


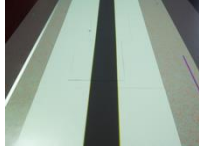

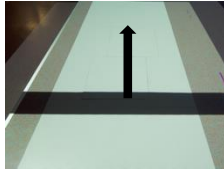



Supplemental Material

Supplemental Table 1: Overview conditions applied within analogy instructions and environmental constrains

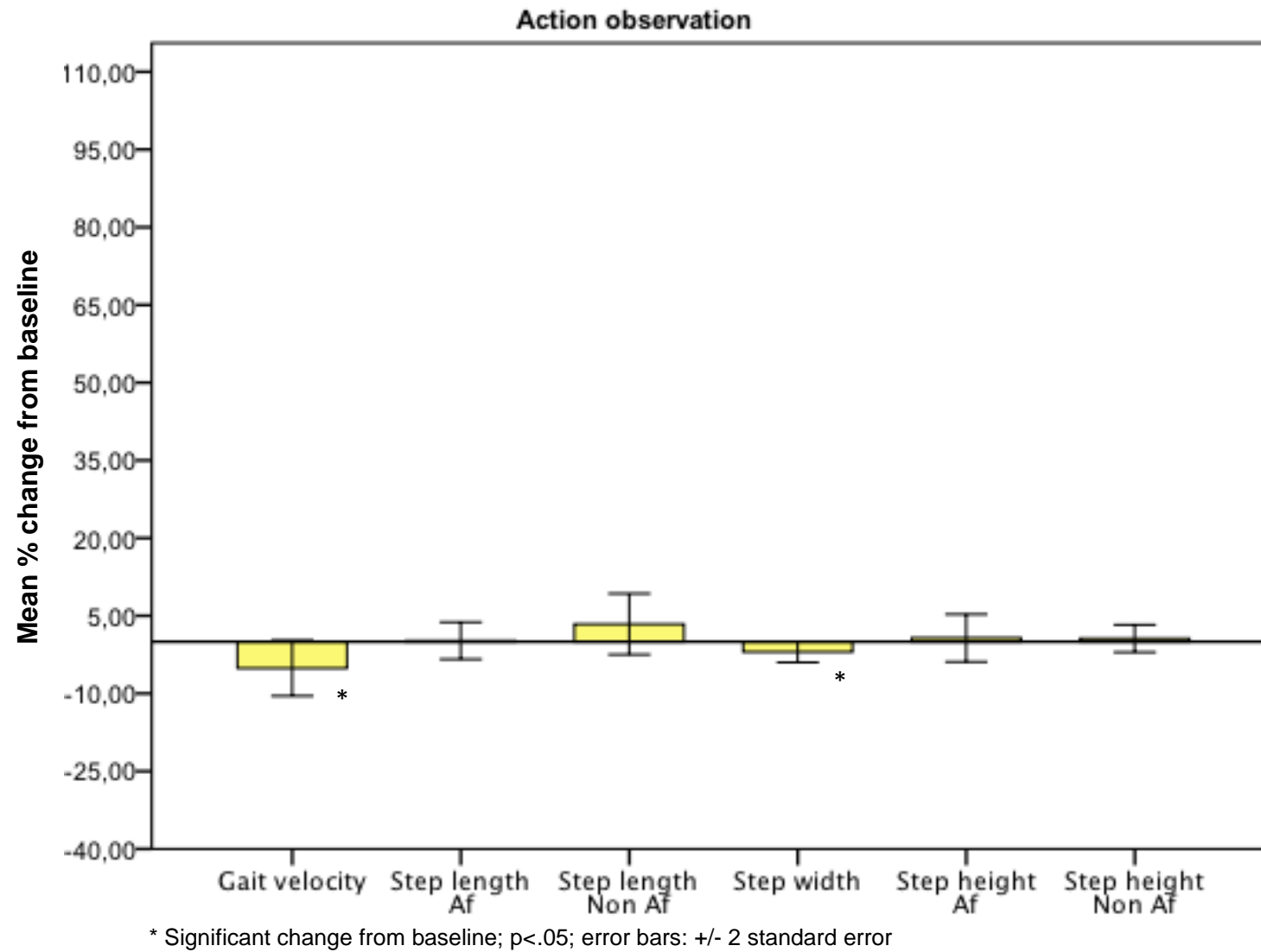
Intended change	Analogy instructions with picture	Environmental constrains with instructions
Increased step length	<i>"Walk as if you follow footprints in the sand"</i> 	<i>"Try to step on the black stripes of the zebra crossing"</i> 
Decreased step width	<i>"Try to cross a small bridge"</i> 	<i>"Try to only step on the narrow beam"</i> 
Increased speed	<i>"Try to cross the street before the traffic light switches to red"</i> 	<i>"Try to catch the moving bar but do to overtake it"</i> 
Increased step height	<i>"Walk as if you are walking through a deep layer of snow"</i> 	N/A

