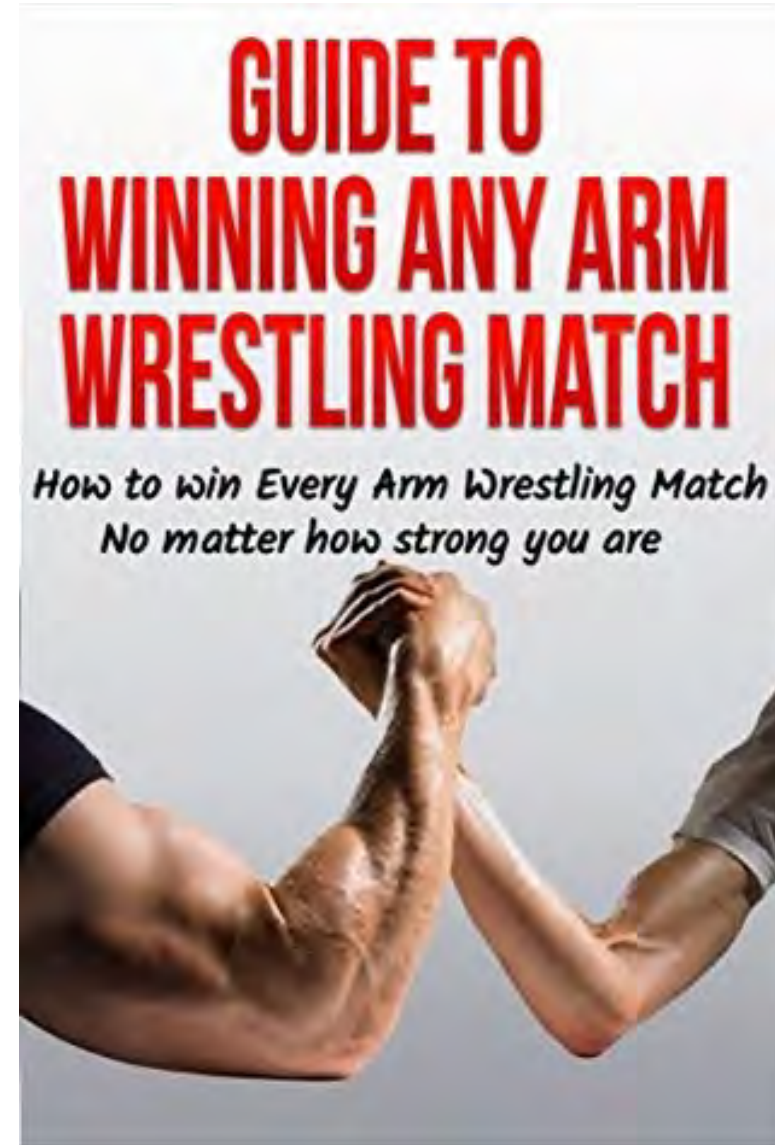
The background is a dark blue field filled with various abstract elements. On the left, there's a large, irregular pink shape. Below it, a yellow shape contains a grid of white plus signs. In the center, a green shape has a circular pattern of white dots. To the right, a dark green shape features wavy white lines. A small pink oval and several yellow squiggly lines are scattered in the upper left. A thin pink horizontal bar is positioned above the title text.

ARE FUNCTIONAL TICS EASY TO DIAGNOSE? «NO»

Davide Martino

FULL
DISCLOSURE #1
I read this volume
twice
before this
controversy



FULL DISCLOSURE #2: my first impact



Day 1

DM to TP on the phone, driving back home from the clinic:

«You know, I think these are real tics. They do look weird, though. So, they must be **'weird-looking tics'**»

Day 2

DM to TP on the phone, driving back home from the clinic:

«Today three kids had the same 'weird-looking tics'. They really look like **'weird-ticcing replicants'**»

*DM driving back home from the clinic, speaking to himself: «I give up, these must be some of the strange functional tics which **Kirsten Müller-Vahl** has recently written about»*

Day 3

THE 2 CORE
DIAGNOSTIC
CRITERIA OF
FUNCTIONAL
TIC-LIKE
BEHAVIOURS
selon Seigneur
La Palice

