



**RE-EXAMINING INFANT CRIES:
A CROSS-CULTURAL STUDY OF CLASSIFYING
NEWBORNS' PRE-CRY VOCALIZATIONS**

Maureen O'Brien, Ph.D.
Ellesha Kirby

DestinationParenting
Dunstan Baby

Underlying assumptions**

- ✓ A newborn's cry is particularly powerful stressor for parents (and other adults)
- ✓ The newborn period is a crucial time for parents' emotional well-being/sense of competence
- ✓ Moms and dads struggle to redefine their roles during transition to parenting

** all supported by extensive research

Ideal caregiving pattern**

- ✓ Sensitive & responsive parent(s)
- ✓ Consistent approach to baby's cues
- ✓ Sense of parental competence

** all supported by longstanding research

Mom/Dad:

*“I know why my baby is crying.
I can address her needs and
feel like a good parent”*

Baby:

*“My cues and cries are
understood and my needs
are consistently met”*

Variables affected by distress:

- ❖ Self (baby):
 - Self-regulation
 - Sleep
 - Stress response
- ❖ Other:
 - Attachment relationship
- ❖ Physical (growth):
 - Sensitive caregiving (esp feeding)
- ❖ Larger system:
 - Marital relationship
 - Dad involvement

Infant cries: Traditional

- Universal stressor for new parents
 - Affects their sense of competence as parents
 - Implications for all relationships (mom-dad-baby)
- **Primitive** communication from baby
- Cross-cultural variation
 - Quantity differs
 - Parent response differs
- **Trial & error** until “get to know” baby

Infant cries: Dunstan

- Communication (cries) are NOT primitive
- Universal pre-cry vocalizations are present
- Each one has a specific, **reflex-based** sound that communicates a need
- Parents can learn to identify these ‘words’ in just days and act accordingly

Paradigm shift: Crying

TRADITIONAL	DUNSTAN
Experimental model roots	Ethological research roots
Quantitative: Cry intensity and time spent	Qualitative: Different sound per need, PRE-CRY!
Translation based on trial-and-error	Translation based on “unlocking code”

Five Dunstan 'words'

Neh "I'm hungry"

Owh "I'm tired"

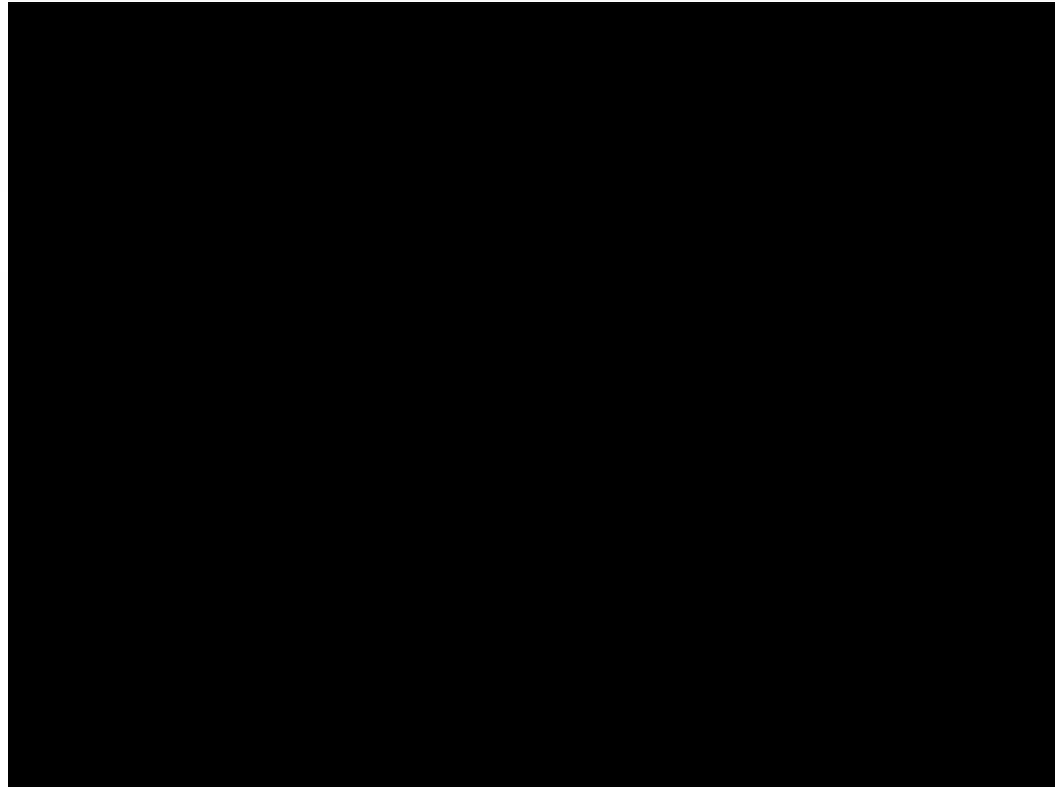
Eh "I have upper wind / need to burp"