Supplemental Table 2. Overview results of participants' experiences

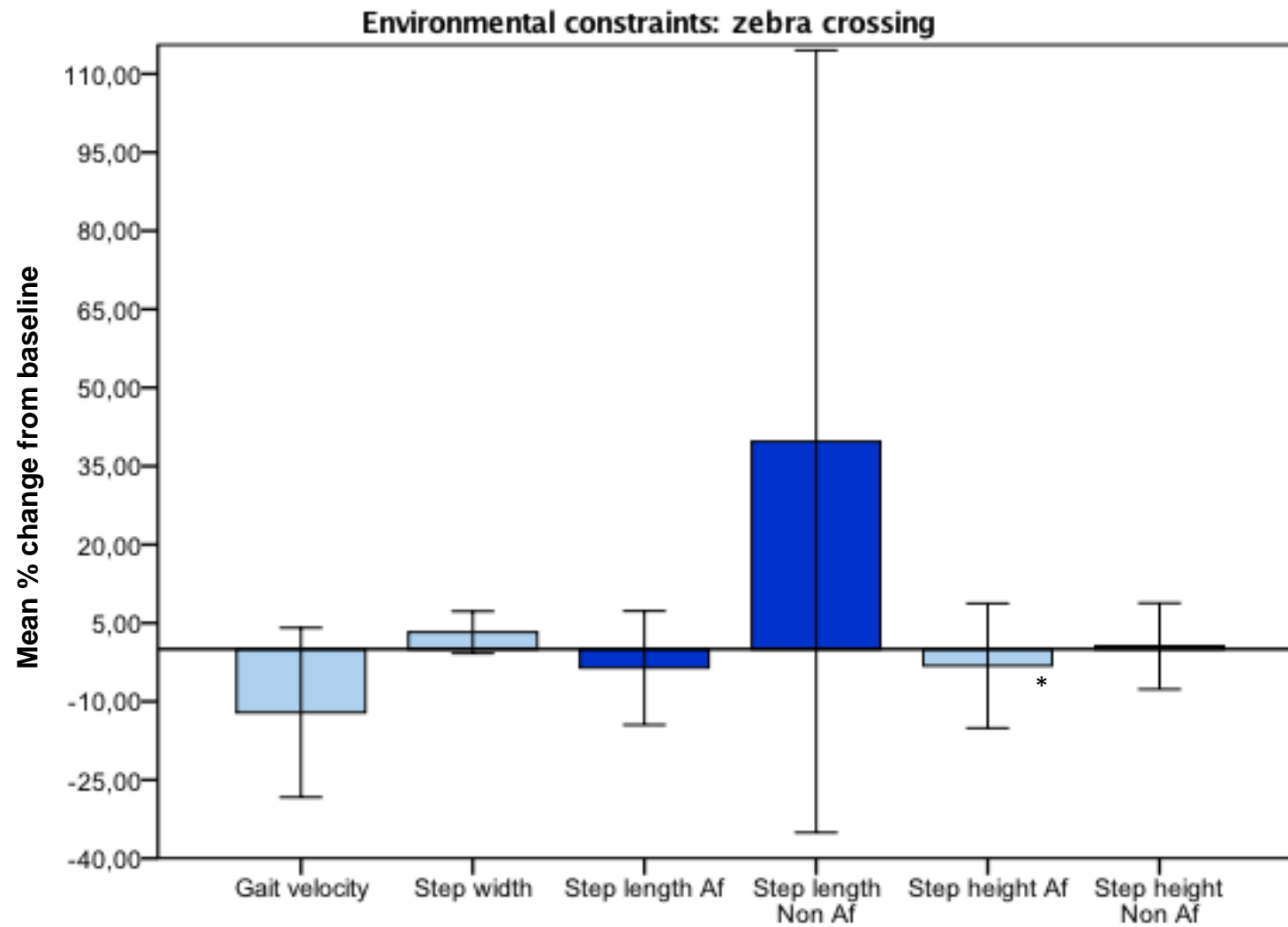
	Analogy instructions	Environmental constrains	Action observation
1. How difficult or easy did you find walking with the instructions? (1 = very difficult, 10 = not difficult)	7.6 (2.2)	6.2 (3)	8.0 (1.5)
2. Which instruction did you find easiest to perform?	Traffic light: 52.6% (n=10) Deep snow: 15.8% (n=3) Footprints sand: 5.3% (n=1) Small bridge: 0% No preference: 21.1% (n=4) Missing: 5.3% (n=1)	Zebra crossing: 47.1% (n=8) Narrow beam: 29.4% (n=5) Moving bar: 23.5% (n=4)	N/A
4. Did you need to think a lot while walking? (1 = not at all, 10 = need to think a lot)	2.9 (2.3)	3.5 (2.2)	3.0 (2.3)
5. Do you think your gait changed? (1 = no change, 10 = a lot of change)	Deep snow 6.4 (1.3) Footprints sand 4.7 (2.3) Traffic light 4.2 (2.8) Small bridge 5.3 (2.4)	Zebra crossing 4.0 (3.0) Narrow beam 5.3 (3.3) Moving bar 3.8 (2.8)	3.5 (2.9)
6. Number of explicit rules	0 rules: 15.8% (n=3) 1-2 rules: 63.1% (n=12) 3-4 rules: 21.1% (n=4)	0 rules: 23.5% (n=4) 1-2 rules: 35.3% (n=6) 3-4 rules: 41.1% (n=7)	0 rules: 30% (n=6) 1-2 rules: 50% (n=10) 3-4 rules: 20% (n=4)

