

The Semantic Space of Sounds

Lexicon of Sound-Describing Words – Version 1

(Revised version May 2008)

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DELTA

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1. Introduction

When communicating verbally about sound, when making profile diagrams, and when making listening tests (e.g. pairwise comparison and semantic differential) words are needed to describe and discriminate and scale the characteristics of the sounds. This report contains a list of sound-describing words – a “Lexicon”.

The general experience is that the language is not a very precise tool for characterizing sounds. We may perceive characteristics that we don’t have words or labels for.

Sound-describing words may be divided into categories referring directly to the sound characteristics (perception), the sound source, or to associations related to a sound; words will never be a complete representation of all details of auditory perception.

Nevertheless the words – and especially the ones directly related to perception – may be developed and refined as a “tool” for transferring information about auditory experiences to other people. Some of these words may even be independent of other sound-describing words. In this sense they may be used as a “metric” of a certain characteristic. Some of the sound-describing words may be directly related to auditory attributes. The initial idea of this Lexicon therefore was to use the words as a guide for finding and defining, scaling, etc. new auditory attributes. Thus, it is the hope that this Lexicon may give inspiration to finding new attributes and metrics for characterizing sounds in a more detailed and unambiguous manner.

The purposes of the Lexicon are:

- to contribute to a common and more precise language about sound characteristics, at least in the acoustic society
- to be a bank of words to choose from in connection with word elicitation for listening tests, descriptive analysis of sounds for focus group discussions, etc.
- to give a list of possible words for profile diagrams
- to give inspiration to finding and defining new perceptual attributes of sound

The document describes the organization of this collection of sound descriptors, which are contained in a database. The report also contains word lists extracted from the database sorted according to different criteria. The report describes the ideas behind the database, its intended use and development.

The main part of the work was made by the Danish author (M.Sc. of acoustics). The scalings of the English words were discussed with Jody Ghani (also M.Sc. of acoustics), whose native language is English. The scaled word list is also available as an Excel sheet making it possible to sort the words according to distance from a chosen word in the semantic space.

2. Definitions

For general reference a list of definitions (in alphabetical order) with relations to the semantic space of sound is given below (mainly from .

Acoustic metrics: Examples: Sound pressure level, frequency-weighted sound pressure level

Affective measurement: Subjective measurements of preference, annoyance or of connotative attributes.

Attribute: A property that can be perceived (perceptual, affective or connotative), it may or may not be prominent.

Characteristic: A distinguishing property (metric or attribute) of noticeable prominence.

Descriptor: A word or phrase that describes, identifies, or labels an attribute or a characteristic.

Feature: A property of a sound – in some situations an attractive property.

Fundamental attribute: A perceptual one-dimensional property of the sound.

Measurement: Assigning numbers to objects in a relational way, - e.g., by comparison with a standardized quantity of the same dimension (a so called unit). Specific instruments and/or a panel of expert listeners are needed.

Metric: a measure of, physical or perceptual properties

Monosemy [19]: Relation between designation and concept in which the former designates only one concept.

Perceptual measurement: An objective quantification of the sensory strength of individual sensory descriptors of a perceived stimulus. Perceptual tests are measurements where humans (expert assessors) are used as “measuring instruments”.

Primary descriptors: A collection of words that may be used to characterize other descriptors. They may relate to fundamental attributes.

Product sound quality: Product-sound quality is a descriptor of the adequacy of the sound attached to a product, the sound of product quality.

Profile: A set of parameter values (e.g. sensory descriptors or/and metrics) that describes the (character of) the sound.

Psycho-acoustic metrics: Algorithms that have been developed to substitute perceptual measurements of attributes by instrumental procedures that evaluate the waveform of the sounds. Such algorithms provide only estimates of the attributes, and their range of validity is limited. (Examples: Loudness, sharpness, roughness, roughness, fluctuation strength, tone prominence impulse prominence)

Quality of sound: Assessment of quality involves a (conscious or unconscious) comparison with some desired features (a personal “reference”). For that reason quality is a subjective characteristic. The better the characteristics of the sound match the desired features, the higher the quality will be rated. The sound quality is not to be confused with the sound character.

Sensory descriptor [14]: Are used within a closed domain (e.g. a product category) and are defined to ensure their monosemy for both the panelists and persons using the results.

Sound quality: The sound quality is the quality (e.g. the fidelity of music, the intelligibility and quality of speech) of reproduced sound or generated sounds (e.g. warning signals). The term Sound Quality indicates that we are concerned with the quality of the sound itself.

Stimuli: Stimuli may be anything that evokes a response from an assessor when presented with the stimuli. Such stimuli may stimulate one or many of the senses e.g. hearing, vision, touch, olfaction or taste.

Note: From a philosophical viewpoint all sounds can be located in a space formed by a set of fundamental and mutually orthogonal attributes. We may or may not have words for these attributes. If it is possible to hear a difference between two sounds, then the perceived magnitude of one or more fundamental attributes is different for the two sounds. At this stage of the relations between attributes and generally used descriptors are not considered in detail. Further research is necessary to identify the fundamental attributes that are best suited to represent the character of sounds in general. For specific domains these relations may already be defined

3. Word Classes

The words in the Lexicon may relate to physical characteristics, i.e. metrics for the sound, they may relate to perceptual (auditive) characteristics, affective characteristics, or to connotative characteristics. The philosophy behind dividing the words into these groups can be found in 11.5 Appendix.

The words in this Lexicon are divided into the following groups or classes:

Perceptual descriptors of sounds:

- 1) *Direct sound descriptors*
- examples: Loud, bassy, sharp
- 2) *Words relating to perceptions from other senses than hearing*
- examples: Bright, dark, colourless
- 3) *References to events and sound sources*
- examples: Howling, roaring, rattling
- 4) *Changes or differences in perceptions*

- examples: Coloured, compressed, muffled

5) Affective responses to sounds

- examples: Pleasant, annoying, boring

6) Connotative associations

- examples: Sporty, luxurious, powerful

7) Onomatopoeia

- examples: Woof-woof, yap-yap

8) Attributes

- examples: Spaciousness (the descriptor is spacious), tone color (descriptors: e.g. light, sharp dark, bassy), distance (descriptors: e.g. near, distant)

Groups 1 and 2 may relate to fundamental attributes, and the words in groups 3 and 4 may be described by the words in 1 and 2.

Words in groups 5-7 may be described by words from the 1-4.

Descriptors are used to characterize sounds and to label or scale attributes. Descriptors are normally adjectives (e.g. a *dark* sound) while attributes might be substantives (e.g. Distance). The descriptors may be used as word anchors for scaling the attributes. Many descriptors may be turned into an attribute by adding “ness” to the word.

The distribution of the descriptors in this Version 1 is given in Table 1.

Perceptual attributes				Other attributes		Imitation	Charact.
1. Direct sound descrip- tors	2. Relating to other senses	3. Reference to events and sources	4. Changes or differ- ence in perception	5. Affective	6. Connota- tive	7. Onomato- poeia	8. Attributes
95	21	163	32	48	108	14	150
24%	2%	17%	8%	5%	26%	3%	15%

Table 1

The distribution of the words in the Lexicon. The second row is the number of words in each word class, the third row is the percentage of the total number of words (631).



4. Organization of the Words of the Lexicon

A total of 631 words is included. The words are stored in a Microsoft Access database (file-name: Lexicon2.mbd) with a number of fields. Figure 1 shows a form from the database.

Field	Value
Word group	3 Perceptive - Ref. to events or sources
Spectral colour	
Descriptor ID	
Eng#	Clicking
Danish	Klikkende
German	
Synonyms	
Danish synonyms	
German synonyms	
Related	
Danish similar	Smække
German similar	
Antonyms	Thumbing, Thudding
Danish antonyms	Dundrende, Dunkende
German antonyms	
Definition	Very short sound with no low low frequencies. To strike, move, or produce with a click.
Examples	
Ref#sound	
Domain	1, 2, 7, 8, 9, 10
Metric	
Definition	
References	24
Intensity, time	
Loudness	Min: 4, Max: 5
Amplitude var.	Min: 7, Max: 9
Impulsivity	Min: 6, Max: 10
Duration	Min: 0, Max: 0,1
Decay	Min: 0, Max: 0,2
Tempo	
Regularity	
Roughness	
Frequency	
Sharpness	Min: 5, Max: 8
Darkness	Min: 0, Max: 1
Pitch	
Pitch strengt	Min: 0, Max: 1
Tone promin.	Min: 0, Max: 0
Polyphony	
Harmony	
Frequency var.	
Spatial	
Localized in space	Min: 9, Max: 10

Figure 1
Example of a form from the Lexicon database.

Not all fields are relevant to all words, and not all fields are filled in this version. This leaves room for further work.

The spectral colour field is intended to give a fast overview for words where the spectral distribution is relevant. The principles for the analogy between colours and sound spectra are described in 14 Appendix.

There may be a general definition of the meaning of the word, there may be a specific definition related to sound in general and finally there may be domain specific definitions. As an example the word “balanced” has different definitions whether it refers to the tone color or to spatial or directional properties of the sound. The definitions may stem from different references and shall in this version be seen more as examples of definitions that has been used for specific purposes rather than commonly agreed definitions. Definitions that are in complete contradiction with the general use of terms are generally not included.

The words in the database may be sorted by any of the fields. A list is easily made of e.g. “Perceptual words” related to other senses sorted alphabetically by the English words. A list of words with increasing loudness may also be made, etc.

The profiles, see Section 5, may be used to find similar words or words describing different degrees of a certain characteristic, see Section 6.

In Section 11 – Lexicon, lists of words sorted in different ways are given.

5. Profiles

A profile is a characterization of the words by assigning a magnitude for a set of primary descriptors or dimensions. Ideally, these descriptors should make up the full set of fundamental attributes, but there is no indication as to how far from this ideal the proposed set of primary descriptors is. The profiles of the words in this Lexicon are based on a number of (hopefully) relevant primary descriptors. No systematic methods have been used to find and define the primary descriptors; so, in principle there may be more or other relevant descriptors.

The 17 primary descriptors used are: *Loudness, Amplitude variation, Impulse prominence, Duration, Decay, Tempo, Regularity, Roughness, Sharpness, Presence, Pitch strength, Pitch, Tone prominence, Polyphony, Harmony, Frequency variation, Localized in space.*

The profiles may be presented in a graphical form at a later stage.

The characteristics of the words are scaled on numerical scales with a 0-10 range. Some words may be specific in only one or a few dimensions. The rest of the primary descriptors of such a word may have any magnitude (undefined/not relevant). Some words relate to an interval, e.g. the word *audible*, which may be characterized as above the hearing threshold but not loud. A loudness range from 1 to 5 may be relevant.

Some words are more precise and unambiguously understood than others. The ideal would be that the words in the Lexicon was profiled by a number of persons. That will give a mean value and a standard deviation for each dimension in the profile. The standard deviations will tell how identical the word is interpreted by different persons. Words with small standard deviations are attractive for precise descriptions of sounds.

For non-stationary or non-constant sounds some of the characteristics change with time. The description of the total sound is made on the basis of the most characteristic sound elements and a description of the most characteristic changes.

If the total sound persists of a number of successive sound elements, the most characteristic element is described.

The scales on the profiles are based on the sounds heard in the closest “most common” distances from the sound sources, if any.

6. The Semantic Space – Interpretation of the Profiles

The profile of a word can be understood as a vector in the multidimensional semantic space made of the primary descriptors. The endpoints of the vectors indicate a point or a place in the space where the actual word is located. Normally the vectors start at the origin, but for combined words (e.g. a loud thundering sound) the vectors for “loud” and “thundering” may be added.

If the primary descriptors were identical with a complete set of fundamental and orthogonal attributes, then no difference could be heard between sounds corresponding to words located in the same point in the semantic space. On the other hand, different locations in the space would mean that a difference could be heard.

In the semantic space the following geometrical interpretations will apply:

- Words with small mutual distances are synonyms or words describing sounds with the same characteristics
- Words with different distances from the origin along the same direction (spatial angle) express different degrees of the same characteristic
- Words with large mutual distances will be antonyms or words with few common characteristics

If the primary descriptors are carefully translated into another language, then the profile diagrams may be used for (improving) translations of other sound-describing words.

7. Scaling of the Profiles

Profiles are used to present the characteristics in a manageable way. Therefore, it is necessary to represent the characteristics on scales of similar magnitude. It is chosen to use closed scales in the range 0-10, not restricted to integer numbers.

Anchor points are defined for the scales. For dimensions with corresponding metrics (e.g. for “loud” the metric is loudness or loudness level) a defined rescaling of the metrics to a 0-10 scale is suggested for the use in this Lexicon. Other transformations may be relevant to profiling of sounds for other purposes.

Warning! In the present Version 1 of the Lexicon the profiles are the assessments of the author only. There is no evidence that the profiles are generally valid. Methods for such a valida-



tion are thought of, and it will be of value with average profiles from the profiles of a number of persons' independent judgements, but the work has not yet been made.

The profiling of the sounds is mainly relative, and the scaling is done by, thinking of sounds (but not listening to these) that may correspond to the most common meaning of the words. Some words, especially the affective and connotative words, may not be generally profiled because the scaling is very dependent on the actual context.

The scaling was made in two rounds: In the first round the words were scaled by a direct judgement. In the second round the rank order and relative scaling of adjacent words (with respect to a certain primary descriptor) were controlled and adjusted, if necessary.

8. Definition of Scales

8.1 Loudness

Loudness is the perceived intensity of the sound.

Anchor points:

- 0: Are the softest sounds you can imagine, very close to the threshold of hearing
- 5: Corresponds to normal speech at a distance of 1 m
- 10: Are the loudest sounds you can think of, almost painful

There is a well established metric for loudness, N , and for loudness level, L_N , see [46].

Reference signal: The loudness level, L_N in phone, is the sound pressure level in dB of a 1 kHz tone which is perceived as being as intense as the actual sound.

A profile scale, L_{NS} , from 0 to 10 is approximated by one twelfth of the loudness level in Phone, see Table 2.

Loudness level, L_N , Phone	10	20	30	40	50	60	70	80	90	100	110
Profile, L_{NS} , on 0-10 scale	1	2	3	3	4	5	6	7	8	10	10

Table 2
Linearization of loudness for the profile diagrams.

8.2 Amplitude Variation

Amplitude variation is the sensation of sound intensity variations. Large variations give large values. Very slow and very fast variations give a lower sensation of the variation.

The amplitude variation does not deal with the onset and decay of the sound. These are characterized by the “Impulse prominence” and the “Decay”.

Anchor points:

- 0: Sounds without any level variations
- 5: Clearly audible, but not full amplitude variations
- 10: Amplitude variations with amplitudes from an inaudible to full loudness at a rate of 4 times per second

The technical term for amplitude variations is “Fluctuation strength”, but this is associated with both amplitude and frequency variations at low frequencies (usually less than 15 Hz). The fluctuation strength reaches its maximum at modulation frequencies of about 4 Hz and is decreased to near zero at the modulation frequencies 0.24 and 32 Hz. There is a well established metric, vacil, for fluctuation strength, F , see [46].

Reference signal: A pure tone of 1 kHz with a sound pressure level of 60 dB, the amplitude of which is modulated at a frequency of 4 Hz and a degree of modulation of 1, is said to have a fluctuation strength of 1 vacil. Fluctuation strength is increasing with the sound pressure level of the signal by a factor of 3 to 5 for an increase of the level from 40 to 80 dB.

In the profile diagrams this characteristic is divided into amplitude variation and frequency variation. If the modulation of the reference signal is decreased from full modulation to a modulation of 10 dB, the fluctuation strength is reduced to approx. 50% of the reference signal.

Profile scales, P_F , for this metric is shown in Table 3 and Table 8. The formula used for the linearization of profile scale is $P_F = 5 * F$ for both amplitude and frequency modulation.

AM modulation at 4 Hz of 1 kHz sine, dB	4	6	10	20	40	*BBN
Fluctuation strength, F in vacil	0.2	0.4	0.8	1.2	1.35	1.75
Profile, P_{FA} , on 0-10 scale	1	2	4	6	7	9

Table 3

*The third row shows the linearization, P_F , for the profile diagrams of the fluctuation strength, F , given in the second row. The second row furthermore gives the approximate fluctuation strength of an amplitude-modulated sinusoidal signal as specified in the first row. *BBN denotes a 100% modulated broadband noise signal.*

8.3 Impulse Prominence

An impulse may be defined as the sudden onset of a sound. The perceived prominence of impulses depends on the onset rate and the (level) difference between the background noise before the onset and the maximum level.

Anchor points:

- 0: A continuous sound with constant level
- 1: Car passing at a distance of 7.5 m at a speed of 110 km/h
- 4: Tyre change with a pneumatic tool
- 7: Wood axe at some distance
- 10: Sharp hammer blows on iron or firecrackers at a short distance

There is a metric for the prominence of impulses: The predicted prominence P . P is a measure, calculated from the onset rate and the level difference, which gives good correlation with listening tests on how prominent impulsive sounds are perceived. P is defined in [38].

Reference signal: A continuous 1 kHz tone of a level of 50 dB, stepping 20 dB up in a zero crossing for 200 periods and back to 50 dB, gives an impulse prominence of 8.

A profile scale of 0.67 times the predicted prominence P may be used.

8.4 Duration

The duration of a sound may seem obvious at first hand, but start and end slopes (e.g. the passing by of a car or a sound in a reverberant environment) may give a different sensation than physical measurements. For very short-duration sounds (less than 10 ms) the sensation of duration deviates from the physical duration.

Anchor points:

- 0: Corresponds to very short sounds as shots and clicks without reverberations
- Up to 10: The approximate duration in seconds
- 10: Is used for sounds of a duration longer than 10 seconds

There is a metric for duration, $dura$, see [46].

Reference signal: The sensation of a 1 kHz tone of a sound pressure level of 60 dB and a physical duration of 1 second is 1 $dura$.

8.5 Decay

The decay is the duration of a decreasing loudness at the end of a sound. The decay may have origin at the source, e.g. a voice fading out, or at resonances or reverberation.

Anchor points:

- 0: Corresponds to no audible decay
- Up to 10: Three times the approximate decay time in seconds
- 10: Is used for decay times longer than 3 seconds

The decay time may be defined in the same manner as the reverberation time: The time it takes for the signal to decrease 60 dB (usually measured from -5 dB to -30 dB).

8.6 Tempo

The tempo is the speed or frequency of the occurrence of noticeably audible events such as level or frequency changes in a sound.

Anchor points:

- 0: Corresponds to a steady-state situation with no changes
- 2: The beat of very slow music
- 5: Normal continuous speech
- 10: So fast that single events cannot be distinguished

A metric of events per second may be used.

8.7 Regularity

The regularity is the evenness of the time intervals between the occurrences of noticeably audible events.

Anchor points:

- 0: Events occur at completely random intervals
- 5: Cars passing by in heavy traffic
- 10: The tics of a grandfather's clock

8.8 Roughness

The sensation of roughness results from amplitude or frequency modulation of a sound at frequencies between 15 Hz and 300 Hz. The maximum roughness sensation is at around 70 Hz.

Anchor points:

- 0: To be defined
- 5: To be defined
- 10: To be defined

There is a well established metric, asper, for roughness, R, see [46].

Reference signal: A pure tone of 1 kHz with a sound pressure level of 60 dB, the amplitude of which is modulated at a frequency of 70 Hz and a degree of modulation of 1, is said to have a roughness of 1 asper. Roughness is increasing with the sound pressure level of the signal by a factor of 3 or 4 for an increase of the level from 40 to 80 dB.

Profile scales, P_R , for this metric are shown in Table 4. The formula used for the linearization of the roughness profile scale is $P_R = 5 * R$

AM modulation at 70 Hz of 1 kHz sine, dB	0.36	0.56	0.87	1	AM mod. noise
Roughness, R in asper	0.20	0.40	0.80	1.00	2 - 6
Profile P_R , on 0-10 scale	1.0	2.0	4.0	5.0	10

Table 4

The third row shows the linearization, P_F , for the profile diagrams of the roughness, R, given in the second row. The second row furthermore gives the approximate roughness of an amplitude-modulated sinusoidal signal as specified in the first row.

FM modulation at 4 Hz of 1.5 kHz sine, $\pm\%$	4%	7%	20%	33%	47%
Roughness, R in asper					
Profile, P_R , on 0-10 scale	1	2	4	6	8

Table 5

The third row shows the linearization, P_R , for the profile diagrams of the roughness, R, given in the second row. The second row furthermore gives the approximate roughness of a frequency-modulated sinusoidal signal as specified in the first row.

For musical sounds Roughness may relate inversely to harmony.

8.9 Sharpness

Sharpness is the sensation produced by high-frequency components in sounds. The sharpness sensation is based on the relative balance of the sound spectrum, independent of the fine structure.

Anchor points:

- 0: Sounds without any high-frequency content
- 5: Corresponds to sound in the range of a recorder (flute)
- 10: Is the sharpest sound you can think of, e.g. really high-pitched jingle bells

Sharpness and darkness (see Section 8.10) are not completely independent, but strong high-frequency components will increase sharpness more than darkness decreases.

There is a well established metric, acum, for sharpness, S , see [46].

Reference signal for the sharpness of 1 acum: A narrow-band noise, one critical band wide (160 Hz) at a centre frequency of 1 kHz having a sound pressure level of 60 dB. Sharpness is slightly dependent on the intensity of the signal, the sharpness increases by a factor of two for a level increment from 30 to 90 dB.

A profile scale, P_S , for this metric is shown in Table 6. The formula used for the linearization of the profile scale is $P_S = 2.5 * (\text{LN}(S)) + 4.2$.

Critical band centre frequency, Hz	200	500	1 k	4 k	10 k	20 k
Sharpness, S in acum	0.2	0.5	1	2	5	10
Profile, P_S , on 0-10 scale	0.2	2.5	4.2	5.9	8.2	10.0

Table 6

The third row shows the linearization, P_S , for the profile diagrams of the sharpness, S , given in the second row. The second row furthermore gives the sharpness of a critical band (frequency band of an approximate bandwidth of 100 Hz below 500 Hz and 20% of the centre frequency above 500 Hz) with a centre frequency as stated in the first row.

8.10 Darkness

Darkness is the sensation produced by low-frequency components in sounds. The darkness sensation is based on the relative balance of the sound spectrum, independent of the fine structure.

Anchor points:

- 0: Sounds without any low-frequency content, e.g. the sound of a small portable radio
- 5: Corresponds to sounds with a flat spectrum, e.g. the sound of a waterfall
- 10: Is a sound with strong low-frequency components

Sharpness and darkness are not completely independent, but strong low-frequency components will increase darkness more than sharpness decreases.

8.11 Pitch

Pitch is the sensation of frequency. For frequencies below 1000 Hz half the frequency produces half the pitch. Other dependencies apply above 1000 Hz, and the pitch sensation is also influenced by the sound pressure level. For combinations of tones with harmonic relations (integer frequency relationship) the sensation of pitch is related to the fundamental (the frequency difference between the harmonics).