Heh "I'm uncomfortable"

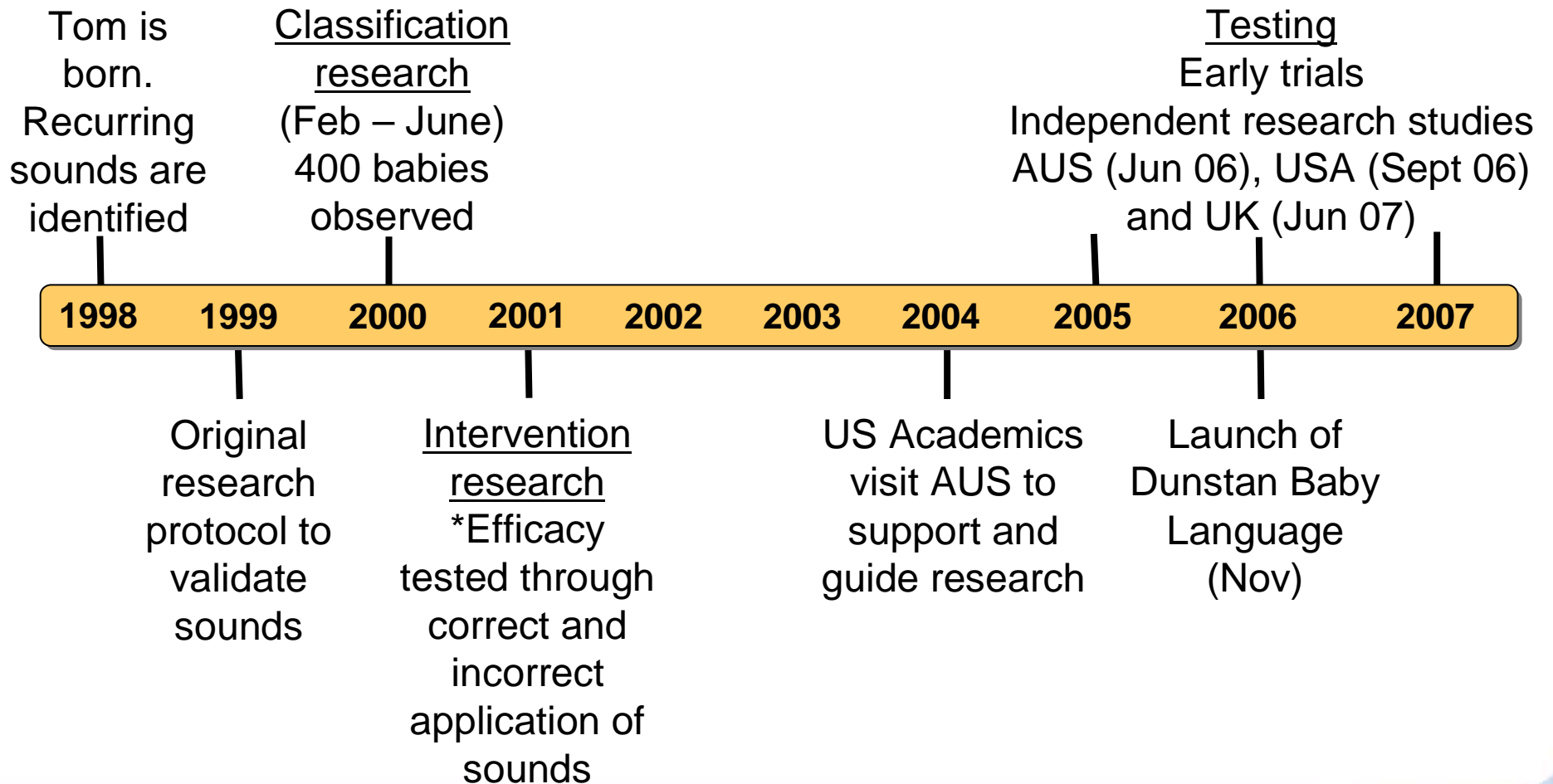
Eairh "I have lower wind"



