Demostrations of Auditory Scene Analysis

The Perceptual Organization of Sound

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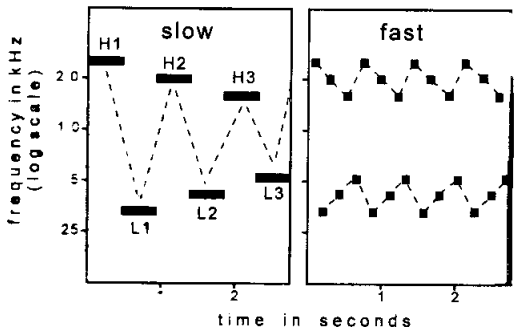
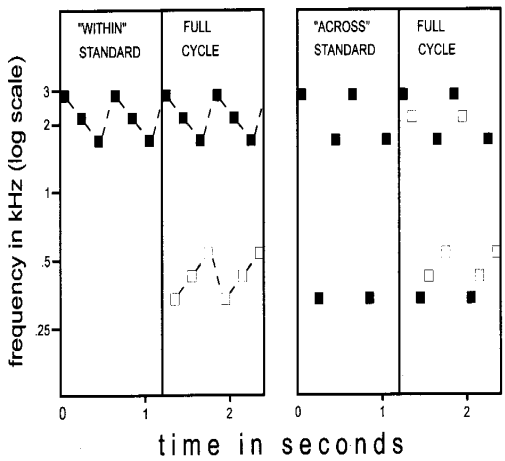
Sequential Integration

Stream segregation in a cycle of six tones.