Anchor points:

- 0: Sounds at very low frequencies
- 5: Sounds at mid-frequencies (1000 Hz), e.g. a recorder (flute)
- 10: Very high-frequency sounds (10 kHz) above the fundamental range of music

There is a metric, mel, for the ratio pitch, see [46].

A reference signal for pitch is a 440 Hz sine tone of a sound pressure level of 40 dB may be used. The pitch value of the reference sound is 440 mel.

8.12 Pitch Strength

The pitch of a sound can be more or less pronounced. Independent of the pitch, the sensation pitch strength can also be labelled as faint pitch or strong (distinct pitch). A pure tone of 1 kHz elicits a very strong pitch strength sensation, whereas a noise band around the same frequency is perceived as the same pitch, but with a smaller pitch strength. For pure tones the pitch strength decreases with decreasing duration below 500 ms.

Anchor points:

- 0: Sounds with a flat spectrum, e.g. the sound of a waterfall
- 2: Band-pass filtered noise with a bandwidth of 100 Hz around 500 Hz
- 5: A 1000-Hz tone of 50 ms duration
- 10: A pure tone with a duration longer than 0.5 second

The phenomenon of pitch is described in [46], but no metric is defined.

8.13 Tone Prominence

Is the prominence of tones partly masked by other sounds, e.g. noise is the degree of audibility of the tones.

Anchor points:

- 0: No tones can be heard
- 3: Weak tones are heard
- 6: The tones are prominent
- 10: The tones are dominating, other sounds are hard to hear

A metric for the prominence exists, the tonal audibility, ΔL_{ta} . This is a measure for the level of tones in relation to the masking threshold within a critical band. ΔL_{ta} is defined in [39].

Reference signal: A 1 kHz tone with a sound pressure level of 60 dB within a pink noise signal (20 Hz - 20,000 Hz) with a total level of 68.2 dB (corresponding to 53.4 dB in a 1/3-octave band at 1000 Hz) will give a tonal prominence of 10 dB above the masking threshold.

A profile scale, L_T , from 0-10 is approximated with 1/30 of the tonal prominence in dB above the masking threshold, see Table 7. Sounds at the masking threshold are given values near zero, very prominent tones are given a value of 10.

Tonal prominence, ΔL_{ta} in dB	0	6	12	18	24	30
Profile, L_T , on 0-10 scale	0.0	2.0	4.0	6.0	8.0	10.0

Table 7

Profile scale for tone prominence. First row indicates the tonal prominence ΔL_{ta} in dB above the masking threshold.

8.14 Polyphony

Polyphony is the perception of the simultaneous number of distinguishable voices, instruments, sound sources, or different pitches in a sound.

Anchor points:

- 0: A single pure tone
- 1-9: The number of distinguishable voices, instruments, sources, or pitches
- 10: An undistinguishable number

8.15 Harmony

Harmony is the perception of musical concordance, where the parts/tones are agreeably related. A high degree of harmony means lack of discordant or dissonant sounds. Harmony is mainly

meaningful for sounds with pitch strength above zero. The perception of disharmony increases with increasing pitch (perceived as trident and shrill sound).

Anchor points:

- 0: A sharp disharmonious combination of tones
- 5: Sounds/cords with some, but not domination disharmonious elements
- 10: Octave relationships

Disharmonious combinations of tones relate to some extent to roughness.

8.16 Frequency Variation

Frequency variation is the sensation associated with pitch variations at low variation frequencies (usually less than 15 Hz). The sensation reaches its maximum at modulation frequencies of about 4 Hz and is decreased to near zero at the modulation frequencies 0.24 and 32 Hz.

Anchor points:

- 0: Sounds with constant pitch
- 5: Clearly audible, but limited variations
- 10: Pitch variations over a large range at a rate of 4 times per second

Frequency variations well above 15 Hz are perceived as roughness.

There is a common and well established concept for slow amplitude and/or frequency variations: Fluctuation strength, F . The metric is vacil, see [46].

The formula used for the linearization of a profile scale is $P_F = 5 * F$ for both amplitude and frequency modulation.

FM modulation at 4 Hz of 1,5 kHz sine, \pm %	2%	4%	7%	15%	27%	47%
Fluctuation strength, F in vacil	0.2	0.4	0.8	1.2	1.6	2
Profile P_F , on 0-10 scale	1	2	4	6	8	10

Table 8

The third row shows the linearization, P_F , for the profile diagrams of the fluctuation strength, F , given in the second row. The second row furthermore gives the approximate fluctuation strength of a frequency-modulated sinusoidal signal as specified in the first row.

8.17 Localization

Localisation is a perception of a specific direction to the sound. If the sound comes from a distinct direction, it has a high degree of localization. If the sound envelops the listener, it has a low degree of localization.

Anchor points:

- 0: Sounds coming from all directions, e.g. the reverberation in a cathedral
- 5: Sound mainly coming from one side, e.g. in the horizontal plane, e.g. the noise from heavy traffic on a motorway
- 10: Sound coming from one specific direction only

9. Calculation of Distances in the Semantic Space

A small piece of software is made (macro's in an Excel spreadsheet) that can calculate distances between words in the semantic space. The file name is "Semantic space.xls". The data in this spreadsheet are the midpoints between the minimum and maximum ratings for each primary descriptor, exported from the Lexicon, see Section 4.

The distances are calculated as Euclidian distances (square root of squared differences between the coordinates), for the common coordinates between the words. In the Lexicon (the Access database) the primary descriptors of a word are scaled as a range defined as the relevant minimum and maximum of that descriptor for that word. When calculating the distances, the midpoint and that range are used.

The words in the spreadsheet may be sorted by each primary descriptor separately, but they may also be sorted by increasing distance from a given word (the Test descriptor), see Table 9.

Most alike	Distance	Number of common coordinates	Most dislike	Distance	Number of common coordinates
Thundering	0.0	12	Clean	13.8	4
Dark	0.0	2	Howling	13.9	11
Intense	0.0	1	Whine	13.9	11
Intense	0.0	1	Jangling	14.1	12
Loud	0.0	1	Strident	14.4	6
Strong	0.0	1	Chirping	14.4	12
Violent	0.0	1	Pinging	14.4	11
Colourless	0.5	1	Squealing	14.7	11
High (level)	0.5	1	Wailing	14.7	10
Boomy	0.7	2	Shrill	15.1	8
Coloured	1.0	1	Beeping	15.8	12
Spacious	1.0	1	Whistling	16.3	10

Table 9

Distances from “Thundering” in the semantic space. The three leftmost columns show the ten words with the smallest distances to “Thundering. The three rightmost columns show the ten words with the largest distances. Connotative and affective words have been excluded by filtration.

There is a tendency that when the number of common coordinates increase, the distances also increase. Therefore, it is possible to sort the calculated distances from the Test descriptor according to the number of common distances also, this is done in Table 10.

Most alike	Distance	Number of common coordinates	Most dislike	Distance	Number of common coordinates
Thundering	0.0	12	Twitter	13.7	12
Booming	4.1	7	Cheep	13.8	12
Bumpy	4.1	8	Howling	13.9	11
Blasting	4.2	10	Whine	13.9	11
Rumbling	4.6	11	Jangling	14.1	12
Resonant	4.7	8	Chirping	14.4	12
Dynamic	5.7	7	Pinging	14.4	11
Thud	5.9	8	Squealing	14.7	11
Banging	5.9	11	Wailing	14.7	10
Gnashing	6.3	8	Shrill	15.1	8
Grinding	6.6	7	Beeping	15.8	12
Roaring	6.7	11	Whistling	16.3	10

Table 10

Distances from “Thundering” in the semantic space. A “filtration” has been made so that only words with more than 7 common coordinates are shown. The three leftmost columns show the ten words with the smallest distances to “Thundering. The three rightmost columns show the ten words with the largest distances. Connotative and affective words have been excluded by filtration.

The possibility of filtration may be used for finding words with specific characteristics. A few examples are shown below:

- Loudness less than 5, sharpness greater than 7:
 - Hissing, Sibilant, Twitter, Splashing, Tinny, Whirring, Whooshing, Swishy, Swooshing, Sough, Wheeze, Ticking, Chirping
- Loudness greater than 5, impulsivity greater than 6:
 - Crash, Knocking, Clapping, Slam, Banging, Impacting, Punchy, Honky, Patter, Beat, Rapping, Pop, Crack
- Regularity greater than 4, tone prominence greater than 4:
 - Twitter, Chuckling, Clucking, Yelp, Yap, Cackle, Babbling, Glug, Chirping, Beeping, Twirling, Chiming, Melodic

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11. Lexicon

11.1 Word classes

The following number system is used for the word classes, see Section 3:

Perceptual attributes of sounds:

- 1) *Direct sound descriptors*
- 2) *Words relating to perceptions from other senses than hearing*
- 3) *References to events and sound sources*
- 4) *Changes or differences in perceptions*

5) Affective responses to sounds

6) Connotative associations

7) Onomatopoeia

8) Attributes

11.2 Domains

The following domains have been used in this version:

Domain

1. General
2. Product sound
3. Timbre
4. Localization of sound
5. Spatial aspects
6. Tone color
7. Speech quality
8. Disruptions of sound quality
9. Environmental noise
10. Sound quality (sound reproduction in general)
11. Room acoustics

11.3 English-Danish Word List with Definitions

Acceptable	Acceptabel	<i>Word class:</i> 5
Aggressive	Aggressive	<i>Word class:</i> 6
Agitating	Bevægende	<i>Word class:</i> 5
Ahead	Forfra	<i>Word class:</i> 8
		Domain: Spatial aspects: Some sounds may appear to be closer to you, whereas others seem father away. Sounds appearing behind you is classified as further away
Airy	Luftig	<i>Word class:</i> 1
Insubstantial, light	Let, yndefuld	Being light and graceful in movement or manner
Alarming	Alarmerende	<i>Word class:</i> 5
Alive	Levende	<i>Word class:</i> 6
Ameniting	Behagelig	<i>Word class:</i> 5
		Regularity, harmonicity, appropriateness (the pleasing aspects of the sound)
Annoying	Generende	<i>Word class:</i> 5
Appealing	Tiltrækkende	<i>Word class:</i> 5
	Indbydende	
Appropriate	Passende	<i>Word class:</i> 5
Articulation	Artikulation	<i>Word class:</i> 8
		Domain: Sound quality: How well instruments/vocals/etc. stand out from the music
Artifacts	Atetakt	<i>Word class:</i> 8
		Domain: Sound quality: The amount of distortion, cracks and other, added, possibly unintentional, elements.
Artificial	Kunstig	<i>Word class:</i> 6
Attack	Attack	<i>Word class:</i> 8
Attractive	Tiltrækkende	<i>Word class:</i> 5
	Tiltalende	
Audible	Hørbar	<i>Word class:</i> 1
Aural	Tydelig, hørlig	To be heard - perceptible by the ear
Babbling	Pludrende	<i>Word class:</i> 3
	Pjadre; skvadre; plapre	Sounding as though babbling. To talk enthusiastically or excessively, to utter meaningless or unintelligible sounds
Background noise	Baggrundsstøj	<i>Word class:</i> 8
		Sound not stemming from the primary source of interest See also Noise
Balance	Retningsbalance	<i>Word class:</i> 8

Balance, Spectral	Spektral balance	<i>Word class:</i> 8
Balanced	Balanceret	<i>Word class:</i> 1
		Domain: Tone color: No frequency ranges are dominating or attenuated
		Domain: Spatial aspects:
		How the sound can be localized, is it well centered or is it pending to the
Banging	Bragende	<i>Word class:</i> 3
Bump	Bankende, knaldende	A short sound or thump. To strike sharply, to produce a sharp often metallic explosive or percussive noise or series of such noises, to knock, beat, or thrust vigorously.
Barking	Gøende	<i>Word class:</i> 3
		To make the characteristic short loud cry of a dog, to make a noise resembling a bark
Basic audio quality	Grundlæggende	<i>Word class:</i> 8
		Domain: Sound quality: Global attribute used to judge any and all detected differences between the reference and the object. Applicable to monophonic, stereophonic and multichannel systems.
Bass	Bas	<i>Word class:</i> 8
		The strength of the bass or low frequency sounds relative to the midfrequency sounds, how well the lowest sounds can be heard
		See also Bassiness
Bass emphasis	Bashævning	<i>Word class:</i> 8
		Domain: Tone color: Prominence of lower frequencies
		See also Darkness and Low bass emphasis
Bassiness	Bassetthed	<i>Word class:</i> 8
		Domain: Tone color: a sound that has a lot of low freq, or boosted low freq.
		See also Bass
Bassy	Basset	<i>Word class:</i> 1
	Bas, rig, fuld, dæmpet, uklar	Deep or grave in tone, of low pitch. Relating to or having the range or part of a bass
Bearable	udholdelig	<i>Word class:</i> 5
Acceptable	Acceptabel	Capable of being endured
Beating	Slående	<i>Word class:</i> 3
	Banken; taktslag; rytme	To sound or express especially by drumbeat. To strike repeatedly in order to produce music or a signal
Beautiful	Smuk	<i>Word class:</i> 5
Beep	Bip	<i>Word class:</i> 7
		A short high tone produced as a signal or warning

Beeping	Bippende	<i>Word class:</i> 3
		A short (series) of high pitched sounds. To sound a horn, to make a beep.
Behind	Bagfra	<i>Word class:</i> 8
		Domain: Spatial aspects: Some sounds may appear to be behind you
Bellowing	Brølen	<i>Word class:</i> 3
Roar, roar, roaring, yowl		Loud deep hollow sound, shout in a deep voice. To make the loud deep hollow sound characteristic of a bull, to shout in a deep voice.
Blare	Gjalde	<i>Word class:</i> 1
	skingre, trutte	A loud sound, (unnatural) rich in harmonics. To sound loud and strident, to sound or utter raucously
Blasting	Drønende	<i>Word class:</i> 3
	Bragende	Short loud sound, with a sudden onset. To shatter by or as if by an explosive.
Blattering	Brægende	<i>Word class:</i> 3
Bleat		To cry like a calf or sheep, to make a raucous noise
Bleating	Brægende	<i>Word class:</i> 3
	Brølen; klynken	To utter the natural cry of a sheep or goat or a similar sound, to talk complainingly or with a whine
Blending	Blanding	<i>Word class:</i> 8
		Domain: Sound quality: Are instruments easy to separate from each other
Blunt	Uskarp	<i>Word class:</i> 2
	Stump	With low content of high pith components. Having an edge or point that is not sharp
Blur	Uskarphed	<i>Word class:</i> 8
		A state or condition with unclear perception
Blurred	uklar	<i>Word class:</i> 2
Body	Krop	<i>Word class:</i> 8
Fullness	Fylde	
Boiling	Kogende	<i>Word class:</i> 3
		Sounds as a boiling and bubbling water
		Domain: Speech quality: Background noise has the sound of continuous boiling.
Bonging	Dongende	<i>Word class:</i> 3
		The deep resonant sound especially of a bell
Boominess	Dybtoneresonans	<i>Word class:</i> 8
Resonating	Rungende	Domain: Tone color: A narrowband in the lower frequencies is accentuated. See also: Boomy
Booming	Rungende	<i>Word class:</i> 1
Boomy	Drøne; brumme; bruse;	With resonances in the low frequencies. To make a deep hollow sound

		dundre	
Boomy	Dybtoneresonant		<i>Word class:</i> 1 With resonances in the low frequencies
Boring	Kedelig		<i>Word class:</i> 5
Bow-wow	Vov-vov		<i>Word class:</i> 7
Boxy	Indelukket		<i>Word class:</i> 4
	Kasselyd		With resonances in the mid-frequency range. Resembling a box, as when talking in(to) a box.
Braying	Skrydende		<i>Word class:</i> 3
	Skråle		To utter the characteristic loud harsh cry of a donkey
Breathy	Åndende		<i>Word class:</i> 3
			Voice with the sound of accompanying air stream (hissing sound)
Bright	Lys		<i>Word class:</i> 2
Sharp	Blank; klar; funklende;		Rich and crisp tones, -most musical instruments in their upper registers
			Domain: Tone color: Related to treble Domain: Speech quality: becomes bright by the inclusion of high
Brightness	Lyshed		<i>Word class:</i> 8
			Domain: Tone color: Related to treble, the treble-orientated tone of the sound source. A sound is bright when is has emphasized treble.
Brilliance	Brilliance		<i>Word class:</i> 8
Brilliant	Skinnende		<i>Word class:</i> 2
	Glimrende; funklende; strålende		1: Very bright: Glittering (a brilliant light)
Broad	Bred		<i>Word class:</i> 3
			General: Having ample extent from side to side
Broadness	Bredde		<i>Word class:</i> 8
			Domain: Spatial aspects: The perceived extent of the soundscape relative to the listener's head. Describes how wide an area the perceived sound event seems to have. A strong positive value would mean that sounds envelope the listener.
Bubbling	Boblende		<i>Word class:</i> 3
			Domain: Speech quality: A bubbling sound alternating with the speech signal, but perceived as being in the background.
Bumpy	Bumlende		<i>Word class:</i> 3
			The sound of a sudden (repeated) forceful blow, impact
Burdensome	Belastende		<i>Word class:</i> 5
			Imposing or constituting a burden
Burning	Brændende		<i>Word class:</i> 3
Burred	Summende		<i>Word class:</i> 3

Buzzing	Summende Brummende	Word class: 3 1: A humming sound with some "z"-sounds connected to it. To make a low continuous humming sound like that of a bee. 2 : MURMUR, WHISPER (to be filled with a confused murmur: the room buzzed with excitement). 3: To make a signal with a buzzer
Cackling	Kaglende Kvække; gnægge; grine	Word class: 3 To make the sharp broken noise or cry characteristic of a hen especially after laying
Calm	Rolig	Word class: 6
Calming	Beroligende	Word class: 5
Calmness Disturbance Disruption	Rolighed Forstyrrelse	Word class: 8 Domain: Disruptions: Disturbance related to hissing, distortion, clipping and unwanted vibration, etc.
Chattering	Sludrende	Word class: 3
Cheap	Billig	Word class: 6
Cheeping Peeping	Pippende Pippende	Word class: 3 To utter faint shrill sounds
Cheerful	Munter	Word class: 5
Cheering	Opmuntrende	Word class: 5
Chiming	Kimende	Word class: 3 1: To make a musical and especially a harmonious sound, To make the sounds of bells, chimes, and gongs. 2: To be or act in accord: the music and the mood chimed well together.
Chirping Cheeping	Kvidrende pippende	Word class: 3 A sound in the high range with some frequency modulation. The characteristic short sharp sound especially of a small bird or insect
Chuckling	Klukkende (latter) indvendig latter	Word class: 3 1: To laugh inwardly or quietly. 2 : to make a continuous gentle sound resembling suppressed mirth
Clacking Chatter, prattle	Klaprende Plapre	Word class: 3 To make an abrupt striking sound or series of sounds
Clamorous	Larmende Højrystet	Word class: 5
Clangorous Clang	Klingrende Klirre; drøne (med metalklang); klirre med	Word class: 3 1: To make a loud metallic ringing sound: anvils clanged. To go with a clang. 2 : To utter the characteristic harsh cry of a bird
Clanking	Klankende Rasle; skramle; klirre	Word class: 3 1 : To make a clank or series of clanks: The radiator hissed and clanked.
Clapping	Klappende	Word class: 3

Clarity	Klarhed	Sharp short sound. To strike (as two flat hard surfaces) together so as to produce a sharp percussive noise. To strike (the hands) together repeatedly usually in applause.
clearness, distinctness		Word class: 8 Domain: Timbre Relating to a temporal distinction between sounds Describes if the sound sample appears clear or muffled, for example if the sound source is perceived as covered by something, disturbance in
Clashing	Klirrende	
	Sammenstød	Word class: 3 To make a clash: cymbals clashed. Crash together with violent impact, a loud resonant repeating noise: "he could hear the clang of distant bells".
Clattering	Klirrende	
Crackling	Klapren, raslen; skramlen, plapren	Word class: 3 1: To make a rattling sound: The dishes clattered on the shelf. 2: To talk noisily or rapidly. 3: To move or go with a clatter: Clattered down the stairs.
Clean	Ren	
Pure, unadulterated	Pæn; net; velformet; regelmæssig; fri for fejl;	Word class: 1 1: Free from dirt or pollution. Free from contamination or disease.
Clear	Klar	
Bright, luminous, clean, pure transparent	Klarhed; renhed; fejlfri, lys	Word class: 2 The clarity or definition of the sound. The ability to perceive musical detail. The degree to which notes are separated in time. The quality of being clear, free from mist, haze, or dust; free from abnormal sounds, easily heard, easily understood.
Clearness	Klarhed	
Clarity		Word class: 8 The clearer the sound, the more details you can perceive in it See also Clarity
Clicking	Klikkende	
	Smække	Word class: 3 Very short sound with no low frequencies. To strike, move, or produce with a click.
Clinking	Klirrende	
		Word class: 3 To give out a slight sharp short metallic sound
Clipping	Begrænset	
Closed	Lukket	
Clucking	Klukkende	
		Word class: 3 To make a cluck, to make a clucking sound with the tongue
Clunky	Klonkende	
		Word class: 3 To hit something with a clunk, a heavy dull sound (as made by impact of heavy objects), to make or move along with a sound as of a horse's hooves striking the ground
Cluttered	Uren	
		Word class: 3