- Response to the sucking reflex
- Listen for distinctive “N” part of the sound
- Look for the tongue along the roof of the mouth
- Essentially feeding on demand
- Supports successful breastfeeding



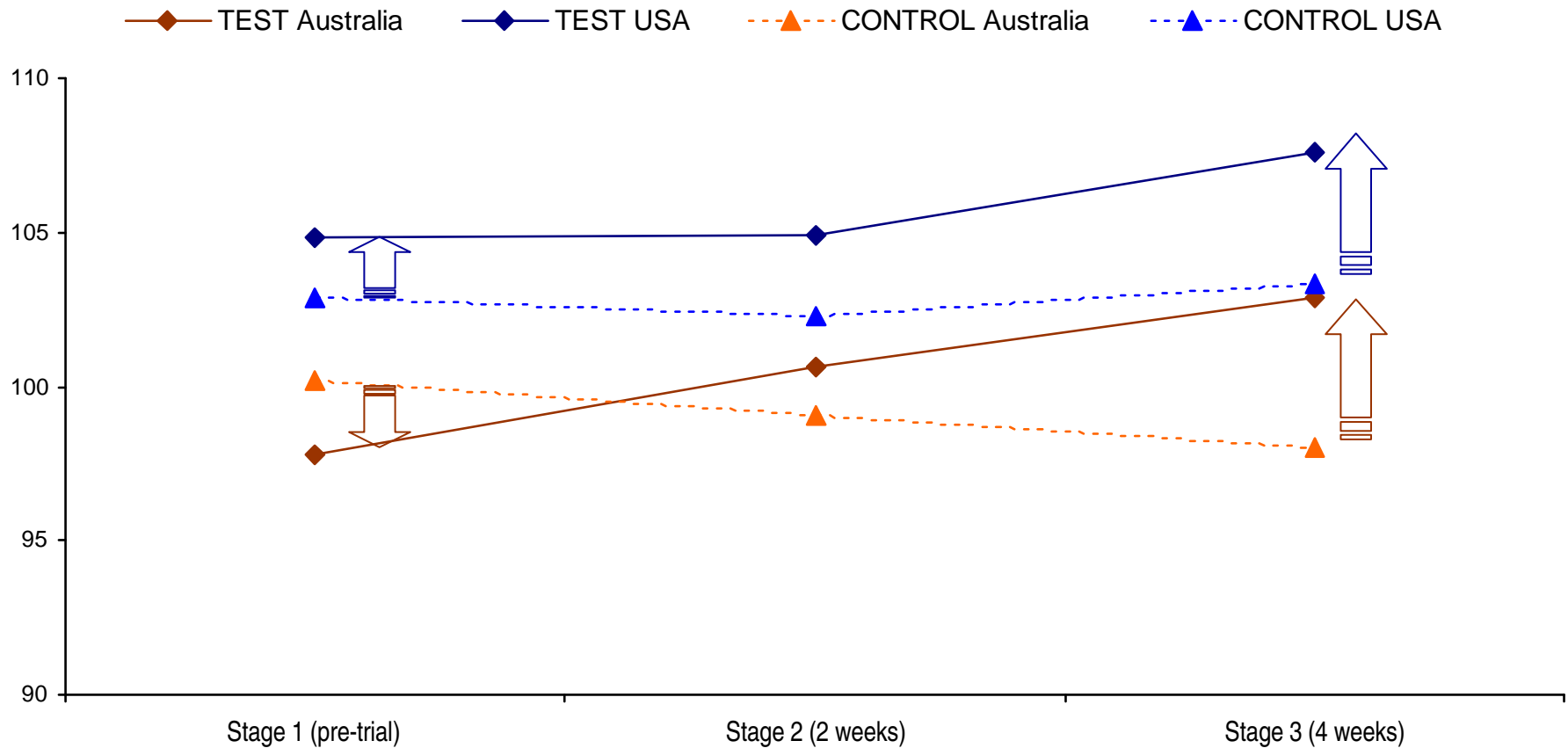
9 years of research



Sample & Methodology (2006)