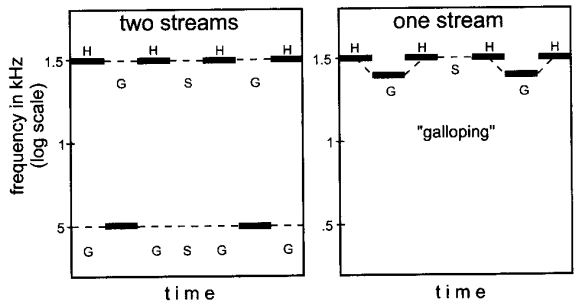
Track 1

2 Pattern recognition, within and across perceptual streams.



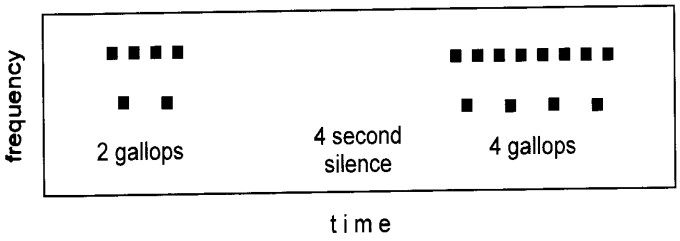
Track 2

3 Loss of rhythmic information as a result of stream segregation.



Track 3

4 Cumulative effects of repetition on streaming.



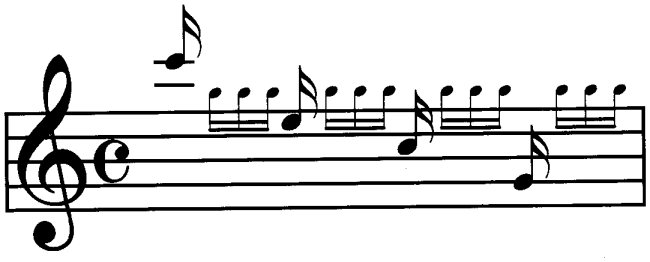
Track 4

5 Segregation of a melody from interfering tones.

D I SMTERLAOCDTYO R S D I S$^{M}_{T}$ $^{E}_{R}$ $^{L}_{A}$ $^{O}_{C}$ $^{D}_{T}$ $^{Y}_{O}$ R S

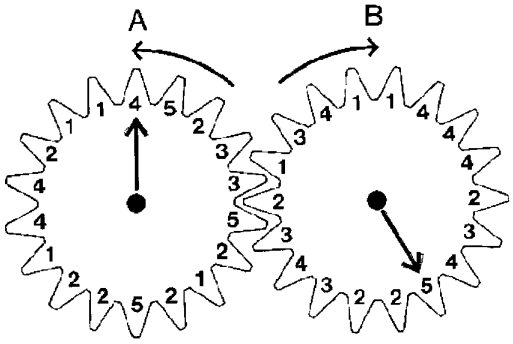
Track 5

6 Segregation of high notes from low ones in a sonata by Telemann.



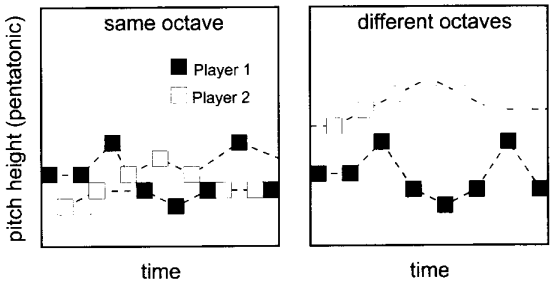
Track 6

7 Streaming in African xylophone music.



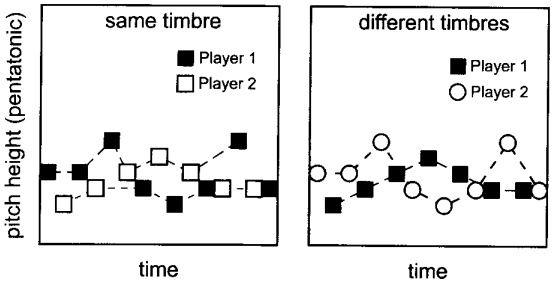
Track 7

8 Effects of a difference between pitch range of the two parts in African xylophone music.



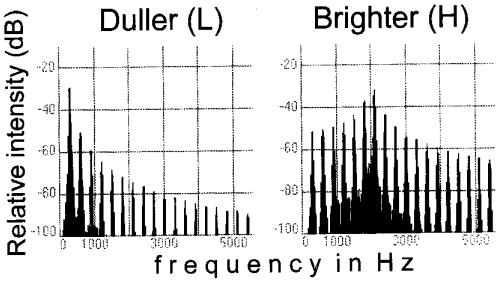
Track 8

9 Effects of a timbre difference between the two parts in African xylophone music.



