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Contents

Listening to voices and judging people

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Abstract

The impact of vocal cues on personality judgments is investigated in an experimental study which used technically manipulated levels of pitch (low and high frequency), sex of the speaker, and content area (fixing a bike, baking, reading directory information) as independent and the entailing personality judgments as dependent variables. Subjects (48 male and 48 female) were presented with voice probes and ratings of physical (age, sex, height, body type) and psychological characteristics (pairs of adjectives representing different dimensions of personality) were collected. Results confirm that voice characteristics have an impact on interpersonal perception and that vocal cues are processed separately by the listener. Results are discussed with reference to processing demands and cognitive load on the working memory of a listener.

The impact of vocal cues on interpersonal communication

The impact of vocal cues on the listening process would not be challenged by anyone in the field of communication research. Prominent definitions of listening contain the aspect that listening includes the perception and interpretation of nonverbal messages (e.g., Purdy, 1997; Wolvin & Coakley, 1996), and nonverbal messages certainly include paralinguistic or "vocal cues that accompany spoken words" (Knapp & Hall, 2002, p. 379). Empirical research has shown that the vocal cues of a message have an influence on both how physical and psychological aspects of the person behind the voice are perceived and on how the message is interpreted. More or less subtle vocal cues, for example, are believed to disclose both temporary aspects of a speaker, e.g., his or her current emotional state (Ellgring & Scherer, 1996; Gobl & Chasaide, 2003; Tischer, 1993) and dispositional characteristics of a person (Brown & Bradshaw, 1985; Krauss, Freyberg, & Morsella, 2002; Scherer, Scherer, Hall, & Rosenthal, 1982), even if reliability and validity of the inferences remain problematic (Scherer, 2003). To a certain degree, vocal cues also provide hints as to whether a message is trustworthy or not (Anolli & Ciceri, 1997; Ekman, Friesen, & Scherer, 1976; Zuckerman, Amidon, Bishop, & Pomerantz, 1982). Voice characteristics have also been related to concepts of attractiveness (Collins & Missing, 2003; Semic, 2008; Zuckerman & Miyake, 1993) and, consequently, much effort goes into designing and training voices for success (Gutzeit, 2008).

Researching vocal cues and their implications for how a person is perceived, is a complicated field (Bente & Krämer, 2003; Scherer, 2003). There are basically two avenues that have been taken to describe and explain the relationship between vocal cues and personality:

- Investigate the accuracy with which listeners can identify the "true" characteristics of a person whose voice they have heard, e.g., how reliably can one tell the age, sex, education, ethnic group, and a series of psychological traits (e.g., dominance, extraversion) and states (anxiety, nervousness, trying to tell a lie) from a person's voice? This first line of research has been successful for some aspects of personality perceptions, e.g., sex, age, and social class or status can be assessed fairly accurately from a person's voice after rather brief exposure to the target voice (Krauss, Freyberg, & Morsella, 2002; Sebastian & Ryan, 1985). Also, extraversion and dominance as personality dimensions can be inferred from the voice rather consistently with test measures (Siegman, 1987). On the whole, however, the observers' assessments from paralinguistic cues do not correlate too closely with the actually measured personality type (Knapp & Hall, 2002).

- Describe the stereotypes that people associate with vocal cues, e.g., how certain voice characteristics (e.g., nasality, loudness) are stereotypically categorized. There is substantial agreement on how vocal cues are interpreted and on what observers believe to be indicators for temporary or dispositional personal characteristics. Studies along these lines reveal, e.g., that the interpretation of the emotional state of a speaker very much depends on the pitch variation and the talking speed (Tischer, 1993). It has also been shown that attractive voices induce a much more favorable image of the person behind the voice (Zuckerman & Driver, 1989; Zuckerman & Miyake, 1993). Studies which have used a variety of vocal cues showed that these characteristics lead to quite distinct personality perceptions on the side of the listener. There is also a strong differential effect, since identical vocal cues are interpreted rather differently in a male and in a female voice (Addington, 1968; see Knapp & Hall, 2002, p. 389 for an overview). So, for example, a female with a breathy voice is thought to be more feminine, prettier, more petite, effervescent, high-strung, and shallower than other females. The same voice characteristics in a male, however, would lead to a perception of this person as being relatively young and more artistic.

