hmm. Denzel Washington.

-ok, what does he have?

-he is just charismatic, really calm (...)and really like confident and really casual, but warm in a way, so I think his voice is really sexy.

-brilliant.for women do you think of any women that maybe talks, a famous person you think?

-em(...) I can't think of one right now in particular but probably I would have to say somebody maybe with a raspy voice, em (...) I don't know.I just think that is really calm, really attractive.

-ok and the last thing is, what is an unpleasant voice in men and women?

-something high pitched and squeally, that's just annoying.(hehe)

-for both?

-for both.

-ok, that's it,brilliant, thanks.

Track 58

-Rebecca.was hast du, em what did you do last weekend?

-em (...) last weekend (..)what did I do?oh,ok. em there was a (...)DJ from Berlin who was playing at Harry Klein, cause this was a Thursday, but whatever, and er (..)we went there and (..)danced till like (...) four thirty in the morning and then they stop the u-bahn so (hehe)and so I had to wait till like five thirty and came back really late, but it was really fun,(...) we had a lot of fun there.

-hmm ok em could you tell me of a, of a, any annoying experience you had this weekend? or maybe this month.

-oh,this month(...)

-any annoying thing in Germany?

-em(...) in Germany(..) a lot of times people mistake me for em a Spanish speaker (hehe) so they like speak to me in Spanish or (...)every everyone asks me where I'm from and then I say America, they are like, you are not American, and I'm like, no, yeah I am, and they are like, no you must be south American, and I'm like no I'm not (hehe).so that 's really annoying.

-(hehe)ok, any any sad experience maybe em I don't know this last month, last year, anything you saw,maybe you saw something on TV and you thought that was sad?

-em(...) let's see (...) oh there's one really weird clip on TV of like some like chopped up dog(hehe) that was really sad, it was like a dog in a box and they got displayed all the parts and it was really sad.

-ok and any good news this this year or this month?

-em(...) I found out that my boyfriend is coming to visit me, that's really exciting, in February for my birthday, so (..)yeah.

-em what are you studying?
 -em I'm studying in in America I study German studies, Germanistik, but here I am taking mostly like art and em like history classes.
 -ok, em how do you define em internet?
 -the internet, err(...)you waste your time on it a lot (hehe)we check our email there (hehe).
 -ok em what do you think about death and em really dangerous severe illnesses, is it something that scares you, not at all?
 -it's scary, I mean I guess(..) I think thinking about (...)dying sucks (hehe) but emm(...) I don't know, I am I am not really like(...) that terrified, I like to like live and try not be be afraid of it. I will happen eventually I guess.
 -ok, em how would you describe your voice?
 -em my voice is pretty girly (...)high tone pitched, I guess I'm mid (...)pitched, I don't know,(...) kind of bouncy (hehe).
 -ok em what if for you a sexy voice, for men, for women?
 - a sexy voice is like deep sultry, like (...)slow speaking.
 -for both men and women?
 -for both men and women, yeah I think so.
 -em an unpleasant voice, for men, for woman?
 -em(...) well I guess like socially like men shouldn't really have like high really high voices, so like(...)feminine voices, and like the same way for a woman shouldn't have like men, but I mean, it doesn't really matter, I don't know(hehe).
 -thank you very much.
 -yeah.

