

DIEM Akustik 1

Stream segregation
and ambiguity

Litt.: Cook kap. 10

Eksempler fra CD

Morgensang!

Morning is Come

England

Mor - ning is come. Night is a - way. Rise with the
sun _____ and _____ wel - come the day.

The image shows a musical score for the hymn 'Morning is Come'. It is written in 3/4 time with a key signature of one flat (B-flat). The melody is presented on a single staff with lyrics underneath. The score is divided into two lines. The first line contains the first three measures, and the second line contains the remaining two measures. There are four numbered circles (1, 2, 3, 4) above the staff, indicating specific notes or phrases. A small bird icon is visible at the end of the second line of music.

Sang- og sprog-øvelse!

Till havs med solfyllda segel

Stefan Forssén, m.fl.

①
Am *Dm* *G7*

Till havs med sol — - fyll- da se - gel, vin - den för — oss

C *E7* ② *Am* *Dm*

valt vi vill — , en ho - ri - sont — som kitt - lar

G7 *C* *E7* ③ *Am*

fan - ta - sin — på långt, långt håll — , men in mot land —

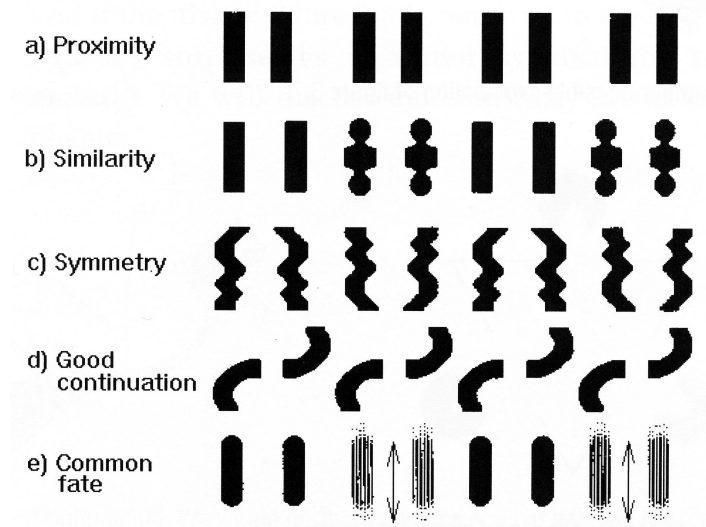
Dm *G7* *C* *E7*

— finns det grund och hem — - ska skär — , so - len styr — oss.

The musical score is written in treble clef with a common time signature (C). It consists of four staves of music. The first staff begins with a circled '1' and a first ending bracket. The second staff has a circled '2' above the second measure. The third staff has a circled '3' above the fourth measure. Chord symbols are placed above the notes: Am, Dm, G7, C, E7, and Am. The lyrics are written below the notes, with hyphens indicating syllables that span across notes. The piece ends with a double bar line.

Udskillelse af tonale forløb og flertydighed

- Hvilke parametre gør, at vi er i stand til at udskille en melodi fra en større sammenhæng?
- Hvad grupperer?
- Gestalt-psykologiens 5 grupperinger
- Track 31



Indbildt bevægelse (apparent motion)

- Yderligere grupperingstype
- Jo større interval des sværere er det at fornemme melodi ved høj hastighed
- Illustreres med "dancing dots"
Stor afstand medfører to separat dansende punkter
- Tertser høres som triller, kvinter uden melodi
- Track 32

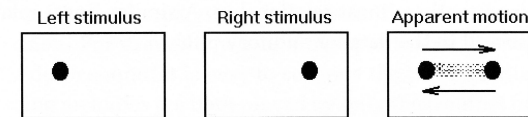


Figure 10.1 If two visual stimuli alternate fast enough, a sense of motion between the two points is formed. The farther apart the two points are, the faster the alternation must be to give the sense of apparent motion.

Apparent motion

- Parallel til Korte's 3. Lov om intervalstørrelser og melodisk indhold
- Der findes en balance mellem interval-størrelse og hastighed, som beskriver hvornår tone opfattes som en strøm (melodi) eller som separate toner
- Det *kan* gå helt galt!
- Track 33

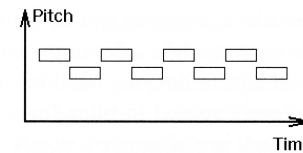


Figure 10.2 Auditory analogy to the apparent motion phenomenon shown in figure 10.1.