Most studies, however, are limited in scope due to one of the following design problems:

- The voice probes are technically manipulated and well-controlled but they are decontextualized and almost free of content, e.g., short individual sentences or even words and syllables.

- The voice probes are (very close to) natural speech, but usually more than one parameter has been altered, e.g., speakers use personalized wording, and differ in more than one of the vocal cues, such as talking speed, intonation, micro-pauses and others, so that the ceteris paribus requirements are not fully met.

- There is no experimental variation to collect the data for the voice probes.

In the current study, one specific aspect of the voice, i.e. pitch, was isolated and manipulated as a vocal parameter while keeping all others constant and to control for content and sex of the speaker, so that the effects of pitch on the perception of the person and the personality of a voice should become visible. The objective of this study is to test if the impact of an isolated vocal parameter on interpersonal perception can be determined and how this effect - if it exists - can be described. The questions driving this research were stated as follows:

RQ 1: How much does the pitch level of a voice influence the listener's perception of the person and the personality behind the voice?

RQ 2: To what extent do the speaker's sex and the content of an utterance contribute to the listener's perception of the person and the personality behind the voice?

Method

Material

      After a set of trial runs for a variety of texts and topics, three texts were constructed for the preparation of the voice probes. These were technically produced from two original recordings taken from a male and a female speaker in a soundproof room. Two of these texts were designed to mildly appeal to gender stereotypes, i.e. "How to repair the inner tube of a bike" (male) and "How to prepare a shortcake" (female); the third text, reading a list of fictitious names and addresses from a directory, was supposed to be neutral in terms of gender stereotyping. Thus, it was taken care that both speakers actually used the same wording so that the probes contain the identical content. The speakers were asked not to read the texts, but practiced to use natural speech as much as possible. Using a voice transformation program (*Wave Lab v4.0*), both probes were manipulated into a high and a low pitch version (cf. Figure 1 for the frequencies that were generated), the general objective being to maintain all the other speaker and voice characteristics, e.g., speed, modulation and emphasis, pausing, accent, and pronunciation. All voice probes had an average duration of 20-30 seconds.

	female			*male*		
	original	*high*	*low*	*original*	*high*	*low*
How to fix a bike tube	218 Hz	232 Hz	197 Hz	148 Hz	160 Hz	138 Hz
How to bake a shortcake	226 Hz	235 Hz	200 Hz	154 Hz	165 Hz	140 Hz
Reading addresses	218 Hz	233 Hz	198 Hz	143 Hz	158 Hz	137 Hz

Figure 1: Pitch values for the 2 original voice recordings and for the technically manipulated voices in the voice probes for the three different texts.

      This procedure resulted in twelve stimulus variations: Three texts, each realized by a male and a female speaker, were transformed into high and low pitch level. The actual frequencies of the probes could not be exactly equalized, because it had to be taken into account that the resulting speech qualities, e.g., the formants, should not be distorted too much, lest the resulting probe might sound like a synthetic voice. The resulting probes were checked for authenticity on an informal basis by independent persons, not including the experimenter and her adviser.

