

Crowd Light: Supplementary Material

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This is the supplementary material for the paper entitled *Crowd Light: Evaluating the Perceived Fidelity of Illuminated Dynamic Scenes*. This document contains sample frames from all the scenes used in Experiment 1 (Figure 1), and the full results of our analysis of variance (ANOVA) on the data from Experiment 2 (Fig. 2- 17). We have also uploaded four videos showing some samples of our stimuli (due to the suggested limit of 50MB for the supplementary material, we have chosen to submit only a representative sample): three of them, named *human_random_color_x.avi*, show our ground-truth human crowd with random motion in color, together with two approximations, using interpolation *TYP1* and *TYP2* with $N = 30$. The fourth video, *pawn_army_gray_reference.avi* shows the reference video of a pawn army, in gray-scale.

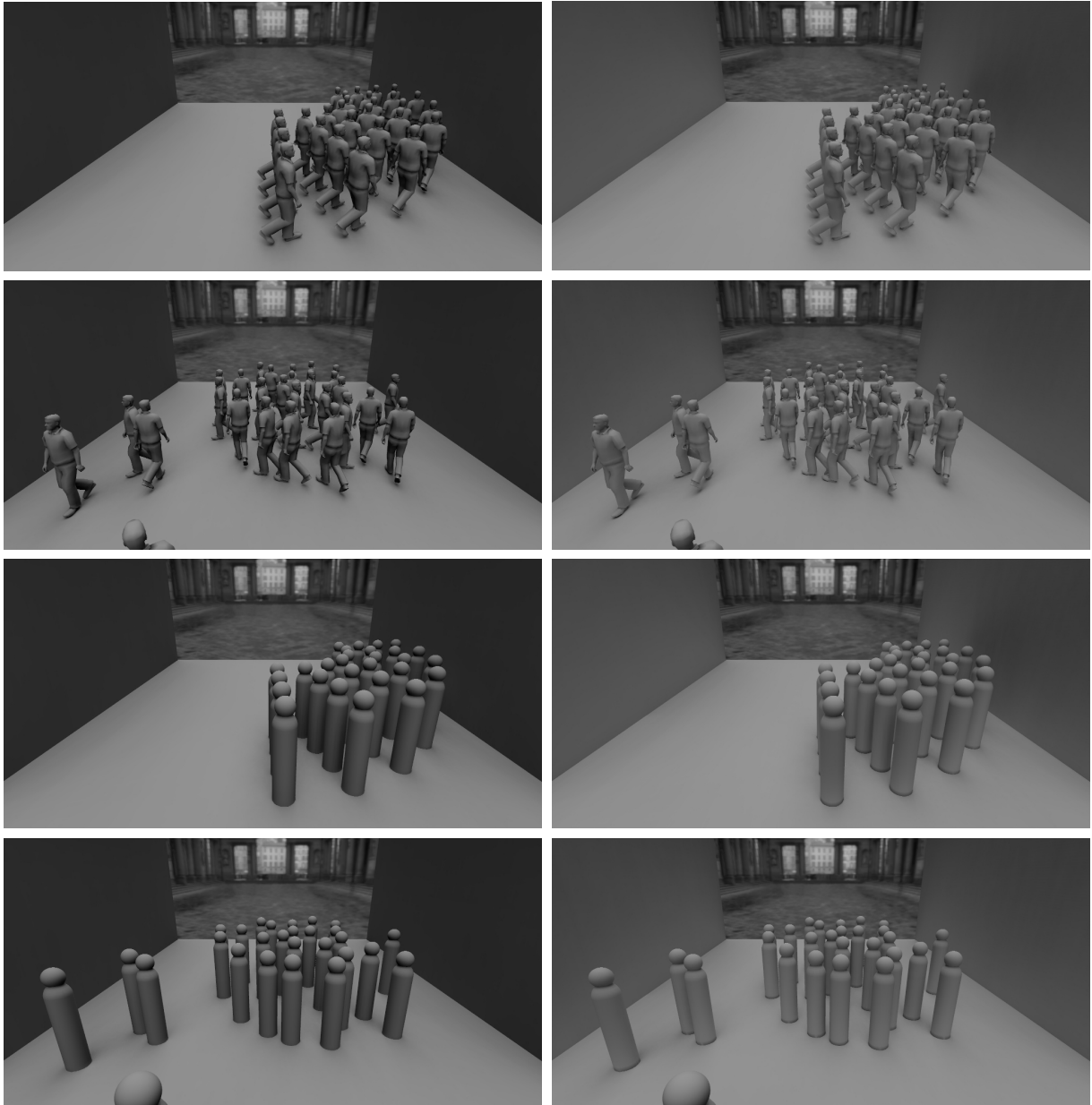


Figure 1: Frames extracted from the gold standards of Experiment 1. Each configuration comes from a combination of the objects (rows 1 and 2: **humans**; rows 3 and 4: **pawns**), arrangements (rows 1 and 3: structured **army**; rows 2 and 4: random **crowd**) and light configurations (left column **visibility only**; right column **full GI**).

