* Because we can have a better comparison with other binary random experiments (e.g., coin toss), and because of the simplicity of design, it would be better to have two different notes and composing sequences with those two notes.
* 0 denotes C4 key, and 1 denotes C5 key of piano keyboard.
* Sequences go as this (participants hear 11 notes in a sequence, and should bet on the 12th one):

(random sequence, psychologically speaking!!)

* S01: 01010011010
* S02: 11011000101

(streaks)

* S03: 00100001111
* S04: 11111000000

(disproportional)

* S05: 01001100001
* S06: 11101111101

(repeating patterns)

* S07: 11011011011
* S08: 11001100110
* S09: 01011010110
* S10: 10110010110

For the two random sequences, participants should bet on average points, and the proportion of betting on 0 and 1 should be rather equal. For the streaks, participants should bet more points on the reverse of the streaks (for S03, they should bet more on 0, and for S04, they should bet more on 1 for the 12th note in the sequence). For the disproportional sequences, participants should bet more points on the note that is less repeated in the sequence. So far, this replicates the findings of past literature.

For the repeating patterns, participants should bet more on notes that break the cyclic patterns. The order of patterns is from easy to hard (S07 to S10). This is the crucial part of the study, because if participants bet more on notes that break the cycles regardless of the proportions, this is a new finding.

* Participants use headphones.

I will further work on the design to make it better.

Thanks!