Coarse	Grov	<i>Word class:</i> 1
Cold	Kold	<i>Word class:</i> 2
Coloration	Farvning	<i>Word class:</i> 8 See colored, tone color
Colorless	Farveløs	<i>Word class:</i> 2 Lacking color
Coloured	Farvet	<i>Word class:</i> 4 Not the same as the original or as expected. Artificially produced; not natural
Comfortable	Komfortabel	<i>Word class:</i> 6
Complex	Kompleks	<i>Word class:</i> 6
Complicated	Kompliceret	<i>Word class:</i> 6
Comprehensive	Omfattende	<i>Word class:</i> 6
Compressed	Komprimeret	<i>Word class:</i> 4 Lacking dynamic range
Consistent	Samstemmende	<i>Word class:</i> 6
Consonant	Konsonant	<i>Word class:</i> 1 1: Being in agreement or harmony: free from elements making for discord. 2: Marked by musical consonances. 3: Having similar sounds
Constant	Konstant Beständig; stadig; uforandret;	<i>Word class:</i> 1 Not changing or capable of change
Constrained	ufri	<i>Word class:</i> 8 Restricted by limitations
Continuity of the	Kontinuitet af	<i>Word class:</i> 8 Without areas where sounds are lacking
Continuous	Kontinuert	<i>Word class:</i> 1
Cooing	Kurre Pludre	<i>Word class:</i> 3 1: To make the low soft cry of a dove or pigeon or a similar sound 2 :To talk fondly, amorously, or appreciatively
Cosy	Hyggelig	<i>Word class:</i> 6
Covered	Tildækket	<i>Word class:</i> 8 As sound source is covered, unfree
Cracking Clattering	Knækkende Knalde med; smælde med (fx a whip); sprække; revne; briste; knalde; smælde; (om stemmen)	<i>Word class:</i> 3 To make a very sharp explosive sound: The whip cracks through the air. To break with a sudden sharp sound: Crack nuts. Domain: Speech quality: Background noise is continuously crackling.
Crackling	Knitrende Knase	<i>Word class:</i> 3 To make small sharp sudden repeated noises: The fire crackles on the

		hearth.
Cramped	Trang	<i>Word class:</i> 6
Crashing	Bragende Bulder; sammenstød	<i>Word class:</i> 3 To make a loud noise: Crash the cymbals together. To force (as one's way) through with loud crashing noises, to break or go to pieces with or as if with violence and noise.
Creacking	Knagende	<i>Word class:</i> 3 Domain: Speech quality: Background noise is continuously creacking.
Creaking Squeaking	Knirkende	<i>Word class:</i> 3 To make a prolonged grating or squeaking sound often as a result of being worn-out. Squeaking sound: "the creak of the floorboards gave him away". Make a high-pitched, screeching noise, as of a door.
Crisp	Sprød	<i>Word class:</i> 3
Crumbled Decompose, degrade, disintegrate	Smuldrende	<i>Word class:</i> 4
Crunchy	Sprød Knasende	<i>Word class:</i> 3 Pleasingly firm and fresh and making a crunching noise when chewed.
Cuckoo	Kuk-kuk	<i>Word class:</i> 7 The call of the cuckoo (A largely grayish brown European bird that is a parasite given to laying its eggs in the nests of other birds.
Damped	Dæmpet	<i>Word class:</i> 4 With diminished activity or intensity
Dangerous	Farlig	<i>Word class:</i> 6
Dark	Mørk Dunkel; hemmelighedsfuld; Of low or very low lightness, possessing depth and richness: A dark skummel; dyster; uhyggeligvoice.	<i>Word class:</i> 2 Domain: speech quality: Speech is dark if its low frequency components dominate
Darkness	Mørke ("mørkhed")	<i>Word class:</i> 8 General: See Dark Domain, Tone Color: The amount of low-end type of timbre
Dead	Død	<i>Word class:</i> 4 Without reverberation
Deep	Dyb Mørk	<i>Word class:</i> 1 Extending far downward. Having a low musical pitch or pitch range: A deep voice.
Defensive	Defensiv	<i>Word class:</i> 6
Delicate	Delikat	<i>Word class:</i> 6
Dense	Tæt	<i>Word class:</i> 6

Depressing	Deprimerende	<i>Word class:</i> 5 Causing unhappiness
Depth	Dybde	<i>Word class:</i> 8 General: The quality or state of being complete
Depth localisation	Dybdelokalisation	<i>Word class:</i> 8
Depth, ensemble	Ensembledybde	<i>Word class:</i> 8
Depth, Sense of	Dybdeoplevelse	<i>Word class:</i> 8 Spatial aspects: How strongly the sens. of dist. is perceived, how ambig. the sens. of dist. is. Can several sound events be discr. in terms of dist.? A low value means that dist. for all events are ambiguous except those originating from the loudsp. Pos.
Destinctness	Destinkthed	<i>Word class:</i> 8 See clarity
Detestable	Afskyelig	<i>Word class:</i> 5 Arousing or meriting intense dislike
Diffuse	Diffus	<i>Word class:</i> 1 Undefined in frequency, time or direction.
Dignified	Værdig	<i>Word class:</i> 6
Ding-Dong	Ding-Dong	<i>Word class:</i> 7 The sound made by (a) bell(s).
Direction, Sense of	Retningsfornemmelse	<i>Word class:</i> 8 Domain: Localization how well the direction of the sound source(s) can be defined and discriminated. Measures also whether several sound sources can be distinguished. A low value implies that the location of a sound event is
Directional	Retnings	<i>Word class:</i> 1 General: Relating to, or indicating direction in space. Sound: Suitable for detecting the direction from which signals come
Dirty Cluttered	Uren	<i>Word class:</i> 3
Discordant	Uharmonisk Uoverensstemmende	<i>Word class:</i> 1 Lack of agreement or harmony
Disgusting	Væmmelig	<i>Word class:</i> 5 to cause to feel disgust, a strong dislike
Disharmonious Discordant, dissonant, inharmonic, inharmonious, unharmonious	Disharmonisk	<i>Word class:</i> 1 Lack of agreement or harmony
Disliking	Ubehagelig	<i>Word class:</i> 5
Dismissive	Afvisende	<i>Word class:</i> 5

Disruption	Forstyrrelse	To cause to leave <i>Word class:</i> 8 General: To interrupt the normal course or unity of... Domain Timbre: how much hiss, snap/crackle/pop is perceived in the sound sample
Dissonant	Disharmonisk Ildelydende, skurrende	<i>Word class:</i> 1 A mingling of discordant sounds, especially a clashing or unresolved musical interval or chord.
Distance	Afstand	<i>Word class:</i> 8 The the degree or amount of separation between the listener and the (aparent) sound source. Domain: Sound quality: Does it sound close to the listener or far away
Distance to events	Afstand til hændelser	<i>Word class:</i> 8 Domain: Spatial aspects: Describes the actual distance from where the sound events appear to originate. A positive value implies that the sound sources are sensed to be far from the listening point.
Distance, scene	Sceneafstand	<i>Word class:</i> 8
Distance, Sense of	Afstandsforfølelse	<i>Word class:</i> 8 Domain: Evaluation of Spatial Enhancement Systems Describes how well the distance between the sound source(s) and the listener can be defined.
Distance, Source	Kildeafstand	<i>Word class:</i> 8
Distant	Fjern Uklar	<i>Word class:</i> 4 General: Separated in space, far apart, far behind Sound: The sound source is situated at a great distance Speech quality: Distant or thin, and sounds like it has been occluded
Distinct Clear	Distinkt Tydelig; klar	<i>Word class:</i> 1 Presenting a clear unmistakable impression, clearly, easily or sharply perceived.
Distinctness	Tydelighed	<i>Word class:</i> 8
Distorted	Forvrænget	<i>Word class:</i> 4 To twist out of a natural, normal, or original shape or condition A falsified reproduction of an audio or video signal caused by change in the wave form of the original signal
Distortion	Forvrængning	<i>Word class:</i> 8 General: Falsified reproduction of an audio or video signal caused by change in the wave form of the original signal

		Domain: Timbre
Disturbance	Forstyrrelse	Word class: 8
impure	Uren	Domain: Sound Quality: The sound has hiss, fizz, cracks or distortion or other impurity
Disturbing	Forstyrrende	Word class: 5
		Interfering present or activity or preventing from intended activity
Dripping	Dryppen	Word class: 3
		The sound of falling water drops, to let fall in drops
Droning	Monoton	Word class: 1
	Brumme; tale (el. synge) monotont	A persistently dull or monotonous tone/sound with unchanging intonation, characteristic for a bagpipe. To make a sustained deep murmuring, humming, or buzzing sound.
Drumming	Tromme	Word class: 3
		To make a succession of strokes or vibrations that produce sounds like drumbeats. To throb or sound rhythmically
Dry (Rasping)	Tør	Word class: 3
		Lacking smooth sound qualities: A dry rasping voice.
Dry (short reverb)	Tør (klangløs)	Word class: 1
		Free or relatively free from reverberation
Dull	Dunkel	Word class: 2
	mat, uklar	Lacking sharpness or brilliance, low in lightness. (Lacking in force or intensity). Not resonant or ringing: A dull booming sound.
Durable	Holdbar	Word class: 6
Dynamic	Dynamisk	Word class: 1
Dynamics	Dynamik	Word class: 8
		Domain: Sound quality: range of volume difference the device/sound covers
Easy	Let	Word class: 6
Easygoing	Letløbende	Word class: 6
Echo	Ekko	Word class: 8
		Domain: Spatial aspects: gives a feeling of the sound coming from many directions The amount of echo
Echo, Amount of	Ekko, mængde af	Word class: 8
		Domain: Space How the listener experiences the amount of echo in relation to the sound sources
Echo, Quality of	Ekko, Kvalitet af	Word class: 8
		Domain: Space How well the echoes relate to their sound source(s) in a qualitative way

Echoey	Ekko (med ekko)	Word class: 4 Reflected sound arriving with an intensity and delay such that it can be discerned as a repetition of the direct sound
Echoic	Ekko (med ekko) Lydmalende	Word class: 4 Echolike, like or characteristic of an echo. The repetition of a sound caused by reflection of sound waves.
Edgy	Kantet Skarp; nervøs	Word class: 2 Having an edge, sharp.
Effect of device	Virkning af lydildens	Word class: 8 Domain: Sound quality: Robustness of sound quality when moving the device in the hand, turning it, from the table...
Effect output	Effektstyrke	Word class: 8 Domain: Sound quality: how well the audio output produces effects like reverb or if it makes the feeling that there is something extra added to the sound material
Effective	Effektiv Virkningsfuld; kraftig	Word class: 6
Elated	Opstemt	Word class: 6
Elevated	Hævet	Word class: 3 See elevation
Elevation	Elevation	Word class: 8 the angular distance/direction of something above the horizon Domain: Localization: The perceived height of the sound source relative to the level of the ears
Emphasis	Fremtrædenhed	Word class: 8 Domain: Spatial aspects: An emphasised sound is somehow, partly or in whole, too loud. Some part of the sample might be playing too loud and this would result in a positive value.
Empty	Tom	Word class: 6
Emvelopment	Omsluttethed	Word class: 8
Ensemble inner	Helhedsvirkning af	Word class: 8
Enveloping Surrounding	Omskuttende	Word class: 1 To enclose or enfold completely with or as if with a covering. That which envelops or surrounds
Envelopment	Omsluttethed	Word class: 8 Domain: Spatial aspects: A sound is enveloping when it wraps around you. A very envelopping sound will give you the impression of being immersed in it. A non envelopping sound will give you the impression of being outside of it.
Equalization	Equalisering	Word class: 8 Domain: Sound quality: the flatness of the equalization curve

Even Smooth	Jævn Glat; rolig;	Word class: 2 Being without break, indentation, or irregularity, smooth. Free from variation.
Exciting	Spændende	Word class: 5
Exhilarating	Animeret	Word class: 6
Expanded Extended	Udvidet	Word class: 4 Domain: Spatial aspects: Wider than usual Sound quality: Accentuated dynamics
Expensive	Dyr	Word class: 6
Externalization	Eksternalisering	Word class: 8
Familiar	Velkendt	Word class: 6
Fast	Hurtig	Word class: 1 Characterized by quick motion, operation, or effect
Fat	Fyldig	Word class: 3 Dense in arrangement or distribution, some or a lot of substance or strength
Fatiguing	Trættende Udmattende	Word class: 5
Favorable	Gunstig	Word class: 5
Feminine	Feminin	Word class: 6
Fidelity Naturalness	Troværdighed Naturlighed	Word class: 8 See also Naturalness
Fine	Fin	Word class: 6
Firm	Fast	Word class: 6
Fizzy Sputtering	Sydende Bruse	Word class: 3 A hissing sound; as, the fizz of a fly
Flat	Flad	Word class: 6 General: lacking in animation, zest, or vigor. Visual analogies: uniform in hue or shade, having little or no illusion of depth, lacking contrast,;lacking shadows or contours, free from gloss Domain: Sound Quality: Lacking power
Fluctuating	Fluktuere Svinge; variere; være ustadig	Word class: 1 Variations in intensity or frequency with a random pattern. To shift back and forth uncertainly Domain: Speech quality: Background noise is fluctuating with the speech
Flutter Echo	Flutter ekko	Word class: 4 Periodic sequence of echoes
Fluttering	Flagrende	Word class: 3
Focus	Fokus	Word class: 8

		A state or condition permitting clear perception
Foggy	Tåget	<i>Word class:</i> 2
Frequency response		Frekvenskarakteristik <i>Word class:</i> 8
Tone color	klangfarve	Domain: Tone color: Is the sound natural or artificial, does it lacks/attenuates frequencies. The naturalness of frequency response
Fresh	Frisk	<i>Word class:</i> 6
Friendly	Venlig	<i>Word class:</i> 6
Frightening	Frygtindgydende	<i>Word class:</i> 6
Front image quality	Forgrundskvalitet	<i>Word class:</i> 8 Domain: Sound Quality: Related to the localisation of the frontal sound sources. It includes stereophonic image quality and losses of definition. Applicable to multichannel systems
Front/back stage	For/ bag lydfordeling	<i>Word class:</i> 8
Full	Fyldig	<i>Word class:</i> 1 a sound that has a rich and pleasing timbre. Greatness of volume. Completeness over a broad scope.
Fullness	Fyldighed	<i>Word class:</i> 8 General: A rich and pleasing timbre. Greatness of volume. Completeness over a broad scope. Domain: Spatial: Completeness
Funny	Sjov	<i>Word class:</i> 6
Fuzzyness	Uklarhed	<i>Word class:</i> 8 Lacking in clarity or definition
Gain	Forstærket	<i>Word class:</i> 4 The strength or loudness of the sound relative to the natural or expected
Garbled	Forvansket	<i>Word class:</i> 4
Gentle	Blid	<i>Word class:</i> 5
Glide	Glidende	<i>Word class:</i> 1
	Glissando	To move smoothly, continuously, and effortlessly, to produce a glide (as in music or speech).
Gloomy	Dyster	<i>Word class:</i> 6
Gluging	Klukkende	<i>Word class:</i> 3 Make a gurgling sound as of liquid issuing from a bottle
Gnashing	Skærende (tænder)	<i>Word class:</i> 3 To strike or grind (as the teeth) together
Gobbling	Slugende begærligt	<i>Word class:</i> 3
	Pludre (om kalkun)	To swallow or eat greedily, to read rapidly or greedily

Grandiloquence	Svulstig	<i>Word class:</i> 1 A lofty, extravagantly colorful, pompous, or bombastic style
Grating	Skurrende Raslende; hvinende	<i>Word class:</i> 3 To gnash or grind noisily. To cause to make a rasping sound. To utter in a harsh voice.
Grinding	Skurrende Knasende	<i>Word class:</i> 3 To wear down, polish, or sharpen by friction
Groaning	Stønne Knage (om træ)	<i>Word class:</i> 3 1 : To utter a deep moan indicative of pain, grief, or annoyance. 2 : To make a harsh sound (as of creaking) under sudden or prolonged strain.
Growling	Knurre Brumme; rumle	<i>Word class:</i> 3 Rumble: His stomach growled. To utter a growl: The dog growled at the stranger. 2: To complain angrily transitive senses. To utter with a growl, utter angrily.
Gruff	Grov	<i>Word class:</i> 3
Grumbling	Brummende Knurre	<i>Word class:</i> 3 To mutter in discontent, to utter or emit low dull rumbling sounds: "He grumbled a rude response."; "Stones grumbled down the cliff". Make a low noise, as of thunder
Grunting	Gryntende	<i>Word class:</i> 3 The short low gruff noise of the kind made by pigs. Issue a grunting, low, animal-like noise. "He grunted his reluctant approval".
Gurgling	Gurgle Klukke; skvulpe	<i>Word class:</i> 3 To flow in a broken irregular current: The brook gurgling over the rocks. To make a sound like that of a gurgling liquid.
Gushing	Strømmende	<i>Word class:</i> 3 To emit in a copious free flow
Guttural	Strubelyd	<i>Word class:</i> 3
Hammering	Hamrende Bankende	<i>Word class:</i> 3 The sound of to striking repeatedly <tried hammering the door to wake them up>
Happy	Glad	<i>Word class:</i> 6
Hard	Hård	<i>Word class:</i> 6
Hardness	Hårdhed	<i>Word class:</i> 8 Spatial aspects: How aggressive the sound is perceived to be. A soft sound is mellow and doesn't offer any surprises.
Harmless	Harmløs Ufarlig	<i>Word class:</i> 5 Not causing injury or hurt
Harmonious	Harmonere Være i samklang, stemme	<i>Word class:</i> 1 Musically concordant. Having the parts agreeably related

	overens	
Harsh	Ru	Word class: 2
Rough	Skurrende; disharmonisk; skærende; ru ; grov	Disagreeable to the senses. Lacking in aesthetic appeal or refinement, crude. Physically discomfoting, painful.
Hasty	Forhastet	Word class: 6
Hazy	Tåget	Word class: 2
	Ubestemt	With pitchless elements. Obscured or made dim or cloudy by or as if by haze
Heavy	Tung	Word class: 6
High (level)	Høj (styrke)	Word class: 1
High (pitch)	Høj (pitch)	Word class: 1
		Elevated in pitch: A high note. Domain: Speech quality: the inclusion of high frequency components
High Frequency	Højfrekvens	Word class: 8
High-class	Førsteklasses	Word class: 6
Hiss	Hvæsen	Word class: 3
		See Hissing
Hissing	Hvæsende	Word class: 3
Wheezing		To make a sound like that of stretching out the speech sound \s\ <the frightened kitten hissed at us when we tried to pick it up>
Hoarse	Hæs	Word class: 3
		Rough or harsh in sound, grating: A hoarse voice. Having a hoarse voice: shouted himself hoarse.
Hollow	Hul	Word class: 4
	Dump	Reverberating or resonating like a sound made in or by beating on an empty enclosure
Homogeneity	Homogenitet	Word class: 8
Honk	Honk	Word class: 7
		The cry of a goose or similar sounds, e.g. the sound of an oldfashioned car horn
Honky	Dyttende	Word class: 3
	Trutte; tude, Skrig (gæs)	Cry like a goose: "The geese were honking". Use the horn of a car. Make a loud noise: "The horns of the taxis blared".
Hooting	Tudende	Word class: 3
	Hujen; skrig; dyt	1:To shout or laugh usually derisively. 2:To make the natural throat noise of an owl or a similar cry. 3 :To make a loud clamorous mechanical sound
Howling	Hylende	Word class: 3
		To emit a loud sustained doleful sound characteristic of members of the

		dog family.
Humming	Summe	<i>Word class:</i> 3
	Surre; brumme; nynne	To utter a sound like that of the speech sound \m\ prolonged. To make the natural noise of an insect in motion or a similar sound. Domain: Speech quality: Presence of low frequency noise
Hurried	Hastig	<i>Word class:</i> 6
Image stability	Billdedstabilitet	<i>Word class:</i> 8
Impacting	Stødende	<i>Word class:</i> 3
	Tryk; sammenstød; anslag	To have an impact on, impinge on, to strike forcefully.
Impulsive	Impulsiv	<i>Word class:</i> 1
	Pludselig	Sounds with a sudden onset. Characterized by undue haste and lack of thought or deliberation, without forethought.
Impure	Uren	<i>Word class:</i> 1
Inarticulate	Uartikuleret	<i>Word class:</i> 1
Incomprehensive	Utilstrækkelig	<i>Word class:</i> 6
Inconsistent	Inkonsekvent	<i>Word class:</i> 6
Inferior	Dårlig	<i>Word class:</i> 5
Inharmonic	Uharmonisk	<i>Word class:</i> 1
		Lacking in harmony
Inside - outside	Inden i - uden for	<i>Word class:</i> 8
Insistant	Vedholdende	<i>Word class:</i> 5
		To drive or urge forcefully or irresistibly forcefully or irresistibly
Intelligible	Forståelig	<i>Word class:</i> 6
Intense	Intens	<i>Word class:</i> 1
	Voldsom; stærk	Existing in an extreme degree: The excitement was intense, intense pain. Having or showing a characteristic in extreme degree.
Interesting	Interessant	<i>Word class:</i> 5
Intermittend	Intermitterende	<i>Word class:</i> 1
Intermittent	Intermitterende	<i>Word class:</i> 1
		Sound with pauses or interruptions
Internal - external	Intern - ekstern	<i>Word class:</i> 8
Interrupted	Abrudt	<i>Word class:</i> 1
		Domain: Speech quality: interrupted speech caused by occasional attenuations applied to it
Intimacy	Intimitet	<i>Word class:</i> 8
		Domain: Room Acoustics: Whether the orchestra seems close connected to the listener or sounds are isolated as though playing in a separate room
Intimate	Intimit	<i>Word class:</i> 4
Connection, Spatial		Musicians and listeners are part of the same space

Impression			
Intrusive	Påtrængende	<i>Word class:</i> 5	
Irregular	Uregelmæssig	<i>Word class:</i> 1	Lacking continuity or regularity especially of occurrence or action
Irritating	Irriterende	<i>Word class:</i> 5	
Jangling	Klirrende	<i>Word class:</i> 3	
	Raslen; skramlen		Discordant ringing of nonmusical metallic objects striking together
Jarring	Skurrende	<i>Word class:</i> 3	
	Disharmonisk; rystende; stødende		To make a harsh or discordant sound. To be out of harmony.
Jingling	Klirrende	<i>Word class:</i> 3	
			Clear fluctuating sound with some treble and moderate to high pitch strength. A ringing bright sound: Keys jangling in my pocket.
Knocking	Bankende	<i>Word class:</i> 3	
	Hamre; slå		To make a pounding noise. To have engine knock. To strike something with a sharp blow.
Lapping	Labvende	<i>Word class:</i> 3	
	Smaskende		To make a gentle intermittent splashing sound. To move in little waves on the shore.
Large	Stor	<i>Word class:</i> 3	
Lateral localisation	Lateral lokalisering	<i>Word class:</i> 8	
Laterral stage	Lateral jævnhed af	<i>Word class:</i> 8	
Lean	Mager	<i>Word class:</i> 4	
Thin			Lacking richness, sufficiency, or productiveness. Deficient in an essential or important quality.
Left – Right	Venstre - højre	<i>Word class:</i> 8	
Legato	Legato	<i>Word class:</i> 1	
			Continous, successive without interruptions
Leisurely	Rolig	<i>Word class:</i> 6	
Light (not dark)	Lys	<i>Word class:</i> 2	
Bright			Having light: Bright, a light airy room.: Not dark, intense, or swarthy in color or coloring: Pale. Colors: Medium in saturation and high in lightness: Light blue.
Light (not heavy)	Let	<i>Word class:</i> 6	
			Not Heavy
Likeable	Sympatisk	<i>Word class:</i> 5	
			To take pleasure in
Lively	Livlig	<i>Word class:</i> 6	
Liveness	Livlighed	<i>Word class:</i> 8	
Localisaibility	Lokaliserbarhed	<i>Word class:</i> 8	

		Domain: Localization: Localisability describes how well the direction and the distance of a sound source(s) can be defined. The attribute ratio of localisability describes how many sound events can be localised from those present in the audio sample.
localisation	Lokalisation	<i>Word class:</i> 8
		How easy it is to perceive a distinct localisation of the source
Localizability, Ratio		<i>Word class:</i> 8
		Domain: Localization of sound
		describes how well the direction and the distance of a sound source(s) can be defined. The attribute ratio of localizability describes how many sound events can be localized from those present.
Localizable	Lokaliserbar	<i>Word class:</i> 1
Loud	Kraftig	<i>Word class:</i> 1
	høj, lydelig; stærk (fx a loud sound); (neds.) højrøstet; larmende; støjende; (om farve)	High intensity or volume of sound
Loudness	Lydstyrke	<i>Word class:</i> 8
Loudness level	Hørestyrke niveau	The intensity sensation of a sound of a sound, marked by intensity or volume of sound, the perceived sound level.
Low (Intensity)	Lav (styrke)	<i>Word class:</i> 1
	Svag; sagte; dæmpet (fx voice); (om tone(leje)) dyb	Low in intensity. Not loud: Soft.
Low (Pitch)	Lav (Pitch)	<i>Word class:</i> 1
		Low in pitch. Characterized by being toward the bottom of the range of pitch attainable (as by an instrument)
		Domain: Speech quality: Background noise is low, if its low frequency components dominate,
Low bass	Dybbashævning	<i>Word class:</i> 8
		Domain: Tone color: Prominence of lowest frequencies
Low Frequency	Lavfrekvens	<i>Word class:</i> 8
Luxurious	Luxuriøs	<i>Word class:</i> 6
Magnificent	Storartet	<i>Word class:</i> 5
Masculine	Maskulin	<i>Word class:</i> 6
Masking	Maskerende	<i>Word class:</i> 1
	Slørende	To make indistinct or imperceptible.
Massive	Massiv	<i>Word class:</i> 2
		having great weight, nearly impossible to move
Mechanical	Mekanisk	<i>Word class:</i> 3
Unnatural	Unaturlig	Domain: Speech quality: Speech has a mechanic-like characteristic and sounds unnatural

such as produced by a synthesiser. In contrast to mechanic, speech sounds natural.

