

General Experiment Description

This is a study on dualisation of rhythmic patterns, the conversion or simplification of multi-voice rhythms to a 2 voice representation. The purpose of this experiment is to collect data from professional percussionists dualising rhythms, and to interview their view about the experiment and the concept.

For your participation, you will be paid a participation fee of 15€.

The following experiment will be divided into 2 parts: the first part will be the recording of dualisations, and the second part will be a survey about the experiment you have just done.

If you have any questions, please feel free to ask at any time during the experiment. Participants intentionally violating the instructions or damaging the equipment may be asked to leave the experiment and may not be paid.

Experimental Instructions

In the following experiment period, you will hear a series of rhythmic patterns performed on a virtual drum set. These rhythmic patterns are all in 4/4, consist of 2 bars, and include a range of different styles.

For each pattern, 8 crochets will first be played to indicate the tempo of the track. Participants are encouraged to play the last 4 crochets for future synchronization purposes. The rhythmic pattern will then be repeated for any number of times; the participants should listen and comprehend the rhythm, extract its essence, and represent it by playing the rhythm using two drumsticks onto the pad. Participants are encouraged to try to dualise the pattern while it is being played. Beats played starting from the second repetition will be recorded. Around 5 - 7 repetitions should normally be enough for each beat.

A warm-up track will be played first to let the participants understand the experiment, then 72 2-bars of rhythms should be dualised in each session. Participants may take a 5 minute break during the experiment if they feel tired.

Caution:

- You are **NOT** playing a drum set onto a left-right distinguishing drum pad. You should try to represent the essence of the rhythm using your left and right hand.
- Please be aware not to hit the round area in the middle of the pad.
- The tracks are arranged from low syncopation to high syncopation, so it will get harder and harder to the end.
- It might take some time to get used to “dualising” rhythms, so please take your time to think about how the representations shall be ;)

Post-experiment Survey

General Information

What is your name and surname?

What is your age?

What is your main percussion instrument?

Any other instruments you play?

How many years of experience do you have playing your main percussion instrument?

Are you left handed or right handed?

left / right

Questions about the Experiment

How many rhythms in the experiment that you have successfully extracted the essence by 2 hands?

None 1 2 3 4 5 Everything

How intuitive do you think the rhythms are to let you have a dualised image in your brain?

Not intuitive at all 1 2 3 4 5 Very Intuitive

How many dualisations that you played can be traced back to the exact original rhythm?

None 1 2 3 4 5 Everything

How many dualisations can be traced back to a similar version of the original rhythm?

None 1 2 3 4 5 Everything

To what extent do you think the following factors affect your dualisation result?

Number of Instruments

Not important 1 2 3 4 5 Very important

Division of beats (8-beat, 16-beat)

Not important 1 2 3 4 5 Very important

Tempo

Not important 1 2 3 4 5 Very important

Genre

Not important 1 2 3 4 5 Very important

Syncopation-ness

Not important 1 2 3 4 5 Very important

Dynamics

Not important 1 2 3 4 5 Very important

Density of Notes

Not important 1 2 3 4 5 Very important

Low (Kick, Low Tom), Mid (Snare, Side Stick), High (Hi-Hat, High Tom) Distribution

Not important 1 2 3 4 5 Very important

Difference of Syncopation-ness between Low, Mid, High

Not important 1 2 3 4 5 Very important

Difference of Dynamic between Low, Mid, High

Not important 1 2 3 4 5 Very important

Difference of Density of Notes between Low, Mid, High

Not important 1 2 3 4 5 Very important

Your familiarity with the rhythm

Not important 1 2 3 4 5 Very important

Any other comments?

Thank you for your participation!