Shoulder abduction force and the parasitized-signal hypothesis

Instrumented pilot study (subject Karine) — and what it reveals when compared to the first subject

Level of evidence : Observed in-house (force increase, 2/2 subjects) · Hypothesis in progress ("parasitized-signal" interpretation) — pilot, n = 2

Study type	Exploratory pilot, within-subject, paired comparison without Q vs with Q
Participant	One subject (Karine) — 2nd subject in the series, compared to the 1st (Jon)
Device	Kinvent Physio dynamometer (ref. M124240), 500 Hz sampling
Movement	Shoulder abduction at 90°, standing
Task	Maximal voluntary isometric contraction — 3 trials/condition, best of 3 retained
Conditions	Without Q circuit, then with Q circuit (fixed order, ~4 min apart)
Status	Force increase = observation · "parasitized-signal" interpretation = hypothesis to be validated

Summary

Second subject in the Kinvent series. As with the first, shoulder abduction force rises clearly with a Q-Technology circuit (+56% on the left, +21% on the right) — the force gain replicates, instrument in hand, on a 2nd subject. But left/right asymmetry moves in the OPPOSITE direction to the first subject: Karine, near-symmetrical without Q (0.5%), shows a 17.7% gap with Q. An interpretive hypothesis — the "parasitized signal" — proposes that Q does not rebalance, but removes neural noise and exposes the real state. This hypothesis is explicitly unproven, and this document also names the competing explanation and the protocol that will tell them apart.

1. Background and objective

The first subject in the series (Jon) had shown two things on the dynamometer: higher peak force with Q, and a sharply reduced left/right asymmetry. The question for this second measurement is simple: does the force gain repeat on another subject, and does symmetry behave the same way?

The answer comes in two parts: yes for force, no for symmetry. It is precisely this mismatch that makes the case instructive — and that calls for a cautious interpretation.

2. Method

Same protocol as the first subject, instrument-read measurements:

- Participant: one subject (Karine), a single session.
- Device: Kinvent Physio dynamometer (ref. M124240), 500 Hz.
- Movement: shoulder abduction at 90°, standing.
- Task: maximal voluntary isometric contraction (MVC) against the dynamometer strap.
- Repetitions: 3 per condition; the software keeps the best of 3.
- Conditions: without Q circuit, then with Q circuit — fixed order, ~4 min apart.
- Measures: peak force (L, R), mean force, left/right asymmetry, rate of force development (RFD).

3. Results — force

OBSERVATION The force gain is the robust signal — it depends on no interpretation.

Measure (Kinvent, best of 3)	Without Q	With Q	Reading
Peak force — left	4.5 kg	**7.0 kg**	+56%
Peak force — right	4.7 kg	**5.7 kg**	+21%
Mean force — left / right	3.9 / 3.9 kg	6.1 / 5.0 kg	higher
Mean-force asymmetry	0.5%	17.7%	gap exposed
RFD (rise rate) — L / R	2.72 / 3.09 kg/s	4.91 / 4.76 kg/s	rises

Peak force rises on both sides: +56% on the left (4.5 → 7.0 kg) and +21% on the right (4.7 → 5.7 kg). Across two consecutive subjects, the dynamometer-measured force increase repeats. This is the most solid element of this nascent series.

4. The fact that calls for an explanation

Here is where it gets interesting: left/right asymmetry does not behave as it did in the first subject — it does exactly the opposite.

Without Q, Karine is near-perfectly symmetrical (0.5% mean-force gap). With Q, the gap climbs to 17.7%, and it is not noise: across the three trials with Q, the left side is consistently stronger.

Subject	Asym. without Q	Asym. with Q	Direction
Subject 1 (Jon)	19.4%	2.1%	down — toward symmetry
Subject 2 (Karine)	0.5%	17.7%	up — gap exposed

Taken at face value, one would say “Q balances one and unbalances the other.” This is where a more coherent interpretation becomes tempting — and where caution must double.

5. Hypothesis: the parasitized signal

HYPOTHESIS Interpretive reading, unproven — proposed by Nicolas Desjardins.

The idea: without Q, the nervous system would emit a “parasitized” signal — protective inhibitions, compensations, noise. This interference would distort the force reading: it could create a false asymmetry (one side held back), or conversely mask a real asymmetry (a compensation that equalizes artificially). By restoring coherence, Q would remove that interference and let the real neuromuscular state appear.

Under this reading, the first subject looked imbalanced but would actually be balanced (one inhibited side that Q released), while Karine looked balanced but would actually be imbalanced (a compensation masking a deficit). The asymmetry seen WITH Q would, in both cases, be the person’s real state.

The consequence — for a movement practitioner — would be significant: doing structural rehabilitation from a parasitized signal would mean working on a distorted image. The logical sequence would invert: first read the real state (cleaned signal), then identify the true imbalance, and only then rehabilitate it.

6. What could disprove it

Stated as is, this hypothesis has a serious flaw: it is unfalsifiable. If asymmetry drops, “Q revealed balance”; if it rises, “Q revealed hidden imbalance.” Whatever happens, it would be right — and a claim that can never be contradicted has, as such, no evidentiary value.

The competing explanation must also be named: perhaps Q reveals nothing, and simply amplifies one side more than the other (a differential response). Both narratives fit the current data. Only an external, independent benchmark can tell them apart — which is the whole point of the protocol below.

7. Validation protocol

To turn an appealing hypothesis into a defensible result, it must be anchored to an independent truth:

- Blinded structural assessment: a practitioner evaluates the person (ortho assessment, movement screen, posture, injury history) WITHOUT knowing the Q result. If the side “exposed” by Q matches an independently measurable deficit, the “revelation” hypothesis gains ground; if not, it is a differential response.
- Pre-registered prediction: from that assessment, state BEFORE the Q test whether the person will turn out balanced or not, and on which side. Predicting correctly and repeatedly rules out after-the-fact interpretation.
- Longitudinal follow-up: rehabilitate the imbalance revealed under Q; over a few weeks, the asymmetry measured under Q should decrease while force stays high.
- More subjects: classified by baseline asymmetry and by dominant side (testing the idea “the non-dominant side responds most”).

8. Limitations

- The force increase is a robust observation (2/2 subjects). The “parasitized-signal / revelation” interpretation is coherent but NOT proven.
- n = 2, one session each, fixed and close order (~4 min), non-blinded condition, a single movement.
- In both subjects, the left side responds most — with 2 subjects it is impossible to say whether that is the weak side, the non-dominant side, or simply the left.

9. Conclusion

Two subjects, one solid signal and one open question. Solid: peak force rises on the dynamometer, twice out of two. Open: why asymmetry moves in opposite directions depending on the person. The parasitized-signal hypothesis offers a coherent reading — Q as a lens that shows the real state rather than as a corrector — but we present it for what it is: a serious, testable lead, not a conclusion. We will publish what comes next, whatever it shows. No medical claim.

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Source: Kinvent Physio report (M124240, 500 Hz), shoulder abduction 90°, best of 3 trials. Unaudited internal data. Parasitized-signal hypothesis: N. Desjardins. Not a medical claim.