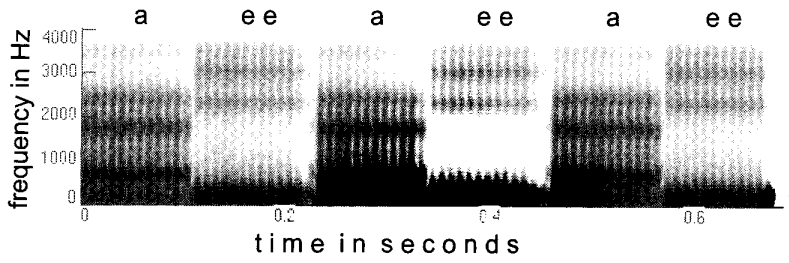
Track 9

10 Stream segregation based on spectral peak position.



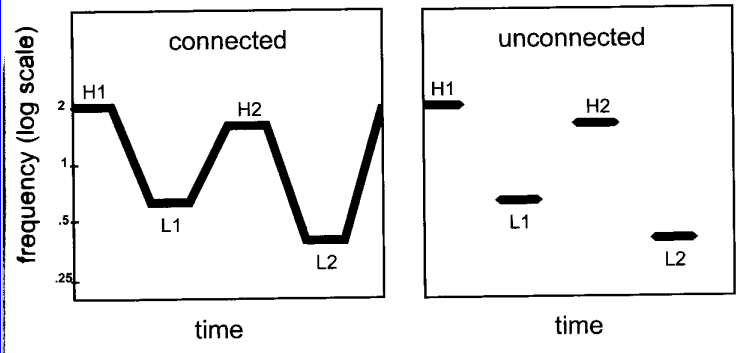
Track 10

11 Stream segregation of vowels and diphthongs.



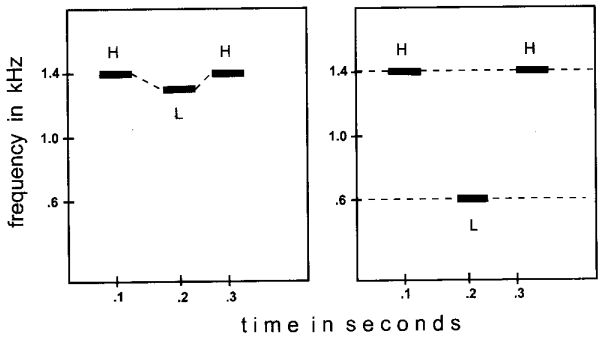
Track 11

12 Effects of connectedness on segregation.



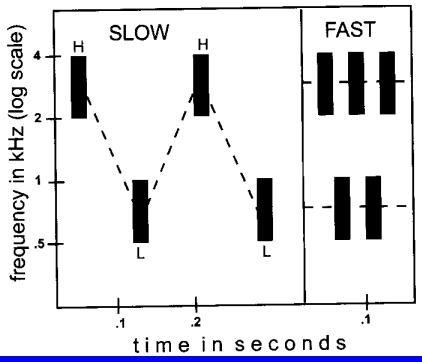
Track 12

13 The effects of stream segregation on the judgment of timing.



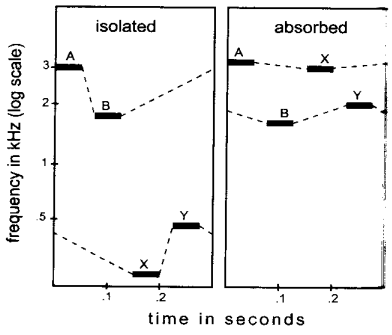
Track 13

14 Stream segregation of high and low bands of noise.



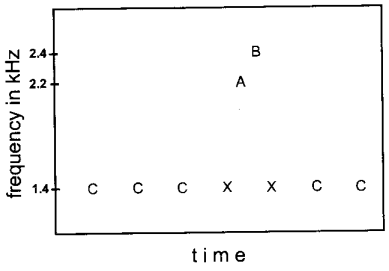
Track 14

15 Competition of frequency separations in the control of grouping.



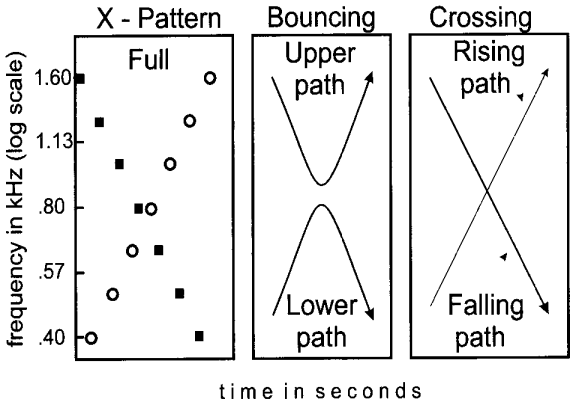
Track 15

16 The release of a two-tone target by the capturing of interfering tones.



Track 16

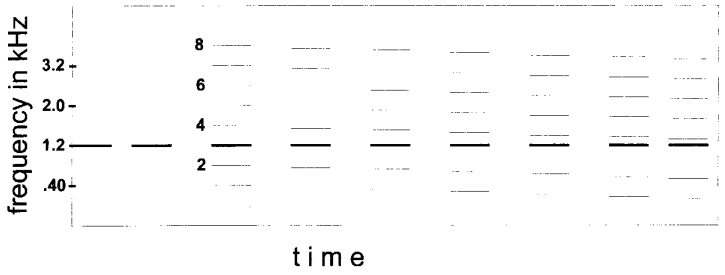
17 **Failure of crossing trajectories to cross perceptually.**