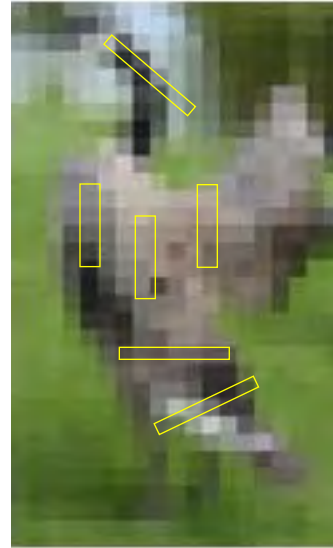


1. «FTLBs are different from tics»
2. «FTLBs have something in common with other functional motor disorders»

Chorea- or myoclonus-like



complexity



simple tics



complex tics

TICS

Primary tics

Onset first two decades

More complex and patterned
Quasi-purposeful or voluntary behaviours



(1) a repetitive and patterned presentation; (2) inter- and intra-individual variability of type of movement and severity; (3) association with preceding sensory phenomena, also known as premonitory urges; and (4) partial or complete suppressibility by volition .



IF YOU CAN'T DEFINE IT, YOU CAN'T MEASURE IT

- «(Sudden), rapid, repetitive, nonrhythmic, (stereotyped) (motor) movement or vocalization involving discrete muscle groups» [APA; Leckman, 2006]
- «Brief movements (motor tics) or sounds (vocal tics) that occur intermittently and unpredictably out of a background of normal motor activity» [The Tourette Syndrome Classification Study Group 1993]
- Simple tics involving only one muscle group, unlike complex tics
- ARE WE ALL OK WITH THE SPECIFICITY OF THESE DEFINITIONS?



*If you can't
measure it, you
can't manage it.*

Peter Drucker



“FTLBs are different from tics”: Dilemma #1

- Is there a ‘phenomenological’ difference between tics and FTLBs?
- Or is it a matter of different frequency of otherwise ‘indistinguishable’ phenomena?

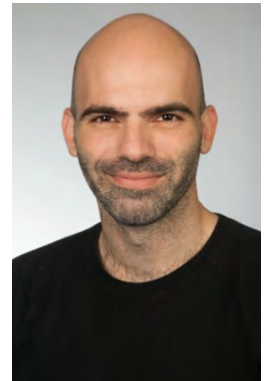
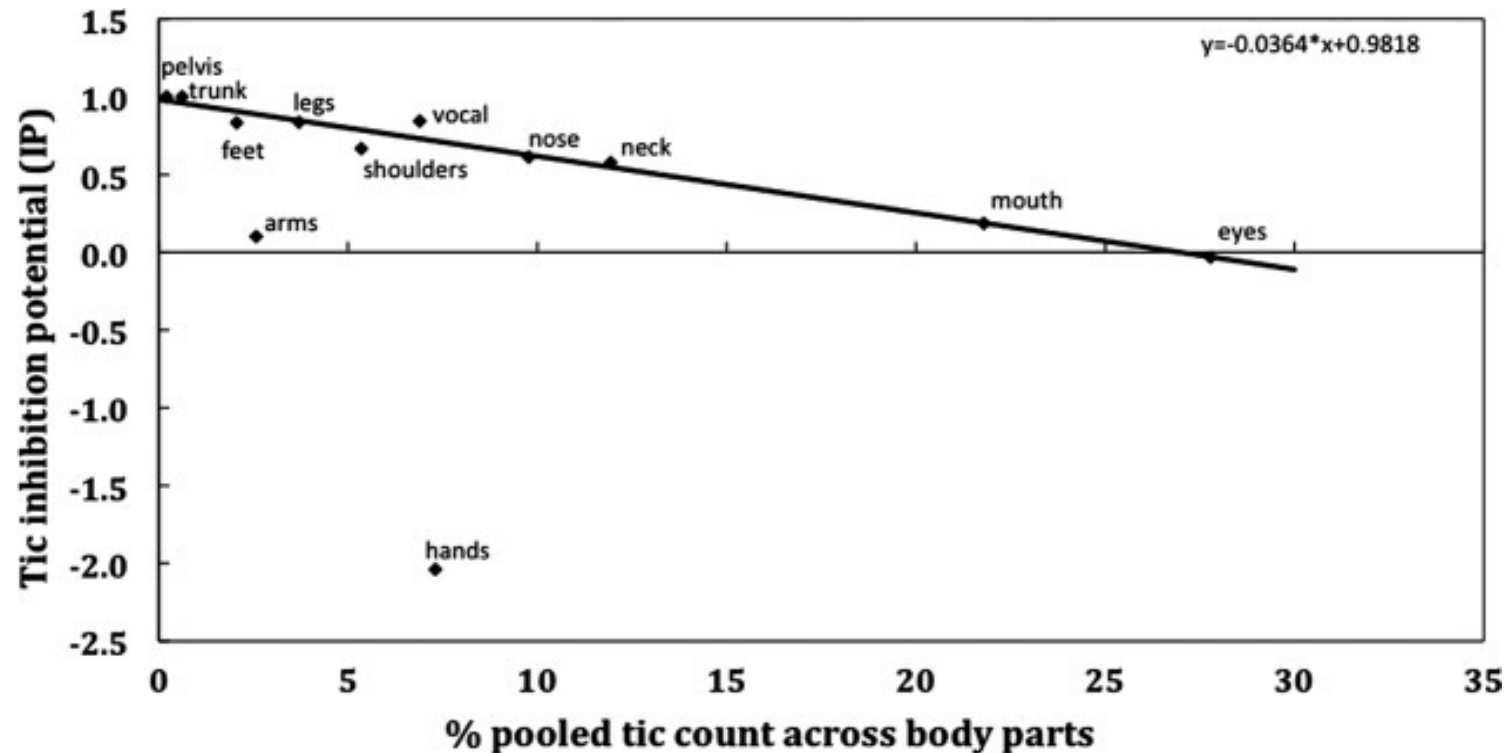
Do FTLBs have a specific body distribution?