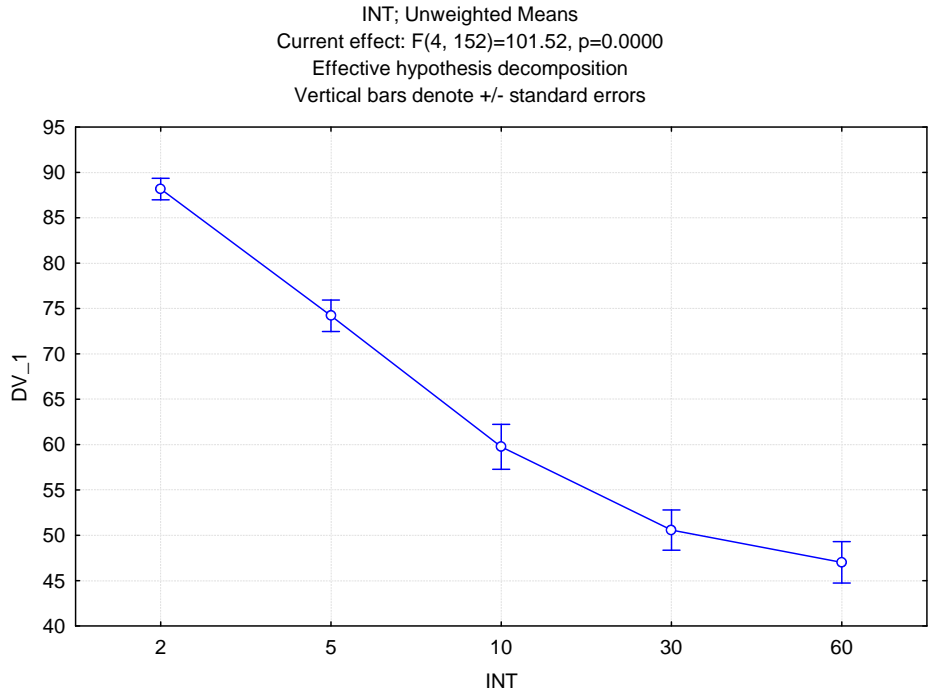


Figure 2: Main effect on interpolation interval (INT).

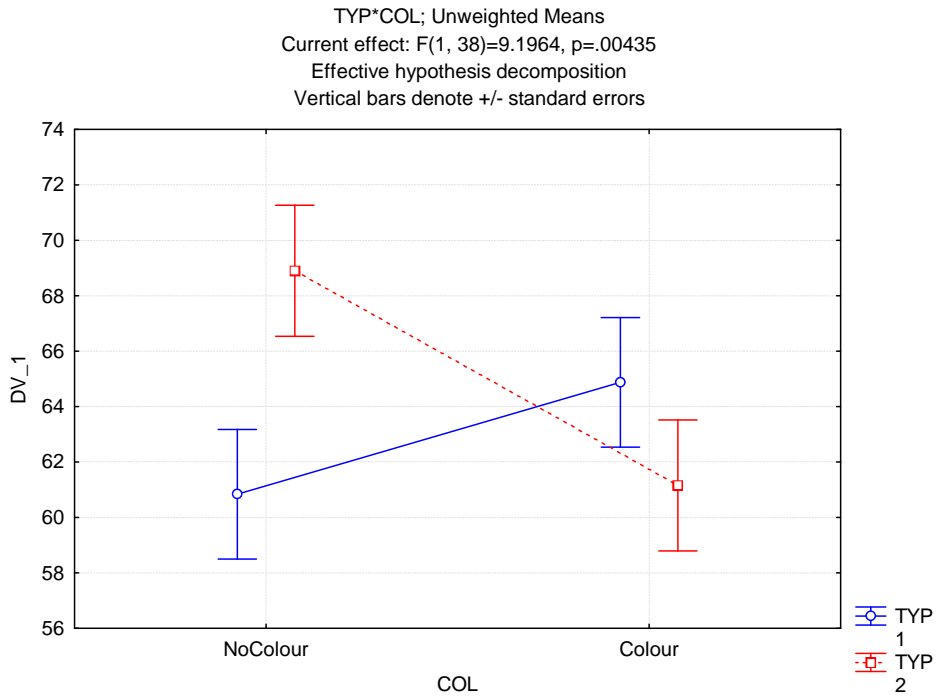


Figure 3: Two-way interaction between interpolation type (TYP) and color (COL).