      An assessment sheet was created to collect data on the specific impressions that subjects had formed of the person behind the voice. Subjects indicated the perceived sex (male / female) of the speaker, the age of the speaker (on a nominal scale running through 8 categories from < 17 through > 35), height (on a nominal scale running through 11 categories from < 158 cm through > 194 cm), body type (nominal scale: athenic, pyknic, leptosome),

talking speed (on a six-point interval scale from very slow to very fast), and personal attractiveness (nominal scale: Would you like to meet this person? – yes / no). In addition, subjects were asked to rate the perceived personality type of the speaker based on a list of 34 adjectives. The adjectives were selected to represent the five major dimensions of personality, known as the "Big Five", i.e. extraversion, openness, agreeableness, conscientiousness, and emotional stability (Pervin, 2001). Based on studies reported in the literature (Addington, 1968; Thiel, 1987) a Lickert scale and a list of 37 adjectives had been prepared for a pretest. The problems which had occurred included low variance in some of the adjectives, a high number of "don't know" answers, and too many missing data for some of the adjectives. As a consequence, the final instrument was organized as a differential containing bipolar adjective pairs and the adjectives with next to zero variance were eliminated (the adjectives were: superstituous, helpful, and aloof). The remaining pairs were adjusted if necessary to represent a convincing set of semantic antonyms. The bipolar rating featured "0" as a neutral middle and went two steps to each side representing a moderate and a strong tendency toward the respective pole of the differential. (Refer to Table 2 for a specific list of the adjective pairs used in the differential.) We had to bear in mind, however, that since we did not use a standardized personality questionnaire, we would need to test the assumption if the selected adjectives acutally represent the dimensions of personality as intended.

Sample

A total of 96 university students in Germany, 48 males and 48 females, participated in the study. The average age was 24 with a range from 19 to 38 (since the information on age was collected on a categorical scale, means and standard deviation cannot be provided). The subjects were all volunteers. They were approached in the student cafeteria and asked by the second author if they were willing to participate in an experiment on the assessment of voice qualities. The students represented a rather random selection of academic fields.

Procedure

In preparation for the data collection, 24 sets of three voice probes each were combined with the stipulation that each set contained three topics, two pitch levels and both male and female samples. In individual sessions, subjects listened to the three voices in the sets using headphones from a CD walkman player (SHARP MD-MT866). Each stimulus was presented twice and with the identical preset volume. Before listening to the recordings, the subjects had a chance to look over the assessment sheet which they filled out immediately after the presentation of a voice probe. The subjects also were instructed on how to use the bipolar scale. Subjects were asked to focus on the voice and to neglect the content and other aspects in their judgment. In order to control for serial effects, the sequence of presentation for each subject was determined by random numbers.

Results

The data were processed using SPSS for WINDOWS 10.0. The way in which the procedure was set up allows investigations of comparisons of the voice ratings depending on the different conditions (male / female voice, content, low and high pitch). Chi²-tests were used to analyze the distributions of the categorical judgments. ANOVAs were used when interval data were available, e.g., for talking speed. Finally, the responses for the 17 pairs of bipolar adjectives were factor analyzed in order to obtain a more structured picture of the impressions that were reported.

The main research question RQ 1 was concerned with the perception of the person and the personality behind the voice. We break this general question down into different aspects of person perception by looking at how pitch affects the perception of age, physical appearance (height, body type), and talking speed. The perception of personality was assessed by looking at the impact of pitch on social curiosity and personality ratings. The contributions of sex and content to person and personality perception as addressed in research question 2 are considered within the pertaining analyses.

Estimates of a speaker's age: Using Chi²-tests we investigated whether pitch, sex of the speaker, and content made a difference in age estimates. As it turned out, higher voices were generally attributed to significantly younger speakers (χ^2 ($N = 289$, $df = 7$) = 144.03, $p <$ .001). Speakers with a higher voice were mostly placed into the age bracket between 21 and 23 years, whereas speakers with a relatively low voice were mainly put into the bracket 27 to 29. Also, female voices were associated with a significantly younger person than male voices (Mann-Whitney-$U = 8686.50$, $p < .05$). Content did not have a statistically visible effect on perceived age. In response to RQ 1, we can say that the pitch of a voice had an impact in how old a person was perceived to be. We also see that a speaker's age was estimated differently depending on the perceived sex.

