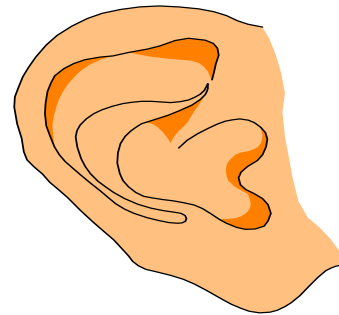
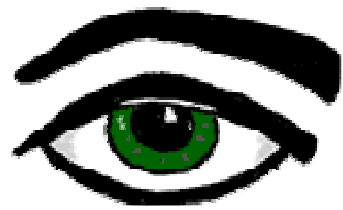


Perception



Recommended for measurement development

Construct/Component Process: **GAIN**
CONTROL

Rationale: Strengths

Early visual regions (e.g. LGN/V1)
Early stages of processing (<150 ms)

Well-defined tasks

Well established deficits in
schizophrenia

Well defined animal models

- Rationale: Limitations

Primate models

More research needed on
links to outcome

Recommended for measurement development

Construct/Component Process: **Visual Integration**

Rationale: Strengths

Later stages of visual processing
Extrastriate visual areas (V4, IT)
Recursive processing

High face validity re: functional
outcome

• Rationale: Limitations

More complicated constructs

Paradigms less standardized

Neural circuitry less clear

Limited information re: neurochem

Recommended for further clinical research

Construct/Component Process: **Visual Motion**

Rationale: Strengths

Clear construct

Well-defined brain region (MT),
neural circuitry

Robust phenomenon

Clear fMRI correlate

Some information on
neurochemistry

• Rationale: Limitations

Behavioral tasks need refinement

Link to outcome not yet established

Basis for deficit not established

Mostly primate models

Recommended for more clinical research

Construct/Component Process: **Early Auditory Processing**

Rationale: Strengths

Components

Tone matching
Auditory ERP
Reafferentation

Strengths

Easily measured
Impaired in schizophrenia
Neural circuits well understood
Rodent models possible

• Rationale: Limitations

Deficits possibly not present
at first episode

More research needed on link
to outcome

Recommended for clinical research

Construct/Component Process: **Auditory integration**

Rationale: Strengths

Construct:

Phonemic/linguistic processing
Prosody
Auditory object processing
Streaming/Cocktail party
?reafferentation

Less studied in schizophrenia
Higher face validity re: outcome

• Rationale: Limitations

Substrates less known
Animal models more difficult

Not Recommended for further research

Construct: **Gestalt**
Visual Form Processing
Visual Feature Binding

Included in either:
Early visual processing
or Visual integration

Other constructs to be considered

- Olfactory processing
- Somatosensory processing/reafferentation
- Cross-modal integration

If considered, would need more clinical/
basic research