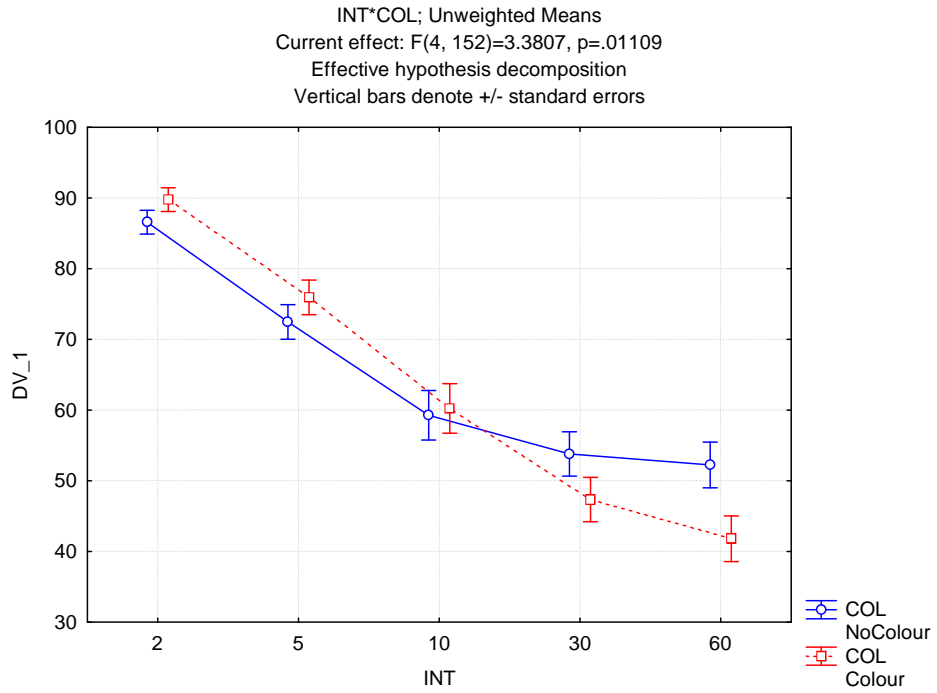


Figure 4: Two-way interaction between interpolation interval (INT) and color (COL).

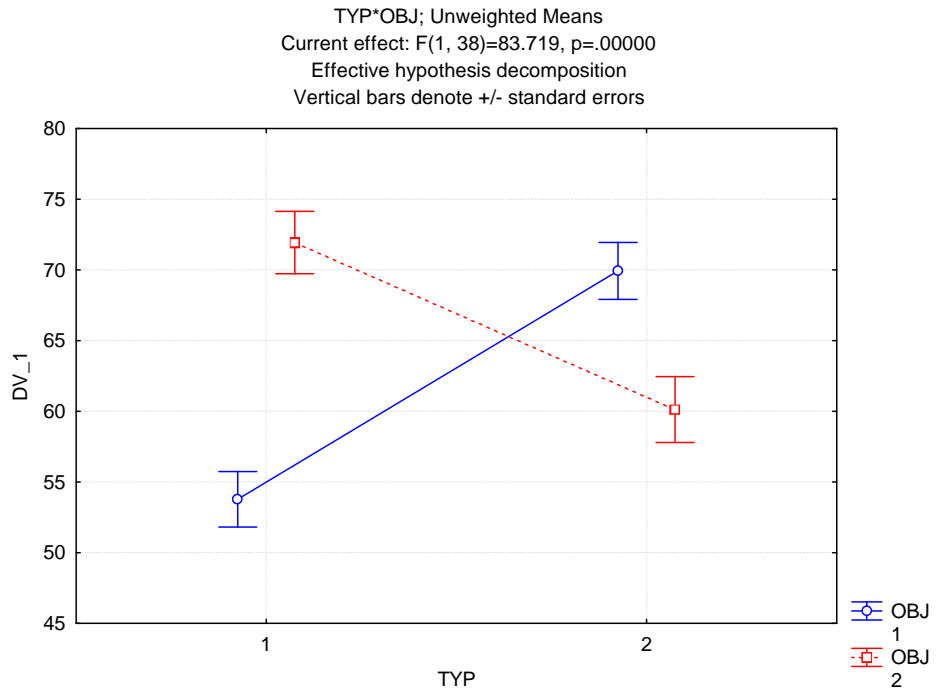


Figure 5: Two-way interaction between interpolation type (TYP) and object (OBJ).