Maybe

Can tics in a specific body region predict diagnosis?

No!

The somatotopy of tic inhibition: Where and how much?



Ganos et al., 2015

FTLBs are mostly complex: what is a complex tic?

Complex motor tics can be a combination of many simple motor *tics* or a series of movements that involve more than one muscle group →



what is a muscle group?

«a “muscle group” is exactly what it sounds like—a **group of muscles situated close together on your body that perform similar movements**. When it comes to building muscle, the six main muscle groups you should pay attention to are the: Chest. Back. Arms, etc.».

Hmmm.....still not sure I know what a complex tic is.....

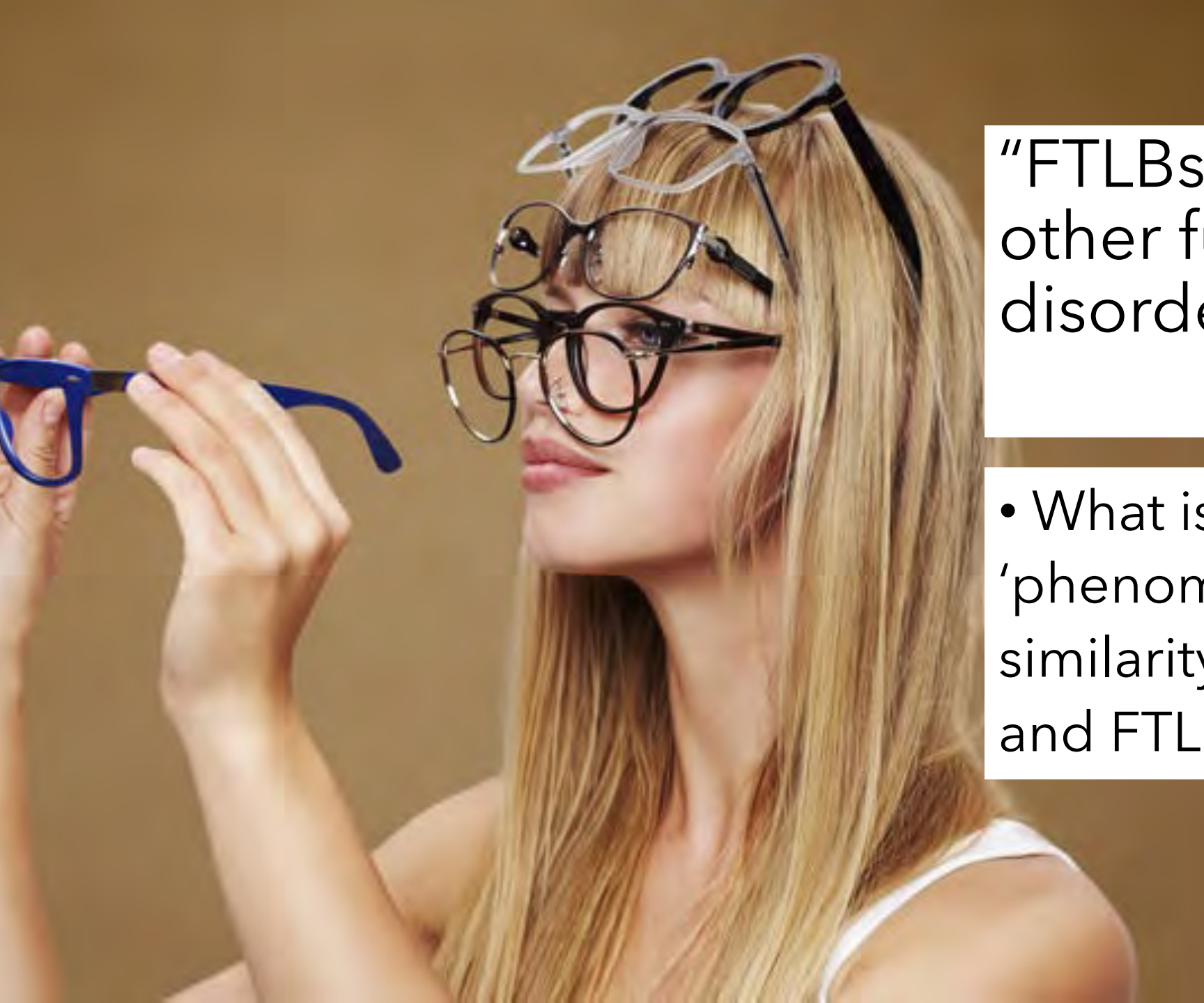
FTLBs include a lot of **context-dependent coprophénomena**: are these more similar to swearing or to coprolalic tics?
...there is an overlap zone....

