



9.S93: Baby webcam

M 1/7/2013

Introductions

- Name
- Major, year
- Programming experience?
- Developmental research or childcare/sibling experience?
- Any specific interests

Why baby webcam?

- More representative sampling
- Reduce (time) cost to researchers and families
- Improve retention in longitudinal studies
- Observe more natural behavior (e.g. toddler language)
- Access relatively rare populations (e.g. developmental disorders, genetic markers, specific family structures)
- Accountability and replication

Web-specific challenges

- Designing stimuli that are engaging enough
- Triggering on child's behavior (e.g. showing a new image once the child looks away) or accommodating variations
- Avoiding parental interference during study
- Avoiding parental sampling bias
- Social/interactive responses
- Privacy and security of data
- Clearly communicating research aims to parents

Current state of the project

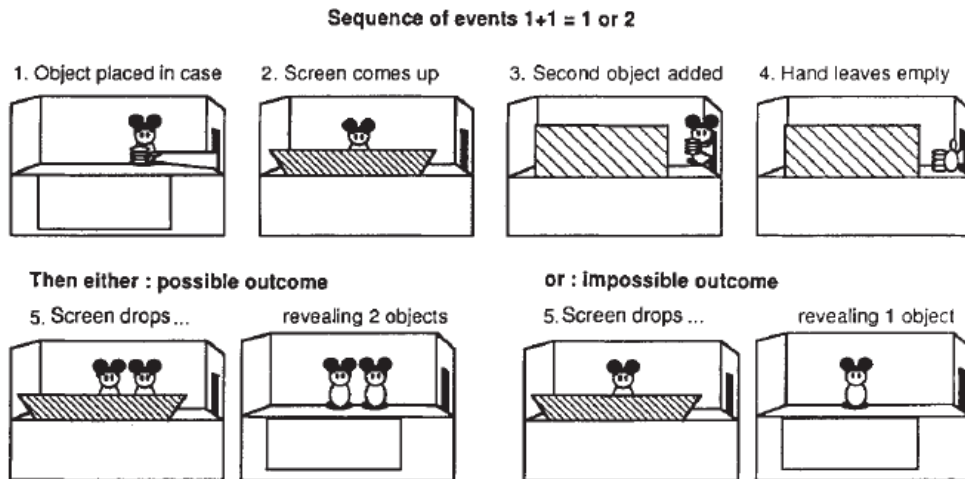
- Almost ready to put an initial experiment online (by end of IAP) – limiting factor is some webcam code handled by an outside programmer
- One experiment coded up as an example already...

[DEMO]

Adapting developmental methods

- Looking time
 - Violation of expectation
 - Preferential looking
 - Habituation/dishabituation
- Conditioning
- Predictive looking
- Spontaneous behavior
- Verbal responses

Starting with replications



“Replication” \neq trivial, ensured
SUCCESS

Example from Karen Wynn’s
rebuttal “Findings of
addition and subtraction in
infants are robust and
consistent: reply to
Wakeley, Rivera, and
Langer” ...

Explains another group’s failure to replicate by...

Computer program rather than human dictating start of trials

Experimenter not able to see baby and ensure that baby always
saw the whole display

10% rather than 16% exclusion rate

Likewise when showing 5-month-olds a 2D display Moore (1997)
replicated only with female infants...

Tools we'll use

- **Javascript** (incl. JQuery and custom-written jswcam library)
- HTML & CSS
- PHP
- Existing videos or stimuli if possible, our own where needed!

9.S93 setup

- First two weeks: planning out adaptations of your projects; introductory javascript (depending on your background)
 - Rest of IAP: get your project ready to go online!
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- Today: choose a paper you're interested in to read and present next time. (You'll still have a chance to switch then.)