#1

dCOP Experiment

Subject: Hiroto ; Age: 22 ; Weight: ~~70~~ 63kg ; Height: 170cm ; Date: March 7, 2016 13:00

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: ~~biceps femoris (BF)~~ → 10 bad = out rep by 16 for left VL
   - Arm
     13-14: ~~anterior deltoid (AD)~~ ✓
     15-16: ~~posterior deltoid (PD)~~

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment: → 2x 70 sec trials EACH

(A) Quiet standing (2 min / condition)

☑ Practice stroop 10 trials
3 Natural standing: EO → qs-eo ✓✓
2 Natural standing: EC → qs-ec ✓✓
1 Natural standing: EO + cognitive task → qs-stroop ✓✓

(B) Walking (2 min / condition)

> remove first x min

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

1 4 Normal walking → natural_walk ✓
2 1 Metronome walking → metro_walk ✓
4 2 Dual task walking → stroop_walk ✓
3 3 Arm restricted walking (arms on chest) → normal_walk

→ 2nd half may be was stepping on wrong force plate sometimes

post stroop QS — no kinematics

#2

dCOP Experiment

Subject: Hagio ; Age: 29; Weight: 76 kg; Height: 178 cm; Date: March 7, 2016 15:00

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF) → ch 16 instead
   - Arm
     13-14: ~~anterior deltoid (AD)~~
     15-16: ~~posterior deltoid (PD)~~ → Not collected

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment:

(A) Quiet standing (~~60~~ 2x30s min / condition)

0 Practice stroop
3 Natural standing: EO
2 Natural standing: EC
1 Natural standing: EO + cognitive task

2s - eo ✓ ✓
2s - ec ✓ ✓
2s - stroop ✓ ✓

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

1 Normal walking ✓
2 Metronome walking ✓ → stopped 2x at the beginning
3 Dual task walking ✓ → crashed during Qualysis saving (missing data?)
4 Arm restricted walking (arms on chest) ✓

post - stroop QS

#3

dCOP Experiment

Subject: Isfavi ; Age: 26; Weight: 64 kg ; Height: 171 cm ; Date: March 7, 2016 17:00

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL) → Ch 16 = left VL
     11,12: biceps femoris (BF)
   - ~~Arm~~
     ~~13-14: anterior deltoid (AD)~~
     ~~15-16: posterior deltoid (PD)~~

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment:

(A) Quiet standing (2 min / condition)

☑ Practice stroop
1 Natural standing: EO
2 Natural standing: EC
3 Natural standing: EO + cognitive task

qs_eo ✓✓
qs_ec ✓✓
qs_stroop ✓✓

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

4 Normal walking
1 Metronome walking
2 Dual task walking
3 Arm restricted walking (arms on chest)

#4

dCOP Experiment

Subject: Ofer ; Age: ; Weight: ; Height: ; Date: March 8, 2016 10:00

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF) → Ch 16
   - ~~Arm~~
     ~~13-14: anterior deltoid (AD)~~
     ~~15-16: posterior deltoid (PD)~~

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment: QS : 2 x 70 sec

(A) Quiet standing (2 min / condition)

☑ Practice stroop
1 Natural standing: EO ✓✓
2 Natural standing: EC ✓✓
3 Natural standing: EO + cognitive task ✓✓

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

3 Normal walking ✓
4 Metronome walking ✓ → a few metronom "hickups"
1 Dual task walking ✓
2 Arm restricted walking (arms on chest) ✓ → subject looks down sometimes during trial

+ QS_stroop_post

+ EMG rest state (NEW)

* started redude with this subject forward

ACC

#5

Subject: Onogawa Age: 23 Weig 64kg Heigt 180cm Date: March 8 2016

EMG Sand

no ARM

~~No~~ → 10

QS : 2 x 70 sec

- ☑ Practice stroop
- 3 Natural EO ✓ ✓
- 1 —11— EC ✓ ✓
- 2 —11— EO + Cognitive ✓ ✓

Walking (12 min/C)

- 2 Normal walk ✓
- 3 Metronome —11— ✓
- 4 Dual task —11— ✓ → crashed so we re did trial
- 1 Arm restrict —11— ✓

post QS_Stroop ☑

~~Post~~ rest EMG ☑

#6

Subject: Sasaki Age: 25 W: 60 kg H: 172cm

Date. March 8, 2016 14:00

EMG ~~X~~ → 15 rightTA

~~X~~ → 16 leftVL | No Arm EMG

QS (2 × 70 sec)

☑ practice stroop

2 natural EO ✓ ✓

3 — " — EC ✓ ✓

1 — " — Stroop ✓ /

Walking (12 min)

1 natural_walk ✓

2 metro_walk ✓

3 Stroop_Walk ✓

4 arm_walk ✓

+ post stroop QS ☑

+ rest EMG sitting ☑

#7

Name: Nakagawa Age: 29 H: 169 cm W: 64 kg

Date: March 8, 2021

EMG:

~~10~~ → 16 left VL

~~11~~ → 15 right TA

QS

0 stroop familiarization

1 natural EO

2 —11— EC

3 —11— stroop

bad data ↑ (1, 2) 3/4 ✓

Walking

4 natural walk ✓

1 metro —11— ✓

2 stroop —11— ✓ → (2) ↑ bad data re-done

3 arm crossed —11— ✓

+ QS post stroop ✓

+ + Rest EMG sitting ✓

#8

dCOP Experiment

Subject: Fujio ; Age: 35 ; Weight: 60 kg ; Height: 165 cm ; Date: March 9, 2016

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF)
   - Arm
     13-14: anterior deltoid (AD)
     15-16: posterior deltoid (PD)

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment: 2 x 70 sec

(A) Quiet standing (2 ~~min~~ / condition)