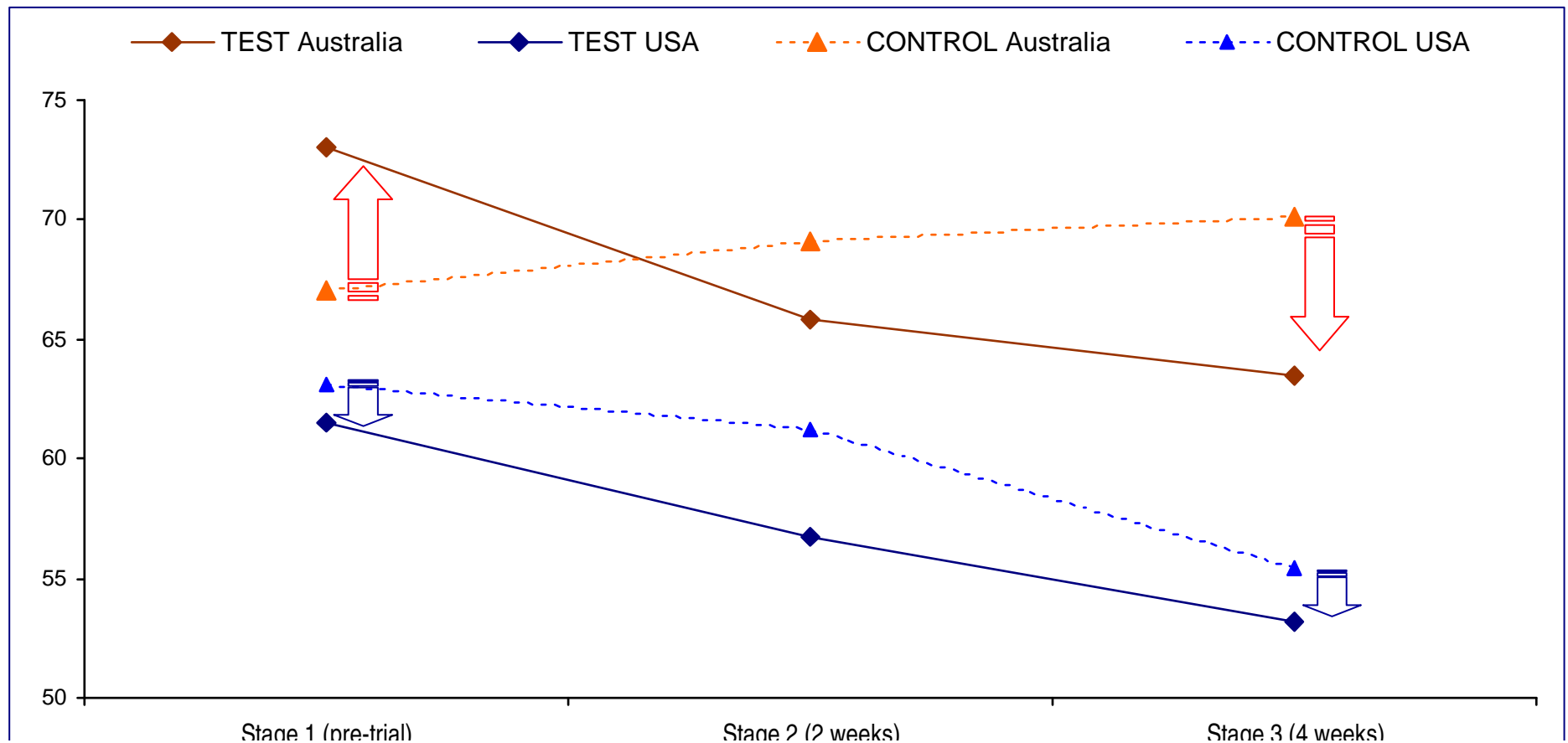
- 4-week longitudinal w/3 data points (birth, 2 wk, 4wk)
- Matched Test and Control samples
 - Two cohorts: Australia (N=113) and US (N= 219)
 - Ethnically diverse, mix of 1st-time and experienced moms
 - Healthy, full-term infants
- Standardized self-report measures
 - Maternal Self-Esteem Inventory
 - Parenting Stress Index