- Context-dependence → tics are also highly suggestible (Ganos et al., 2016)
- Tics sometimes appear more frequently when patients know they are being observed in comparison to a covert observation (Piacentini et al., 2006)
- Sometimes the content of coprolalic tics can refer to attendant people
- Contextual information included in vocal tics is a feature that occurs more often in NOSI (Eddy & Cavanna, 2013)
- Are all coprolalic tics «ego-dystonic»?

Tic attacks and acute onset: always functional?

«In our opinion, it is crucial that clinicians in casualties and acute settings recognize this phenomenon and have a diagnostic formulation and framework that leads to active management, with tic attacks conceptualized as reflecting an acute anxiety response in TS, rather than tics *per se* or non-epileptic seizures». [Robinson & Hedderly, 2016]

***What if the tics in a tic attack belong
to the usual tic repertoire of the patient?***



“FTLBs are similar to other functional motor disorders”:

Dilemma #2

- What is the ‘phenomenological’ similarity between FMDs and FTLBs?

FMD are '**distractible**' (particularly functional 'stereotypies' and functional tremor)

- How to test: engage the patient in another motor or cognitive task and observe changes in the abnormal movement
- Well, it (usually) simply doesn't work neither with FTLBs....nor with tics.....

FMD are '**variable**' (particularly functional 'stereotypies' and functional tremor)

- How to test: observe changes during history taking/ examination/arriving or leaving the examination room: periods of unexplained improvement/disappearance of symptom
- Seen in FTLBs, but how reproducible is this judgment of intrinsic variability?
- Variability in time course in both? Longer follow-up still warranted
- Different responses to different contexts, but how sensitive is this clinical sign?

Some FMD and PNES are '**excessively long**'

- How to test: observe over several minutes
- Patients with very severe tics (the DBS tics) may have extremely pervasive tics, with super-long 'bouts'
- Complex tics and 'dystonic' tics in TS can be very long