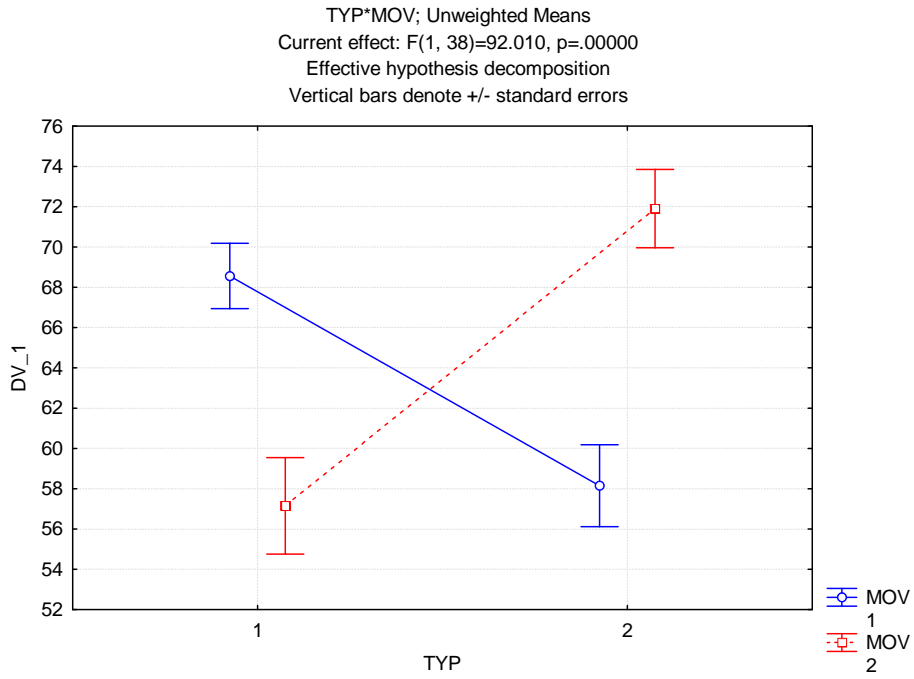


Figure 6: Two-way interaction between interpolation type (TYP) and movement (MOV).

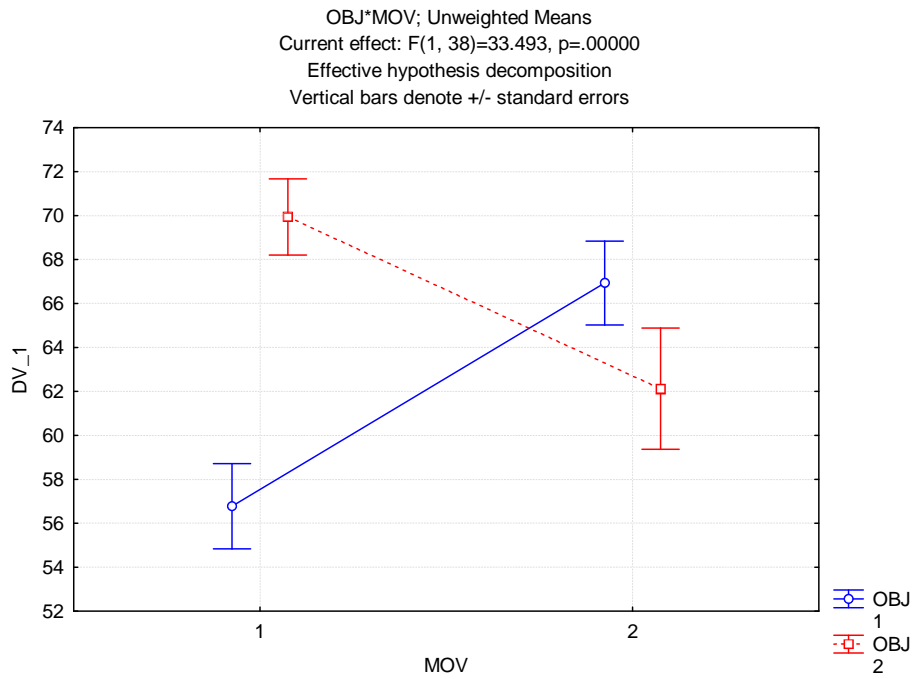


Figure 7: Two-way interaction between object (OBJ) and movement (MOV).