Numbers represent mean (SD) and percentages.

Supplemental Figure 1: Mean % changes from baseline in the **action observation** condition

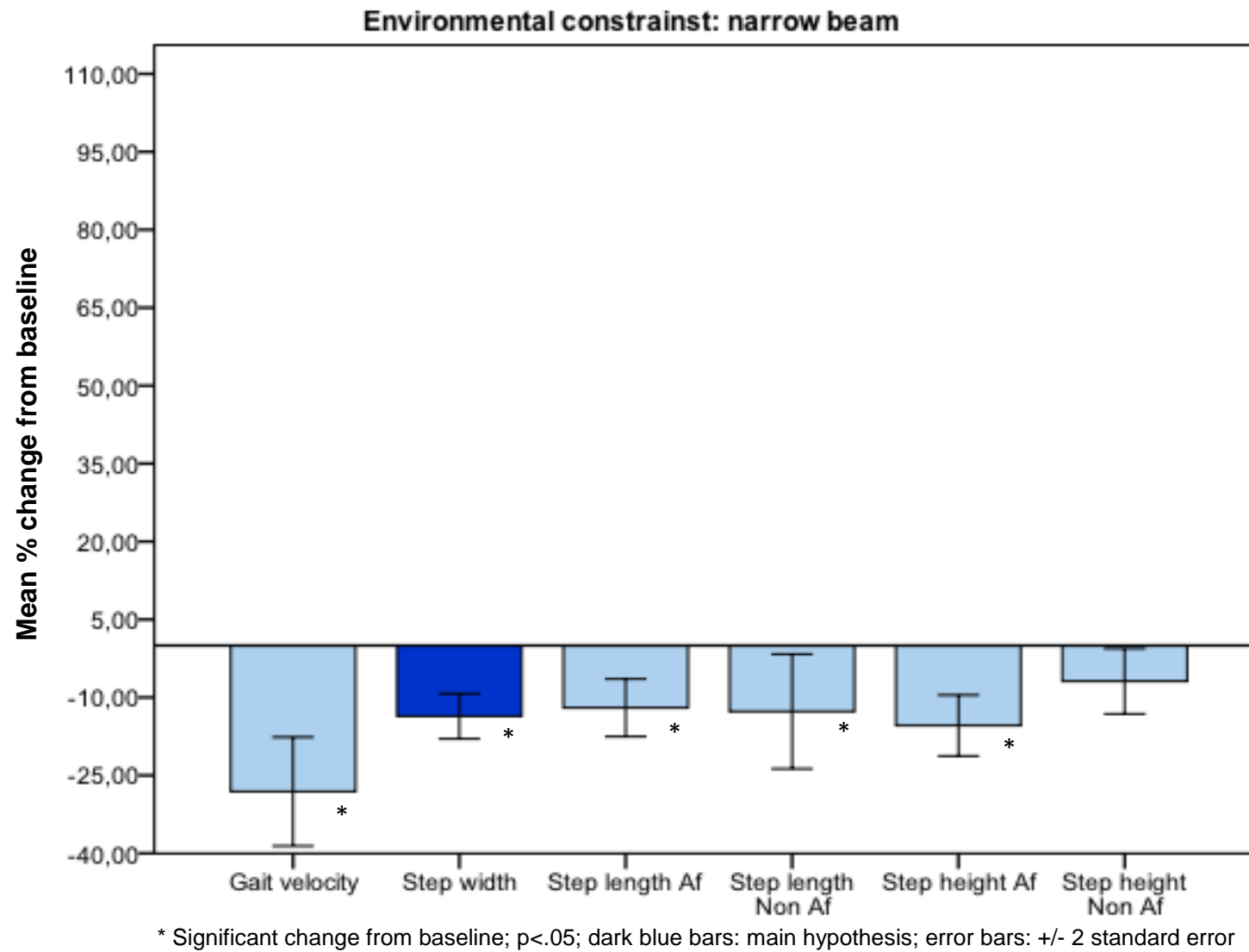


Supplemental Figure 2a: Mean % changes from baseline in the **environmental constraints (zebra crossing)** conditions