Track 59

-Skylar.Skylar what did you do last weekend?
 -em what did I do last weekend? (...) I actually don't even remember what I did last weekend,(..)oh I had a free weekend, so we(...) walked around Munich,(...) I actually did stuff for homework but I took pictures, just hang out,(...) yeah and enjoyed being in Munich basically.
 -Ok, what is for you an annoying experience, something annoying that happened to you since you are in Munich?Any experience, I don't know in the supermarket, or anything strange from the germans?
 -what's what's annoying me right now is(...) the lack of having a dryer to wa to dry my clothes in, which I'm used to not having but cause it's so humid or wet here(...) it takes for ever to get my clothes to actually dry.
 -hmm em any any sad experience that happened to you or to somebody close to you, or something sad you saw on TV?
 -em, yeah(...) that will be the same, em my grandmother passed away this summer(...) and so that's been (...) a slow process to(...) sure to work through and process what that means(...)yeah
 -ok. Any good news, any positive news you've had in the last year?
 -in the last year?(...)yeah there's tons of stuff, em(...) mmmm, well one I got to come to Germany and study here for a year,(...) that's pretty exciting. And ramdon thing that was really exciting actually yesterday, which is kind of (...)silly, but my sister called me and so that was really fun,(...) she just called out of the blue so(...) that was cool.
 -brilliant and what are you studying?
 - em foreign languages,(...) some German and international affairs.
 -ok, what is internet?
 -(...) oh yeah, this question, em internet is (...) through the telephone lines lots of information being passed around from people all over the world.
 -ok, eh what is, how many centimetres in a foot?
 -about thirty.
 -ok what do you think about death and serious illnesses, is it something that scares you?
 -(...)em I don't think it is necessarily scary for the person but I think it depends on the situation and it's harder for the people you leave behind.
 -ok. How do you describe your voice?
 - I don't know how to answer that question, em (...) yeah,no idea.
 -em what is a sexy voice for men, for women like?
 -I don't know how to answer that question either.em(...)
 -maybe think of an actor or actress that you think have a sexy voice and then maybe just say why.
 -(...)I (...)ya, I don't know, I guess, I guess(...) sexy voices are (...) man (...) I don't know, I guess,(...) I guess(...) for a guy(...) I really don't know.
 -ok.
 -I don't know.
 -and an unpleasant voice?

-something outside of the normal tonal range, I think, (...) something that's(...) either (...) higher or (...)really low,or that it somehow just sounds a little bit creepy.
-ok. Thanks, that's all.

Track 60

-Tegan, what did you do last weekend?
-em last weekend I mainly stayed in my room but I did go to the Oktoberfest for a bit.(...)I can't remember,I know I did something else I just can't remember what it was.
-ok, could you tell me maybe any annoying experience you've had since you are in Munich, anything that got on your nerves?
-(...)the, the (...) trashes, I know I should like it, cause I am very much pro (...)recycling but I just don't quite know how to (...) em (...) separate everything else so that, without messing with the system and such a trash...
-ok, em any any sad, any sad experience that happened either to you, to somebody close to you or if not, if not personal then something you've seen on TV maybe that you thought was sad?
-em my aunt has cancer of the tongue but (...) which is sad but the doctors are very very positive about it, so it's almost certain to happen that she is going to make it.
-ok, any,any good news that you've had in the last year, something that made you really happy?
-I got in the JYM and was able to study abroad in Munich.
-brilliant em what are you studying?
-em I'm studying history and german.
-ok, what is internet?
-internet(...) I can't describe it, but it's the thing on the computer that you can (...)talk to people and get information from all over the world and.
-ok em how many em centimetres do you find in a foot, the measure of a foot?
- I have no idea to tell you quite right yet.
-ok, em how would you describe your voice?
-it's a little bit deeper than a lot of women's voices, but it's not like a base or anything(...) em, and I do(...) like I said I have the Minnesota accent, slightly with my "ous" (...)particularly(...),it's like if I say "phone" or (...)doughnut or something like that(...) and (...)I also have the british thing where at the end of the sentence my voice goes down as opposed to up, like a lot of people's.
-ok, what is for you a sexy voice, for men, for women?
-(hehe) I don't think I have one.
-em but maybe I mean, what do you think, how, how do think a sexy voice should be,in general?
-em(...) maybe a little bit (...)deeper than normal.
-for men and for women?
-for for women, well for men definitively a lot deeper, (...)for men slower too. Em For women a little bit more deeper, a little bit more raspy. (...)And (...)it, I think it's more like in the eyes and body than in the actual voice itself.
-ok and the last thing, what is an unpleasant voice for you, for men and for women?
-em for a man(...) I suppose if it's (...) really high pitched or whiny, for a woman also really really high pitched voices, or (...)wanting to sound like male voices, I guess.
-ok, that's it,thanks.

Track 67 to 71: Emotions and attitudes samples from the Spanish actor

Track 67) Seguridad

Mira, yo en tu lugar dejaría de perder el tiempo. No vas a conseguir nada con esa actitud. Si te empeñas en que es demasiado para ti, que no tienes tiempo suficiente, y que no lo conseguirás, ya has tirado la toalla. Lo que tienes que hacer es ir paso a paso, organizarte y hacer una cosa tras otra y no todas a la vez. Tienes que mirar siempre hacia delante pero también haciendo cuenta de lo que ya has conseguido. Eso te dará una sensación de satisfacción y fuerzas para seguir trabajando. Venga, hazme caso, que estoy seguro que lo vas a conseguir, tú puedes.