Psychological impact: Maternal Self-Esteem



HIGHER SCORES ARE BETTER

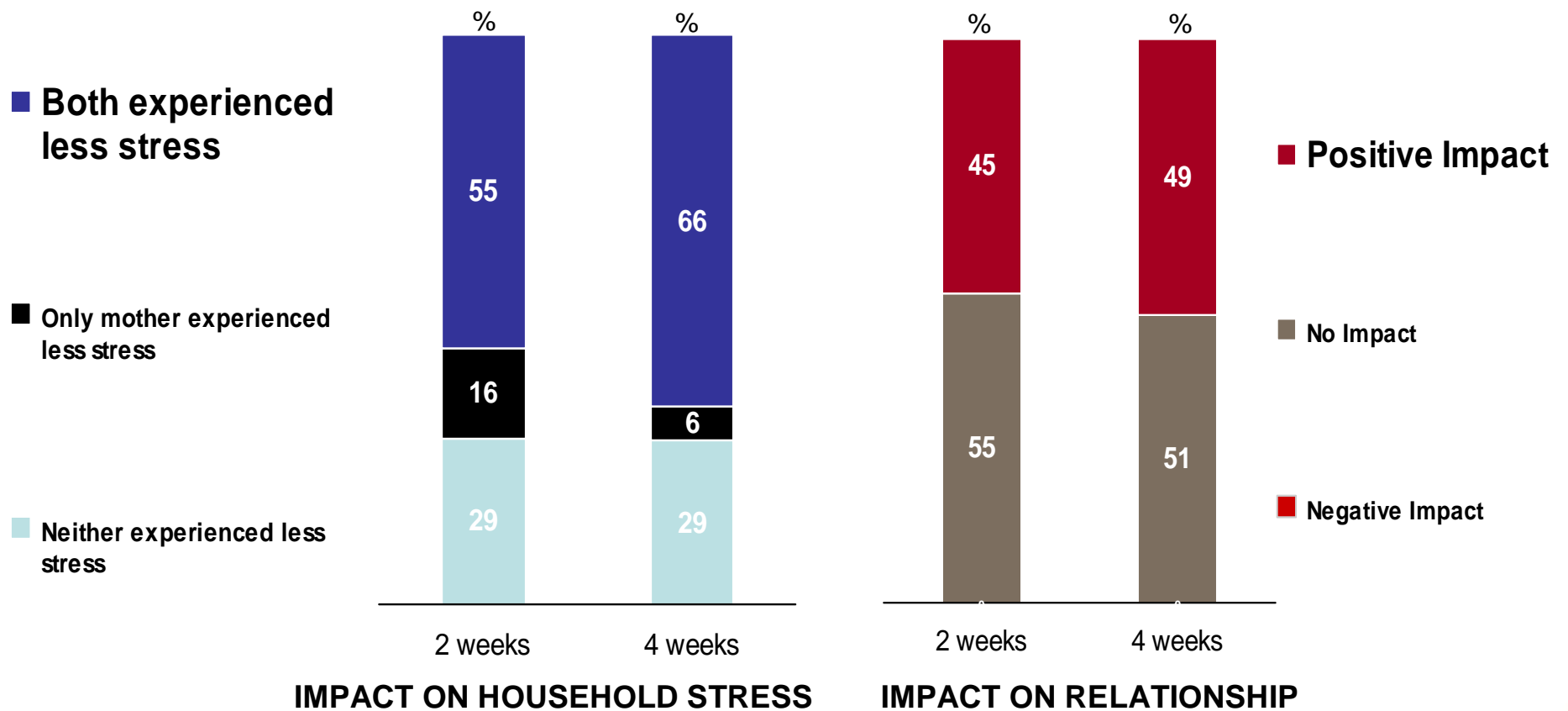
Psychological impact: Parenting Stress



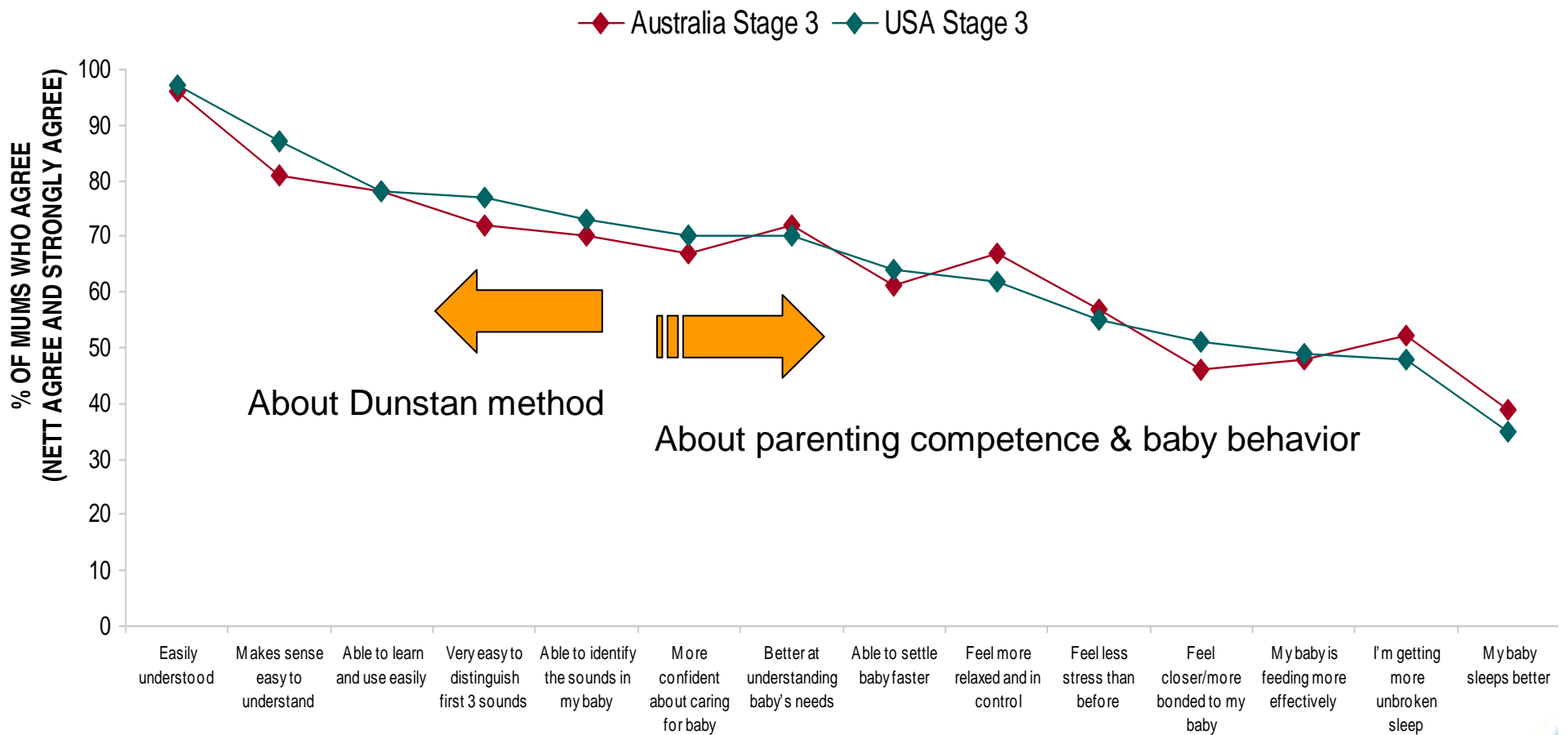
LOWER SCORES ARE BETTER

Impact on Partners

OF THE DADS WHO USED IT, 77% REPORTED A BENEFIT WITHIN 2 WEEKS, 86% WITHIN 4



Functional and Emotional Impact



Cultural differences

Effectiveness of the intervention (test-control differences)

Self-esteem = Significant at $p < .05$ for both Aus & US
biggest effect in first 2 weeks for Aus,
took until week 4 for US

Stress = Reduction was significant ($p < .05$) for
Australian but not US moms (trend)*

