



A Test of Telepathy using Immersive Virtual Reality (VR)

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Telepathy

*... I think this will
be easy and
straightforward...*

*.. this will be
a disaster...*



Theresa May and Jean-Claude Juncker.

Telepathy using VR



- Some positive results

(e.g., Hyman, 1985)

- Associations with belief and strength of relationship between $S - R$

(Parker et al., 1997; Parker & Jensen, 2013)

- Ganzfeld

(Honorton, 1985; Honorton et al., 1990)



Sender



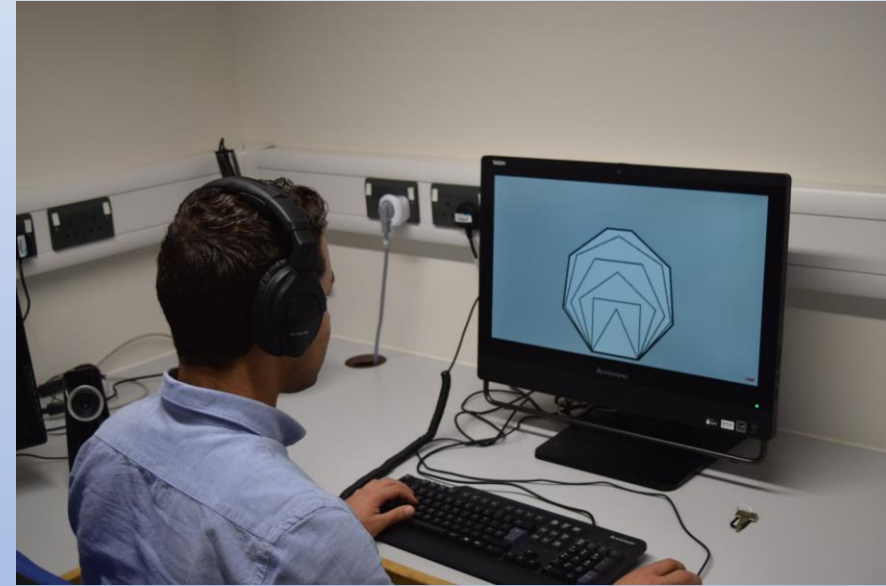
Receiver

Telepathy using VR

- Using immersive VR to boost the signal from the *Sender*



Sender



Receiver

Telepathy using VR

- Participants
 - 11 pairs (14 F, 8 M), aged 19-55 (Mean 28.7y)
 - 9 pairs self identified as 'friends' 2 were married
- Materials
 - Scales
 - Revised Paranormal Belief Scale (Tobacyk, 2004)
 - Inclusion of the Other in the Self Scale (Gächter et al., 2015)
 - Two-way radios, headphones, pink noise file
 - Gif of expanding/contracting shape
 - Target pool of 50 images from IAPS (Lang et al., 2005)
 - Created 10 sets of 5 images, each set matched for mean valence and arousal



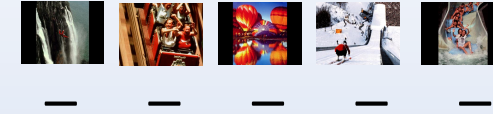
Telepathy using VR

- Materials
 - Two video sequences of 5 target VR clips, 30sec each, interspersed by 45seconds of relaxing beach clip