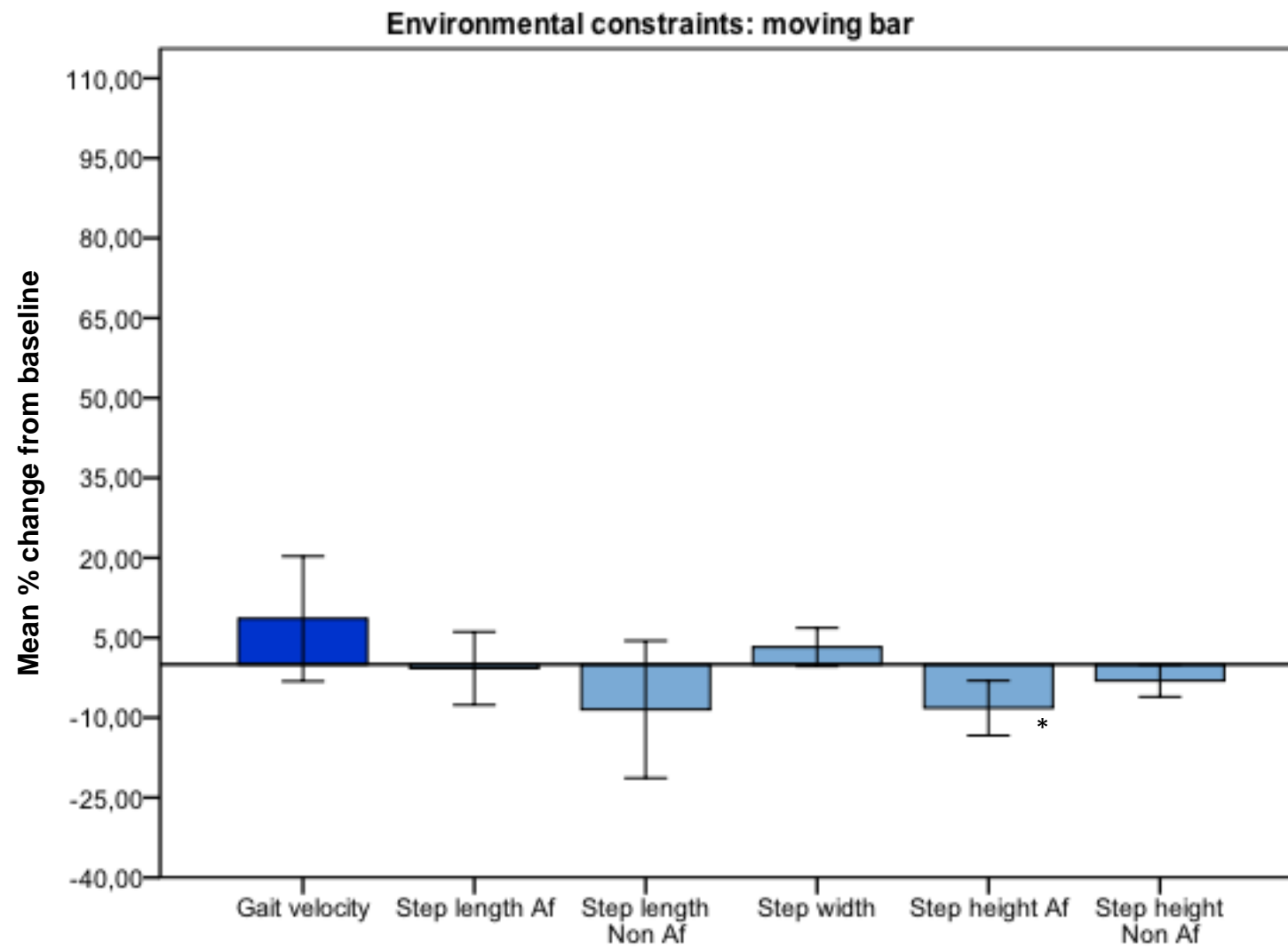


* Significant change from baseline; $p < .05$; dark blue bars: main hypothesis; error bars: ± 2 standard error

Supplemental Figure 2b: Mean % changes from baseline in the **environmental constraints (narrow beam)** conditions