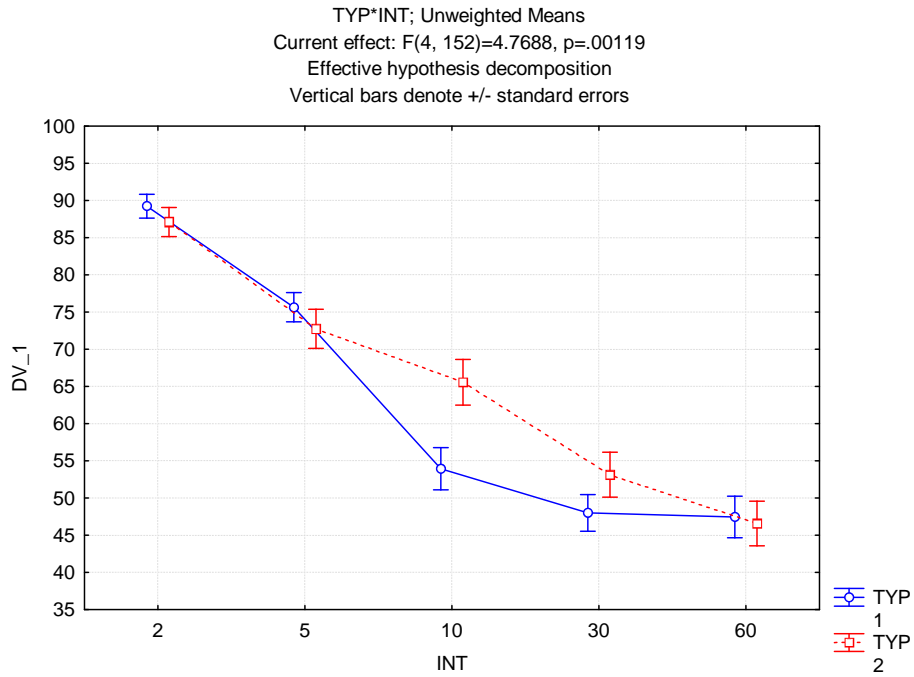


Figure 8: Two-way interaction between interpolation type (TYP) and interpolation interval (INT).

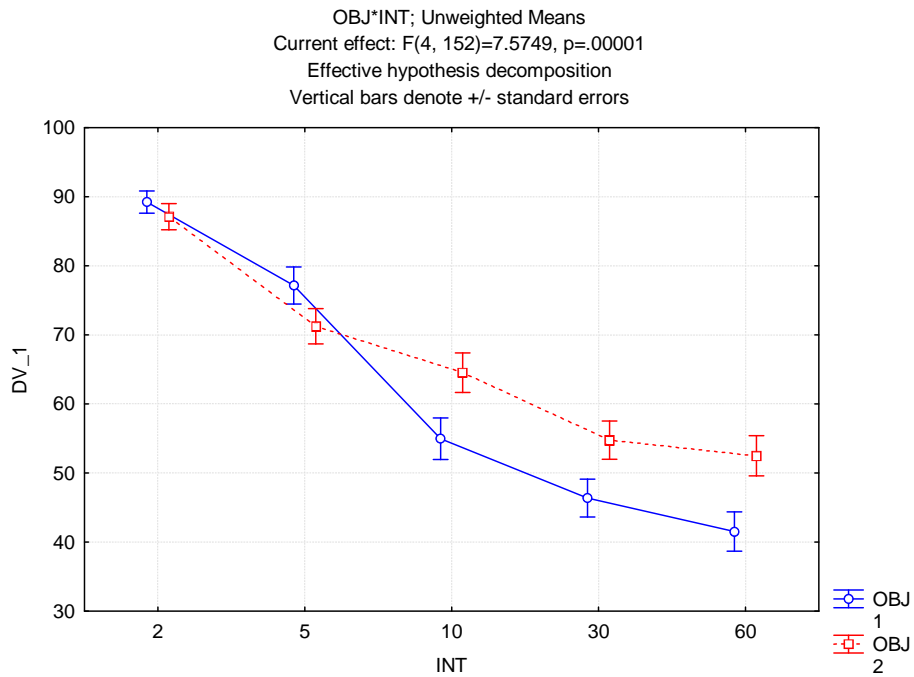


Figure 9: Two-way interaction between object (OBJ) and interpolation interval (INT).

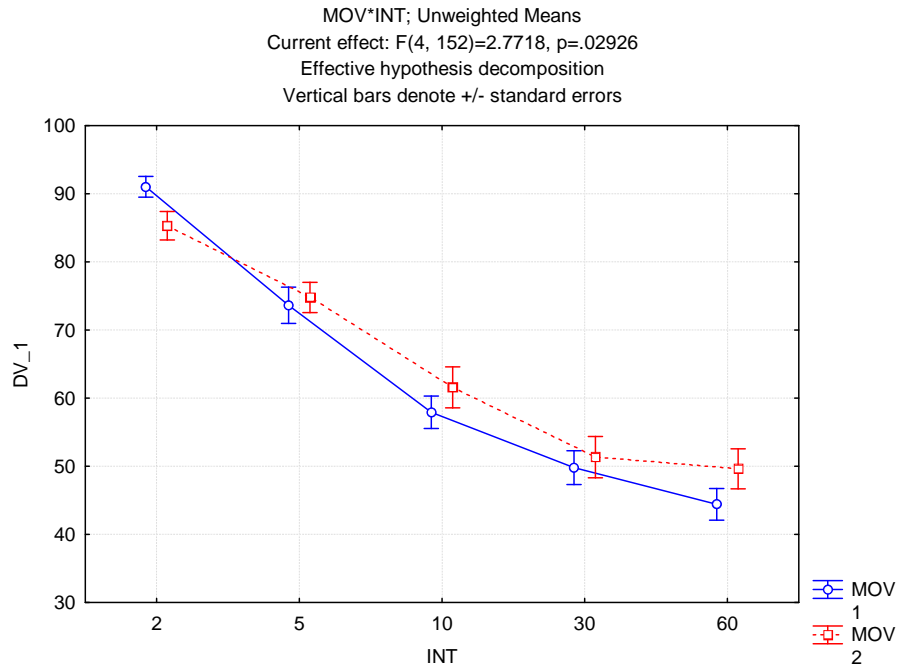


Figure 10: Two-way interaction between movement (MOV) and interpolation interval (INT).