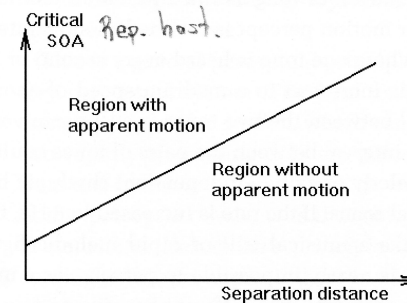


Figure 10.3 Relationship between distance and alternation time for apparent motion, demonstrating Korte's third law.

Eksempler fra den virkelige verden



1 eller 2 melodier?

- Jodling er et tydeligt eksempel på 2 streams, da springene er for store til at melodien bevares. Uskønt og unødvendigt umusikalsk 😊
- Timbre kan være god separator. Violin + trompet. Blanding af melodier
- Overlap mellem melodier
- Syng fig. 10.4
- Track 34

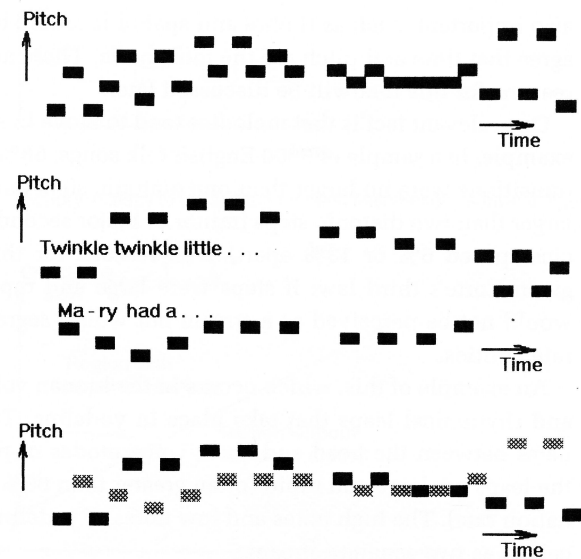


Figure 10.4 (Top) Overlapped melodies cannot be separated even though they alternate in time. (Center) Separation in pitch allows the two melodies to be easily identified. (Bottom) Visually, the melodies can be more easily identified if they are separated in color; in audition this is like separating them in timbre (playing them on different instruments) or volume.

Flertydighed i musik

- I det samme stykke musik høres forskellige motiver og melodier
- Bach's Partita i d-moll, find melodierne (Tr.37)
- Beatles' inderrille baglæns
- Fugaer (Die Kunst der Fuge I)
- Se musanim.com
- Youtube: frog round, Bach Toccata and Fugue i D minor
- Syng 4-stemmig kanon

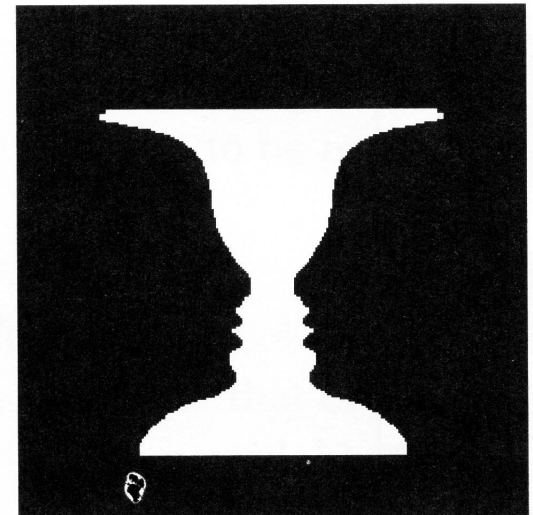


Figure 10.5 A reversible optical illusion.

Øvelser/diskussion

- Prøv at lave et track/mix, hvor mange enkle og måske kendte melodier blandes. Hvornår mister vi tråden? Hvilke "tricks" fra kapitel 10 kan du bruge? Hvem laver det mest komplekse og gennemsigtige track?
- Granular syntese. Hvad kan høres – hvor går grænsen for antal nødvendige grains?