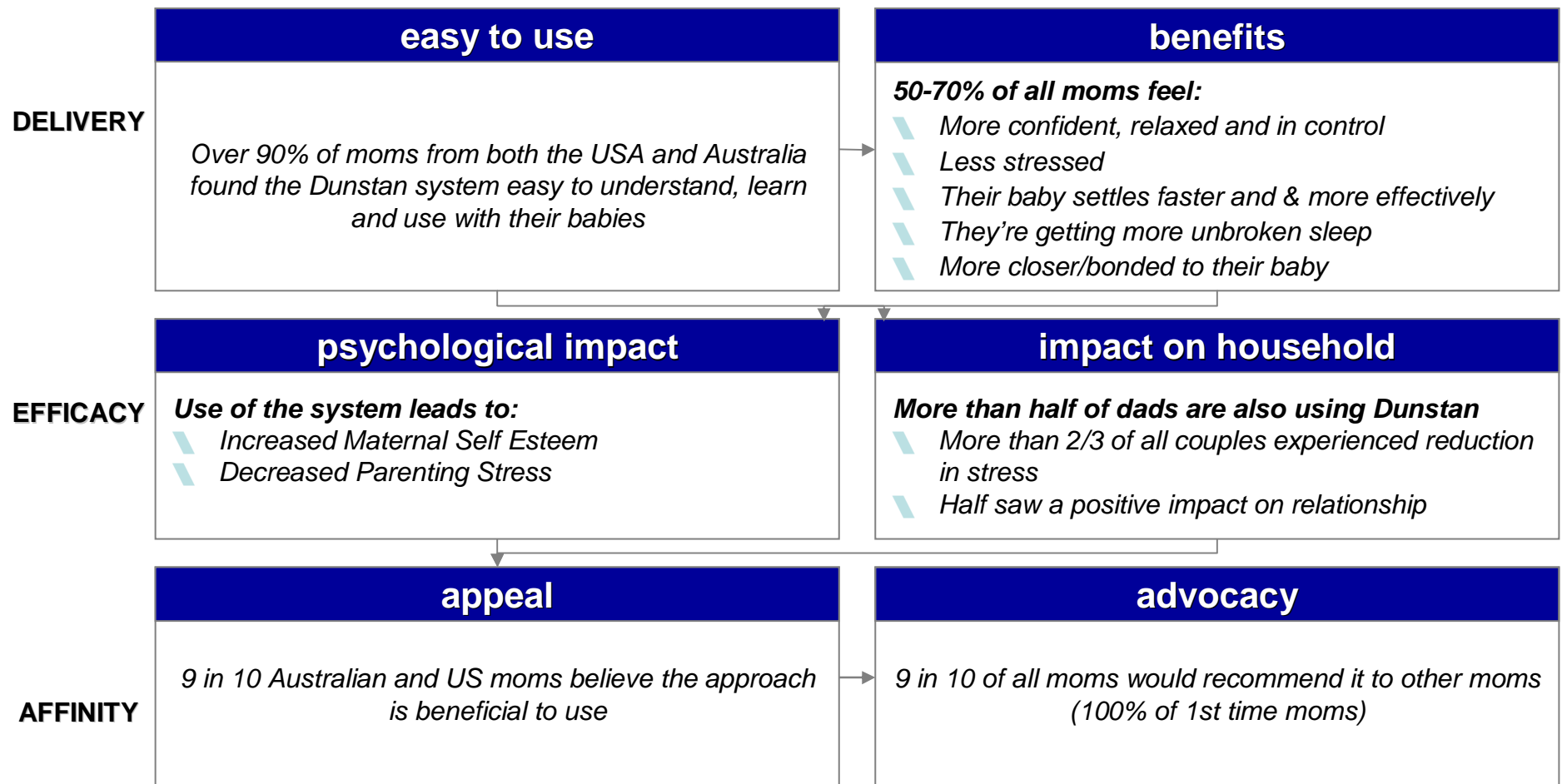
**Within the
Test groups** Stress reduction was sig. for both
Aus ($p < .05$) and US ($p < .01$)
biggest effect in first 2 weeks for both

Contextual cultural differences

Aus. Moms = Slightly older
More involved in organized
mothers' groups

US Moms = More likely to bottle feed
More involved in social/church groups
Less likely to involve Dads in program

Appraisal of the Dunstan System



NOTE: these results are based on self-taught, DVD delivery

Wrapping up...

- The potential of every waking moment is enhanced when caregivers and newborn are in sync
- Empowering parents with specific tools based on newborn cues is an effective intervention
- Professionals can benefit from programs with short-term delivery and immediate impact
- A tool that works for both Moms and Dads is a plus!

Questions?

Contact us

mobrienphd@yahoo.com

ekirby@dunstanbaby.com