Melancholic	Melankolsk	<i>Word class:</i> 6
Mellow	Blød Mild, modenhed; fylde; afdæmpet	<i>Word class:</i> 2 Pleasingly mild, rich and full but free from garishness or stridency. Warm and relaxed
Melodic	Melodisk	<i>Word class:</i> 1 Relating to, or producing melody, i.e. more than two successive tones
Metallic	Metallisk	<i>Word class:</i> 3 Tone color: Treble without bass, harsh, unnatural, sounds like it has gone through a machine Speech quality: Metallic-like characteristic that makes it sound cold. A harsh resonance
Mew Meow, miaou, miaow	Miav	<i>Word class:</i> 7 The sound made by a cat (or any sound resembling this)
Mewing	Mjavende Skrige (måger)	<i>Word class:</i> 3 The sound made by a cat (or any sound resembling this), utter a high-pitched cry, as of seagulls
Middle	Midter	<i>Word class:</i> 8 Sound: Intermediate between high and low frequencies
Mild	Mild	<i>Word class:</i> 6
Moaning Groan, groan, sigh	Stønnende	<i>Word class:</i> 3 A low prolonged sound of pain or of grief
Moderate	Moderat	<i>Word class:</i> 6
Modulated	Modulere (Amplitude)	<i>Word class:</i> 1 To vary the amplitude.
Modulated (Pitch)	Moduleret (Pitch)	<i>Word class:</i> 1 To tune to a key or pitch. To vary the frequency, or phase, an inflection of the tone or pitch of the voice.
Mono/stereo/surro	Mono/stereo/surround	<i>Word class:</i> 8
Monotonous	Monoton	<i>Word class:</i> 1 Without variation
Moo	Muh Brøle (som en ko)	<i>Word class:</i> 7 To make the throat noise of a cow or a bull
Movement	Bevægelse	<i>Word class:</i> 8 General: Change of place or position or posture
Movement, Sense	Bevægelsesforne	<i>Word class:</i> 8 Domain: Localization: How well the movement of the sound source(s) can be defined. A low value could indicate a source simply disappearing from its original location and reappearing in another without moving

			through any intermediate position.
Moving	Bevægelig	Word class: 3	General: Marked by or capable of movement
Muddy	Mudret	Word class: 4	Lacking in clarity or brightness : Cloudy, dull: A muddy recording.
Impure	Snavset; sølet; mørk; grumset (fx complexion); (om lyd) uklar; sløret		
Muffled	Dæmpet	Word class: 4	To wrap or pad with something to dull the sound. Muffle the oarlocks, to deaden the sound of...
Damped	Halvkvalt		Domain: Speech quality: Muffled or smothered phonemes, reducing its intelligibility.
Muffling	Dæmpning	Word class: 8	Domain: Sound quality: sounds as if there is something in the way of the sound. The sound is suffocated or misty
Murmuring	Mumlende	Word class: 3	A low indistinct but often continuous sound. A soft or gentle utterance.
	Knurren; rislen; brusen; susen; (med.) (hjerne)mislyd		An atypical sound of the heart indicating a functional or structural abnormality.
Muted	Dæmpet	Word class: 4	To muffle, reduce, or eliminate the sound of...To tone down: Soften
Soften			
Muttering	Mumlende	Word class: 3	To utter sounds or words indistinctly or with a low voice and with the lips partly closed.
	Brummen; rumlen		
Narrow	Smal	Word class: 1	
Nasal	Nasal	Word class: 3	Characterized by resonance produced through the nose. Uttered with the soft palate lowered and with passage of air through the nose.
	Snøvlende		Domain: Speech: Band pass filtered
Natural	Naturlig	Word class: 6	Domain: Sound quality: Relates to the way music should sound like on a real stereo cd-player, e.g. do the instruments sound real or do they sound synthetic/artificial. Defines if the sound is very modified, compressed or natural
Human	Menneskelig		
Naturalness	Naturlighed	Word class: 8	Domain: Spatial aspects: The true image of stereo, i.e. natural versus processed or artificial. How well the perceived events conform to what the subjects consider as realism. Perception of something that isn't possible in reality yields a negative value.
Nearness	Nærhed	Word class: 8	

Neighing	Vrinskende	The characteristic of being not distant <i>Word class:</i> 3
Nervous	Nervøs	To make the prolonged cry of a horse <i>Word class:</i> 6
Neutral	Neutral	<i>Word class:</i> 4 General: No prominent characteristics Domain Timbre: Not changing the characteristics
New	Ny	<i>Word class:</i> 6
Noise	Støj	<i>Word class:</i> 8 General: Unwanted sound Domain: Environmental noise (WHO): A feeling of displeasure evoked by noise Domain: Timbre:
Noisy	Støjende	<i>Word class:</i> 5 (With) unwanted sound or sound characteristics Domain: Speech quality: Presence of noise.
Objectionable	Frastødende Ubehagelig	<i>Word class:</i> 5
Obtrusive	Påtrængende	<i>Word class:</i> 1
Old	Gammel	<i>Word class:</i> 6
Open	Åben Fri; utilsløret	<i>Word class:</i> 4 Having no enclosing or confining barrie. Being in a position or adjustment to permit passage. Having the lips parted. Completely free from concealment Domain: Speech quality: Impression og sound source near to the listener
Openess	Åbenhed	<i>Word class:</i> 8 Domain: Sound quality: is the sound covered/blocked/muffled or open/free
Oppressing	Undertrykt	<i>Word class:</i> 4 to subject to incapacitating stress
Opulent	Overdådig Rig; yppig	<i>Word class:</i> 1 Amply or plentifully provided or fashioned often to the point of ostentation
Ordinary	Almindelig	<i>Word class:</i> 6
Palpable	håndgribelig	<i>Word class:</i> 0 capable of being perceived by the sense of touch
Passionate	Lidenskabelig	<i>Word class:</i> 6
PA-system	Højttaleranlæg	<i>Word class:</i> 8 Domain: Sound quality: How well the sound is projected, especially at high volumes, i.e. feels like a Ghetto blaster vs. suitable for personal use at low volumes

Pattering	Trommende (som af Klapren; trippen, plapre	Word class: 3 A quick succession of light rapid sounds: Tthe patter of mice"; "the patter of tiny feet". Make light, rapid and repeated sounds, as of rain: Rain gently. To talk glibly and volubly,
Peeping	Pibende Pippe	Word class: 3 A slight utterance especially of complaint or protest, to utter a feeble shrill sound as of a bird newly hatched, to utter the slightest sound
Penetrating	Gennemtrængende Skarp	Word class: 1 To pass, extend, pierce, or diffuse into or through something
Penetration	Gennemtrængning	Word class: 8 Domain: Spatial aspects: A sensation often found in cross talk cancelled binaural reproduction. A pos. value means that spatial information in the sample seems artificial. The sounds sometimes seem to originate very close to, or even inside, ones head
Percussive	Stødende Perkussions	Word class: 3 Of or relating to percussion; especially: Operative or operated by striking. Having powerful impact
Perspective	Perspektiv	Word class: 8 From where you perceive the sound sources (present or distant)
Phaseyness	Phaseyness	Word class: 8 Excess local acoustics
Phasi	Gradvis	Word class: 1
Piercing Sharp	Gennemtrængende Gennemtrængende; bidende; skarp	Word class: 1 To penetrate; to force a way into or through something
Pillowry	Pudet	Word class: 4
Ping	Ding	Word class: 7
Pinging	Ding Smælde	Word class: 3 A short, sharp high-pitched metallic sound. A sharp sound like that of a striking bullet
Piping	Pibende Fløjtende;	Word class: 3 To play on a pipe. To speak in a high or shrill voice. To emit a shrill sound
Plain	Simpel	Word class: 6
Plane	Jævn	Word class: 1
Plashing	Plaskende	Word class: 3 To cause a splashing or spattering effect. To break the surface of water. Softer than Splash?
Pleasant	Behagelig	Word class: 5
Pleasing	Behagende	Word class: 5

Plop	Plop	<i>Word class:</i> 7 The noise of a rounded object dropping into a liquid without a splash
Polyphonic	Polyfonisk	<i>Word class:</i> 1 With more than one simultaneous voice
Poor	Dårlig	<i>Word class:</i> 5
Popping	Smældende	<i>Word class:</i> 3 Plaffe; knalde; affyre (med et knald); trække (prop) op med et knald To strike or knock sharply. To cause to explode or burst open. To open with a pop: Pop a cold beer.
Pounding	Stampende	<i>Word class:</i> 3 Dundre (el. hamre, banke To strike heavily or repeatedly. Produce with or as if with repeated vigorous strokes. To reduce to powder or pulp by beating.
Power	Kraft	<i>Word class:</i> 8
Powerful Intense, loud	Kraftfuld	<i>Word class:</i> 6 Ability to act or produce an effect
Powerless weak	Kraftløs svag	<i>Word class:</i> 6 Lacking power
Prattling	Pludrende Sludre	<i>Word class:</i> 3 To utter or make meaningless sounds suggestive of the chatter of children
Precise	Præcis	<i>Word class:</i> 6
Preferable	Som er at foretrække	<i>Word class:</i> 5 If the sound as a whole pleases you. If you think the sound as a whole is good
Preference	Preference	<i>Word class:</i> 8 If the sound as a whole pleases you. If you think the sound as a whole is good
Presence	Nærhed	<i>Word class:</i> 8 How distant the sound seem to originate from, considering both timbral and spatial aspects Domain: Spatial effects: How near the sound appears to be, experience of being in the same room
Present	Nærværende	<i>Word class:</i> 4 A quality of poise and effectiveness that enables a performer to achieve a close relationship with an audience
Pretty	Køn	<i>Word class:</i> 5
Processed	precec eret	<i>Word class:</i> 8 Domain: Sound quality: How much the sound appears to be processed - echoes etc
Pulsating	Pulserende	<i>Word class:</i> 1

Pulsing	Pulserende	To throb or move rhythmically <i>Word class:</i> 1
		To produce or modulate in the form of pulses, rhythmical beating, vibrating, or sounding, a transient variation of a quantity
Punch	Slagkraft	<i>Word class:</i> 8
Punchless	Stødløs	<i>Word class:</i> 6
Punchy	Slående	<i>Word class:</i> 3
	Stød; kraft	Having punch: Forceful
Pure	Ren; ublandet; ægte	<i>Word class:</i> 1
Clean		Free from harshness or roughness. Being in tune.(used of a musical tone). A vowel: Characterized by no appreciable alteration of articulation during utterance. Unmixed with any other matter. Free from dust, dirt, or taint.
Purling	Rislende	<i>Word class:</i> 3
		To make a soft murmuring sound like that of a purling stream
Purring	Spinde	<i>Word class:</i> 3
		To make a purr or a sound like a purr: Cars purring along the highway.
Pushy	Forceret	<i>Word class:</i> 6
Quack	Rap	<i>Word class:</i> 7
		As the sound from a duck
Quality	Kvalitet	<i>Word class:</i> 6
Quiet	Stille	<i>Word class:</i> 1
Soft	Tyst	Of low intensity. Free from noise or uproar
Racy	Raceragtig	<i>Word class:</i> 6
		As the sound from a race car
Rapping	Smække	<i>Word class:</i> 3
	Banke; give et rap (el. slag); tromme	A sharp blow or knock
Rasping		<i>Word class:</i> 3
Raspy	Raspende	<i>Word class:</i> 3
	Skurren; skurrende lyd	To utter in a raspy (harsh) tone
Rational	Rationel	<i>Word class:</i> 6
Rattling	Raslende	<i>Word class:</i> 3
	Skramle; rumle; klapre; (om halslyd) ralle, dundre	To make a rapid succession of short sharp noises. An impact-induced phenomenon that occurs when there is a relative motion between components with a short loss of contact.
Raucous	Ru; hæs; grov	<i>Word class:</i> 1
		Disagreeably harsh or strident
Raw	Rå	<i>Word class:</i> 6
Realism	Realisme	<i>Word class:</i> 8

Reassuring	Beroligende	<i>Word class:</i> 6
Refined	Raffineret	<i>Word class:</i> 6
Refreshing	Forfriskende	<i>Word class:</i> 5
Regular	Regelmæssig	<i>Word class:</i> 1
		Recurring, attending, or functioning at fixed or uniform intervals
Relaxing	Afslappende	<i>Word class:</i> 5
Reliable	Pålidelig	<i>Word class:</i> 6
Relieving	Lindrende	<i>Word class:</i> 5
Remote	Fjern	<i>Word class:</i> 4
		Far distant in space
Reproduction of	Gengivelse af	<i>Word class:</i> 8
Repulsive	Frastødende	<i>Word class:</i> 6
Resonance	Resonans	<i>Word class:</i> 8
		Domain: Tone color: resonating (accentuating) in certain frequencies
Resonance-free	Resonansfri	<i>Word class:</i> 8
		Domain: Sound quality: does the device-case add coloration or noise due to resonances
Resonant	Rungende	<i>Word class:</i> 4
Resonating, resounding, reverberant, reverberating, reverberative, ringing,	Genlydende; sonor	Continuing to sound. Intensified and enriched by or as if by resonance. Marked by grandiloquence, inducing resonance; "resonant frequency". Characterized by reverberation: "a resonant voice", "hear the rolling thunder".
Restless	Hvileløs	<i>Word class:</i> 6
Restricted	Begrænset	<i>Word class:</i> 6
Reverb	Efterklang	<i>Word class:</i> 8
Reverberance	Efterklang	<i>Word class:</i> 8
Reverberating	Med efterklang	<i>Word class:</i> 4
Reverberation	Rumklang	<i>Word class:</i> 8
Rhythmic	Rytmisk	<i>Word class:</i> 1
	Taktfast	Sounds which are split up in time with some degree of regularity. The relating to, or involving rhythm. An ordered recurrent alternation of strong and weak elements in the flow of sound and silence.
Rich	Fyldig	<i>Word class:</i> 4
	(Om klang) fuldttonende; rigelig; overdådig; kostbar (fx jewels); (om lugt) kraftig; (om farve) varm	Full and mellow in tone and quality: A rich voice
Richness	Fyldighed	<i>Word class:</i> 8
		Timbre: How rich and nuanced the sound sample is. Relates to a combination of harmonics and dynamics perceived in the sample. The

		homogeneity of the timbre of a sample. If a sound lacks some of its timbral aspects, it would be graded with a low value.
Ringing	Ringende Klingende; rungende	Word class: 3 To sound resonantly or sonorously: The doorbell rang, cheers rang out. To be filled with a reverberating sound, resound: The halls rang with laughter. To have the sensation of being filled with a (more or less continuous) sound: His ears rang.
Rippling	Let bølgende Rislende	Word class: 3 An oscillation of small amplitude imposed on top of a steady value, to flow with a light rise and fall of sound or inflection. To flow in an irregular current with a bubbling noise, as of water: "Babbling brooks"
Roaring	Brølende Drønende; bragende (brusende hav)	Word class: 3 To utter or emit a full loud prolonged sound. To sing or shout with full force. To make or emit a loud confused sound (as background reverberation or rumbling) To laugh loudly.
Roaring (e.g. of	Brusende	Word class: 3 As the sound of waves or a waterfall
Room	Rum	Word class: 8 Domain: Sound quality: Echo/reverb in sound
Room	Rumfornemmelse	Word class: 8 Domain: Sound quality: The extent to which the sound coming from the sound source's reflections in the room (reverberation) envelops/surrounds/exists around you.
Room size	Rumstørrelse	Word class: 8 The room size conveyed by the sound
Roominess	Rumlighed	Word class: 8
Rough	Ru Grov; hård;; skarp; skærende; ujævn; ru; knudret; rå; ubearbejdet; ubehandlet; uhøvlet	Word class: 1 Coarse or rugged in character or appearance. Harsh to the ear, crude in style or expression, indelicate. Marked by a lack of refinement or grace.
Roughness	Ruhed	Word class: 8 Domain: Sound quality: harsh or aggressive sound
Rounded	Afrundet	Word class: 2 To bring to completion or perfection, to make (the lips) round and protruded (as in the pronunciation of \u028a\). To pronounce with lip rounding: Labialize.
Rumbling	Rumle Buldre; drøne	Word class: 1 To make a low heavy rolling sound: Thunder rumbling in the distance. To travel with a low reverberating sound: Wagons rumbled into town. To

		<p>speak in a low rolling tone.</p> <p>Word class: 3</p>
Rushing	Myldrende	
Gushing, hissing	Strømmende, hvæsende	
Rustling	Raslende	<p>Word class: 3</p> <p>Domain: Speech quality: Speech is continuously rustling</p>
Sad	Trist	Word class: 5
Safe	Sikker	<p>Word class: 5</p> <p>not exposed to the threat of loss or injury</p>
Samely	Ensartet	Word class: 1
Satisfactory	Tilfredsstillende	Word class: 5
Scary	Uhyggelig	<p>Word class: 5</p> <p>causing fear</p>
Scatching	Skabende	<p>Word class: 3</p> <p>The sound of scraping along a (rough) surface</p> <p>Domain: Speech quality: Speech is occasionally scatching</p>
Scraping	Skrabende	<p>Word class: 3</p> <p>Kradsende; (på violin etc.) gnide</p> <p>To grate harshly over or against... To damage or injure the surface of by contact with a rough surface. To draw roughly or noisily over a surface.</p>
Screaking	Skrigende	<p>Word class: 3</p> <p>Hvin</p> <p>To make a harsh shrill noise</p>
SCREECH		
Screaming	Skrigende	<p>Word class: 3</p> <p>Hvinende; hylende</p> <p>To voice a sudden sharp loud cry. To produce harsh high tones. To make a noise resembling a scream: Screaming siren.</p>
Screatching		Word class: 0
Screeching	Skrigende	<p>Word class: 3</p> <p>Sharp piercing cry. A high-pitched noise resembling a human cry. To utter a shrill cry, utter a harsh abrupt scream, make a high-pitched, screeching noise, as of a door.</p>
Scrunchy	Knasende	<p>Word class: 3</p> <p>Make a crunching noise, as of an engine lacking lubricants</p>
Seething	Sydende	Word class: 3
Sensitive	Følsom	Word class: 6
Separability	Adskillelse	<p>Word class: 8</p> <p>Domain: Timbre</p> <p>Describes how well the sound events can be separated out in the sound sample</p>
Separation	Separation	<p>Word class: 8</p> <p>Domain: Sound quality:</p> <p>the amount the different instruments and voices stand out from the</p>

		whole music. Can the listener hear each instrument/vocal?
Serious	Alvorlig	<i>Word class:</i> 6
Shaking	Rystende	<i>Word class:</i> 2 given to movements and vibrations
Sharp	Hvas; bidende (fx)	<i>Word class:</i> 1
Hard, metallic, piercing	Metallisk, skinger, diskant, gennemtrængende	High pitched. A sound with a relative prominent high frequency content. Adapted to cutting or piercing. Having a thin keen edge or fine point. Briskly or biting cold Domain: Speech quality:
Sharpness	Skarphed	<i>Word class:</i> 8 Describes the perceived relative strength of high frequency sounds. A sharp sound seems crisp, with a lot of high-frequency sounds and a soft sound seems more rounded and muffled.
Shining	Skinnende	<i>Word class:</i> 2
Shocking	Chokerende	<i>Word class:</i> 5
Shrill	Skinger	<i>Word class:</i> 1
	Gennemtrængende; skarp; hvine	To utter or emit an acute piercing sound
Sibilant	Hvislende	<i>Word class:</i> 3 Producing the sound of or a sound resembling that of the s or the sh in sash
Sickly	Usund, sygelig	<i>Word class:</i> 6
Silent	Stille	<i>Word class:</i> 1
Simmering	Simrende	<i>Word class:</i> 3
Boiling	Kogende	As light boiling
Simple	Simpel	<i>Word class:</i> 1
Sizzling	Sydende	<i>Word class:</i> 3 To make a hissing sound in or as if in burning or frying
Skew	Skævhed	<i>Word class:</i> 8 To distort especially from a true value or symmetrical form
Slack	Slap	<i>Word class:</i> 6
Slamming	Smækkende	<i>Word class:</i> 3
	Smæld	A noisy violent closing. A banging noise, especially one made by the slam of a door
Slapping	Klaskende	<i>Word class:</i> 3
Sleepy	Søvnig	<i>Word class:</i> 6
Slow	Langsom	<i>Word class:</i> 1 Moving, flowing, or proceeding without speed or at less than usual speed
Slushing	Sjappet	<i>Word class:</i> 3