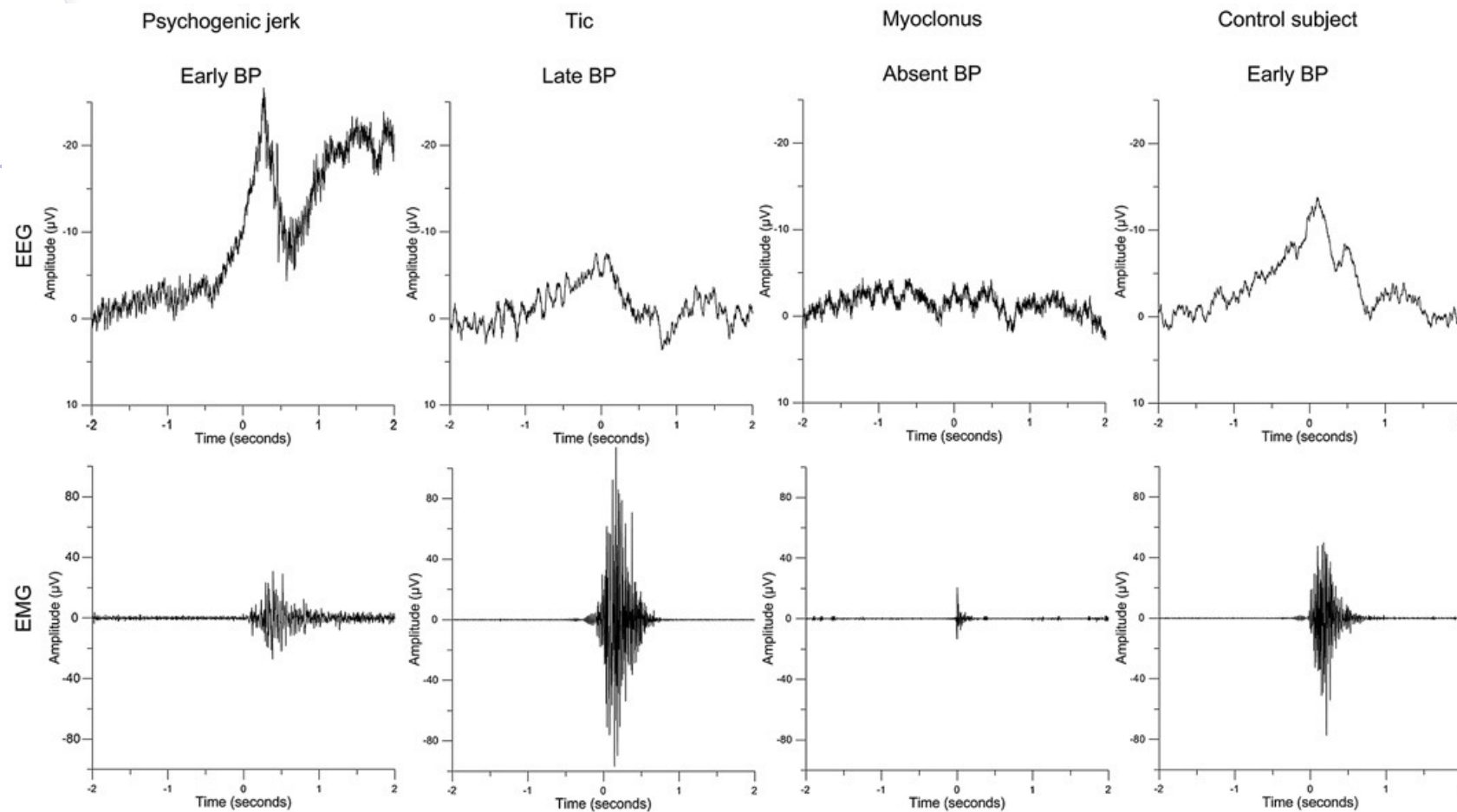


FMD is associated with '**expressive behaviour**' when performing a competing motor task

- How to test: assign a competing, 'distracting' motor task and look for "expressive" behavior displaying disproportionate effort to the task during examination
- Severe, 'non-functional' tics are pervasive and interfering with the voluntary flow of behaviour or speech (→ the 'Interference' item on the YGTSS)
- Both severe, 'non-functional' tics and FTLBs are so pervasive to 'block' other competing tasks

Neurophysiology hard to apply to this differential diagnosis

Highly frequent movements =
difficult to demonstrate BP
or other event-related measures
(ERD, ERS)



CONCLUSIONS

- No feature in this variant of FTLBs is pathognomonic and clearly not overlapping with tics
- None of the classical clinical descriptors of FMD is easily detectable in this variant of FTLBs
- WILL THIS ALWAYS BE THE CASE?
- No, but we need to approach this unsolved question, and wearing the «right spectacles»





Tics vs. FTLBs:
another case of
alexidiagnosia