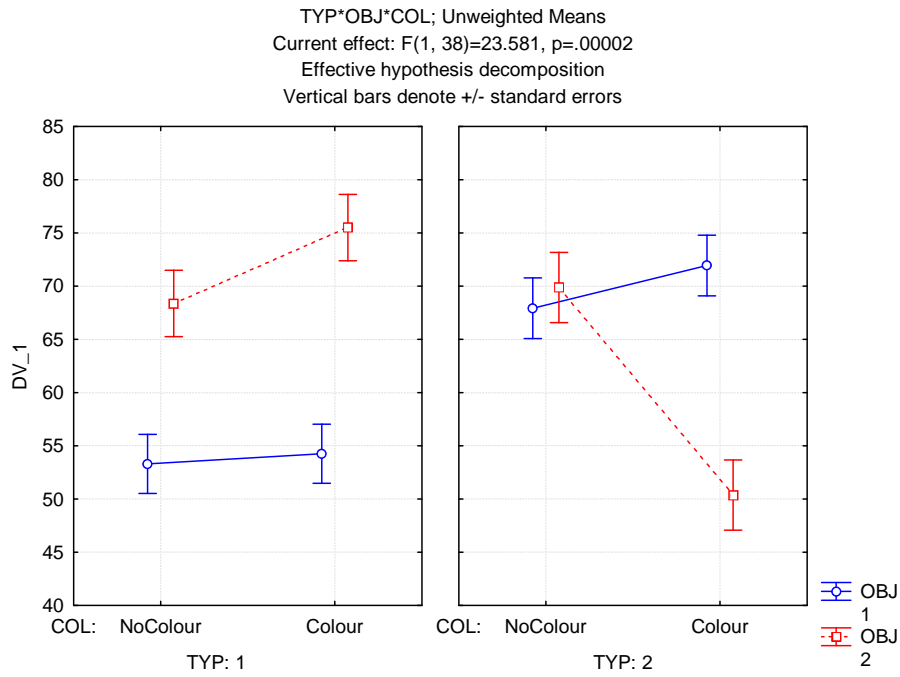


Figure 11: Three-way interaction between interpolation type (TYP), object (OBJ) and color (COL).

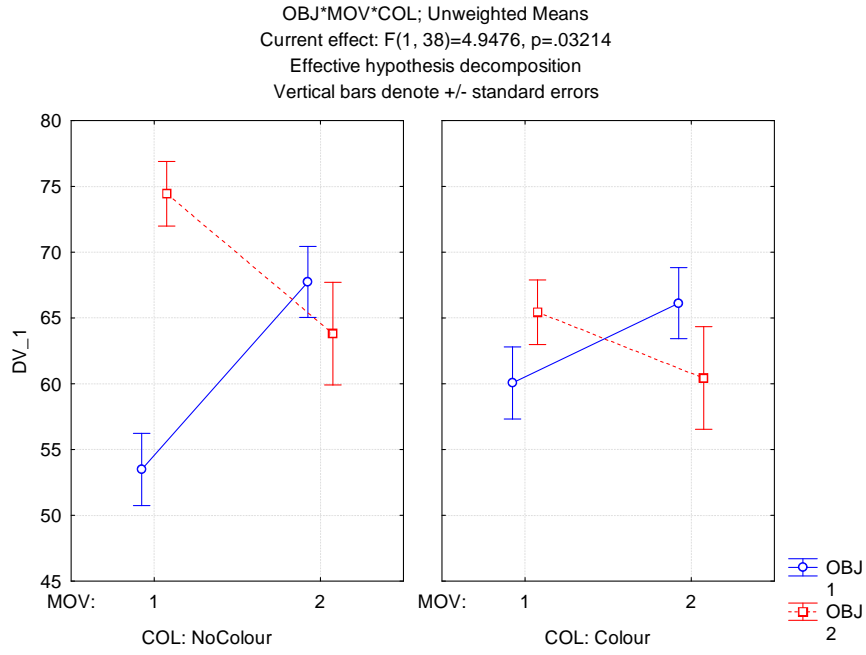


Figure 12: Three-way interaction between object (OBJ), movement (MOV) and color (COL).