Track 17

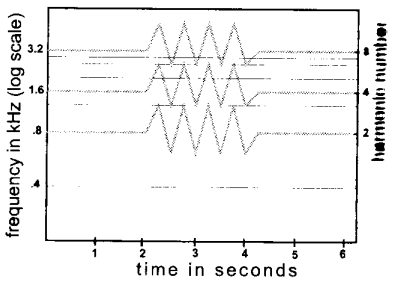
Spectral Integration

18 Isolation of a frequency component based on mistuning.



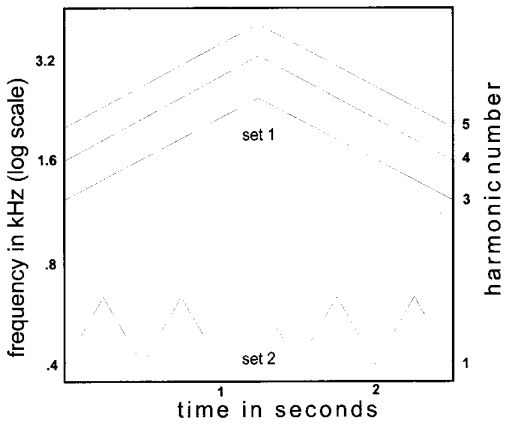
Track 18

19 Fusion based on common frequency modulation: Illustration 1.



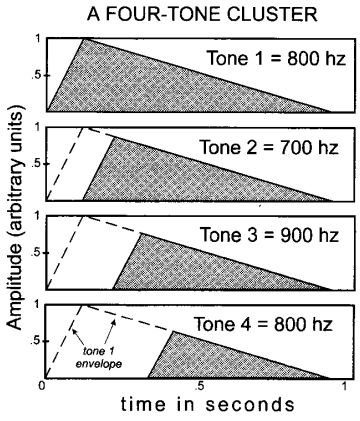
Track 19

20 Fusion by common frequency modulation: Illustration 2.



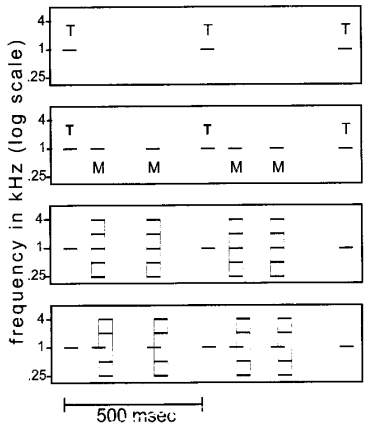
Track 20

21 Effects of rate of onset on segregation.



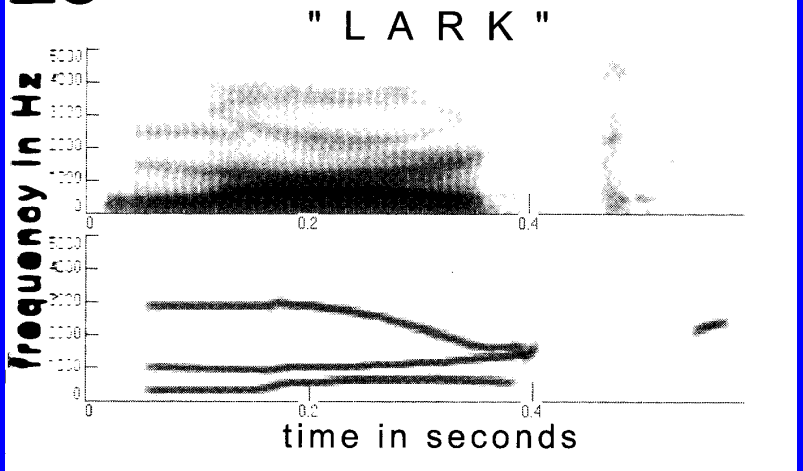
Track 21

22 Rhythmic masking release.



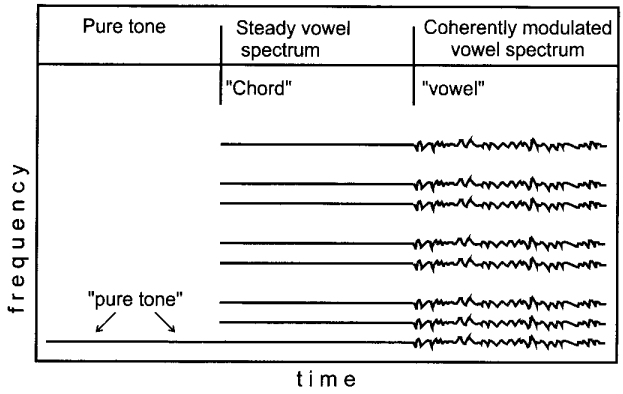
Track 22

23 Sine-wave speech.



Track 23

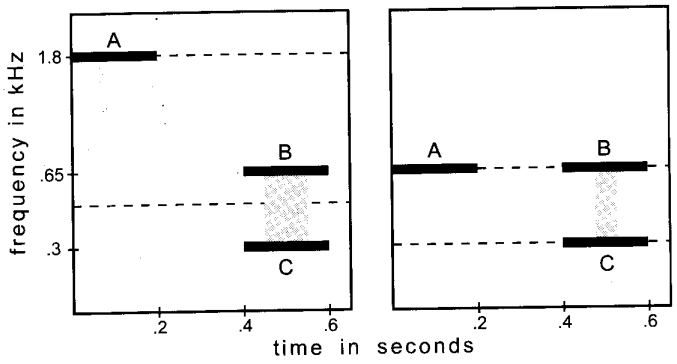
24 **Role of frequency micro-modulation in voice perception.**