Estimates of a speaker's height and body type: The estimates of the speaker's height varied significantly with on pitch (χ^2 ($N = 289$, $df = 9$) = 33.49, $p < .001$) and perceived sex of the speaker (χ^2 ($N = 289$, $df = 9$) = 146.67, $p < .001$). Subjects thought speakers with a lower voice to be significantly taller than speakers with a higher voice. The same holds for sex, since the average estimate of the height of a speaker behind a female voice is lower than that of a male voice. The content of what the speaker said did not have an impact on height estimates.

As to the physical appearance, subjects envisaged speakers with a higher voice to be more of the athenic body type (slender, long-limbed), whereas speakers with a low voice are thought to be of the pyknic type (shorter, squat, and rounded) (χ^2 ($N = 288$, $df = 2$) = 51.23, $p < .001$). Neither content nor perceived sex of the speaker had a significant impact on the listener's representation of the speaker's stature.

Perception of talking speed: When judging the talking speed, subjects perceived the higher voices to talk significantly faster than lower voices (see Table 1). Neither content nor speaker's sex was used in this ANOVA, because talking speed might not have been constant across contents and speakers.

Table 1

Analysis of variance for estimates of talking speed

Source	df	F	p	η^2
within subjects				
pitch	1	11.80	< .001	.042
error	272	(.90)		

Social curiosity: Subjects responded to the perceived sex (χ^2 (N = 289, df = 1) = 20.67, p < .001) and pitch level (χ^2 (N = 289, df = 1) = 12.20, p < .001) when they were asked to indicate if they wanted to meet the person behind the voice. They preferred female voices over male voices and higher voices over lower ones. The content about which they have heard a person talk, however, did not make a difference in their decision whether they were curious to get to know the person or not.

Perception of the personality behind the voice: Subjects had rated the personality behind the voice along 17 bipolar adjectives. In order to obtain a structured picture of the results and in order to test the congruence of the personality ratings used in this research with the "Big Five" dimensions of personality, a principal component factor analysis with varimax rotation was performed (see Table 2).

The number of factors to be extracted was determined by the Eigenvalues > 1. This process yielded four factors which together explained 57% of the data variance. These factors could be interpreted with loose reference to the five dimensions of personality that are usually referred to as the "Big Five", though the current scale did not produce a complete five-factor solution. The factors were tested for internal consistency using Cronbach's alpha-coefficient and named as follows:

- extraversion and openness (explained variance: 19.58%; 6 items, Cronbach's α = .76)
- conscientiousness (explained variance: 15.79%; 6 items, Cronbach's α = .72)
- emotional stability(explained variance: 11.20%; 2 items, Cronbach's α = .55)
- agreeableness (explained variance: 10.66%; 3 items, Cronbach's α = .48).

The coefficients for internal consistency show room for improvement especially for the last two factors. This may be due to the comparatively low numbers of items loading on these factors. For this reason, the following results of MANOVA looking at how different levels of

pitch, the sex of the speaker, and the content make a difference in terms of personality ratings.

Table 2

Rotated factor matrix for dimensions of personality ratings

	I Extraversion and Openness	II Conscientiousness	III Emotional Stability	IV Agreeableness
open vs. closed	**.784***			
communicative vs. reserved	**.752**			
attractive vs. unattractive	**.689**			
sluggish vs. dynamic	**-.625**			.426
emotional vs. unemotional	**.590**		.304	.319
self-conscious vs. self-confident	**-.549**		.396	
light-headed vs. responsible		**.740**		
disciplined vs. indulgent		**-.702**		
not so well educated vs. well educated		**.654**		
unaffected vs. affected		**-.591**		
immature vs. mature		**.548**	.442	
modest vs. ambitious		**.537**		.392
fragile vs. athletic			**.761**	
masculine vs. feminine	-.405		**-.729**	
good-natured vs. irritable				**.757**
stern vs. lenient				**-.603**
assertive vs. submissive	.428		-.392	**-.520**

* Factor loadings which meet the Fürntratt-criterion (a²/h² > .50) are printed in bold face. Factor loadings smaller than .30 are not included.