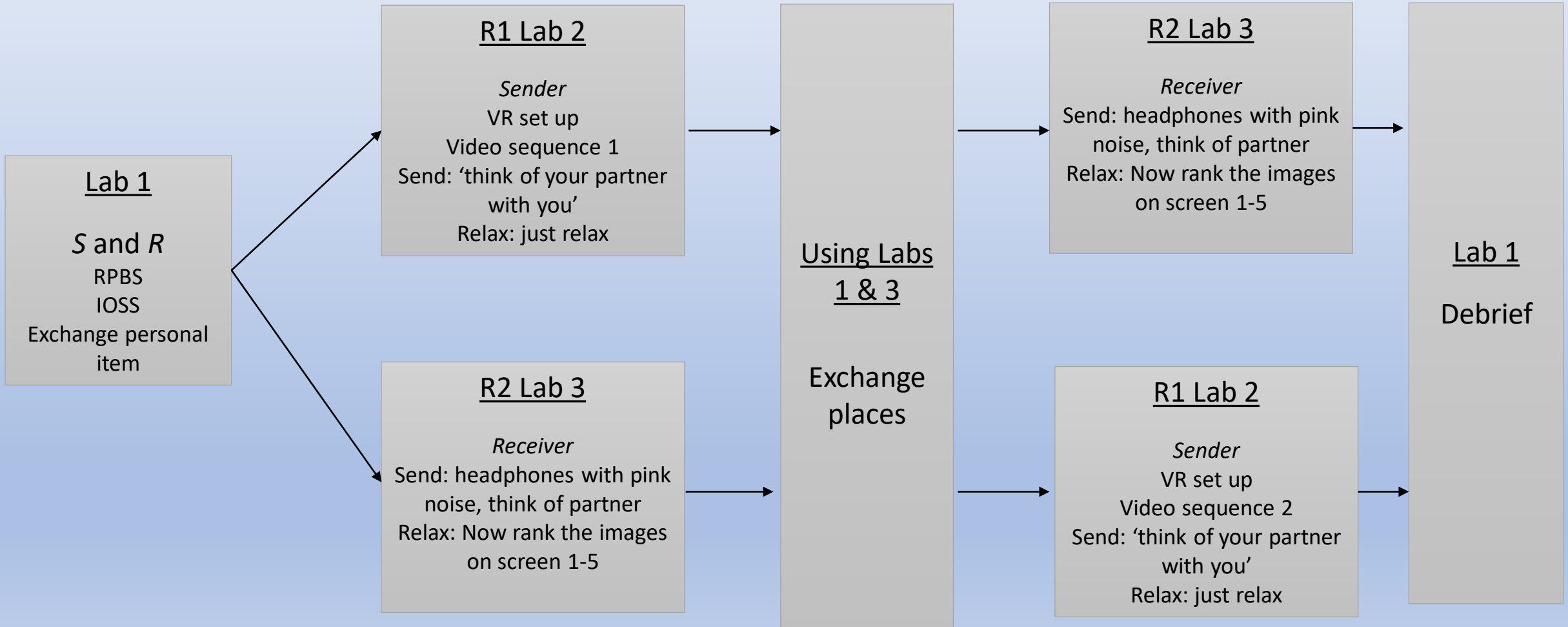


Table 1. Example of video sequence 1 showing the duration of each clip (Relaxing and Target) in the sequence

Clip	1	2	3	4	5	6	7	8	9	10
Duration	45sec	30sec	45sec	30sec	45sec	30sec	45sec	30sec	45sec	30sec
Type	Relax	Target1	Relax	Target2	Relax	Target3	Relax	Target4	Relax	Target5