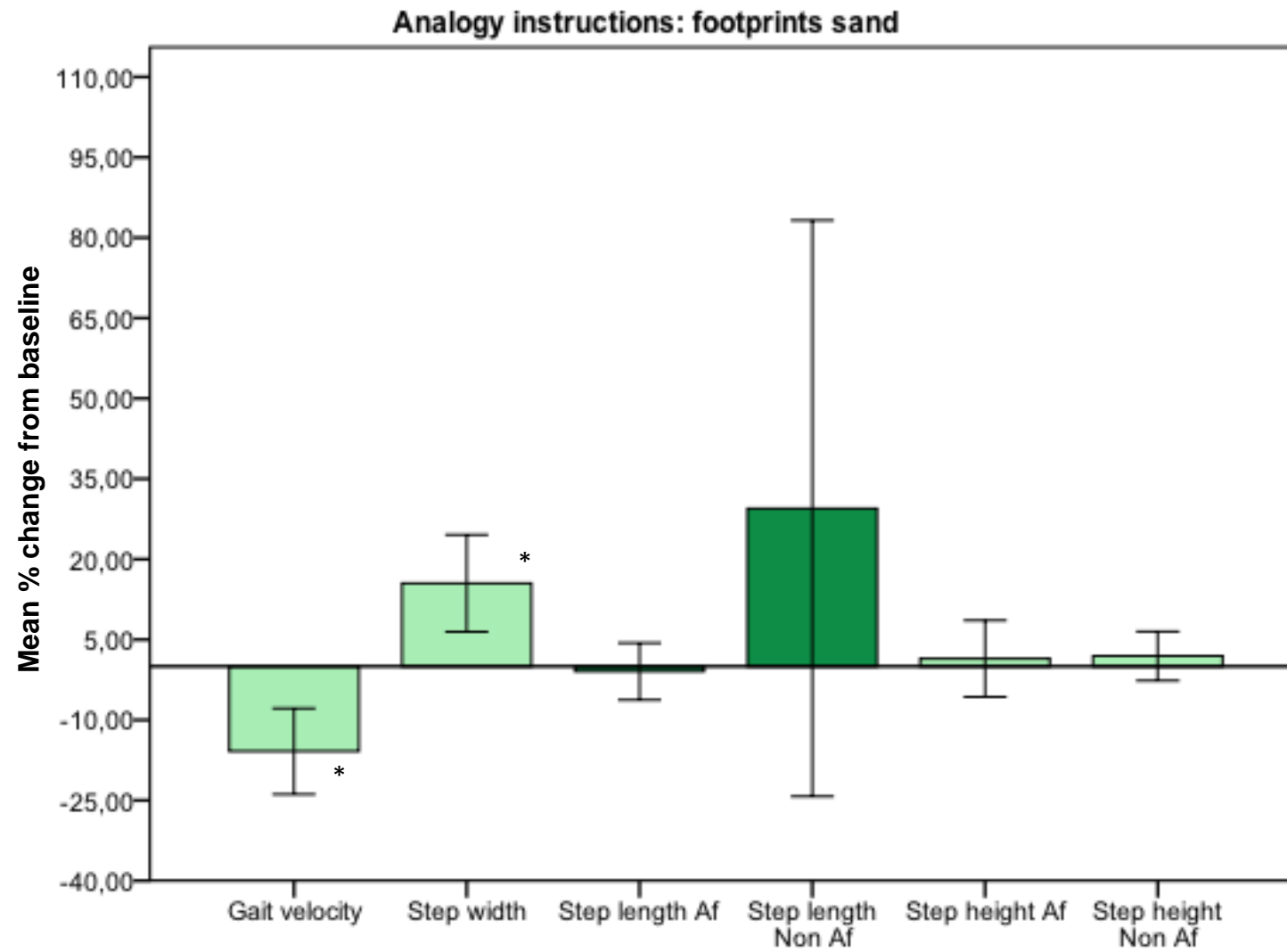


Supplemental Figure 2c: Mean % changes from baseline in the **environmental constraints (moving bar)** conditions