Group comparisons based on a full factorial model revealed main effects for pitch, sex of the speaker, and content on one or more dimensions of how the speaker's personality was assessed (see Table 3).

Table 3

Multivariate analysis of variance for pitch, speaker's sex, and types of content

Source	df	F	p	η^2
Pitch				
Extraversion and Openness	1	12.40	< .001	.04
Conscientiousness	1	11.19	< .001	.04
Emotional Stability	1	116.05	< .001	.30
Agreeableness	1	.238	n.s.	-
Sex of the speaker				
Extraversion and Openness	1	94.89	< .001	.26
Conscientiousness	1	1.37	n.s.	-
Emotional Stability	1	35.71	< .001	.01
Agreeableness	1	7.45	< .01	.12
Content				
Extraversion and Openness	2	5.90	< .01	.04
Conscientiousness	2	6.22	< .01	.04
Emotional Stability	2	3.25	< .05	.02
Agreeableness	2	.53	n.s.	-
Pitch x Sex of the speaker				
Extraversion and Openness	1	3.11	n.s.	
Conscientiousness	1	1.01	n.s.	
Emotional Stability	1	2.08	n.s.	
Agreeableness	1	10.36	< .001	.04

In detail, results suggest that a person with a high voice as compared to a person with a lower voice is associated with higher agreeableness on the one hand, and decreased conscientiousness and emotional stability on the other hand. Female voices are in general rated to belong to a person who is more extraverted and open, whereas male voices are more strongly credited with emotional stability and agreeableness. Interestingly, the content of what a person talks about has an influence on how the personality of this person is perceived. The personality of a person who reads address information is assumed to be significantly less extraverted and open than a person whose voice talks about baking or fixing a bike. The same content, i.e., reading out addresses, however, leads a listener to

assume significantly greater conscientiousness. Emotional stability is represented in a person talking about baking rather than in a person reading out names. Pitch is interpreted differentially in male and female voices. Women with a low voice are perceived to be more agreeable than women with a high voice, whereas the reverse pattern emerges for men who are perceived less agreeable when speaking with a low voice. No other interactions were significant and therefore, are not commented on here.

Discussion and conclusions

Since it had long been known that vocal cues convey certain personal characteristics and attitudes, it was of interest to disentangle the net of paralinguistic phenomena and to find out more about the effects of pitch as a ubiquitous voice characteristic on the listener, i.e., on the model that a listener constructs of a speaker's personality from his or her voice. In an experiment, subjects were presented with three out of twelve voice probes varying pitch level with sex of the speaker and content as additional factors. Subjects were asked to describe the representation which they had formed of the person behind the voice. Results show that pitch actually makes a difference in the way a person is perceived. High pitch levels are generally perceived to belong to individuals who are more extraverted and open, but also convey lower degrees of conscientiousness and emotional stability. In this respect, the results of current study converge with previous findings suggesting that higher frequency voices are assessed as more attractive (Collins & Missing, 2003) and as signaling positive affect (Jay, 2003). This effect could be accounted for by the human capacity to reconstruct correlating face motion from speech acoustics (Yehia, Kuratate, & Vatikiotis-Bateson, 2002), so that a mental image might be created from a voice almost automatically.

There is a considerable gender effect in the results. In general, the personality behind a female voice is supposed to be more extraverted and open, but less agreeable and weaker in emotional stability than a personality behind a male voice. This differential effect of male and female voices had been suggested in earlier studies (Whipple & McManamon, 2002) and is supported here. Persons talking about a neutral theme are rated as less extraverted and open, and stronger in emotional stability and conscientiousness. However, the decision on whether or not somebody wanted to meet the person behind the voice, pitch and sex of the speaker had the largest impact whereas content did not have a predictive value for this decision.

In addition, it became obvious in this study that listeners take into account the content when they judge people. Although the instruction asked participants to neglect the content, they could not entirely tune out what was said. Mehrabian's conclusion (Mehrabian & Ferris, 1967) that verbal information has only limited impact on how speakers are perceived is not supported by the findings of this study. Instead, the results support Knapp and Hall (2002, p.