	Plaskende	To make a splashing sound, water type of sound
Small	Lille	<i>Word class:</i> 3
Smooth	Glat	<i>Word class:</i> 1
Uninterrupted	Jævn; rund; let;	Even and uninterrupted. Having a continuous even surface.
Snapping	Knipsende	<i>Word class:</i> 3
	Knalde med; smælde med (fx snap a whip); trykke af (fx a pistol);	To break suddenly with a sharp sound
Snarling	Snerrende	<i>Word class:</i> 3
	Knurre	To growl with a snapping or gnashing of teeth. To give vent to anger in surly language. A vicious angry growl. Make a snarling noise or move with a snarling noise: "Bullets snarled past us"
Snoring	Snorkende	<i>Word class:</i> 3
		To breathe during sleep with a rough hoarse noise due to vibration of the soft palate
Snorting	Fnysende	<i>Word class:</i> 3
	Pruste	To force air violently through the nose with a rough harsh sound. To express scorn, anger, indignation, or surprise by a snort
Sober	Nøgttern	<i>Word class:</i> 6
Soft	Sagte	<i>Word class:</i> 1
	Dæmpet, blid, blød	Bringing ease, comfort, or quiet. Pleasing or agreeable to the senses.
Softness	Blødhed	<i>Word class:</i> 8
Solid	Solid	<i>Word class:</i> 6
Sonorous	Klangfuld	<i>Word class:</i> 4
	Fuldttonende; sonor	Full or loud in sound. Producing sound (as when struck). Imposing or impressive in effect or style. Having a high or an indicated degree of sonority
Soothing	Lindrende	<i>Word class:</i> 5
	Beroligende	
Soughing	Sukkende	<i>Word class:</i> 3
	Suse	To make a moaning or sighing sound
Sound color of	Klanfarve af efterklang	<i>Word class:</i> 8
Sound impression	Lydindtryk	<i>Word class:</i> 8
Sound radiation	Lydustråling	<i>Word class:</i> 8
		Domain: Sound quality: Is the sound perceived as directive or does it spread easily, does the angle of the sound source affect sound quality?
Sound,	Lydkoncentration	<i>Word class:</i> 8
		Domain: Spatial aspects
		Defined as horizontal spread and also described as a broadness aspect.
Sounds, Balance of	Lydbalance	<i>Word class:</i> 8

		Domain: Timbre
		1) timbral balance between low-frequency and high-frequency
		2) the possible difference in loudness between the sound sources present in the sound sample. The sound sample is well balanced if it
Space, Balance of	Rumlighedsbalance	Word class: 8
		Domain: Space
		This attribute relates to the space represented by the sound sample in relation to the listener's inner reference. A negative value means that the space is weighted in some direction. If no space is perceived, the
Space, Sense of	Rumfornemmelse	Word class: 8
		Domain: Spatial aspects
		How well the space represented in the sample can be defined. How well the space where the recording was made is perceived. A pos. value could mean a strong sensation of being in a certain kind of
Spacious	Rumlig	Word class: 1
		The perception of acoustical amplification of a source compared to with its visual perception, especially in the lateral direction of the listener
		Domain: Spatial aspect: When there is a good impression of the space where the sound is played or recorded
Spaciousness	Rumlighed	Word class: 8
		Domain: Spatial aspects:
		does the sound originate from one spot or does it fill a room, feeling of space
Spatial	Rumlig	Word class: 3
Spatial definition	Rumlig definition	Word class: 8
Spatial focusing	Rumlig fokusering	Word class: 8
		Domain: Spagial aspects:
		How accurately the sound seem to be heard in the same place as the speaker
Spatial impression	Rumligt indtryk	Word class: 4
		The performance appears to take place in an appropriate spatial environment
Special	Speciel	Word class: 6
Spectral range	Spektralt område	Word class: 8
		Domain: Timbre:
		How much the sound is separated throughout the spectrum, from low to high
Spirited	Livlig	Word class: 6
Splashing	Pjaske	Word class: 3
	Plaskende	To dash a liquid or thinly viscous substance upon or against, to cause (a liquid or thinly viscous substance) to spatter about especially with

		force
Splendid	Glimrende	<i>Word class:</i> 6
Sporty	Sporty	<i>Word class:</i> 6
Sputtering	Spruttende	<i>Word class:</i> 3
	Hastig tale	To spit or squirt (from the mouth) with explosive sounds
Square	Firkantet	<i>Word class:</i> 6
Squarking	Sjaskende	<i>Word class:</i> 3
Squeaking	Skrige	<i>Word class:</i> 3
Higher pitch than creak	Pibe; hvine, knage	To utter or make a short shrill cry or noise, to utter in a shrill piping tone. A friction-induced noise caused by relative motion resulting from interfacing surfaces.
Squealing	Hvine	<i>Word class:</i> 3
	Skrige	To make a shrill cry or noise
Squishing	Smatted	<i>Word class:</i> 3
plopping	ploppende	
Stability	Stabilitet	<i>Word class:</i> 8
		The quality, state, or degree of being stable
Stable	Stabil	<i>Word class:</i> 4
		not changing or fluctuating, not subject to insecurity
Staccato	Staccato	<i>Word class:</i> 1
		Tones/sounds separated in time. Marked by or composed of disconnected parts or sounds; cut short crisply; "staccato applause"; "a staccato command"; "staccato notes"
Stamping	Stampende	<i>Word class:</i> 3
		To pound or crush with a pestle or a heavy instrument. To strike or beat forcibly with the bottom of the foot, to strike or thrust the foot forcibly or noisily downward
Steady	Støt	<i>Word class:</i> 1
Constant	Regelmæssig; jævn (fx speed); vedholdende; uafbrudt	Showing little variation or fluctuation Domain: Speech quality: A steady continuation of noise
Stereo effect	Stereo effekt	<i>Word class:</i> 8
		Domain: Spatial effects: How wide/narrow is the sound perceived
Stereo image	Stereobillede	<i>Word class:</i> 8
		Domain: Sound quality: The spatial output of the sound; in other words how spread the stereo-image is
Sterophonic image	Stereobilledets kvalitet	<i>Word class:</i> 8
		Domain: Sound quality: Global attribute used to judge any and all detected differences between the reference and the object. Applicable to monophonic, stereophonic and multichannel

		systems.
Sticky	Klæbende	Word class: 6
Strained	Anstrengt	Word class: 6
	Forceret	To exert (as oneself) to the utmost; to stretch beyond a proper limit.
Strength	Styrke	Word class: 8
		Domain: Tone color: is the sound fragile or sturdy - relates to the bass foundation
Strenuous	Anstrengt	Word class: 6
Stressful	Stressende	Word class: 5
Stressing	Stressende	Word class: 5
Strident	Skinger	Word class: 1
	Skærende (fx voice); skarp; højroset	Characterized by harsh, insistent, and discordant sound: A strident voice.
Strong	Stærk	Word class: 1
	Kraftig; mægtig	Having or marked by great physical power
Subdued	Dæmped	Word class: 3
Soft	blød	
Support	Støtte	Word class: 4
		Ability to hear other performers/other listeners
Surround quality	Surround kvalitet	Word class: 8
		Domain: Spatial aspects: Is related to spatial impression, ambience, or special directional surround effects. Applicable to multichannel systems.
Sustained	Vedvarende	Word class: 1
Sweeping	Gennemstrejfe	Word class: 1
		Moving or extending in a wide curve or over a wide area
Swishy	Susende	Word class: 3
	Hvislende	To move, pass, swing, or whirl with the sound of a swish
Swooshing	Susende	Word class: 3
		To make or move with a rushing sound: A car swooshed by.
Symetry	Symetri	Word class: 8
		Domain: Spatial aspects: How the sound spreads from the device both vertically and horizontally, e.g. is it stronger to the right side...
Tapping	Let banken	Word class: 3
	Dask; steppen	To strike lightly especially with a slight sound. To give a light blow with...: Tap a pencil on the table. To bring about by repeated light blows: Tap out a story on the typewriter.
Tattooing	Trommende (med	Word class: 3
		A rapid rhythmic rapping (with your fingers)
Tender	Sart	Word class: 6

Tense Sharp	anspændt Skarp	Word class: 8 Domain: Speech quality: Speech is tense or sharp as opposed to relaxed speech
Thick Fat	Tyk Fyldig	Word class: 6 Domain: Sound quality: How strong the sound is; in a thick sound there might be wider EQ or perhaps a bit more bass and a thin sound is more like powerless and weak
Thickness	Tæthed	Word class: 8 General: close-packed with units (sounds) Domain: Sound quality: The shape and size of the sound: for example how round it is or is there a feeling that it is going through some sort of a filter
Thin	Tynd Smal; mager; fin; spæd; spinkel	Word class: 4 Not dense in arrangement or distribution, lacking substance or strength. Without bass, high pass filtered
Thinness	Tyndhed	Word class: 1
Thoughtless	Ubekymret	Word class: 6
Threatening	Truende	Word class: 5
Throb	Pulsere Dunke; banken; slag	Word class: 1 To pulsate or pound with abnormal force or rapidity. To beat or vibrate rhythmically
Thrumming	Trommende (med	Word class: 3
Thudding	Dunkende ; Tungt (dumpt) slag;dunke; daske; lyde dumpt; bumpe	Word class: 1 A dull sound
Thumping Thudding	Dunkende Støde; slå; banke; dundre; (i klaver) hamre; T banke; tæske	Word class: 3 To strike or beat with or as if with something thick or heavy so as to cause a dull sound. To produce (music) mechanically or in a mechanical manner: Thumped out a tune on the piano.
Thundering	Tordnende	Word class: 3 To give forth a sound that resembles thunder: Horses thundered down the road. To utter loudly. To strike with a sound likened to thunder
Ticking	Tikken Dikken	Word class: 3 To make the sound of a tick or a series of ticks
Tinkling	Klingende Ringe	Word class: 3 To sound or make known (the time) by a tinkle
Tinny	Blikagtig Tynd; metallisk; skinger	Word class: 3 Thin in tone: A tinny voice.
Tiring	Trættende	Word class: 5

Tonal	Toneagtig Klang; (om stemme også) tonefald; (fon.) tone; musikalsk accent. Akustisk: usammensat	Word class: 1 1: Tonal quality, tonal prominence. 2: The organization of all the tones and harmonies of a piece of music in relation to a tonic.
Tone color	Klangfarve	Word class: 8 Domain: Timbre Describes the spectral content of the sound sample
Toot	Duut	Word class: 7 A blast of a horn
Transient impact	Transientvirkning	Word class: 8
Transparency	Transperans	Word class: 4 All details of performance can be clearly perceived
Treble	Diskant	Word class: 8 The strength of the treble or high frequency sounds relative to the midfrequency sounds
Treble stressing	Diskanthævning	Word class: 8 Domain: Tone color: Prominence of high frequencies. See also Sharpness
Trebliness	Diskant'ed	Word class: 8
Tremolo	Tremolo	Word class: 1 When a tone vibrates in volume. With amplitude modulations. The tone frequency is not changed. (Music: The rapid reiteration of a musical tone or of alternating tones to produce a tremulous effect).
Trilling	Trillende	Word class: 3 To flow in a small stream or in drops. A note that alternates rapidly with another note a semitone above it. Ssing with trills, pronounce with a trill, of the phoneme 'r': "Some speakers trill their r's".
Tu-who	Uhu	Word class: 7 The cry of an owl
Twanging	Plingende Knips; skarp lyd	Word class: 3 A harsh quick ringing sound like that of a plucked banjo string
Twirling	Snurrende	Word class: 3
Twittering Chirp	Kvidrende pippende	Word class: 3 To utter successive chirping sounds
Ugly	Grim	Word class: 5 Not appealing to or not expressing emotion
Unbalanced	Ubalanceret	Word class: 1 Domain: Tone color: Some frequency ranges are dominating or attenuated

Unclear	Uklar	<i>Word class:</i> 2
Uncomfortable	Ukomfortabel	<i>Word class:</i> 6
Uneasy	Besværlig	<i>Word class:</i> 6
Unemotive	Nøgtørn	<i>Word class:</i> 5
Uneven	Ujævn	<i>Word class:</i> 1
	Uensartet	Not even, not level or smooth
Unfamiliar	Ukendt	<i>Word class:</i> 6
Unhurried	Langsom	<i>Word class:</i> 6
Uninteresting	Uinteressant	<i>Word class:</i> 6
Unintelligible	Uforståelig	<i>Word class:</i> 6
Unisonant	Unison	<i>Word class:</i> 1
		1: Identity in musical pitch. (Specifically: The interval of a perfect prime). The state of being so tuned or sounded. The writing, playing, or singing of parts in a musical passage at the same pitch or in octaves 2 : A harmonious agreement or union
Unpleasant	Ubehagelig	<i>Word class:</i> 5
Unpleasing	Ubehagelig	<i>Word class:</i> 5
Unprincipled	Principløs	<i>Word class:</i> 6
Unreliable	Upålidelig	<i>Word class:</i> 6
Unsatisfactory	Utilfredsstillende	<i>Word class:</i> 5
Unsporty	Usporty	<i>Word class:</i> 6
Unusual	Usædvanlig	<i>Word class:</i> 6
Up/down stage	op/ned lokalisation	<i>Word class:</i> 8
Valuable	Værdifuld	<i>Word class:</i> 6
Varied	Variierende	<i>Word class:</i> 1
Veiled	Tildækket	<i>Word class:</i> 4
		Sounds like the speaker is covered with a fabric
Vertical spread	Vertikal spredning	<i>Word class:</i> 8
Vibrating	Vibrerende	<i>Word class:</i> 3
		Consisting of, capable of, or causing vibration or oscillation, characterized by vibration.
Vibrato	Vibrato	<i>Word class:</i> 3
Tremolo	Svingende	Vibrato is a low-rate (about 5Hz) and modest (a few %) modulation of the frequencies of a tone.
Vigorous	Energisk	<i>Word class:</i> 6
Violent	Voldsom	<i>Word class:</i> 3
Vivid	Livlig	<i>Word class:</i> 6
Voice character	Stemmekarakter	<i>Word class:</i> 8
		Domain: Sound Quality:

		how well the voice can be heard and whether it sounds natural
Voice presence	Stemmenærhed	Word class: 8 Domain: sound quality: How distant the voice seem to originate from, considering both timbral and spatial aspects
Volume	Lydstyrke	Word class: 8 Domain: Sound quality: the loudness of sound, how much output can we get out of the device
Vroom	Vroom	Word class: 7 Make a loud, roaring sound, as of a car engine, while moving.
Wailing	Hylende Jamre	Word class: 3 To express sorrow audibly: Lament. To make a sound suggestive of a mournful cry
Warm	Varm	Word class: 4
Warmth	Varme	Word class: 8 Domain: Room acoustics: A cosy smoothness to the music. Opposite brilliance, a bright, clear, ringing sound. If a sound field is too warm, the hall can be undesirably "dark." With too much brilliance, the sound is harsh, brittle, and metallic sounding
Weak	Svag	Word class: 1
Well defined	Veldefineret	Word class: 8 See Clear
Well made	Velgjort	Word class: 6
Wet	Ikke tør (Rungende)	Word class: 1 With some or a lot of reverberation
Wheezing	Hvæsende Hive efter vejret	Word class: 3 To breathe with difficulty usually with a whistling sound
Whining	Hvinende Flæbe; klynke; jamre; (om hund) pibe;	Word class: 3 A high-pitched plaintive or distressed cry. A sound similar to such a cry. In general related to the occurrence of a resonance and one or more tonal components becoming dominant. Speech quality: speech is nasal or whining. Speech produced through
Whirring	Suse Pibe; fløjte	Word class: 3 To move or carry rapidly with a whirl, sound of something in rapid motion: "Whir of a bird's wings", "the whirl of the propellers". Like the sound of rapidly vibrating wings.
Whispering	Hviskende	Word class: 3 To speak softly with little or no vibration of the vocal cords especially to avoid being overheard. To make a sibilant sound that resembles whispering.
Whistling	Fløjtende Pibe; pifte; hvisle	Word class: 3 To utter a shrill clear sound by blowing or drawing air through the

Whooshy	Susende	<p>puckered lips. To utter a shrill note or call resembling a whistle. To make a shrill clear sound especially by rapid movement: The wind whistled. To blow or sound a whistle</p> <p><i>Word class:</i> 3</p> <p>A swift or explosive rush; the sound created by such a rush -- often used interjectionally.</p>
Wide	Bred	<p><i>Word class:</i> 1</p> <p>Domain: Spatial aspects: Same as spacious but only lateral, Measures how wide the music feels, maybe the stereo effect as well.</p> <p>See also Width</p>
Width	Bredde	<p><i>Word class:</i> 8</p> <p>Domain: Spatial aspects: stereo image- how wide the sound feels, the area occupied by the sound sources</p> <p>See also: wide</p>
With character	Karakterfuld	<i>Word class:</i> 6
Yapping	Bjæffende	<p><i>Word class:</i> 3</p> <p>To bark snappishly: Yelp. To talk in a shrill insistent way</p>
yap-yap	Bjæf-bjæf	<i>Word class:</i> 7
Yelping	Bjæffe	<p><i>Word class:</i> 3</p> <p>A sharp shrill bark or cry</p>

11.4 Danish-English Word List

Ratio of	Localizability,	Artikulation	Articulation	Billedstabilitet (Stereo)	Image stability
		Atetakt	Artifacts	Billig	Cheap
	Rasping	Attack	Attack	Bip	Beep
	Screatching	Bagfra	Behind	Bippende	Beeping
Åben	Open	Baggrundsstøj	Background noise	Bjæf-bjæf	yap-yap
Åbenhed	Openess			Bjæffe	Yelping
Acceptabel	Acceptable	Balanceret	Balanced	Bjæffende	Yapping
Adskillelse	Separability	Bankende	Knocking	Blanding	Blending
Afbrudt	Interrupted	Barsk	Gruff	Blid	Gentle
Afrundet	Rounded	Bas	Bass	Blikagtig	Tinny
Afskyelig	Detestable	Bashævning	Bass emphasis	Blød	Mellow
Afslappende	Relaxing	Basset	Bassy	Blødhed	Softness
Afstand	Distance	Bassethed	Bassiness	Boblende	Bubbling
Afstand til hændelser	Distance to events	Begrænset	Clipping	Brægende	Blattering
Afstandsforømmelse	Distance, Sense of	Begrænset	Restricted	Brægende	Bleating
Afvisende	Dismissive	Behagelig	Ameniting	Brændende	Burning
Aggressive	Aggressive	Behagelig	Pleasant	Bragende	Banging
Alarmerende	Alarming	Behagende	Pleasing	Bragende	Crashing
Almindelig	Ordinary	Belastende	Burdensome	Bred	Broad
Alvorlig	Serious	Beroligende	Calming	Bred	Wide
Åndende	Breathy	Beroligende	Reassuring	Bredde	Broadness
Animeret	Exhilarating	Besværlig	Uneasy	Bredde	Width
Anspændt	Tense	Bevægelig	Moving	Brilliance	Brilliance
Anstrengt	Strained	Bevægelse	Movement	Brølende	Bellowing
Anstrengt	Strenuous	Bevægelsesforømmelse	Movement, Sense of	Brølende	Roaring
		Bevægende	Agitating	Brummende	Grumbling

Brusende	Roaring (e.g. of waves)	Drønende	Blasting	Ekko, mængde af	Echo, Amount of
Buldrende	Booming	Dryppen	Dripping	Ekspanderet	Expanded
Bumlende	Bumpy	Dunkel	Dull	Eksternalisering	Externalization
Chokerende	Shocking	Dunkende	Thudding	Elevation	Elevation
Dæmpet	Subdued	Dunkende	Thumping	Energisk	Vigorous
Dæmpet	Damped	Duut	Toot	Ensartet	Samely
Dæmpet	Muffled	Dyb	Deep	Ensembledybde	Depth, ensemble
Dæmpet	Muted	Dybbashævning	Low bass emphasis	Equalisering	Equalization
Dæmpning	Muffling	Dybde	Depth	Farlig	Dangerous
Dårlig	Inferior	Dybdelokalisation	Depth localisation	Farveløs	Colorless
Dårlig	Poor	Dybdeoplevelse	Depth, Sense of	Farvet	Coloured
Defensiv	Defensive	Dybtoneresonans	Boominess	Farvning	Coloration
Delikat	Delicate	Dybtoneresonant	Boomy	Fast	Firm
Deprimerende	Depressing	Dynamik	Dynamics	Feminin	Feminine
Destinkthed	Distinctness	Dynamisk	Dynamic	Fin	Fine
Diffus	Diffuse	Dyr	Expensive	Firkantet	Square
Ding	Ping	Dyster	Gloomy	Fjern	Distant
Ding	Pinging	Dyttende	Honky	Fjern	Remote
Ding-Dong	Ding-Dong	Effektiv	Effective	Flad	Flat
Disharmonisk	Disharmonious	Effektstyrke	Effect output	Flagrende	Fluttering
Disharmonisk	Dissonant	Efterklang	Reverb	Fløjtende	Whistling
Diskant	Treble	Efterklang	Reverberance	Fluktuere	Fluctuating
Diskant'ed	Trebliness	Ekko	Echo	Flutter ekko	Flutter Echo
Diskanthævning	Treble stressing	Ekko (med ekko)	Echoey	Fnysende	Snorting
Distinkt	Distinct	Ekko (med ekko)	Echoic	Fokus	Focus
Død	Dead	Ekko, Kvalitet af	Echo, Quality of	Følsom	Sensitive
Dongende	Bonging				

For/ bag lydfordeling	Front/back stage	Gammel	Old	Hårdhed	Hardness
Forceret	Pushy	Generende	Annoying	Harmløs	Harmless
Forfra	Ahead	Gengivelse af	Reproduction of	Harmonere	Harmonious
Forfriskende	Refreshing	Gennemstrejfe	Sweeping	Hastig	Hurried
Forgrundskvalitet	Front image quality	Gennemtrængende	Penetrating	Helhedsvirkning af	Ensemble inner voices
Forhastet	Hasty	Gennemtrængende	Piercing	Høj (pitch)	High (pitch)
Forståelig	Intelligible	Gennemtrængning	Penetration	Høj (styrke)	High (level)
Forstærket	Gain	Gjalde	Blare	Højfrekvens udstrækning	High Frequency
Førsteklasses	High-class	Glad	Happy	Højtaleranlæg	PA-system
Forstyrrelse	Disruption	Glat	Smooth	Holdbar	Durable
Forstyrrelse	Disturbance	Glidende	Glide	Homogenitet	Homogeneity
Forstyrrende	Disturbing	Glimrende	Splendid	Honk	Honk
Forvansket	Garbled	Gøende	Barking	Hørbar	Audible
Forvrænget	Distorted	Gradvis	Phasi	Hul	Hollow
Forvrængning	Distortion	Grim	Ugly	Hurtig	Fast
Frastødende	Objectionable	Grov	Coarse	Hvæsen	Hiss
Frastødende	Repulsive	Grov	Gruff	Hvæsende	Hissing
Frekvenskarakteristik	Frequency response	Grundlæggende	Basic audio quality	Hvæsende	Wheezing
Fremtrædenhed	Emphasis	Gryntende	Grunting	Hvas; bidende (fx	Sharp
Frisk	Fresh	Gunstig	Favorable	Hvileløs	Restless
Frygtindgydende	Frightening	Gurgle	Gurgling	Hvine	Squealing
Fyldig	Fat	Hæs	Hoarse	Hvinende	Whining
Fyldig	Full	Hævet	Elevated	Hviskende	Whispering
Fyldig	Rich	Hamrende	Hammering	Hvislende	Hissing
Fyldighed	Fullness	Håndgribelig	Palpable	Hvislende	Sibilant
Fyldighed	Richness	Hård	Hard	Hyggelig	Cosy
				Hylende	Howling