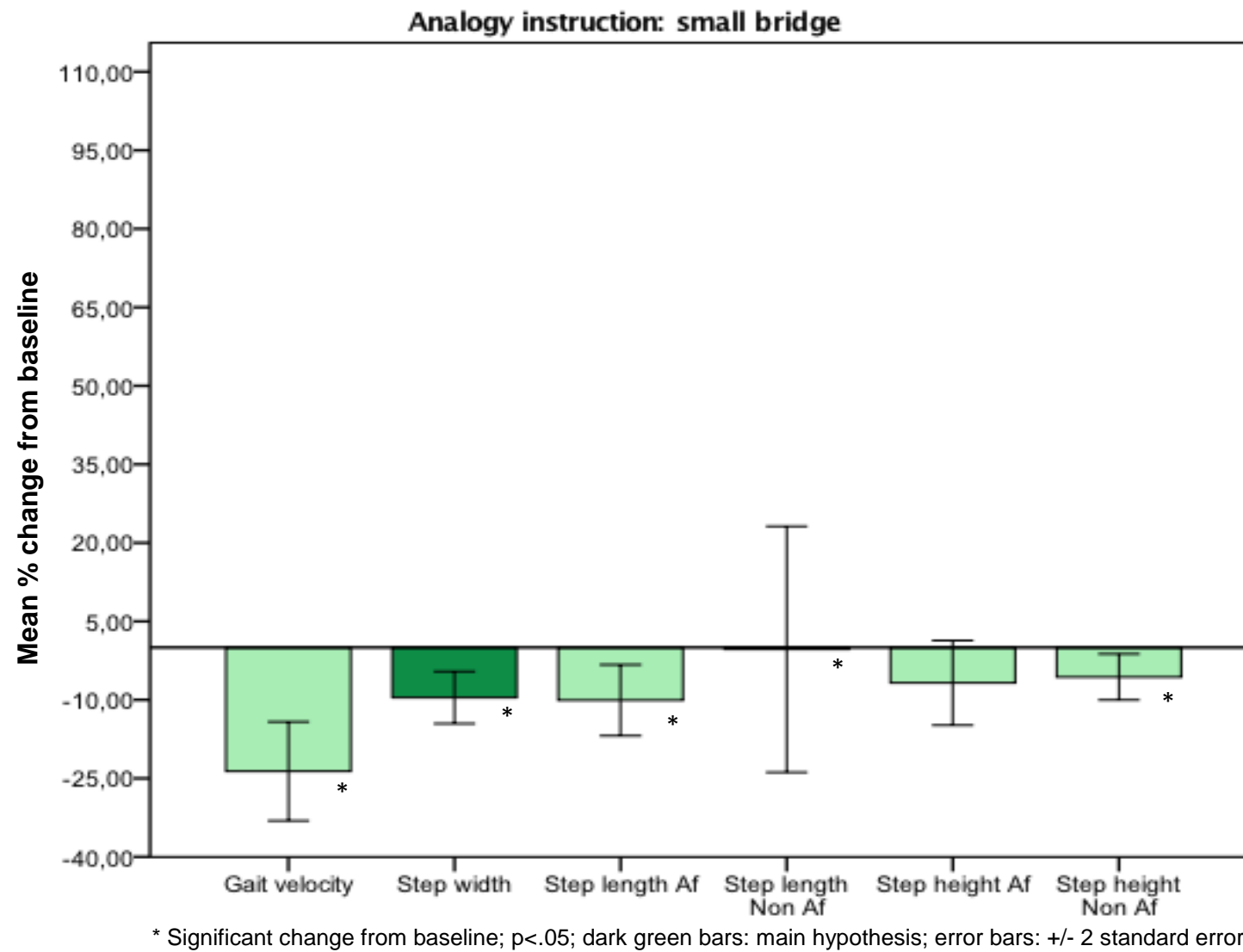
* Significant change from baseline; $p < .05$; dark blue bars: main hypothesis; error bars: ± 2 standard error