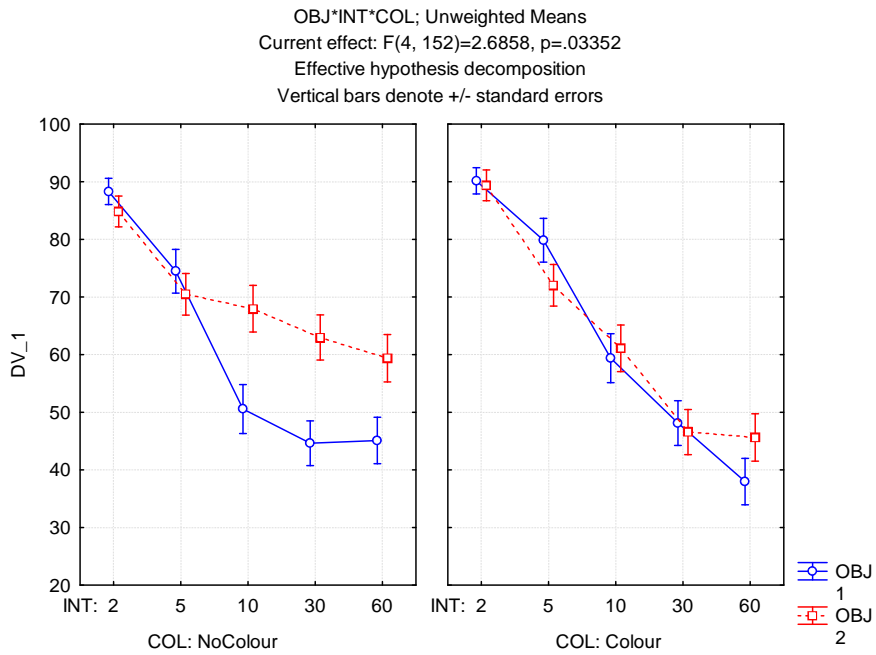


Figure 13: Three-way interaction between object (OBJ), interpolation interval (INT) and color (COL).

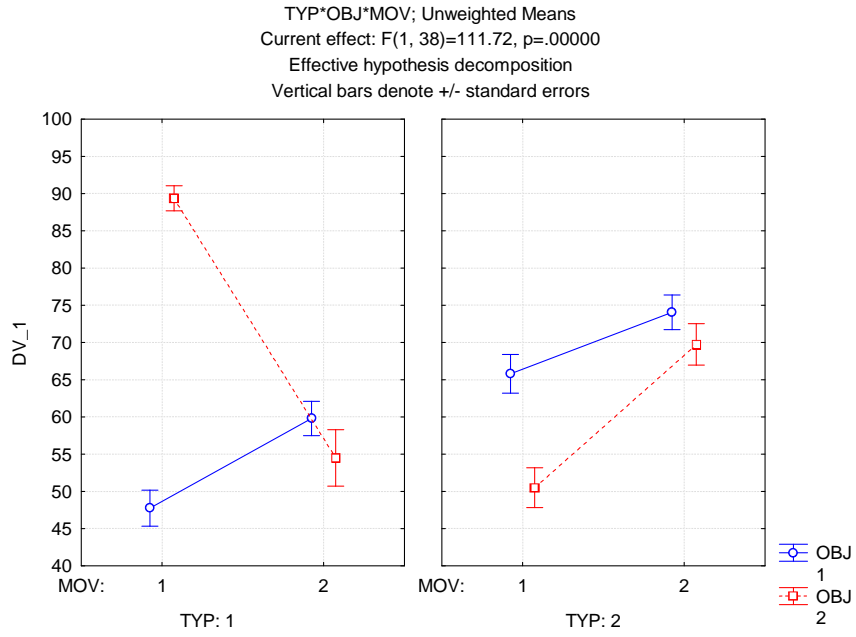


Figure 14: Three-way interaction between interpolation type (TYP), object (OBJ) and movement (MOV).