380) who suggest that the design of Mehrabian's study which looks only at acoustic expression of one word might not apply to longer text. The results of this study indicate that verbal information does have an impact on how listeners perceive speakers.

In sum, this study confirms the findings that listeners draw information from personal, verbal, and vocal aspects of the communication and integrate the disparate elements into a unitary impression which, to a certain degree, can be assumed to be judgmental (Gobl & Chasaide, 2003). On the whole, these findings support the concept of the listener as a multi-tasking agent functioning in multiple modalities (Yehia et al., 2002). The recognition of the cognitive load arising from the necessity to integrate several sources of information simultaneously, needs to be accounted for in models of speech and discourse perception (Patterson, 1999).

The limitation of this study lies clearly in the fact that there was only one element of the voice characteristics that was manipulated. Of course, pitch never occurs as an isolated variable, and therefore, the entire situation was somewhat artificial. The point was, however, to test if the generally accepted assumption that paralanguage has an impact on how a message and a person is perceived, is susceptive to empirical investigation. In particular, the question was of interest whether listeners process specific voice characteristics individually or whether they form an amalgamated, wholistic impression from the paralinguistic signals. This latter process does not seem to be an option for the explanation of the impact of vocal cues. The need for further investigation of the effects of vocal cues increases as the immediacy with which these cues are perceived (Sander & Scheich, 2001) and the sustainable influence of voice characteristics on retention (Karayani & Gardiner, 2003; Mayer, Sobko, & Mautone, 2003) are considered.

Further research should definitely include other vocal characteristics so that an empirically based functional model of voice effects could be constructed. More research is also needed in order to check for possible compensatory and synergetic effects of the interaction of different vocal cues (Scherer, 2003). This would certainly require that more elaborated ratings using a full set of interval scales were collected. In addition, the instruments used to measure personality judgments need to be more detailed. As we were trying to keep the list for the personality ratings short, we probably lost some information, because the dimensions of personality could not be represented in a fully satisfactory manner.

For the practice of listening, these results provide further evidence for the assumption that the working memory of a listener has to come to terms with quite disparate processes, since the acoustic signal needs to be analyzed in at least two respects, one if which would be the stream of sounds for the verbal cues, and the other one would be the voice for the subtext, such as the speaker's personality and attitudes. At this point, we can only

hypothesize that listeners are differentially effective with this analysis, depending on their current or dispositional working memory capacity. It is an open question if an effective listener is able to selectively allocate attentional capacity to content and / or the vocal cues, in order to make the most of a message. In any case, it might be helpful for discourse and communication analysis to be aware of how vocal cues have an influence on the way in which listeners judge and misjudge other people.

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Teaching listening in the classroom:

<p style="text-align:center">Title: <u>Teaching Critical Listening</u></p>

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Grade level: K-12, K-6; 7-16; Undergraduate; Graduate; Adult Education; General

Keywords: Critical Listening; Listen with a purpose

<p style="text-align:center">Listening Practice:</p>

Course title: might be suitable for any kind of language courses
Course level: adjustable
Goals: Students learn to activate prior knowledge, to prepare for listening and information processing
Type / Aspect of listening in focus: critical listening

Description:

Definition of Critical Listening within the context of listening skills: What is critical listening?

Listening is the process of intentional selection, organization, and retention of verbal and nonverbal aspects of oral messages.

This means:

• Listening takes place in a sequence of steps.

• Listening begins with a goal, an intention, some motivation to gain information.

• Listening involves a selection process: Separate speech from noise, observe the contribution of verbal and nonverbal information to the message.

• Listening involves re-constructing the message and putting the information together, e.g., identify units of meaning, complement and complete information, infer information from the text and the context.

• Listening requires storage of information and combining new information with prior knowledge.

The developmental trends in listening skills: What are the typical capacities for critical listening in different age groups?