Track 68) Enfado

¿Pero cómo me puedes hacer esto? Me paso toda la santa mañana explicándote cómo funciona todo, incluso cuando tenía mil cosas mejor que hacer, y si me dices que tú te encargas, pues yo, claro, confío en que lo harás. Y luego va, y haces una porquería en dos minutos, lleno de faltas ¡¡¡y se lo envías al jefe de mi parte!!!¿Pero qué va a pensar de mí ahora? Esto es increíble, con el día que llevo y venir y encontrarme con esta faena que me has hecho...Yo pensaba que

éramos compañeros y que nos ayudábamos, pero ya veo que tú has tomado otro camino, vas a la tuya completamente y no te importa dejarme mal delante del jefe. De verdad, no entiendo por qué lo has hecho. ¿Por qué, qué te he hecho yo? ¿Acaso alguna vez te he dejado tirada? Si siempre te he echado una mano ¿esto no tiene palabras! Pero nada, tú tranquila, no te muevas de ahí que ya lo soluciono yo solito. Gracias por tu compañerismo. (TONO IRÓNICO)

Track 69) Tristeza

Sí, la verdad es que ha sido una experiencia dura para mí. Me despedí en Junio de mi abuelo antes de venir aquí y él estaba perfectamente, un mes más tarde me avisan mis padres que está en el hospital en cuidados intensivos. Y cuando consigo por fin ir a verle, ya era demasiado tarde, estaba en coma. Solo pude cogerle la mano y decirle que le quería al oído pero ya no me podía oír. No me pude despedir de él, y eso es lo que me supo peor... verle hinchado en el hospital, blanco, ese cuerpo ya no era él, no el que yo recordaba. En ese momento te sientes vacío, impotente aunque a la vez sabes que son cosas de la vida que tarde o temprano pasan. En los segundos en los que miras a sus ojos perdidos para despedirte, ves pasar todos los momentos compartidos, esas tardes en las que te enseñaba a pintar, a ver los colores, aquellas partidas de parchís con trampas, y sus historias de las azañas de Capablanca... Pero en fin, supongo que hay que asumir que ya no está aquí y guardar esos recuerdos bonitos...

Track 70) Inseguridad

Bueno...no sé cómo explicarlo, tal vez te lo tomes a mal...y tampoco pretendo eso...es que.... No sé, a veces pienso que no me tratas bien. Es como si...como si creyeras que no sé hacer nada, que... que... eres superior en todo y que yo no cuento....¿entiendes lo que te intento decir? Cuando eres así...pues, pues.... en fin, que me siento mal...me siento... inútil, me siento...impotente. ¿Tú...tú ...qué piensas?

Track 71) Alegría

¡No me lo puedo creer! ¿Qué es esto que ha llegado por correo? ¡es una carta de la universidad de Oxford! ¡He sido aceptado! ¡Por fin! Llevaban 3 meses sin contestar y ya pensaba que iban a decir que no, ¡es genial! Después de meses de preparación, de exámenes y mil pruebas, el trabajo ha valido la pena. ¡me han cogido! ¡en una de las mejores universidades! Hoy es un gran día: mi sueño hecho realidad, ¡no te puedes imaginar lo contento que estoy! Por fin algo me sale bien, ¡esto hay que celebrarlo!

Tracks 72 a 76: Emotions and attitude samples from the German actress

Track 72) Sicherheit

Hör zu, an deiner Stelle wäre ich aufhören, Zeit zu verschwenden. Dieses Verhalten bringt nichts. Wenn du darauf bestehst, dass es zu viel für dich ist, dass du nicht genug Zeit hast und dass du es nicht schaffen wirst, dann hast du schon aufgegeben. Du muss einfach Schritt für Schritt vorgehen, du muss dich organisieren, und eine Sache nach der andere erledigen, statt alles nur auf einmal. Du muss immer vorwärts schauen, aber immer überlegen, was du schon geschafft hast. Das wird dich ein Gefühl von Zufriedenheit bringen, und dir auch mehr Willen geben, um weiter zu machen. Ganz ehrlich, du muss mir vertrauen, ich bin sicher du schaffst es, du kannst es!