Track 24

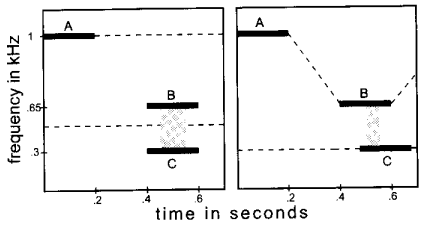
Old-plus-New Heuristic

25 Capturing a tonal component out of a mixture: Part 1.



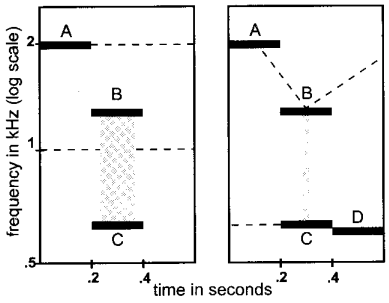
Track 25

26 Capturing a tonal component out of a mixture: Part 2.



Track 26

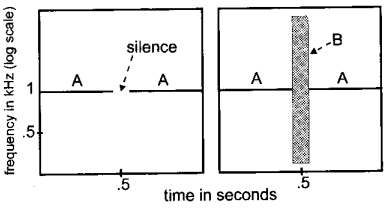
27 Competition of sequential and simultaneous grouping.



Track 27

28 Apparent continuity.

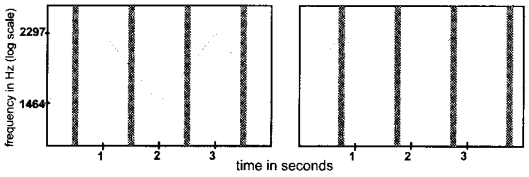
Loudness warning: To avoid damage to your ears or playback equipment, you should not exceed the volume settings established by the initial calibration procedure given on page 5. If you are listening to this over loudspeakers, position them to point straight at you so the high frequencies will not be lost.



Track 28

29 Perceptual continuation of a gliding tone through a noise burst.

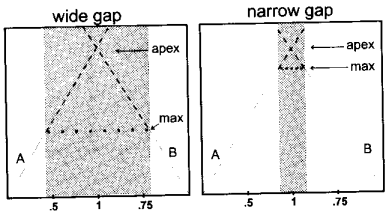
Loudness warning: *To avoid damage to your ears or playback equipment, do not exceed the volume settings established by the initial calibration procedure given on page 5. If you are listening over loudspeakers, position them to point straight at you so the high frequencies will not be lost.*



Track 29

30 Absence of pitch extrapolation in the restoration of the peaks in a rising and falling tone glide.

Loudness warning: To avoid damage to your ears or playback equipment, you should not exceed the volume settings established by the initial calibration procedure given on page 5.



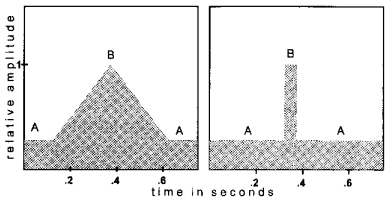
Track 30

31 The picket-fence effect with speech.

Loudness settings *warning: To avoid damage to your ears or playback equipment, you should not exceed the volume stablished by the initial calibration procedure given on page 5.*

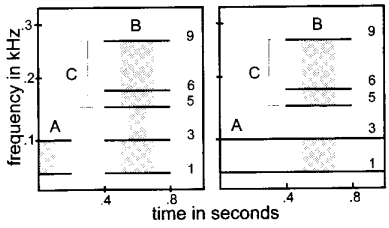
Track 31

32 Homophonic continuity and rise time.



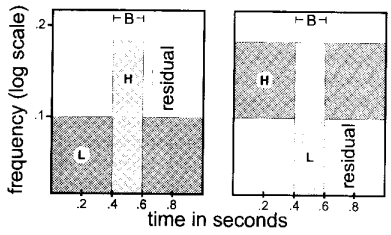
Track 32

33 **Creation of a high-pitched residual by capturing some harmonics from a complex tone.**