Hylende	Wailing	Klangfuld	Sonorous	Kogende	Boiling
Ikke tør (Rungende)	Wet	Klankende	Clanking	Kold	Cold
Impulsiv	Impulsive	Klappende	Clapping	Komfortabel	Comfortable
Indelukket	Boxy	Klaprende	Clacking	Kompleks	Complex
Inden i - uden for	Inside - outside	Klar	Clear	Kompliceret	Complicated
Inkonsekvent	Inconsistent	Klarhed	Clarity	Komprimeret	Compressed
Intens	Intense	Klarhed	Clearness	Køn	Pretty
Interessant	Interesting	Klaskende	Slapping	Konsonant	Consonant
Intermitterende	Intermittend	Klikkende	Clicking	Konstant	Constant
Intermitterende	Intermittent	Klingende	Tinkling	Kontinuert	Continuous
Intern - ekstern	Internal – external	Klingrende	Clangorous	Kontinuitet af lydbilledet	Continuity of the
Intimit	Intimate	Klirrende	Clashing	Kraft	Power
Intimitet	Intimacy	Klirrende	Clattering	Kraftfuld	Powerful
Irriterende	Irritating	Klirrende	Clinking	Kraftig	Loud
Jævn	Even	Klirrende	Jangling	Kraftløs	Powerless
Jævn	Plane	Klirrende	Jingling	Krop	Body
Jamrende	Moaning	Klonkende	Clunky	Kuk-kuk	Cuckoo
Kaglende	Cackling	Klukkende	Clucking	Kunstig	Artificial
Kantet	Edgy	Klukkende	Gluging	Kurre	Cooing
Karakterfuld	With character	Klukkende (latter)	Chuckling	Kvæk	Quack
Kedelig	Boring	Knækkende	Cracking	Kvalitet	Quality
Kildeafstand	Distance, Source	Knagende	Creacking	Kvidrende	Chirping
Kimende	Chiming	Knasende	Scrunchy	Kvidrende	Twittering
Klæbende	Sticky	Knipsende	Snapping	Labrende	Lapping
Klanfarve af efterklang	Sound color of	Knirkende	Creaking	Langsom	Slow
Klangfarve	Tone color	Knitrende	Crackling	Langsom	Unhurried
		Knurre	Growling	Larmende	Clamorous

Lateral jævnhed af	Laterral stage evenness	Lydbalance	Sounds, Balance of	Mono/stereo/surround	
Lateral lokalisering	Lateral localisation	Lydindtryk	Sound impression	Monoton	Droning
				Monoton	Monotonous
Lav (Pitch)	Low (Pitch)	Lydkoncentration	Sound, Concentration	Mørk	Dark
Lav (styrke)	Low (Intensity)	Lydstyrke	Loudness	Mørke ("mørkhed")	Darkness
Lavfrekvens	Low Frequency	Lydstyrke	Volume	Mudret	Muddy
Legato	Legato	Lydustråling	Sound radiation	Muh	Moo
Let	Easy	Lys	Bright	Mumlende	Murmuring
Let	Light (not heavy)	Lys	Light (not dark)	Mumlende	Muttering
Let banken	Tapping	Lysked	Brightness	Munter	Cheerful
Let bølgende	Rippling	Mager	Lean	Myldrende	Rushing
Letløbende	Easygoing	Maskerende	Masking	Nærhed	Nearness
Levende	Alive	Maskulin	Masculine	Nærhed	Presence
Lidenskabelig	Passionate	Massiv	Massive	Nærværende	Present
Lille	Small	Med efterklang	Reverberating	Nasal	Nasal
Lindrende	Relieving	Mekanisk	Mechanical	Naturlig	Natural
Lindrende	Soothing	Melankolsk	Melancholic	Naturlighed	Naturalness
Livlig	Lively	Melodisk	Melodic	Nervøs	Nervous
Livlig	Spirited	Metallisk	Metallic	Neutral	Neutral
Livlig	Vivid	Miav	Mew	Nøgttern	Sober
Livlighed	Liveness	Midter	Middle	Nøgttern	Unemotive
Lokalisation	localisation	Mild	Mild	Ny	New
Lokaliserbar	Localizable	Mjavende	Mewing	Omfattende	Comprehensive
Lokaliserbarhed	Localisability	Moderat	Moderate	Omskuttende	Enveloping
Luftig	Airy	Modulere (Amplitude)	Modulated (Amplitude)	Omsluttethed	Emvelopment
Lukket	Closed	Moduleret (Pitch)	Modulated (Pitch)	Omsluttethed	Envelopment
Luxuriøs	Luxurious			op/ned lokalisation	Up/down stage

Opmuntrende	Cheering	Rå	Raw	Rum	Room
Opstemt	Elated	Raceragtig	Racy	Rumfornemmelse	Room envelopment
Overdådig	Opulent	Raffineret	Refined	Rumfornemmelse	Space, Sense of
Pålidelig	Reliable	Rap	Quack	Rumle	Rumbling
Passende	Appropriate	Raslende	Rattling	Rumlig	Spacious
Påtrængende	Intrusive	Raslende	Rustling	Rumlig	Spatial
Påtrængende	Obtrusive	Raslende (blade)	Rustling	Rumlig definition	Spatial definition
Perspektiv	Perspective	Raspende	Raspy	Rumlig fokusering	Spatial focusing
Phaseyness	Phaseyness	Rationel	Rational	Rumlighed	Roominess
Pibende	Peeping	Realisme	Realism	Rumlighed	Spaciousness
Pibende	Piping	Regelmæssig	Regular	Rumlighedsbalance	Space, Balance of
Pippende	Cheeping	Ren	Clean	Rumligt indtryk	Spatial impression
Pjaske	Splashing	Ren; ublandet; ægte	Pure	Rumklang	Reverberation
Plaskende	Plashing	Resonans	Resonance	Rumstørrelse	Room size
Plingende	Twanging	Resonansfri	Resonance-free	Rungende	Booming
Plop	Plop	Retnings	Directional	Rungende	Resonant
Pludrende	Babbling	Retningsbalance	Balance	Rystende	Shaking
Pludrende	Prattling	Retningsfornemmelse	Direction, Sense of	Rytisk	Rhythmic
Polyfonisk	Polyphonic	Ringende	Ringling	Sagte	Soft
Præcis	Precise	Rislende	Purling	Samstemmende	Consistent
Prececeret	Processed	Rolig	Calm	Sart	Tender
Preference	Preference	Rolig	Leisurely	Sceneafstand	Distance, scene
Principløs	Unprincipled	Rolighed	Calmness	Separation	Separation
Pudet	Pillow	Ru	Harsh	Sikker	Safe
Pulsere	Throb	Ru	Rough	Simpel	Plain
Pulserende	Pulsating	Ru; hæ; grov	Raucous	Simpel	Simple
Pulserende	Pulsing	Ruhed	Roughness		

Simrende	Simmering	Smække	Rapping	Stampende	Stamping
Sjappet	Slushing	Smækkende	Slamming	Stemme karakter	Voice character
Sjaskende	Squarking	Smældende	Popping	Stemmenærhed	Voice presence
Sjov	Funny	Smal	Narrow	Stereo effekt	Stereo effect
Skabende	Scatching	Smatted	Squishing	Stereobillede	Stereo image
Skærende (tænder)	Gnashing	Smuk	Beautiful	Stereobilledets kvalitet	Sterophonic image
Skævhed	Skew	Smuldrende	Crumbled	Stille	Quiet
Skarphed	Sharpness	Snerrende	Snarling	Stille	Silent
Skinger	Shrill	Snorkende	Snoring	Stødende	Impacting
Skinger	Strident	Snurrende	Twirling	Stødende	Percussive
Skinnende	Brilliant	Solid	Solid	Stødløs	Punchless
Skinnende	Shining	Som er at foretrække	Preferable	Støj	Noise
Skrabende	Scraping	Søvnig	Sleepy	Støjende	Noisy
Skrige	Squeaking	Spændende	Exciting	Stønne	Groaning
Skrigende	Screaking	Speciel	Special	Stønnende	Moaning
Skrigende	Screaming	Spektral balance	Balance, Spectral	Stor	Large
Skrigende	Screeching	Spektralt område	Spectral range	Storartet	Magnificent
Skrydende	Braying	Spinde	Purring	Støt	Steady
Skurrende	Grating	Sporty	Sporty	Støtte	Support
Skurrende	Grinding	Sprød	Crisp	Stressende	Stressful
Skurrende	Jarring	Sprød	Crunchy	Stressende	Stressing
Slående	Beating	Spruttende	Sputtering	Strømmende	Gushing
Slående	Punchy	Stabil	Stable	Strubelyd	Guttural
Slagkraft	Punch	Stabilitet	Stability	Styrke	Strength
Slap	Slack	Staccato	Staccato	Sukkende	Soughing
Sludrende	Chattering	Stærk	Strong	Summe	Humming
Slugende begærligt	Gobbling	Stampende	Pounding	Summende	Burred

Summende	Buzzing		reverb)	Ubekymret	Thoughtless
Surround kvalitet	Surround quality	Tordnende	Thundering	Udholdelig	Bearable
Suse	Whirring	Trættende	Fatiguing	Udvidet	Expanded
Susende	Swishy	Trættende	Tiring	Uforståelig	Unintelligible
Susende	Swooshing	Trang	Cramped	Ufri	Constrained
Susende	Whooshy	Transientvirkning	Transient impact	Uharmonisk	Discordant
Svag	Weak	Transperans	Transperancy	Uharmonisk	Inharmonic
Svulstig	Grandiloquence	Tremolo	Tremolo	Uhu	Tu-who
Sydende	Fizzy	Trillende	Trilling	Uhyggelig	Scary
Sydende	Seething	Trist	Sad	Uinteressant	Uninteresting
Sydende	Sizzling	Tromme	Drumming	Ujævn	Uneven
Symetri	Symetry	Trommende (med	Thrumming	Ukendt	Unfamiliar
Sympatisk	Likeable	Trommende (med	Tattooing	Uklar	Blurred
Tæt	Dense	Trommende (som af	Pattering	Uklar	Unclear
Tæthed	Thickness	Troværdighed	Fidelity	Uklarhed	Fuzzyness
Tåget	Foggy	Truende	Threatening	Ukomfortabel	Uncomfortable
Tåget	Hazy	Tudende	Hooting	Undertrykt	Oppressing
Tikken	Ticking	Tung	Heavy	Unison	Unisonant
Tildækket	Covered	Tydelighed	Distinctness	Upålidelig	Unreliable
Tildækket	Veiled	Tyk	Thick	Uregelmæssig	Irregular
Tilfredsstillende	Satisfactory	Tynd	Thin	Uren	Cluttered
Tiltrækkende	Appealing	Tyndhed	Thinness	Uren	Dirty
Tiltrækkende	Attractive	Uartikuleret	Inarticulate	Uren	Impure
Tom	Empty	Ubalanceret	Unbalanced	Usædvanlig	Unusual
Toneagtig	Tonal	Ubehagelig	Disliking	Uskarp	Blunt
Tør	Dry (Rasping)	Ubehagelig	Unpleasant	Uskarphed	Blur
Tør (klangløs)	Dry (short	Ubehagelig	Unpleasing	Usporty	Unsporty

Usund, sygelig	Sickly	Varme	Warmth	Vibrato	Vibrato
Utilfredsstillende	Unsatisfactory	Vedholdende	Insistant	Vibrende	Vibrating
Utilstrækkelig	Incomprehensive	Vedvarende	Sustained	Virkning af lydildens	Effect of device
Utydelig	veiled	Veldefineret	Well defined	Voldsom	Violent
Væmmelig	Disgusting	Velgjort	Well made	Vov-vov	Bow-wow
Værdifuld	Valuable	Velkendt	Familiar	Vrinskende	Neighing
Værdig	Dignified	Venlig	Friendly	Vroom	Vroom
Variierende	Varied	Venstre - højre	Left – Right		
Varm	Warm	Vertikal spredning	Vertical spread		

11.5 Perceptual Attributes of Sounds, English

11.5.1 Direct Sound Descriptors

Airy	Dry (short re-verb)	Irregular	Pulsating	Strong
Audible		Legato	Pulsing	Sustained
Balanced	Dynamic	Localizable	Pure	Sweeping
Bassy	Enveloping	Loud	Quiet	Thinness
Blare	Fast	Low (Intensity)	Raucous	Throb
Booming	Fluctuating	Low (Pitch)	Regular	Thudding
Booming	Full	Masking	Rhythmic	Tonal
Boomy	Glide	Melodic	Rough	Tremolo
Clean	Grandiloquence	Modulated (Amplitude)	Rumbling	Unbalanced
Coarse	Harmonious	Modulated (Pitch)	Samely	Uneven
Consonant	High (level)	Monotonous	Sharp	Unisonant
Constant	High (pitch)	Narrow	Shrill	Varied
Continuous	Impulsive	Obtrusive	Silent	Weak
Deep	Impure	Opulent	Simple	Wet
Diffuse	Inarticulate	Penetrating	Slow	Wide
Directional	Inharmonic	Phasi	Smooth	
Discordant	Intense	Piercing	Soft	
Disharmonious	Intermittent	Plane	Spacious	
Dissonant	Interrupted	Polyphonic	Staccato	
Distinct			Steady	
Droning			Strident	

11.5.2 Words Relating to Other Senses

Blunt	Cold	Even	Light (not dark)	Shaking
Blurred	Colorless	Foggy	Massive	Shining
Bright	Dark	Harsh	Mellow	Unclear
Brilliant	Dull	Hazy	Palpable	Veiled
Clear	Edgy	Heavy	Rounded	

11.5.3 References to Events and Sound Sources

Babbling	Bumpy	Clattering	Dripping	Gruff
Banging	Burning	Clicking	Drumming	Grumbling
Barking	Burred	Clinking	Dry (Rasping)	Grunting
Beating	Buzzing	Clucking	Elevated	Gurgling
Beeping	Cackling	Clunky	Expanded	Gushing
Bellowing	Chattering	Cluttered	Fat	Guttural
Blasting	Cheeping	Cooing	Fizzy	Hammering
Blattering	Chiming	Cracking	Fluttering	Hiss
Bleating	Chirping	Crackling	Gluing	Hissing
Boiling	Chuckling	Crashing	Gnashing	Hissing
Bonging	Clacking	Creacking	Gobbling	Hoarse
Braying	Clangorous	Creaking	Grating	Honky
Breathy	Clanking	Crisp	Grinding	Hooting
Broad	Clapping	Crunchy	Groaning	Howling
Bubbling	Clashing	Dirty	Growling	Humming

Impacting	Pinging	Rustling	Snorting	Tinkling
Jangling	Piping	Rustling	Soughing	Tinny
Jarring	Plashing	Scatching	Spatial	Trilling
Jingling	Popping	Scraping	Splashing	Twanging
Knocking	Pounding	Screaking	Sputtering	Twirling
Lapping	Prattling	Screaming	Squarking	Twittering
Large	Punchy	Screeching	Squeaking	Vibrating
Mechanical	Purling	Scrunchy	Squealing	Vibrato
Metallic	Purring	Seething	Squishing	Violent
Mewing	Rapping	Sibilant	Stamping	Wailing
Moaning	Rasping	Simmering	Subdued	Wheezing
Moving	Raspy	Sizzling	Swishy	Whining
Murmuring	Rattling	Slamming	Swooshing	Whirring
Muttering	Ringing	Slapping	Tapping	Whispering
Nasal	Rippling	Slushing	Tattooing	Whistling
Neighing	Roaring	Small	Thrumming	Whooshy
Pattering	Roaring (e.g. of waves)	Snapping	Thumping	Yapping
Peeping	Rushing	Snarling	Thundering	Yelping
Percussive		Snoring	Ticking	

11.5.4 Changes or Differences in Perceptions

Boxy	Echoey	Lean	Present	Stable
Coloured	Echoic	Muddy	Remote	Support
Compressed	Expanded	Muffled	Resonant	Thin
Crumbled	Flutter Echo	Muted	Reverberating	Transparency
Damped	Gain	Neutral	Rich	Veiled
Dead	Garbled	Open	Sonorous	Warm
Distant	Hollow	Oppressing	Spatial impression	
Distorted	Intimate	Pillowy		

11.6 Affective Responses to Sounds, English

Acceptable	Calming	Favorable	Objectionable	Scary
Agitating	Cheerful	Gentle	Pleasant	Shocking
Alarming	Cheering	Harmless	Pleasing	Soothing
Ameniting	Clamorous	Inferior	Poor	Stressful
Annoying	Depressing	Insistant	Preferable	Stressing
Appealing	Detestable	Interesting	Pretty	Threatening
Appropriate	Disgusting	Intrusive	Refreshing	Tiring
Attractive	Disliking	Irritating	Relaxing	Ugly
Bearable	Dismissive	Likeable	Relieving	Unemotive
Beautiful	Disturbing	Magnificent	Sad	Unpleasant
Boring	Exciting	Moaning	Safe	Unpleasing
Burdensome	Fatiguing	Noisy	Satisfactory	Unsatisfactory

11.7 Connotative Associations, English

Aggressive	Cheap	Complicated	Cramped	Dense
Alive	Closed	Comprehensive	Dangerous	Dignified
Artificial	Comfortable	Consistent	Defensive	Durable
Calm	Complex	Cosy	Delicate	Easy



Easygoing	Hard	New	Restless	Thick
Effective	Hasty	Old	Restricted	Thoughtless
Elated	Heavy	Ordinary	Sensitive	Uncomfortable
Empty	High-class	Passionate	Serious	Uneasy
Exhilarating	Hurried	Plain	Sickly	Unfamiliar
Expensive	Incomprehensive	Powerful	Slack	Unhurried
Familiar	Inconsistent	Powerless	Sleepy	Uninteresting
Feminine	Intelligible	Precise	Sober	Unintelligible
Fine	Leisurely	Punchless	Solid	Unprincipled
Firm	Light (not heavy)	Pushy	Special	Unreliable
Flat	Lively	Quality	Spirited	Unsporty
Fresh	Luxurious	Racy	Splendid	Unusual
Friendly	Masculine	Rational	Sporty	Valuable
Frightening	Melancholic	Raw	Square	Vigorous
Funny	Mild	Reassuring	Sticky	Vivid
Gloomy	Moderate	Refined	Strained	Well made
Gruff	Natural	Reliable	Strenuous	With character
Happy	Nervous	Repulsive	Tender	

11.8 Onomatopoeia, English

Beep	Ding-Dong	Moo	Quack	Tu-who
Bow-wow	Honk	Ping	Quack	Vroom
Cuckoo	Mew	Plop	Toot	yap-yap

11.9 Attributes, English

Ahead	Coloration	Dynamics	Hardness	Mono/stereo/surround
Articulation	Constrained	Echo	High Frequency extension	Movement
Artifacts	Continuity of the sound stage	Echo, Amount of	Homogeneity	Movement, Sense of
Attack	Covered	Echo, Quality of	Image stability	Muffling
Background noise	Darkness	Effect of device movement	Inside - outside (localisation)	Naturalness
Balance	Depth	Effect output	Internal - external (localisation)	Nearness
Balance, Spectral	Depth localisation	Elevation	Intimacy	Noise
Basic audio quality	Depth, ensemble	Emphasis	Lateral localisation	Openness
Bass	Depth, Sense of	Envelopment	Laterral stage evenness	PA-system
Bass emphasis	Distinctness	Ensemble inner voices	Left - Right	Penetration
Bassiness	Direction, Sense of	Envelopment	Liveness	Perspective
Behind	Disruption	Equalization	Localisability	Phaseyness
Blending	Distance	Externalization	localisation	Power
Blur	Distance to events	Fidelity	Localizability, Ratio of	Preference
Body	Distance, scene	Focus	Loudness	Presense
Boominess	Distance, Sense of	Frequency response	Low bass emphasis	Processed
Brightness	Distance, Source	Front image quality	Low Frequency extension	Punch
Brilliance	Distinctness	Front/back stage localisation	Middle	Realism
Broadness	Distortion	Fullness		Reproduction of ambience
Calmness	Disturbance	Fuzzyness		Resonance
Clarity				Resonance-free
Clearness				Reverb
Clipping				

Reverberance	Skew	Space, Sense of	Symetry	Voice presence
Reverberation	Softness	Spaciousness	Tense	Volume
Richness	Sound color of reverberation	Spatial definition	Thickness	Warmth
Room	Sound impression	Spatial focusing	Tone color	Well defined
Room envelopment	Sound radiation	Spectral range	Transient impact	Width
Room size	Sound, Concentration of	Stability	Treble	
Roominess	Sounds, Balance of	Stereo effect	Treble stressing	
Roughness	Space, Balance of	Stereo image	Trebliness	
Separability		Sterophonic image quality	Up/down stage localization	
Separation		Strength	Vertical spread	
Sharpness		Surround quality	Voice character	

11.10 Perceptual Attributes of Sounds, Danish

11.10.1 Direct Sound Descriptors

Afbrudt	Glidende	Kontinuert	Pulserende	Svag
Balanceret	Gradvis	Kraftig	Regelmæssig	Svulstig
Basset	Grov	Langsom	Ren	Toneagtig
Bred	Harmonere	Lav	Ren; ublandet; ægte	Tør (klangløs)
Buldrende	Høj	Lav (styrke)	Retnings	Tremolo
Diffus	Høj (styrke)	Legato	Ru	Tyndhed
Disharmonisk	Hørbar	Lokaliserbar	Ru; hæs; grov	Uartikuleret
Distinkt	Hurtig	Luftig	Rumle	Ubalanceret
Dunkende	Hvas; bidende (fx frost); skærende; skingrende;	Maskerende	Rumlig	Uharmonisk
Dyb		Melodisk	Rungende	Ujævn
Dybtoneresonant		Modulere (Amplitude)	Rytmask	Unison
Dynamisk	Ikke tør (Rungende)	Moduleret (Pitch)	Sagte	Uregelmæssig
Ensartet	Impulsiv	Monoton	Simpel	Uren
Fluktuere	Intens	Omskuttende	Skinger	Varierende
Fyldig	Intermitterende	Overdådig	Smal	Vedvarende
Gennemstrejfe	Jævn	Påtrængende	Staccato	
Gennemtrængende	Konsonant	Polyfonisk	Stærk	
Gjalde	Konstant	Pulsere	Stille	
Glat			Støt	

11.10.2 Words Relating to Other Senses

Afrundet	Jævn	Lys	Skinnende	Utydelig
Blød	Kantet	Massiv	Tåget	
Dunkel	Klar	Mørk	Tung	
Farveløs	Kold	Ru	Uklar	
Håndgribelig	Lys	Rystende	Uskarp	

11.10.3 References to Events and Sound Sources

Åndende	Bjæffende	Bragende	Bumlende	Dryppen
Bankende	Blikagtig	Bred	Dæmpet	Dunkende
Bevægelig	Boblende	Brølende	Ding	Dyttende
Bippende	Brægende	Brummende	Dongende	Ekspanderet
Bjæffe	Brændende	Brusende	Drønende	Flagrende