Track 73) Ärger

Aber was soll das sein? Ich verbringe die ganze morgen, um dir ganz nett zu erklären wie alles funktioniert, auch wenn ich tausend bessere Sachen zu tun habe, und wenn du gibts mir dein Wort, dass du es machst, dann natürlich vertraue ich dich, dass du es machen wirst. Dann machst du aber eine echte Schweinerei in zwei Minuten voll von Fehlern, und schickst es an dem Chef im Auftrag von mir! Aber was wird er jetzt über mich denken? Ich dachte wir sind Kollegen und dass wir uns einander helfen, aber jetzt siehe ich ganz deutlich dass du einen anderen Weg genommen hast, du bist absolut egoistisch und machst dir keine Sorgen, wenn du mir in Schwierigkeiten vor dem Chef bringst. Ganz ehrlich, ich verstehe nicht warum du es gemacht hast: warum? was hab ich dich getan? Im Gegenteil, ich hab dich immer geholfen. Es ist unglaublich! Na gut, bewegt dich nicht, jetzt werde ich ganz allein eine Lösung finden. Vielen dank für deine Kollegialität. (IRONISCH)

Track 74) Trauer

Ja, eigentlich war es eine echt schwierige Erfahrung für mich. Ich hatte mich im Juni von meinem Opa verabschiedet, bevor ich hier kam, und er war top fit, ein Monat später, geben mir meine Eltern Bescheid, dass er im Notfall im Krankenhaus liegt. Als ich es endlich schaffte ihn zu sehen, war er schon im Coma. Ich konnte nur sein Hand nehmen und ihm ihm Ohr flüstern, dass ich ihn liebte, aber er konnte mich nicht mehr hören. Ich konnte mich von ihm nicht verabschieden, und das war was ich am meisten schade fand....ihn so verblaset und weiss zu sehen, dass war nicht

mehr sein Körper, nicht was ich in Erinnerung hatte. In diesem Moment fühlst du dich leer, unfähig, auch wenn du weisst das sind normale Sachen die früher oder später vorkommen. In diesen Sekunden, wo du in seine verlorene Augen siehst um dich zu verabschieden, siehst du wieder alle euro gemeinsame Erlebnisse: die Nachmittage, wo er dich malen unterrichtet hatte, wie man die Farben sieht, die „Man ärger dich nicht“ Spiele mit Betrüge, und alle seine Geschichten von den Heldentaten von Capablanca. Na ja, ich muss es akzeptieren und mit den schönen Erinnerungen bleiben...

Track 75) Unsicherheit

Also....ich weiss nicht genau, wie ich das erklären kann....Vielleicht verstehst du es ganz falsch und bist beleidigt....und das ist nicht meine Absicht. Also, ich, ich, ich weiss nicht, aber.. manchmal habe ich den Eindruck, dass du mich schlecht behandelst. Es ist als, als ob du glauben würdest, ich kann nichts richtig machen, oder dass du, dass du besser in Allen bist und du rechnest dann nicht mit mir und... verstehst du, was ich meine? Ich, hmm... wenn du dich so benimmst dann,dann also, ich, ich fühle mich einfach schlecht, ich fühle mich nutzlos, und... ich fühle mich unfähig, du... hmm, du, also... ja, also was meinst du?

Track 76) Freude

Ich kann es kaum glauben! Was ist diesen Brief, den ich gerade bekommen habe? Es ist ein Brief von der University of Oxford!!! ich wurde angenommen!!Endlich! Ich wartete 3 Monate auf eine Antwort und ich dachte schon sie hätten meine Bewerbung abgelehnt, es ist wunderbar! Nach Monate von Vorbereitungen, Prüfungen und tausend Tests hat sich die Arbeit gelohnt! Sie wollen mich haben! In einer der besten Universitäten! Heute ist ein phantastischer Tag: mein Traum erfüllt! Du kannst dir nicht vorstellen wie glücklich ich bin! Endlich mal etwas klappt für mich! Wir müssen es feiern!