☐ Practice stroop
3 Natural standing: EO ✓✓
1 Natural standing: EC ✓✓
2 Natural standing: EO + cognitive task ✓✓

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

2 ☐ Normal walking ✓✓
3 ☐ Metronome walking ✓✓
4 ☐ Dual task walking ✓✓
1 ☐ Arm restricted walking (arms on chest) ✓

many difficulties with mic

+ post stroop ☐ ✓

+ rest EMG sitting ☐ ✓

#9

dCOP Experiment

Subject: Hikaru Yokoyama; Age: 25; Weight 60 kg; Height: 170 cm; Date: March 9 2016

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF)
   - Arm
     13-14: anterior deltoid (AD)
     15-16: posterior deltoid (PD)

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment:

(A) Quiet standing (2 min / condition)

☑ Practice stroop
2 Natural standing: EO ✓✓
3 Natural standing: EC ✓✓
1 Natural standing: EO + cognitive task ✓✓

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

3 Normal walking ✓
4 Metronome walking ✓ arm 2 arm 1 2 ✓ one
1 Dual task walking
2 Arm restricted walking (arms on chest)

+ Stroop post ☑ bad data
+ rest EMG ☑

#10

dCOP Experiment

Subject: Kota Yamamoto; Age: 26; Weight: 78; Height: 70; Date: March 10 2016

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF)
   - Arm
     13-14: anterior deltoid (AD)
     15-16: posterior deltoid (PD)

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment:

(A) Quiet standing (2 min / condition)

☐ Practice stroop
1 Natural standing: EO
2 Natural standing: EC
3 Natural standing: EO + cognitive task

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

2 Normal walking
3 Metronome walking
4 Dual task walking
1 Arm restricted walking (arms on chest)

#11

dCOP Experiment

Subject: Hiroyuki Yamamoto ; Age: 27 ; Weight: 60 kg ; Height: 165 cm ; Date: March 10, 2016

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF)
   - Arm
     13-14: anterior deltoid (AD)
     15-16: posterior deltoid (PD)

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment:

(A) Quiet standing (2 min / condition)

☒ Practice stroop
3 Natural standing: EO
1 Natural standing: EC
2 Natural standing: EO + cognitive task

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

1 Normal walking
2 Metronome walking
3 Dual task walking
4 Arm restricted walking (arms on chest)

#12

dCOP Experiment

Subject: Hashim ; Age: 43 Weight: 83 ; Height: 176 ; Date: March 10 2016

19:00

Recording:

1. **COM:** motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF)
   - Arm
     13-14: anterior deltoid (AD)
     15-16: posterior deltoid (PD)

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment:

(A) Quiet standing (2 min / condition)

☐ Practice stroop
2 Natural standing: EO
3 Natural standing: EC
1 Natural standing: EO + cognitive task

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

4 Normal walking → right MG came off EMG
1 Metronome walking
2 Dual task walking
3 Arm restricted walking (arms on chest)

#13

dCOP Experiment

Subject: Tatsuya So ; Age: 24 ; Weight: 65 kg ; Height: 165 cm ; Date: March 11, 2016

13:00

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     5,6: medial gastrocnemius (MG)
     7,8: rectus femoris (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF)
   - Arm
     13-14: anterior deltoid (AD)
     15-16: posterior deltoid (PD)

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

1 → 15
10 → 16

Experiment:

(A) Quiet standing (2 min / condition)

☒ Practice stroop → please use QS_EO1a
1 Natural standing: EO
2 Natural standing: EC
3 Natural standing: EO + cognitive task

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

3 Normal walking
4 Metronome walking
1 Dual task walking → ch.12. LBF movement artifact noise
2 Arm restricted walking (arms on chest)

+ Stroop post ☑
+ rest EMG ☑
+ PHOTO + video ☑

#14

dCOP Experiment

Subject: Tazawa ; Age: 37; Weight: 174 ; Height: 176 ; Date: March 11, 2016

15:00

Recording:

1. **COM**: motion measurement of whole body, about 20 points (fs = 200 Hz)
   - Head – 1 location bilateral: Temple
   - Arm – 3 markers bilateral: Shoulder, Elbow, Wrist
   - Trunk – 2 markers bilateral: ASIS, GTR
   - Legs – 4 markers bilateral: Knee, Ankle, Heel, Toe

2. **COP**: floor and forceplates a total of 6-axix (left and right plate full measure); (fs = 1000 Hz)

3. **EMG** (fs = 1000 Hz); right + left
   - Lower limbs
     1,2: tibialis anterior (TA),
     3,4: soleus (SOL)
     ~~5~~ 6: medial gastrocnemius (MG)
     7,8: ~~rectus femoris~~ (RF)
     9,10: vastus lateralis (VL)
     11,12: biceps femoris (BF)
   - Arm
     13-14: anterior deltoid (AD)
     15-16: posterior deltoid (PD)

5 → 14

Channels

- 1-12 = forces
- 13 = metronome
- 14 = trig
- 15 = stroop
- 16 = microphone
- 17-32 = EMGs

Experiment:

(A) Quiet standing (2 min / condition)

☐ Practice stroop
3 Natural standing: EO
1 Natural standing: EC
2 Natural standing: EO + cognitive task

(B) Walking (12 min / condition)

- Treadmill speed = 1.0 m/s
- Stroop = 3-5 s
- Metronome ISI = 600

2 Normal walking → midway ch. 5 (right MG discounted) replaced by Ch. 14 for task 3 and 4
3 Metronome walking
4 Dual task walking → ch 14 (right GAS) was getting off
1 Arm restricted walking (arms on chest)

+ rest EMG [1]
+ post Stroop [ ] → ch 8, & 14. noise