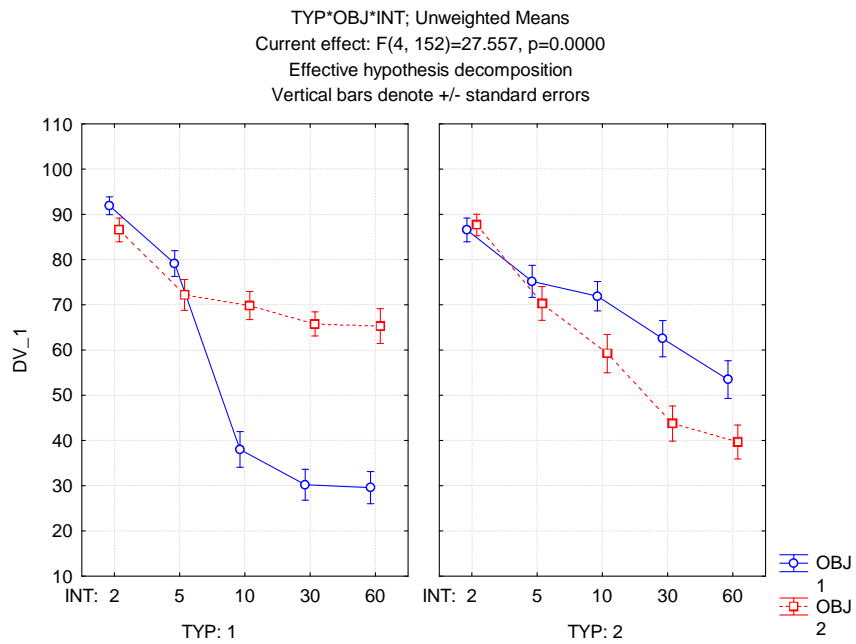


Figure 15: Three-way interaction between interpolation type (TYP), object (OBJ) and interpolation interval (INT).

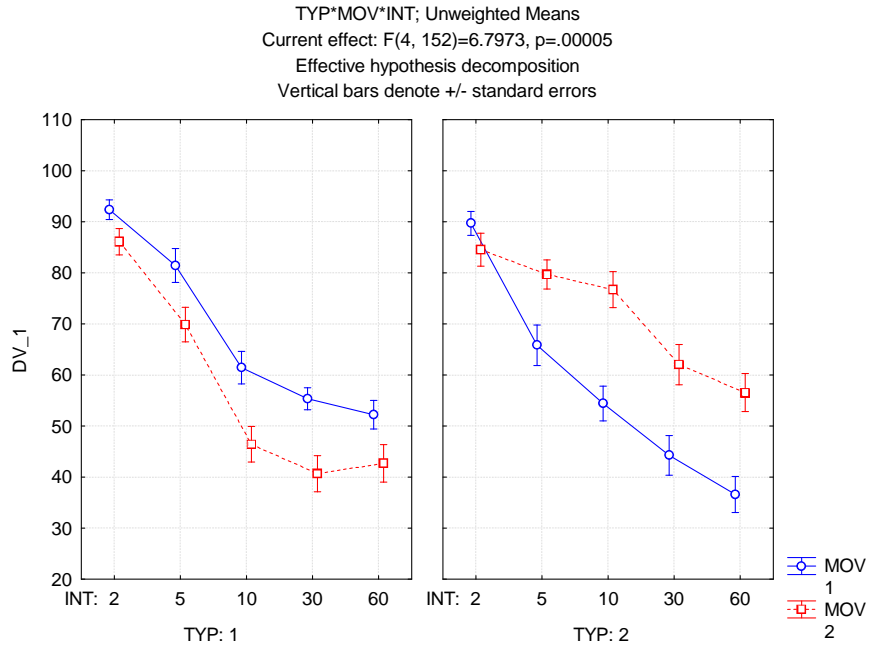


Figure 16: Three-way interaction between interpolation type (TYP), movement (MOV) and interpolation interval (INT).

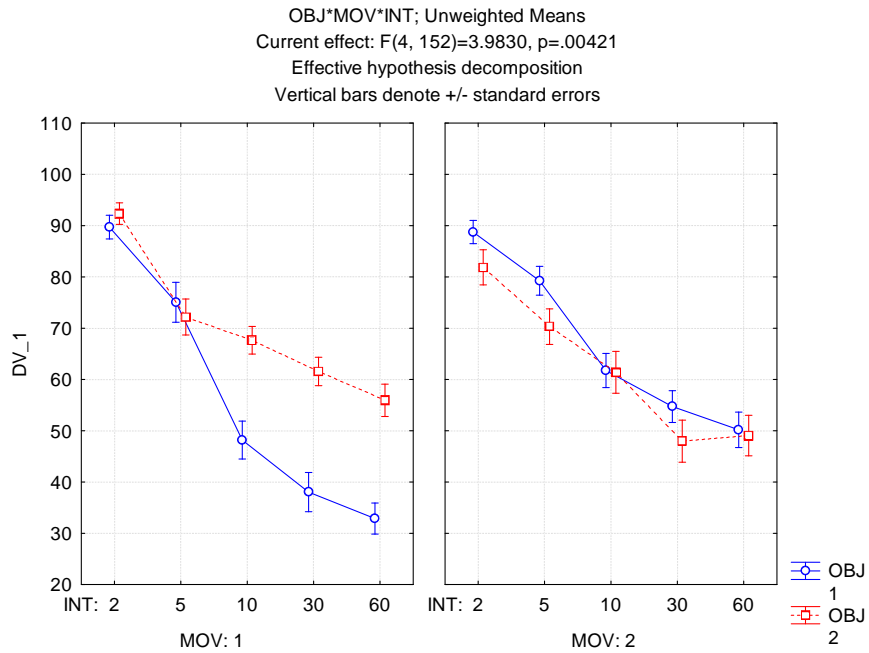


Figure 17: Three-way interaction between object (OBJ), movement (MOV) and interpolation interval (INT).