Procedure





Telepathy

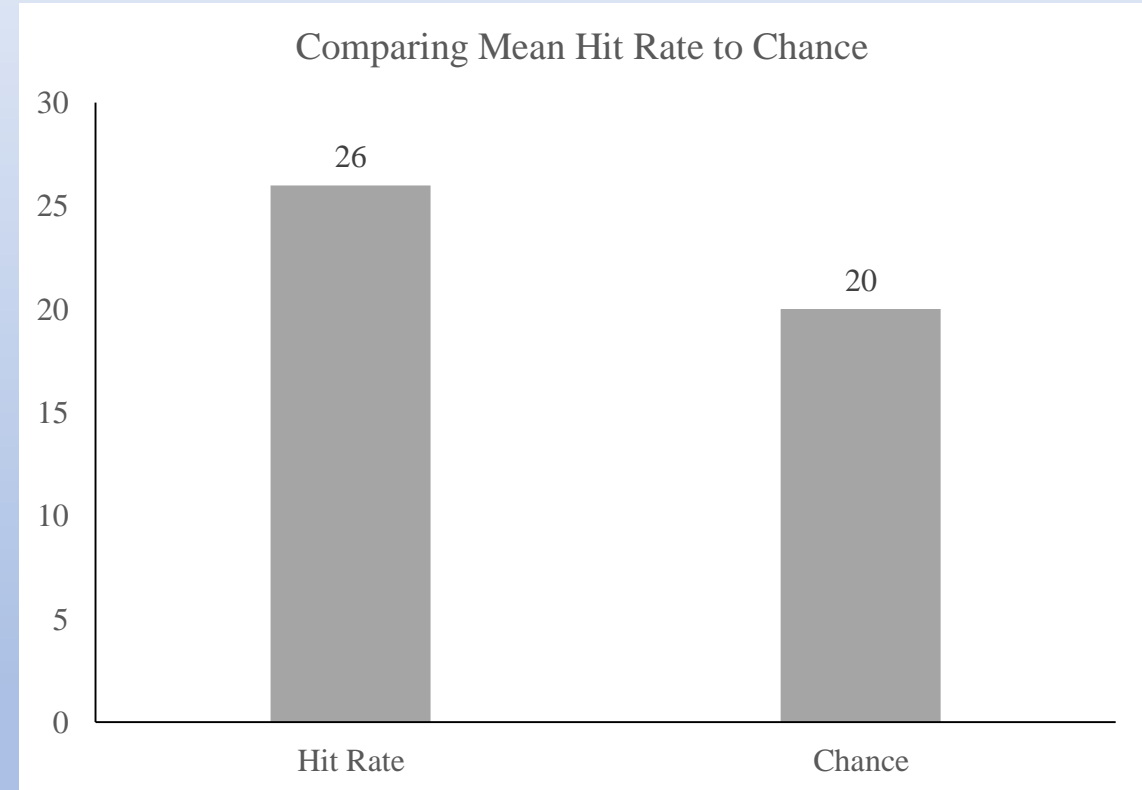


- Cleaning

- Excluded 1 participant who ranked more than one image '1'

- Results

- Hit rate
 - *Receiver* ranked the target image as 1
- Compared mean hit rate to chance (20%)
- Positive correlation between mean hit rate and the psi sub-scale of the RPBS ($p=0.04$)
- No other correlations were significant (all $ps > 0.3$).

