# CoCon2

Based on Neuropsydia.jl

Phase :

* Simple RT
* Response Selection (Kill/capture)
* Attention Orientation
* Conflict
* Inhibition
* Working Memory (Span + updating)
* Mental set Shifting

Children/Adult version

* Kill / Paralyze

Flexibility :

* Masked bandit faces (default) but can be replaced by emotional faces (of different races)
* Different duration of the task based on the desired precision.
* Emotion recognition ncondition (bandits are hiding among the population, but you can recognize them because they’re always angry!)
* Develop this as an app (billions of players?)

Motivation:

* Score based on results (renforcateurs online pouvant être désactivés)
* Little Story (« Wandering in the desert, inspiring fear, you are the punisher”)
* Each level’s instruction are introduced by a story (“Townville is ruled by the red-bandits, that took hostages”)

Ennemies :

* Blue vs yellows: ennemied vs friend (shoot don’t shoot)

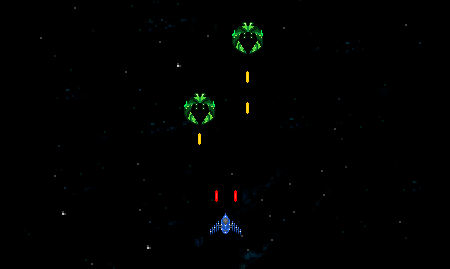
Upgrades:

* Scanner
  + Lvl 1: neutral priming (red bar at the bottom of the screen)
  + Lvl 2: congruent (66%) or incongruent (33%) priming
  + Lvl 3: congruent (80%) incongruent (20%)
  + Lvl 4 : show 2 ahead (working memory test start)
  + Lvl 5:

Grades:

* Lieutenant
* Capitaine
* Response Inhibition
* Conflict Resolution
* Certainty
* Preparation
* Working Memory
* Mental Set Shifting
* Take into account anticipatory shots (if the player respond before the stimulus appearance, interesting in the phases that include preparation)

Conflict for Control Game (Cognitive Control)



# Level 0

Starting screen: “One year ago…”

“You really are the best pilot, just destroy them with your supper cannons”

* Always answer with DOWN

“Oh no, you got destroyed by the big enemy… You spent years at the hospital, the government casts you out and you start again at the bottom of the ladder… Don’t worry, climbing it back up is always possible!”

Level 1

Starting screen: “Today…”

“Hey, old sport, we detected some enemies. Why don’t you show us what you’re still able to do?”

* Must answer with LEFT or RIGHT

Features:

* **Orientation**
* **No Inhibition**
* **No Preparation**
* **No Conflict**
* **No Switching**

Level 2

**“Caution, there arer some civilizan ships on the way! If the scanner detects it, avoid shooting!”**

* **Orientation**
* **Inhibition**
* **No Preparation**
* **No Conflict**
* **No Switching**

Level 3

**“Nice job out there! To help you out in your future mission, our engineers have developped a radar to scan ahead incomming ennemies”**

* **Orientation**
* **Inhibition**
* **Preparation/Uncertain**
* **No Conflict**
* **No Switching**

Level 4

**“ Our engineers enhanced the radar: it can now tell if they’re ennemies or hostages”**

* **Orientation**
* **Inhibition**
* **Preparation/Certain**
* **No Conflict**
* **No Switching**

Level 5a

**“All the hostages were freed, congrats! You can now shoot at every incomming ennemies!**

* **Orientation**
* **No Inhibition**
* **Preparation/Certain**
* **No Conflict**
* **Switching**

**The accuracy of the cue gradually falls from 100% to 66%.**

Level 5b

**“What?! Something’s wrong here! Our instruments are malfuncionting?”**

* **Orientation**
* **No Inhibition**
* **Preparation/Certain**
* **No Conflict**
* **Switching**

**Cue accarcy continue to drop to 0%, when it is systematically wrong (time that the layer finds the new rule).**

**And then again from 0 to 100%.**

Level 6

**“Ok, our system’s back on track now. The ennemies have neutralized two of our three radar antenna, so you’ll have to only trust the central cue”**

* **Orientation**
* **Inhibition**
* **Preparation/Certain**
* **Conflict**
* **No Switching**

Level 7

**“Our engineers did a new breakthrough! We can now detect the incomming ennemies much sooner and target them before they arive!”**

* **Orientation**
* **No Inhibition**
* **Preparation/Certain**
* **No Conflict**
* **No Switching**
* **Working Memory**

**linearly increasing span from 2 to max vs random span from 2 to 11 with threshold staircase method (span-wise instead of trial-wise).**

User input