Track 33

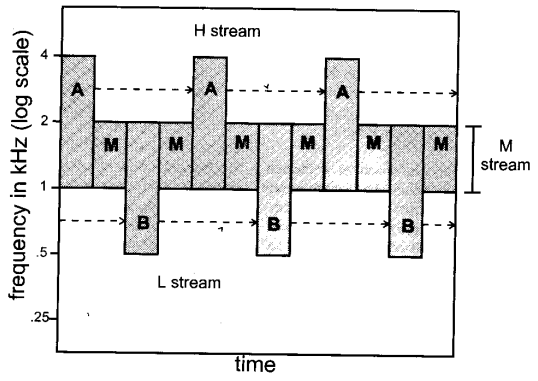
34 **Capturing a band of noise from a wider band.**



Track 34

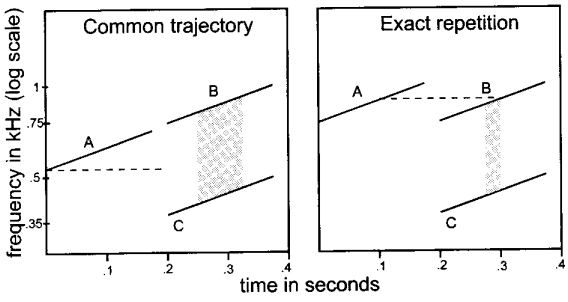
35 Perceptual organization of sequences of narrowband noises.

Loudness warning: To avoid damage to your ears or playback equipment, you should not exceed the volume settings established by the initial calibration procedure given on page 5.



Track 35

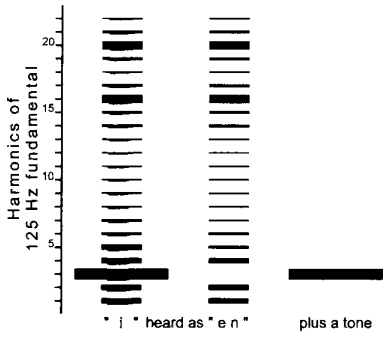
36 Capturing a component glide in a mixture of glides.



Track 36

37 Changing a vowel's quality by capturing a harmonic.

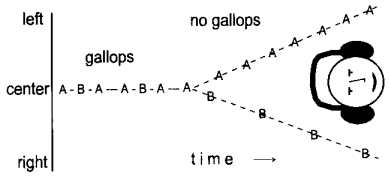
Note: When this demonstration is played over loudspeakers, it is very sensitive to the acoustic characteristics of the room, so it is recommended that you listen over headphones.



Track 37

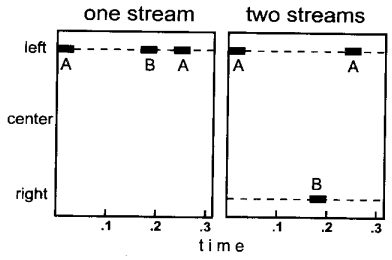
Dichotic Demostrations

38 Streaming by spatial location.



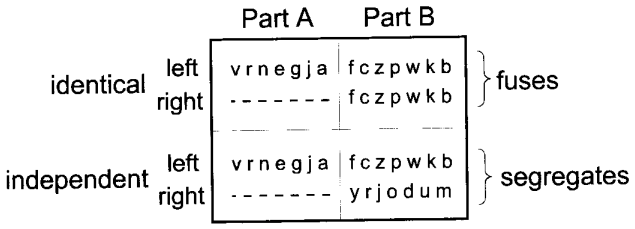
Track 38

39 Spatial stream segregation and loss of across-stream temporal information.



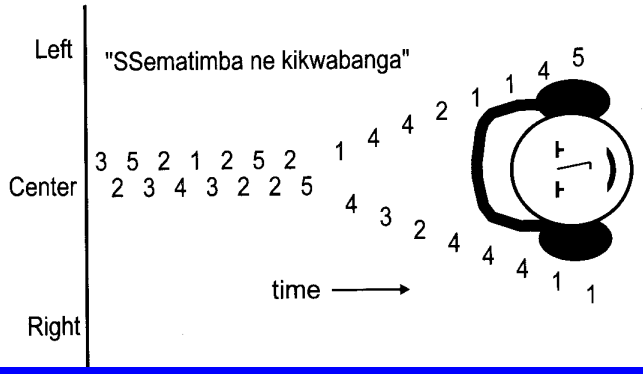
Track 39

40 Fusion of left- and right-channel noise bursts, depending on their independence.



Track 40

41 Effects of a location difference of the parts in African xylophone music.



Track 41