**Background**

Human observers can identify the gender of a walker made visible only by lights attached to the main joints of the body (Point Light Walker; PLWer, Johannson, 1973).

Close examination of PLWers reveal three types of visual information:
- Form (spatial arrangement of dots)
- Local motion of individual dots
- Global (or configural) motion of the dots.

Adaptation has been reported for the 'low-level' features of form (e.g. orientation) and motion (e.g. direction and speed). It's controlled for form and local motion and asked whether adaptation occurred in the 'higher-order' configural motion that defines gender in PLWers.

**Purpose**

Can adaptation to a PLWer of one gender alter gender classification of subsequent gender-ambiguous PLWer stimuli?

If so, does global configural motion play a role in mediating this gender-specific adaptation?

**Stimuli**

- Prototype female and male PLWers were created from motion captured walking actors.
- Female/male stride duration was matched and looped (Character Studio).
- Female/male prototypes were digitally morphed, by weight-averaging, to produce 15 intermediary-gender stimuli.
- 15 white dots were attached to major joints of the models to produce PLWer stimuli.
- Female and male prototypes and the .5/.5 female/male stimuli served as adapters.

**Method**

The three adapters were completely cued with each of the 14 gender ambiguous test stimuli to form a block (42 trials), each observer completing twenty times.

The presentation order of the adapter/test pair was random within each block, ensuring that a subjects average adaptation state is neutral.

Subjects judged the gender of the second PLWer movie in each trial. No feedback was given.

**Predictions**

Neutral/Adapter Baseline gender classification => PSE < .5

Female Adapter Should elicit 'male' responses to test stimuli with little maleness, => curve-shift leftward => PSE < .5

Male Adapter Should elicit 'male' responses when the test PLWer is overwhelmingly male, => curve shift rightward => PSE > .5

**Experiment 1** Does Gender-Specific Adaptation of Biological Motion Occur?

**Experiment 2** Does Disruption of Configural Motion Abolish Gender-Specific Adaptation?

**Conclusions**

Exp 1: Viewing of male and female PLWer adapters shifted PSEs towards the opposite gender.

Exp 2: Removal of configural motion reduced gender-specific adaptation, but only for the female PLWer. This may indicate different contributions of form and motion in classification of male and female PLWers.

Local motion is not sufficient to drive the adaptation effect in the case of the female. This work was supported by an NIMH Institutional Training Grant awarded to HJ and NEI Grant 2Ro1EY12872 -05 To G.R.S.