In order to accomplish all this and in order to listen well, any listener needs information processing skills. These skills typically develop during childhood and adolescence:

Attention: Developmental trends which need to be considered are in attention span, ability to focus and to maintain the focus, flexibility in changing focus, ability to control distraction, ability to attend to detail.

Knowledge base: Across childhood and adolescence, the knowledge becomes broader and deeper, is increasingly better organized, more intricate and intertwined, world-knowledge increases, larger vocabulary and skillful usage of language, knowledge of pragmatic aspects of the language (style, diction, rhetorical structure, persuasion).

Memory: Developmental trends in childhood and adolescence in terms of memory include: Capacity of short term memory and long term memory expand and become more differentiated, hierarchical ordering of information and increasing ability to categorize and classify and to re-classify.

Metacognition: Growth in metacognition increases ability to control understanding, to understand when one did not understand, ability to ask questions to fill information gaps, ability to separate content and delivery, to consider form and intention of a speaker, finding alternative interpretations of a message.

Learning Strategies: Ability to use mnemo-techniques to memorize material, increasing ability to take effective notes, to identify main information units and gists of a story, ability to contrast and compare, take into account text types and stylistic characteristics.

These developmental trends are reflected in the Wisconsin Standards for Oral Language Performance as illustrated for grades 4,8, through 12: Students learn to **understand** and **recall** stories and sequences of information, they proceed to being able to **distinguish** fact from fiction, to consider purposes and finally to **evaluate** content and style of delivery.

As a consequence: As a teacher prepares any kind of listening practice he or she needs to take into account two perspectives and find answers to these two questions:

a)   What are the specific tasks, challenges, pleasures involved in a particular listening situation? (e.g., what makes listening to a lecture different from reading a text? What makes listening to a presidential speech different from reading it?)

b)   What are the developmental considerations which have an impact on the type of information processing which is possible or required? (e.g., what do I know about the state of cognitive development of my students? How can I help them to proceed?)

In listening, much of the language skills are needed and used which students have acquired in formal and informal learning situations. They learn vocabulary, communication skills, and ways of self-presentations from parents, peers, and other models real or fictitious. But still: Listening needs to be practiced, too, because it requires a special set of information processing skills. Consider this: It is certainly helpful that a child knows how to ride a tricycle, when she wants to learn how to ride a bicycle. But, we all know, that practice on the tricylce alone is not sufficient to ride a bike safely.

Preparation and Procedures:
Examples for teaching critical listening
1. Select a text for listening
2. Ask questions to activate prior knowledge about
    a.   Content
    b.   Style
3. Present the text.
4. Make the listeners describe what they found
5. Make the listeners compare what they found
6. Double check if the perceptions can be supported.

Types of text which could be used in this exercise:
Fairy tales, poems, political speeches, news items, student presentations

Example for grade school: a fairy tale

A fairy tale: Sweet Porridge
    4   th graders:
1.   Activate prior knowledge:
    a.   What is your favorite fairy tale?
    b.   What exactly is a fairy tale?
    c.   How do you know a fairy tale from a regular story?
    d.   What is so special about the language and style of a fairy tale?
    e.   ….
2.   Prepare for listening and present the text:
    a.   Please listen to the story and make sure that you can retell it later to a friend.
    b.   What makes this text a fairy tale?

c. In which way does this text break the rules for fairy tales?

d. What kind of text is this and how do you know?

e. How would you put the message of the tale in one sentence?

(You may select one or more questions before you present the text. The fewer questions you give the more facilitate focusing. For beginners less is certainly more.)