Fløjtende	Klingende	Mumblende	Skrydende	Summe
Fnysende	Klingrende	Myldrende	Skurrende	Summende
Fyldig	Klirrende	Nasal	Slående	Suse
Gøende	Klonkende	Pibende	Sludrende	Susende
Grov	Klukkende	Pippende	Slugende begærligt	Sydende
Gryntende	Klukkende (lat-ter)	Pjaske	Smække	Tikken
Gurgle	Knækkende	Plaskende	Smækkende	Tør
Hæs	Knagende	Plingende	Smældende	Tordnende
Hævet	Knasende	Pludrende	Smattet	Trillende
Hamrende	Knipsende	Raslende	Snerrende	Tromme
Hvæsen	Knirkende	Raslende (blade)	Snorkende	Trommende (med fingrene)
Hvæsende	Knitrende	Raspende	Snurrende	Trommende (som af regn på taget)
Hvine	Knurre	Ringende	Spinde	Tudende
Hvinende	Kogende	Rislende	Sprød	Uren
Hviskende	Kurre	Rumlig	Spruttende	Vibrato
Hvislende	Kurrende	Simrende	Stampende	Vibrerende
Hylende	Kvidrende	Sjappet	Stødende	Voldsom
Kaglende	Labbende	Sjaskende	Stønne	Vrinskende
Kimende	Let banken	Skabende	Stønnende	
Klankende	Let bølgende	Skærende (tænder)	Stor	
Klappende	Lille	Skrabende	Strømmende	
Klaprende	Mekanisk	Skribe	Strubelyd	
Klaskende	Metallisk	Skrigende	Sukkende	
Klikkende	Mjavende			

11.10.4 Changes or Differences in Perceptions

Åben	Forstærket	Klangfuld	Pudet	Transparent
Dæmpet	Forvansket	Komprimeret	Rumligt indtryk	Tynd
Død	Forvrænget	Mager	Rungende	Udvidet
Ekko (med ekko)	Fyldig	Med efterklang	Smuldrende	Undertrykt
Farvet	Hul	Mudret	Stabil	Varm
Fjern	Indelukket	Nærværende	Støtte	
Flutter ekko	Intimitet	Neutral	Tildækket	

11.11 Affective Responses to Sounds, Danish

Acceptabel	Chokerende	Irriterende	Sikker	Trættende
Afskyelig	Dårlig	Jamrende	Smuk	Trist
Afslappende	Deprimerende	Kedelig	Som er at foretrække	Truende
Afvisende	Forfriskende	Køn	Spændende	Ubehagelig
Alarmerende	Forstyrrende	Larmende	Støjende	Uudholdelig
Behagelig	Frastødende	Lindrende	Storartet	Uhyggelig
Behagende	Generende	Munter	Stressende	Utilfredsstillende
Belastende	Grim	Nøgttern	Sympatisk	Væmmelig
Beroligende	Gunstig	Opmuntrende	Tilfredsstillende	Vedholdende
Bevægende	Harmløs	Passende	Tiltrækkende	
Blid	Interessant	Påtrængende		

11.12 Connotative Associations, Danish

Aggressive	Almindelig	Alvorlig	Animeret	Anstrengt
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Barsk	Forståelig	Kraftløs	Opstemt	Tom
Begrænset	Førsteklasses	Kunstig	Pålidelig	Trang
Beroligende	Frastødende	Kvalitet	Præcis	Tung
Besværlig	Frisk	Langsom	Principløs	Tyk
Billig	Frygtindgydende	Let	Rå	Ubekymret
Defensiv	Gammel	Letløbende	Raceragtig	Uforståelig
Delikat	Glad	Levende	Raffineret	Uinteressant
Dyr	Glimrende	Lidenskabelig	Rationel	Ukendt
Dyster	Hård	Livlig	Rolig	Ukomfortabel
Effektiv	Hastig	Lukket	Samstemmende	Upålidelig
Energisk	Holdbar	Luksuriøs	Sart	Usædvanlig
Farlig	Hvileløs	Maskulin	Simpel	Usporty
Fast	Hyggelig	Melankolsk	Sjov	Usund, sygelig
Feminin	Inkonsekvent	Mild	Slap	Utilstrækkelig
Fin	Karakterfuld	Moderat	Solid	Værdifuld
Firkantet	Klæbende	Naturlig	Søvnig	Værdig
Flad	Komfortabel	Nervøs	Speciel	Velgjort
Følsom	Kompleks	Nøgtern	Sporty	Velkendt
Forceret	Kompliceret	Ny	Stødløs	Venlig
Forhastet	Kraftfuld	Omfattende	Tæt	

11.13 Onomatopoeia, Danish

Bip	Ding-Dong	Kuk-kuk	Muh	Uhu
Bjæf-bjæf	Duut	Kvæk	Plop	Vov-vov
Ding	Honk	Miav	Rap	Vroom

11.14 Attributes, Danish

Åbenhed	Blødhed	Ensembledybde	Højfrekvens udstrækning	Livlighed
Adskillelse	Bredde	Equalisering	Højtaleranlæg	Lokalisation
Afstand	Brilliance	Farvning	Homogenitet	Lokaliserbarhed
Afstand til hændelser	Dæmpning	Fokus	Inden i - uden for lokalisering	Lydbalance
Afstandsfor-nemmelse	Destinkthed	For/ bag lydfor-delning	Intern - ekstern (lokalisering)	Lydindtryk
Anspændt	Diskant	Forfra	Intimitet	Lydkoncentra-tion
Artikulation	Diskant'ed	Forgrundskvali-tet	Kildeafstand	Lydstyrke
Atetakt	Dybbashævning	Forstyrrelse	Klanfarve af efterklang	Lydustråling
Attack	Dybde	Forvrængning	Klangfarve	Lyshed
Bagfra	Dybdelokalisati-on	Frekvenskarakte-ristik	Klarhed	Midter
Baggrundsstøj	Dybdeoplevelse	Fremtrædenhed	Kontinuitet af lydbilledet	Mo-no/stereo/surroun-d
Bas	Dybtone-resonans	Fyldighed	Kraft	Mørke ("mørk-hed")
Bashævning	Dynamik	Gengivelse af lyd-atmosfæren	Krop	Nærhed
Bassethed	Effektstyrke	Gennemtræng-ning	Lateral jævnhed af lydfordeling	Naturlighed
Begrænset	Efterklang	Grundlæggende lyd-kvalitet	Lateral lokalise-ring	Omsluttet-hed/ned lokalisa-tion
Bevægelse	Ekko	Hårdhed	Lavfrekvens udstrækning	Perspektiv
Bevægelsesfor-nemmelse	Ekko, Kvalitet af	Helhedsvirkning af stemmer		Realisme
Billedstabilitet (Stereo)	Ekko, mængde af			Resonans
Blanding	Eksternalisering			
	Elevation			

Resonansfri	ring	Spektral balance	Surround kvalitet	Varme
Retningsbalance	Rumlighed	Spektralt område	Symmetri	Veldefineret
Retningsfor- nemmelse	Rumlighedsba- lance	Stabilitet	Tæthed	Venstre - højre
Rolighed	Rumklang	Stemmekarakter	Tildækket	Vertikal spred- ning
Ruhed	Rumstørrelse	Stemmenærhed	Transientvirk- ning	Virkning af lydkildens be- vægelse
Rum	Sceneafstand	Stereo effekt	Troværdighed	
Rumfornemmel- se	Separation	Stereobillede	Tydelighed	
Rumlig definiti- on	Skævhed	Stereobilledets kvalitet	Ufri	
Rumlig fokuse-	Skarphed	Støj	Uklarhed	
	Slagkraft	Styrke	Uskarphed	

11.15 Words Sorted by Loudness

An interval of loudness or intensity has been assigned to the words in this section. The words are sorted by first the maximum of the interval and next by the minimum of the interval.

Silent	0	1	Cuckoo	2	5
Quiet	0	2	Gluging	2	5
Low (Intensity)	1	3	Grumbling	2	5
Soft	1	3	Lapping	2	5
Thrumming	2	3	Mew	2	5
Ticking	2	3	Mewing	2	5
Whispering	2	3	Peeping	2	5
Distant	1	4	Purling	2	5
Dripping	1	4	Quack	2	5
Fine	1	4	Scraping	2	5
Gentle	1	4	Soothing	2	5
Muffled	1	4	Tu-whoo	2	5
Muted	1	4	Babbling	3	5
Sticky	1	4	Beep	3	5
Tender	1	4	Beeping	3	5
Weak	1	4	Buzzing	3	5
Damped	2	4	Chattering	3	5
Gurgling	2	4	Chirping	3	5
Humming	2	4	Cooing	3	5
Light (not heavy)	2	4	Creaking	3	5
Murmuring	2	4	Luxurious	3	5
Muttering	2	4	Moaning	3	5
Purring	2	4	Piping	3	5
Remote	2	4	Plashing	3	5
Rustling	2	4	Plop	3	5
Soughing	2	4	Prattling	3	5
Tapping	3	4	Sizzling	3	5
Tattooing	3	4	Snoring	3	5
Audible	1	5	Snorting	3	5
Beautiful	1	5	Splashing	3	5
Calm	1	5	Squarking	3	5
Calming	1	5	Thin	3	5
Cheeping	1	5	Tinny	3	5
Mellow	1	5	Wheezing	3	5
Mild	1	5	Whirring	3	5
Pleasant	1	5	Whooshy	3	5
Pleasing	1	5	Clicking	4	5
Unsporty	1	5	Clucking	4	5
Airy	2	5	Crunchy	4	5

Snarling	4	5	Grunting	4	6
Twanging	4	5	Hoarse	4	6
Yapping	4	5	Scrunchy	4	6
yap-yap	4	5	Slushing	4	6
Yelping	4	5	Throb	4	6
Appealing	1	6	Thumping	4	6
Attractive	1	6	Chuckling	5	6
Defensive	2	6	Tinkling	5	6
Dignified	2	6	Clean	1	7
Dry (Rasping)	2	6	Hissing	2	7
Dull	2	6	Impure	2	7
Easy	2	6	Pure	2	7
Easygoing	2	6	Burning	3	7
Hazy	2	6	Clashing	3	7
High-class	2	6	Simple	3	7
Hissing	2	6	Blattering	4	7
Powerless	2	6	Bleating	4	7
Pretty	2	6	Clangorous	4	7
Quack	2	6	Clanking	4	7
Relieving	2	6	Clattering	4	7
Rounded	2	6	Clunky	4	7
Slapping	2	6	Crackling	4	7
Ameniting	3	6	Ding-Dong	4	7
Comfortable	3	6	Gnashing	4	7
Cosy	3	6	Grinding	4	7
Delicate	3	6	Jangling	4	7
Growling	3	6	Jingling	4	7
Gushing	3	6	Popping	4	7
Pounding	3	6	Rapping	4	7
Refined	3	6	Rattling	4	7
Relaxing	3	6	Rumbling	4	7
Sibilant	3	6	Thick	4	7
Snapping	3	6	Clear	5	7
Swishy	3	6	Grandiloquence	5	7
Swooshing	3	6	Heavy	5	7
Twittering	3	6	Moo	5	7
Cackling	4	6	Neighing	5	7
Cheerful	4	6	Squeaking	6	7
Clacking	4	6	Grating	2	8
Clinking	4	6	Ping	2	8
Cracking	4	6	Beating	3	8
Creacking	4	6	Bonging	3	8
Distinct	4	6	Bumpy	3	8
Gobbling	4	6	Coarse	3	8
Groaning	4	6	Dynamic	3	8

Exhilarating	3	8	Clapping	6	8
Penetrating	3	8	Screaking	6	8
Reliable	3	8	Screaming	6	8
Twirling	3	8	Screeching	6	8
Aggressive	4	8	Slamming	6	8
Bellowing	4	8	Whistling	6	8
Braying	4	8	Roaring (e.g. of	3	9
Drumming	4	8	Booming	4	9
Fullness	4	8	Intrusive	4	9
Heavy	4	8	Piercing	4	9
Jarring	4	8	Knocking	5	9
Opulent	4	8	Objectionable	5	9
Pattering	4	8	Percussive	5	9
Pinging	4	8	Shocking	5	9
Strained	4	8	Shrill	5	9
Uneasy	4	8	Uncomfortable	5	9
Vigorous	4	8	Blasting	6	9
Alarming	5	8	Crashing	6	9
Banging	5	8	High (level)	6	9
Barking	5	8	Noisy	6	9
Blare	5	8	Obtrusive	6	9
Bow-wow	5	8	Raw	6	9
Honk	5	8	Squealing	6	9
Honky	5	8	Whining	6	9
Hooting	5	8	Intense	7	9
Howling	5	8	Loud	7	9
Impacting	5	8	Roaring	7	9
Open	5	8	Strong	7	9
Powerful	5	8	Thundering	7	9
Punchy	5	8	Dangerous	4	10
Toot	5	8	Booming	5	10
Vroom	5	8	Frightening	6	10
Chiming	6	8	Violent	6	10
Clamorous	6	8			

11.16 English list alphabetical

Acceptable	Basic audio quality	Booming	Chattering	Clunky
Aggressive	Bass	Booming	Cheap	Cluttered
Agitating	Bass emphasis	Boomy	Cheeping	Coarse
Ahead	Bassiness	Boring	Cheerful	Cold
Airy	Bassy	Bow-wow	Cheering	Coloration
Alarming	Bearable	Boxy	Chiming	Colorless
Alive	Beating	Braying	Chirping	Coloured
Ameniting	Beautiful	Breathy	Chuckling	Comfortable
Annoying	Beep	Bright	Clacking	Complex
Appealing	Beeping	Brightness	Clamorous	Complicated
Appropriate	Behind	Brilliance	Clangorous	Comprehensive
Articulation	Bellowing	Brilliant	Clanking	Compressed
Artifacts	Blare	Broad	Clapping	Consistent
Artificial	Blasting	Broadness	Clarity	Consonant
Attack	Blattering	Bubbling	Clashing	Constant
Attractive	Bleating	Bumpy	Clattering	Constrained
Audible	Blending	Burdensome	Clean	Continuity of the sound stage
Babbling	Blunt	Burning	Clear	Continuous
Background noise	Blur	Burred	Clearness	Cooing
Balance	Blurred	Buzzing	Clicking	Cosy
Balance, Spectral	Body	Cackling	Clinking	Covered
Balanced	Boiling	Calm	Clipping	Cracking
Banging	Bonging	Calming	Closed	Crackling
Barking	Boominess	Calmness	Clucking	Cramped
Crashing	Direction, Sense of	Dry (short reverb)	Even	Frightening
Creacking	Directional	Dull	Exciting	Front image quality
Creaking	Dirty	Durable	Exhilarating	Front/back stage localisation
Crisp	Discordant	Dynamic	Expanded	Full
Crumbled	Disgusting	Dynamics	Expanded	Fullness
Crunchy	Disharmonious	Easy	Expensive	Funny
Cuckoo	Disliking	Easygoing	Externalization	Fuzzyness
Damped	Dismissive	Echo	Familiar	Gain
Dangerous	Disruption	Echo, Amount of	Fast	Garbled
Dark	Dissonant	Echo, Quality of	Fat	Gentle
Darkness	Distance	Echoey	Fatiguing	Glide
Dead	Distance to events	Echoic	Favorable	Gloomy
Deep	Distance, scene	Edgy	Feminine	Gluging
Defensive	Distance, Sense of	Effect of device movement	Fidelity	Gnashing
Delicate	Distance, Source	Effect output	Fine	Gobbling
Dense	Distant	Effective	Firm	Grandiloquence
Depressing	Distinct	Elated	Fizzy	Grating

Depth	Distinctness	Elevated	Flat	Grinding
Depth localisation	Distorted	Elevation	Fluctuating	Groaning
Depth, ensemble	Distortion	Emphasis	Flutter Echo	Growling
Depth, Sense of	Disturbance	Empty	Fluttering	Gruff
Destinctness	Disturbing	Emvelopment	Focus	Gruff
Detestable	Dripping	Ensemble inner voices	Foggy	Grumbling
Diffuse	Droning	Enveloping	Frequency response	Grunting
Dignified	Drumming	Envelopment	Fresh	Gurgling
Ding-Dong	Dry (Rasping)	Equalization	Friendly	Gushing
Guttural	Humming	Jangling	Low Frequency extension	Muddy
Hammering	Hurried	Jarring	Luxurious	Muffled
Happy	Image stability	Jingling	Magnificent	Muffling
Hard	Impacting	Knocking	Masculine	Murmuring
Hardness	Impulsive	Lapping	Masking	Muted
Harmless	Impure	Large	Massive	Muttering
Harmonious	Inarticulate	Lateral localisation	Mechanical	Narrow
Harsh	Incomprehensive	Laterral stage evenness	Melancholic	Nasal
Hasty	Inconsistent	Lean	Mellow	Natural
Hazy	Inferior	Left – Right	Melodic	Naturalness
Heavy	Inharmonic	Legato	Metallic	Nearness
Heavy	Inside - outside (localisation)		Leisurely	Mew Neighing
High (level)	Insistant	Light (not dark)	Mewing	Nervous
High (pitch)	Intelligible	Light (not heavy)	Middle	Neutral
High Frequency extension		Intense	Likeable	Mild New
High-class	Interesting	Lively	Moaning	Noise
Hiss	Intermittend	Liveness	Moaning	Noisy
Hissing	Intermittent	Localisaibility	Moderate	Objectionable
Hissing	Internal - external (localisation)		localisation	Modulated (Amplitude) Obtrusive
Hoarse	Interrupted	Localizability, Ratio of	Modulated (Pitch)	Old
Hollow	Interrupted	Localizable	Mono/stereo/surround	Open
Homogeneity	Intimacy	Loud	Monotonous	Openess
Honk	Intimate	Loudness	Moo	Oppressing
Honky	Intrusive	Low (Intensity)	Movement	Opulent
Hooting	Irregular	Low (Pitch)	Movement, Sense of	Ordinary
Howling	Irritating	Low bass emphasis	Moving	Palpable
Passionate	Powerful	Raspy	Rich	Screeching
PA-system	Powerless	Rational	Richness	Scrunchy
Pattering	Prattling	Rattling	Ringin	Seething
Peeping	Precise	Raucous	Rippling	Sensitive
Penetrating	Preferable	Raw	Roaring	Separability
Penetration	Preference	Realism	Roaring (e.g. of waves)	Separation
Percussive	Presense	Reassuring	Room	Serious
Perspective	Present	Refined	Room envelopment	Shaking
Phaseyness	Pretty	Refreshing	Room size	Sharp

Phasi	Processed	Regular	Roominess	Sharpness
Piercing	Pulsating	Relaxing	Rough	Shining
Pillow	Pulsing	Reliable	Roughness	Shocking
Ping	Punch	Relieving	Rounded	Shrill
Pinging	Punchless	Remote	Rumbling	Sibilant
Piping	Punchy	Reproduction of ambience	Rushing	Sickly
Plain	Pure	Repulsive	Rustling	Silent
Plane	Purling	Resonance	Rustling	Simmering
Plashing	Purring	Resonance-free	Sad	Simple
Pleasant	Pushy	Resonant	Safe	Sizzling
Pleasing	Quack	Restless	Samely	Skew
Plop	Quack	Restricted	Satisfactory	Slack
Polyphonic	Quality	Reverb	Scary	Slamming
Poor	Quiet	Reverberance	Scatching	Slapping
Popping	Racy	Reverberating	Scraping	Sleepy
Pounding	Rapping	Reverberation	Screaking	Slow
Power	Rasping	Rhythmic	Screaming	Slushing
Small	Special	Strident	Tinkling	Uninteresting
Smooth	Spectral range	Strong	Tinny	Unintelligible
Snapping	Spirited	Subdued	Tiring	Unisonant
Snarling	Splashing	Support	Tonal	Unpleasant
Snoring	Splendid	Surround quality	Tone color	Unpleasing
Snorting	Sporty	Sustained	Toot	Unprincipled
Sober	Sputtering	Sweeping	Transient impact	Unreliable
Soft	Square	Swishy	Transperancy	Unsatisfactory
Softness	Squarking	Swooshing	Treble	Unsporty
Solid	Squeaking	Symetry	Treble stressing	Unusual
Sonorous	Squealing	Tapping	Trebliness	Up/down stage localization
Soothing	Squishing	Tattooing	Tremolo	Valuable
Soughing	Stability	Tender	Trilling	Varied
Sound color of reverberaion		Stable	Tense	Tu-whoop Veiled
Sound impression	Staccato	Thick	Twanging	veiled
Sound radiation	Stamping	Thickness	Twirling	Vertical spread
Sound, Concentration of	Steady	Thin	Twittering	Vibrating
Sounds, Balance of	Stereo effect	Thinness	Ugly	Vibrato
Space, Balance of	Stereo image	Thoughtless	Unbalanced	Vigorous
Space, Sense of	Sterophonic image quality	Threatening	Unclear	Violent
Spacious	Sticky	Throb	Uncomfortable	Vivid
Spaciousness	Strained	Thrumming	Uneasy	Voice character
Spatial	Strength	Thudding	Unemotive	Voice presence
Spatial definition	Strenuous	Thumping	Uneven	Volume
Spatial focusing	Stressful	Thundering	Unfamiliar	Vroom
Spatial impression	Stressing	Ticking	Unhurried	Wailing
Warm	Warmth	Weak	Well defined	Well made

Wet

Whistling

Yapping

Wheezing

Whooshy

yap-yap

Whining

Wide

Yelping

Whirring

Width

Whispering

With character

11.17 Danish list alphabetical

Acceptabel	Billig	Dybbashævning	Flutter ekko	Grov
Adskillelse	Bip	Dybde	Fløjtende	Grundlæggende lydkvalitet
Afbrudt	Bippende	Dybdelokalosa- tion	Fnysende	Grytende
Afrundet	Bjæf-bjæf	Dybdeoplevelse	Fokus	Gunstig
Afskyelig	Bjæffe	Dybtoneresonans	For/ bag lydfor- deling	Gurgle
Afslappende	Bjæffende	Dybtoneresonant	Forceret	Gøende
Afstand	Blanding	Dynamik	Forfra	Hamrende
Afstand til hæn- delse	Blid	Dynamisk	Forfriskende	Harmløs
Afstandsfor- nemmelse	Blikagtig	Dyr	Forgrundskvali- tet	Harmonere
Afvisende	Blød	Dyster	Forhastet	Hastig
Aggressive	Blødhed	Dyttende	Forstyrrelse	Helhedsvirkning af stemmer
Alarmerende	Boblende	Dæmpet	Forstyrrende	Holdbar
Almindelig	Bragende	Dæmpning	Forstærket	Homogenitet
Alvorlig	Bred	Død	Forståelig	Honk
Animeret	Bredde	Dårlig	Forvansket	Hul
Anspændt	Brilliance	Effektiv	Forvrænget	Hurtig
Anstrengt	Brummende	Effektstyrke	Forvrængning	Hvas; bidende (fx frost);
Artikulation	Brusende	Efterklang	Frastødende	Hvileløs
Atetakt	Brægende	Ekko	Frekvenskarakte- ristik	Hvine
Attack	Brændende	Ekko (med ekko)	Fremtrædenhed	Hvinende
Bagfra	Brølende	Ekko, Kvalitet af	Frisk	Hviskende
Baggrundsstøj	Buldrende	Ekko, mængde af	Frygtindgydende	Hvislende
Balanceret	Bumlende	Ekspanderet	Fyldig	Hvæsen
Bankende	Chokerende	Eksternalisering	Fyldighed	Hvæsende
Barsk	Defensiv	Elevation	Følsom	Hvæsende
Bas	Delikat	Energisk	Førsteklasses	Hyggelig
Bashævning	Deprimerende	Ensartet	Gammel	Hylende
Basset	Destinkthed	Ensemblebybde	Generende	Hæs
Bassethed	Diffus	Equalisering	Gengivelse af lydatmosfæren	Hævet
Begrænset	Ding	Farlig	Gennemstrejfe	Høj (pitch)
Behagelig	Ding-Dong	Farveløs	Gennemtræn- gende	Høj (styrke)
Behagende	Disharmonisk	Farvet	Gennemtræn- gende	Højfrekvens udstrækning
Belastende	Diskant	Farvning	Gennemtræng- ning	Højttaleranlæg
Beroligende	Diskant'ed	Faseagtig	Gjalde	Hørbar
Besværlig	Diskanthævning	Fast	Glad	Håndgribelig
Bevægelig	Distinkt	Feminin	Glat	Hård
Bevægelse	Dongende	Fin	Glidende	Hårdhed
Bevægelsesfor- nemmelse	Dryppen	Firkantet	Glimrende	Ikke tør (Run- gende)
Bevægende	Drønende	Fjern	Gradvis	Impulsiv
Billedstabilitet (Stereo)	Dunkel	Flad	Grim	
	Dunkende	Flagrende		
	Duut	Fluktuere		
	Dyb			