Supplemental Figure 3a: Mean % changes from baseline in the **analogy instructions (footprints sand)** conditions

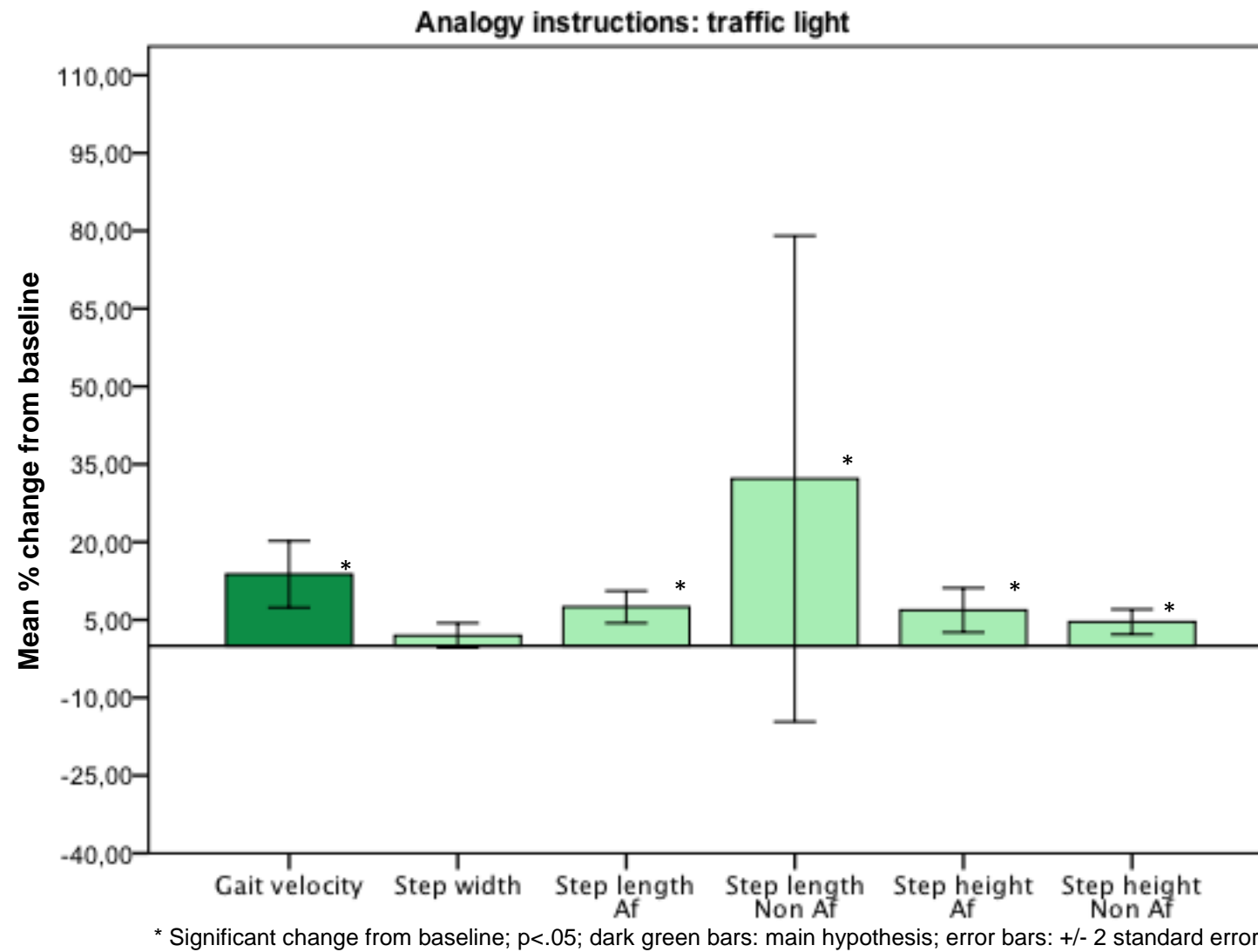


* Significant change from baseline; $p < .05$; dark green bars: main hypothesis; error bars: ± 2 standard error