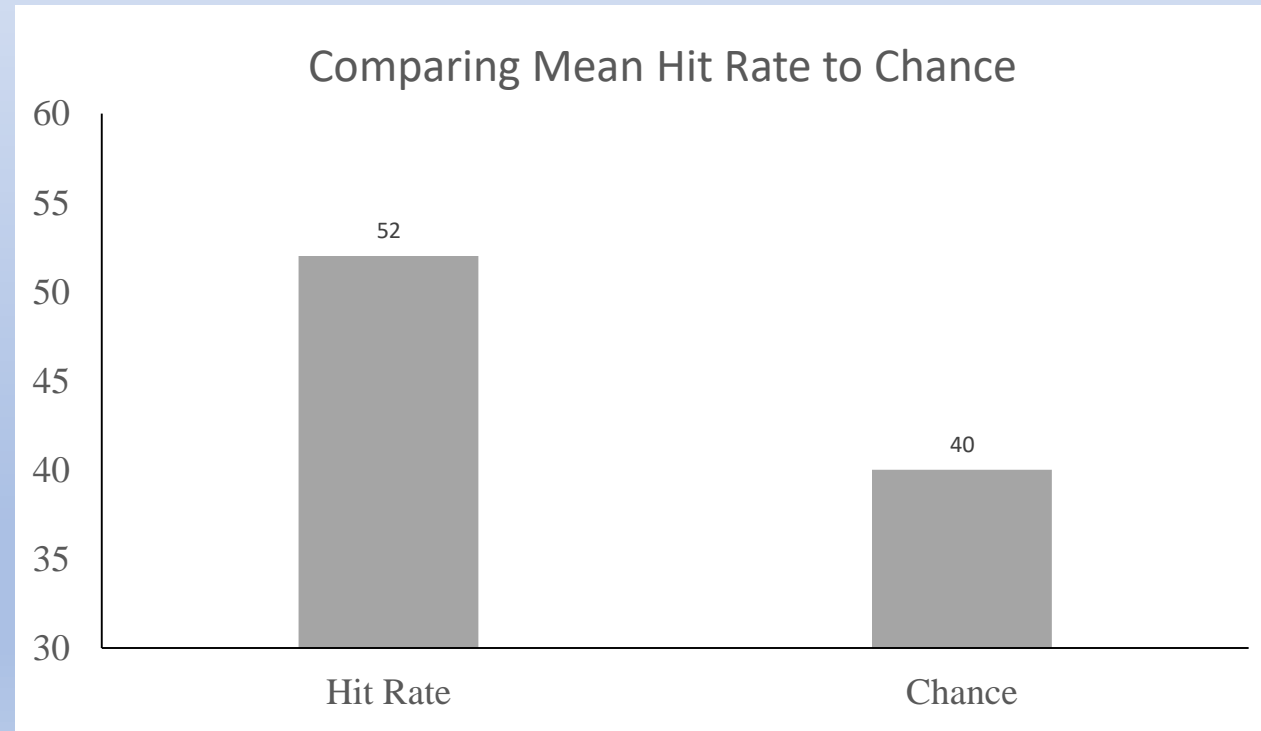


$t(20), 1.101, p=0.14, 95\% \text{ CI } (-0.051, 0.0165), d=0.24.$

Telepathy



- Post hoc exploration
 - Using a Bonferroni correction ($\alpha/2=0.025$) compared top two ranks to chance



(one-tailed): $t(19)$, 2.259, $p=0.018$, 95% CI (0.008, 0.231), $d=0.50$.

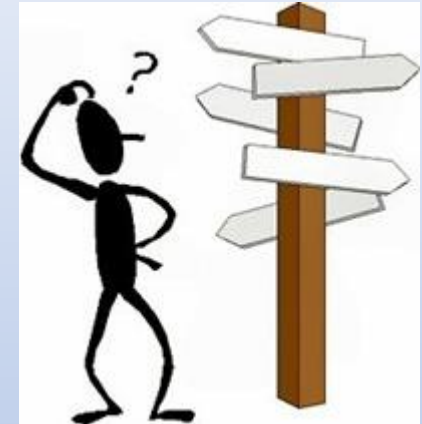
Telepathy using VR

- Discussion

- No clear effect of telepathy when looking at single hit rate
 - Consistent with some
(Hyman, 2010; Milton & Wiseman, 1999)

- Though **possible** indication when looking at top two choices
 - Would be consistent with others
(Bem & Honorton, 1994; Storm et al., 2010)

- Positive association with belief in psi (RPBS)
(Parker et al., 1997)



Telepathy using IVR



- Issues and Next Steps

- Assume targets were 'arousing' but no physiological measure was taken
 - Could include physiological measures of both S and R
- Intense trial sequence
 - May have led to confusion and/or sensory leakage from one target to another
- Target duration too short?
 - Could use multiple repetitions of a single target
- Target pool too similar?
 - Were the targets distinct enough?
- Too many trials, too few participants?
 - Please don't mention twins!
- More time for *Receiver* to relax?
 - Adhere more closely to Ganzfeld paradigm
 - Put the *Receiver* in a floatation tank
- Measure of success: hit vs ranking?
 - Obtain mentation report from *Receiver* then have them rank images 'and' obtain objective rankings based on their mentations?



A well-educated mind will always
have more questions than answers.

— Helen Keller —

AZ QUOTES



Thank You



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Technician



Richard Weatherall
Senior Tech Wizard



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