Indelukket	Kold	Lokaliserbar	Ny	Retningsfor- nemmelse
Inden i - uden for Lokalisering	Komfortabel	Lokaliserbarhed	Nærhed	Ringende
Inkonsekvent	Kompleks	Luftig	Nærværende	Rislende
Intens	Kompliceret	Lukket	Nøgtern	Rolig
Interessant	Komprimeret	Luksuriøs	Omfattende	Rolighed
Intermitterende	Konsonant	Lydbalance	Omskuttende	Ru
Intern - ekstern (lokalisering)	Konstant	Lydindtryk	Omsluttethed	Ru; hæs; grov
Intimitet	Kontinuert	Lydkoncentra- tion	Op/ned lokalisa- tion	Ruhed
Irriterende	Kontinuitet af lydbilledet	Lydstyrke	Opmuntrende	Rum
Jamrende	Kraft	Lydudstråling	Opstemt	Rumfornemmel- se
Jævn	Kraftfuld	Lys	Overdådig	Rumklang
Kaglende	Kraftig	Lyshed	Passende	Rumle
Kantet	Kraftløs	Mager	Perspektiv	Rumlig
Karakterfuld	Krop	Maskerende	Pibende	Rumlig definiti- on
Kedelig	Kuk-kuk	Maskulin	Pippende	Rumlig fokuse- ring
Kildeafstand	Kunstig	Massiv	Pjaske	Rumlighed
Kimende	Kurre	Med efterklang	Plaskende	Rumlighedsba- lance
Klangfarve	Kvalitet	Mekanisk	Plingende	Rumligt indtryk
Klangfarve af efterklang	Kvidrende	Melankolsk	Plop	Rumstørrelse
Klangfuld	Kvæk	Melodisk	Pludrende	Rungende
Klankende	Køn	Metallisk	Polyfonisk	Rystende
Klappende	Labbende	Miav	Preference	Rytmask
Klaprende	Langsom	Midter	Principløs	Rå
Klar	Larmende	Mild	Processeret	Sagte
Klarhed	Lateral jævnhed af lydfordeling	Mjavende	Præcis	Samstemmende
Klaskende	Lateral lokalise- ring	Moderat	Pudet	Sart
Klikkende	Lav (Pitch)	Modulere (Am- plitude)	Pulsere	Sceneafstand
Klingende	Lav (styrke)	Moduleret (Pitch)	Pulserende	Separation
Klingrende	Lavfrekvens udstrækning	Mono/stereo/sur- ound	Pålidelig	Sikker
Klirrende	Legato	Monoton	Påtrængende	Simpel
Klonkende	Let	Mudret	Raceragtig	Simrende
Klukkende	Let banken	Muh	Raffineret	Sjappet
Klukkende (lat- ter)	Let bølgende	Mumlende	Rap	Sjaskende
Klæbende	Letløbende	Munter	Raslende	Sjov
Knagende	Levende	Myldrende	Raslende (blade)	Skabende
Knasende	Lidenskabelig	Mørk	Raspende	Skarphed
Knipsende	Lille	Mørke ("mørk- hed")	Rationel	Skinger
Knirkende	Lindrende	Mørke	Realisme	Skinrende
Knitrende	Lindrende	Nasal	Regelmæssig	Skrabende
Knurre	Livlig	Naturlig	Ren	Skrige
Knækkende	Livlighed	Naturlighed	Ren; ublandet; ægte	Skrigende
Kogende	Lokalisation	Nervøs	Resonans	Skrigende
		Neutral	Resonansfri	Skydende
			Retningsbalance	

Skurrende	Stampende	Sydende	Tyndhed	Usund, sygelig
Skærende (tænder)	Stemme karakter	Sydende	Tæt	Usædvanlig
Skævhed	Stemmenærhed	Symmetri	Tæthed	Utilfredsstillende
Slagkraft	Stereobillede	Sympatisk	Tør	Utilstrækkelig
Slap	Stereobilledets kvalitet	Søvnig	Tør (klangløs)	Utydelig
Sludrende	Stereoeffekt	Tikken	Tåget	Varierende
Slugende begærligt	Stille	Tildækket	Uartikuleret	Varm
Slående	Stor	Tilfredsstillende	Ubalanceret	Varme
Smal	Storartet	Tiltrækkende	Ubehagelig	Vedholdende
Smattet	Stressende	Tom	Ubekymret	Vedvarende
Smuk	Strubelyd	Toneagtig	Udholdelig	Veldefineret
Smuldrende	Strømmende	Tordnende	Udvidet	Velgjort
Smække	Styrke	Trang	Uforståelig	Velkendt
Smækkende	Stærk	Transientvirkning	Ufri	Venlig
Smældende	Stødende	Transperans	Uharmonisk	Venstre - højre
Snerrrende	Stødløs	Tremolo	Uhu	Vertikal spredning
Snorkende	Støj	Trillende	Uhyggelig	Vibrato
Snurrende	Støjende	Trist	Uinteressant	Vibrerende
Solid	Stønne	Tromme	Ujævn	Virkning af lyd kildens bevægelse
Speciel	Stønrende	Trommende (med fingrene)	Ukendt	Voldsom
Spektral balance	Støt	Trommende (som af regn på taget)	Uklar	Vov-vov
Spektralt område	Støtte	Troværdighed	Uklarhed	Vrinskende
Spinde	Sukkende	Truende	Ukomfortabel	Vroom
Sporty	Summe	Trættende	Undertrykt	Væmmelig
Spruttende	Summende	Tudende	Unison	Værdifuld
Sprød	Surround kvalitet	Tung	Upålidelig	Værdig
Spændende	Suse	Tydelig	Uregelmæssig	Åben
Stabil	Susende	Tyk	Uren	Åbenhed
Stabilitet	Svag	Tynd	Uskarp	Åndende
Staccato	Svulstig		Uskarp	
			Usporty	

12. Appendix: The Filter Model

The filter model, see Figure 2 illustrates the relations between physical or instrumental measurements, sensory or perceptual measurements and subjective measurements. Except for the physical measurements humans are involved in the process as “measuring instruments”.

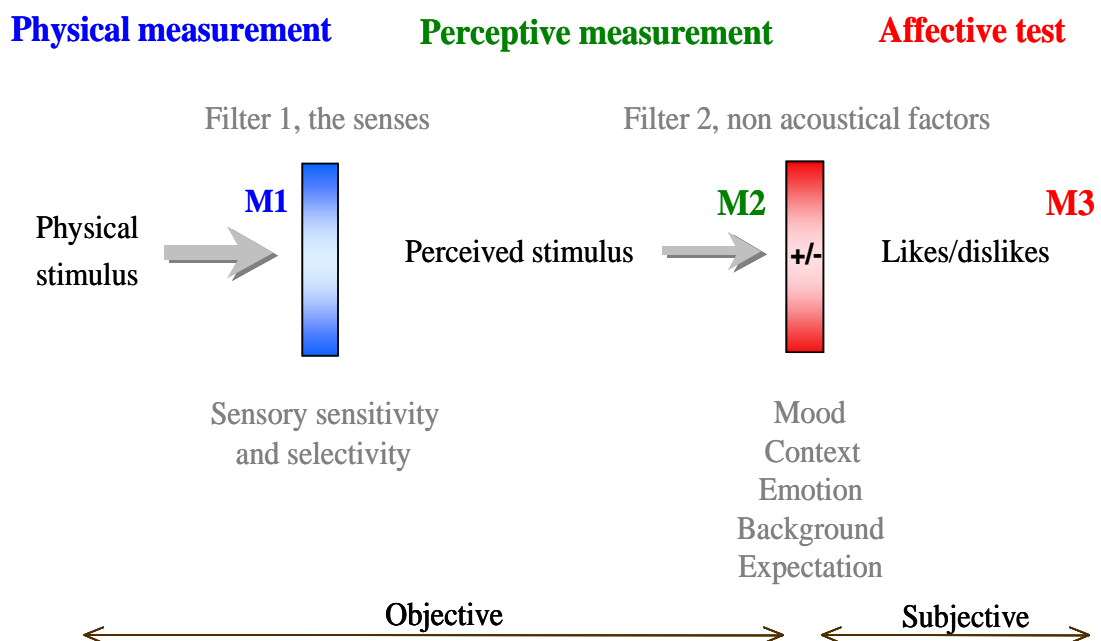


Figure 2

The filter model illustrates the relations between physical/instrumental, perceptual/sensory, and affective/subjective measurements. Filter 1 symbolises our senses (hearing). Filter 2 symbolizes our mental processing of sensory perceptions. M1, M2, and M3 illustrate measuring points. Measurements at each of these points may be made independently of each other, and for certain purposes measurements in any point(s) without the others may be made. M1: Physical measurements (sound pressure levels, loudness ...), M2: Perceptual measurements (psychoacoustics), and M3: Affective tests and surveys.

Measuring point M1 represents the physical/instrumental measurements, i.e. sound pressure levels, spectra, psycho-acoustic metrics (such as loudness, sharpness roughness, fluctuation strength), prominence of tones, prominence of impulses or any other characteristic of the sound.

Measuring point M2 represents the perceptual tests which are objective tests (sensory evaluations, perceptual analysis) where humans are used as measuring instruments. The characteristics of the perceived stimulus are rated in objective terms without asking the test persons for preferences or annoyance. The main purpose is to give information about the character of the sound as perceived by humans. The tests are usually made with a panel of

trained persons. The persons are trained to express their sensory perception in terms that have been well defined to or defined in cooperation with the test persons in advance.

Measuring point M3 represents affective tests which are subjective listening tests or surveys normally performed with a group of naive (untrained and without experience in listening tests) test persons who are representative of the relevant group of persons – “a consumer jury”. As they may use other words than acousticians for the attributes of the product they hear, the relevant words for expression of the heard sound often have to be “found” before the answering forms for the listening tests can be made. This can be done e.g. by interviews or focus group discussions. Answers as an immediate response of the persons’ judgements are preferred. Affective tests are used when the preferred characteristics or the “dislikes” of a product are sought (preference tests). The main purpose is to give information about humans in relation to the sound in a given context. The context will usually have a major influence on the final result.

To interpret the results of the physical measurements in M1, the perceptual measurements in M2 are often a valuable tool. It may also be easier to make forecast of the reactions in M3 from the perceptual measurements (M2) than from the physical measurements (M1).

The filter model can also be found in [37].

13. Guide to “Semantic space of sounds.xls”

This guide gives a short introduction to how to use the “Semantic space of sounds.xls”. This is a Microsoft Excel application, so common knowledge of Excel is assumed.

13.1 Background

The spreadsheet contains a list of 450 sound-describing words which have been profiled by the magnitude of 17 primary sound descriptors.

With this application you can sort sound-describing words according to specific characteristics, the primary descriptors. Together, the values of the primary descriptors (the coordinates) of a word specify a location in the semantic space. You may find the (Euclidian) distances between the words, and you may sort the words according to the distances from a specific word.

You may also sort the words in the following word classes:

Perceptual attributes of sounds:

- 1) *Direct sound descriptors* (loud, bassy, sharp ...)
- 2) *Words relating to perceptions from other senses than hearing* (bright, dark, colourless ...)
- 3) *References to events and sound sources* (howling, roaring, rattling ...)
- 4) *Changes or differences in perceptions* (coloured, compressed, muffled ...)
- 5) **Affective responses to sounds** (pleasant, annoying, boring ...)
- 6) **Connotative associations** (sporty, luxurious, powerful ...)
- 7) **Onomatopoeia** (woof-woof, yap-yap ...)

13.2 How to Use “Semantic Space of Sounds.xls”

How to sort words

Place the cursor anywhere in the column, by which you want to sort the words. Then press one of the buttons “Sort Ascend” or “Sort Descend”. Please note that when you sort ascendingly, the empty cells will appear at the top (scroll down to see the next values).

How to find distances from a word (the Test descriptor)

Place the cursor on a word in the list (or anywhere in the same line) and press the button “Choose Test descriptor”. Now the chosen word will appear in the yellow area (line 4), and the list is sorted by “distance” to the chosen word (column X). Sometimes the chosen word is not placed uppermost. That is OK and happens when other words have coordinates identical with the chosen word.

If there are only a few common coordinates, sorting only by distance is not always meaningful. The button “Sort Comm/Dist” does a double sorting, first on numbers of common

descriptors, then on distance to Test descriptor. Words with small mutual distances may be synonyms. An even more meaningful selection may be obtained by looking only at words with a specified number of common coordinates by filtering.

How to filter according to specific criteria

Click on the small pointer at the header of the column and choose the kind of filtering you want. “Custom” is recommended. After filtering only the words fulfilling the filter criteria will be visible. When a filter is applied, the pointer is blue. Multiple filters are possible simultaneously. Any sorting will be made on filtered data only.

Remember to turn off the filters again by setting filter to “all” (the pointer turns black again). All filters can be set to “all” by the menu “Data/Filter/ShowAll”.

Explanation of calculated parameters

Number of coordinates: Number of specified primary descriptors (coordinates) of a word.

Distance to the Test descriptor: The Euclidian distance (square root of summed squares of differences) based on common descriptors.

Number of common coordinates: The number of common primary descriptors relative to the chosen word.

Distance to Origo: The Euclidian distance to the origo (0,0,0,0,...) of the coordinate system.

WARNING!

Inserting or deleting data will destroy integrity. The reason is that the macros used are defined on static “data areas”.

14. Appendix – Spectral Colour

For the purpose of improving the overview in the Lexicon, one may relate spectral characteristics of sounds to the colour spectrum. The idea is illustrated in Figure 3.

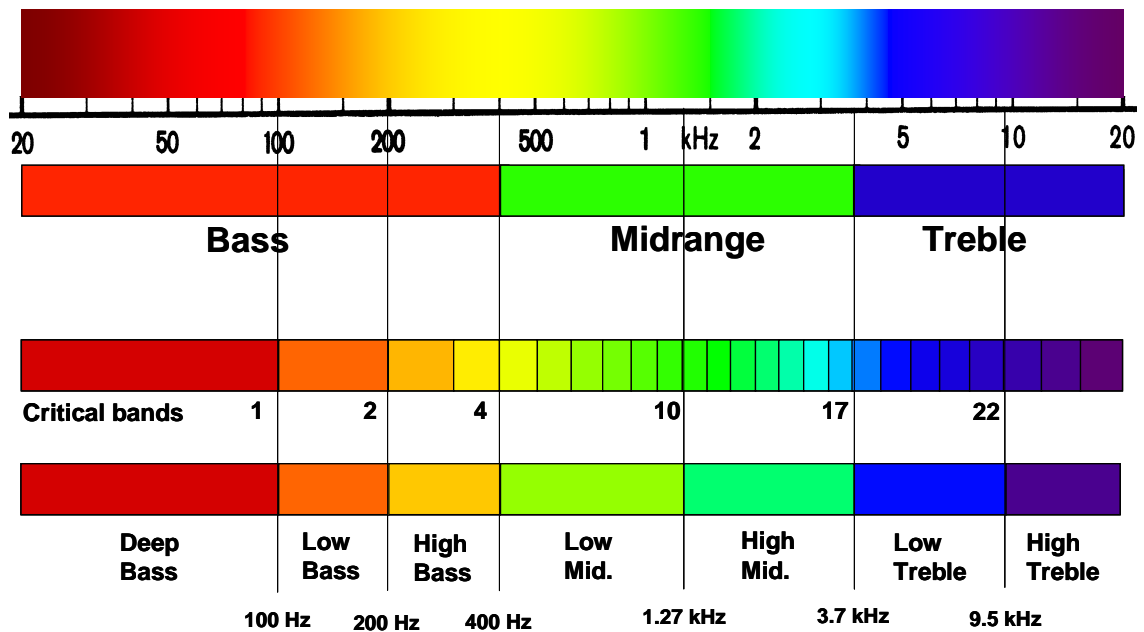


Figure 3

An analogy between sound frequencies and colours. In the figure names for different frequency ranges are also suggested.

To each sound frequency there is a corresponding colour. The transformation from sound frequency to optical wavelength is made according to the following equation:

$$\Lambda_{\text{Optical}} = 950 - 889 \cdot \text{Log}(f)$$

where Λ_{Optical} is the optical wavelength in nm and f is the acoustic frequency in Hz.

The wavelengths of the main colours are:

- Red: 700 nm
- Yellow: 580 nm
- Green: 500 nm
- Blue: 445 nm

The colour of a broadband spectrum can be calculated from the sound spectrum. Some colour analogies are well known, e.g. white and pink noise.

15. Appendix – Instruction for the Profiling of Words

Profiling a word means to assign numbers to the primary descriptors that are relevant to that word. No numbers are assigned to primary descriptors which are irrelevant or may take any value.

For each descriptor there is a minimum value and a maximum value, which gives the possibility of assigning an interval. These limits are intended to represent the normal range of variations and not the absolute extremes. If no interval is needed, the same number is used for minimum and maximum.

The list of primary descriptors on the next two pages is a short form of Section 8. Keep it next to you when you interpret the profiles or make your own profiles.

Primary descriptor	Definition and anchor points
Loudness	<p>The perceived intensity of the sound.</p> <p>0: Are the softest sounds you can imagine, close to the threshold of hearing 5: Corresponds to normal speech at a distance of 1 m 10: Are the loudest sounds you can think of, almost painful</p>
Amplitude variation	<p>The sensation of sound intensity variations.</p> <p>0: Sounds without any level variations 5: Clearly audible, but not full amplitude variations 10: Amplitude variations from inaudible to full loudness at a rate of 4 per second</p>
Impulse prominence	<p>The prominence of the sudden onset of a sound.</p> <p>0: A continuous sound with constant level 1: Car passing by at a distance of 7.5 m at a speed of 110 km/h 4: Tyre change with a pneumatic tool 7: Wood axe at some distance 10: Sharp hammer blows on iron or firecrackers at a short distance</p>
Duration	<p>The perceived duration of a sound.</p> <p>0: Very short sounds as shots and clicks without reverberation Up to 10: The approximate duration in seconds 10: Is used for sounds of duration longer than 10 seconds</p>
Decay	<p>The duration of a decreasing loudness at the end of a sound.</p> <p>0: No audible decay Up to 10: Three times the approximate decay time in seconds 10: Is used for decay times longer than 3 seconds</p>
Tempo	<p>The speed or frequency of the occurrence of noticeably audible events such as level or frequency changes in a sound.</p> <p>0: A steady-state situation with no changes 2: The beat of very slow music 5: Normal continuous speech 10: So fast that single events cannot be distinguished</p>
Regularity	<p>The evenness of the time intervals between noticeably audible events.</p> <p>0: Events occur at completely random intervals 5: Cars passing by in heavy traffic 10: The tics of a grandfather's clock</p>
Roughness	<p>The sensation of amplitude or frequency modulation of a sound at frequencies between 15 Hz and 300 Hz.</p> <p>0: To be defined 5: To be defined 10: To be defined</p>
Sharpness	<p>The sensation produced by high-frequency components in sounds. The sharpness sensation is based on the relative balance of the sound spectrum.</p> <p>0: Sounds without any high-frequency content 5: Corresponds to sound in the range of a recorder (flute) 10: The sharpest sound you can think of, e.g. really high-pitched jingle bells</p>

Darkness	<p>The sensation produced by low-frequency components in sounds. The darkness sensation is based on the relative balance of the sound spectrum.</p> <p>0: Sounds without any low-frequency content 5: Corresponds to sounds with a flat spectrum, e.g. the sound of a waterfall 10: A sound with strong low-frequency components</p>
Pitch	<p>The sensation of frequency. For combinations of tones with harmonic relations the sensation of pitch is related to the fundamental.</p> <p>0: Sounds at very low frequencies 5: Sounds at mid frequencies (1000 Hz) e.g. a recorder (flute) 10: Very high-frequency sounds above the fundamental range for music</p>
Pitch strength	<p>Independent of the pitch, the sensation of pitch strength can be more or less pronounced: Faint pitch or strong (distinct) pitch.</p> <p>0: Sounds with a flat spectrum, e.g. the sound of a waterfall 2: Band-pass filtered noise with a bandwidth of 100 Hz around 500 Hz 5: A 1000 Hz tone of 50 ms duration 10: A pure tone with a duration longer than 0.5 second</p>
Tone prominence	<p>The prominence of tones partly masked by other sounds.</p> <p>0: No tones can be heard 3: Weak tones are heard 6: The tones are prominent 10: The tones are dominating; other sounds are hard to hear</p>
Polyphony	<p>The perception of the simultaneous number of distinguishable voices, instruments, sound sources, or different pitches in a sound.</p> <p>0: A single pure tone 1-9: The number of distinguishable voices, instruments, sources, or pitches 10: An undistinguishable number</p>
Harmony	<p>The perception of musically concordance, where the parts/tones are agreeably related. A high degree of harmony means lack of dissonance.</p> <p>0: A sharp disharmonious combination of tones 5: Sounds/cords with some, but not dominating disharmonious elements 10: Octave relationships</p>
Frequency variation	<p>The sensation associated with pitch variations at low variation frequencies.</p> <p>0: Sounds with constant pitch 5: Clearly audible, but limited variations 10: Pitch variations over a large range at a rate of 4 times per second</p>
Localization	<p>The perception of a specific direction to the sound. If the sound comes from a distinct direction, it has a high degree of localization.</p> <p>0: Sounds coming from all directions, e.g. the reverberation in a cathedral 5: Sound mainly coming from one side, e.g. in the horizontal plane 10: Sound coming from one specific direction only</p>