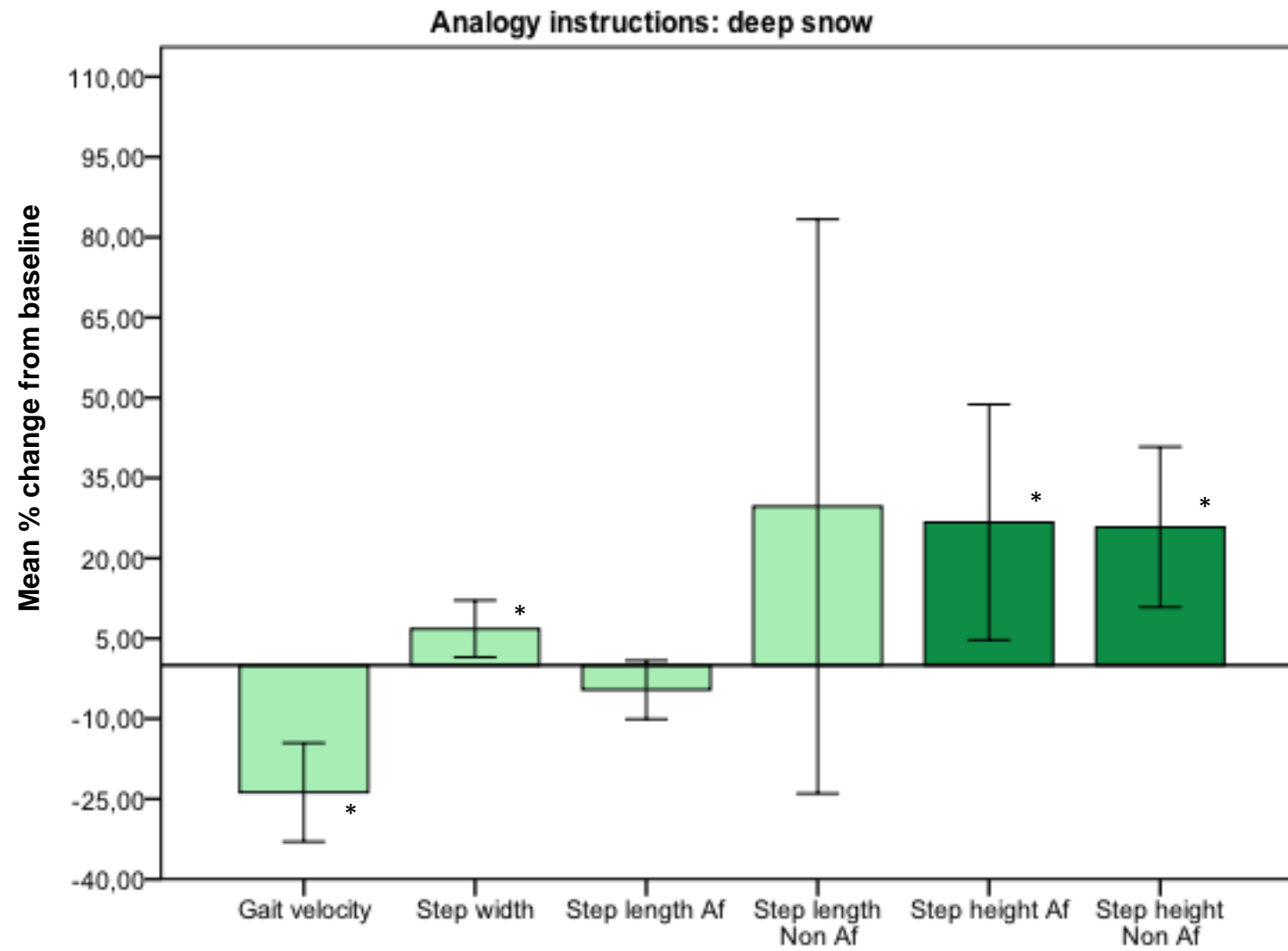
Supplemental Figure 3b: Mean % changes from baseline in the **analogy instructions (small bridge)** conditions



Supplemental Figure 3c: Mean % changes from baseline in the **analogy instructions (traffic light)** conditions



Supplemental Figure 3d: Mean % changes from baseline in the **analogy instructions (deep snow)** conditions



* Significant change from baseline; $p < .05$; dark green bars: main hypothesis; error bars: ± 2 standard error