Suggestion for a fairy tale:

Original:
There was a poor but good little girl who lived alone with her mother, and they no longer had anything to eat. So the child went into the forest, and there an aged woman met her who was aware of her sorrow, and presented her with a little pot, which when she said, cook, little pot, cook, would cook good, sweet porridge, and when she said, stop, little pot, it ceased to cook. The girl took the pot home to her mother, and now they were freed from their poverty and hunger, and ate sweet porridge as often as they chose. Once on a time when the girl had gone out, her mother said, cook, little pot, cook. And it did cook and she ate till she was satisfied, and then she wanted the pot to stop cooking, but did not know the word. So it went on cooking and the porridge rose over the edge, and still it cooked on until the kitchen and whole house were full, and then the next house, and then the whole street, just as if it wanted to satisfy the hunger of the whole world, and there was the greatest distress, but no one knew how to stop it. At last when only one single house remained, the child came home and just said, stop, little pot, and it stopped and gave up cooking, and whosoever wished to return to the town had to eat his way back.

Reworded text:
In 1734, there was a poor but good little girl who lived in the little town of Sunderbourg alone with her mother, and they no longer had anything to eat. Prices in the stores had gone up and food tickets were no longer available. So the child took her bike and went into the forest, and there an aged woman in a senior citizens' residence met her who was aware of her sorrow, and presented her with a little stainless steel pot, which when she said, cook, little pot, cook, would cook good, sweet porridge and French Fries. And when she said, stop, little pot, it ceased to cook and automatically switched off the burner. The girl said: "Thanks Ma'm, this is really cool!" The girl took the pot home to her mother, and now they were freed from their poverty and hunger, and ate sweet porridge and canned fruit as often as they chose although they knew that this was not what the FDA would call a balanced diet – they just loved it!

Once on a weekend when the girl had gone to hang out with her friends, her mother – greedy as she was – said, cook, little pot, cook. And it did cook and she ate till she was satisfied, and then she wanted the pot to stop cooking, but did not know the stupid word. So it went on cooking and the porridge rose over the edge, spoiling the burner and the oven, and still it cooked on until the kitchen and the whole house were full, and then the garage, the next house, and then the whole street including the cars, just as if it wanted to satisfy the hunger of the whole world, and there was the greatest wohaha, but no one knew how to stop it. At last when only one single house remained, the boy came home and just said, "come on little pot, cut it out!" and the pot stopped and gave up cooking, and whosoever wished to return to the village had to identify himself to the police and had to eat his way back through tons of ice cream.

Tips and Debriefing:

All things considered, I would suggest the following guidelines for teaching critical listening:

1.   Choose **authentic listening situations**, e.g., story telling, speeches, conversations, sermons, discussions, poetry readings, (student) presentations, oral exams, f2f onverbal ns, instructions.

Avoid unnatural listening situations, e.g., listening to a lecture for 2 hours and no notes!

2.   **Set a task** for listening. In order to be able to listen well, an intention is an absolute prerequisite. Support learning by providing this intention through a specific perspective, e.g., ask students to retain the story for recall, to consider the vocabulary, to attend to form and style, to listen for emotional key words, to watch the   onverbal.

Avoid: "Just listen! We'll see later what we make of it."

3.   **Use a variety** of listening situations. In order to train listening, the students need to reflect on how listening to a friend who needs help is different from listening to a lecture from listening to a political discussion from listening to grandmother telling her story the umpteenth time over.

Avoid: Monoculture in listening.

4.   Provide for the opportunity to **exchange and discuss** the results of a listening task. The skilled listener understands that it is part of listening that every listener comes up with a different interpretation of what she thinks she understood.

Avoid: Presenting an easy solution: "This is what was said and, therefore, this is what you should have understood."

5.   Present **yourself** as a **role model** for critical listening. Reflect on your own listening behavior and consider, e.g., how you show that you do not rely on the first interpretation of what you have heard, how you ask questions to double check and fill knowledge gaps, how you pay attention to nonverbal parts of the message.

Avoid: Preaching water and drinking wine. Saying how important it is to attend to a person if you listen to somebody, while clearing the material from your desk during a conversation.

Assessment:

Assessment can be arranged as above: Prepare and present a text which breaks
   - Conventions of style
   - Conventions of content

and see how many out of the total the students are able to detect and to repair.