Psychosis Clinical Academic Group (CAG)

Institute of Psychiatry

at The Maudsley

University of London

The route to psychosis: what differentiates individuals with psychotic experiences with and without a 'need for care'?

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Steffen Moritz
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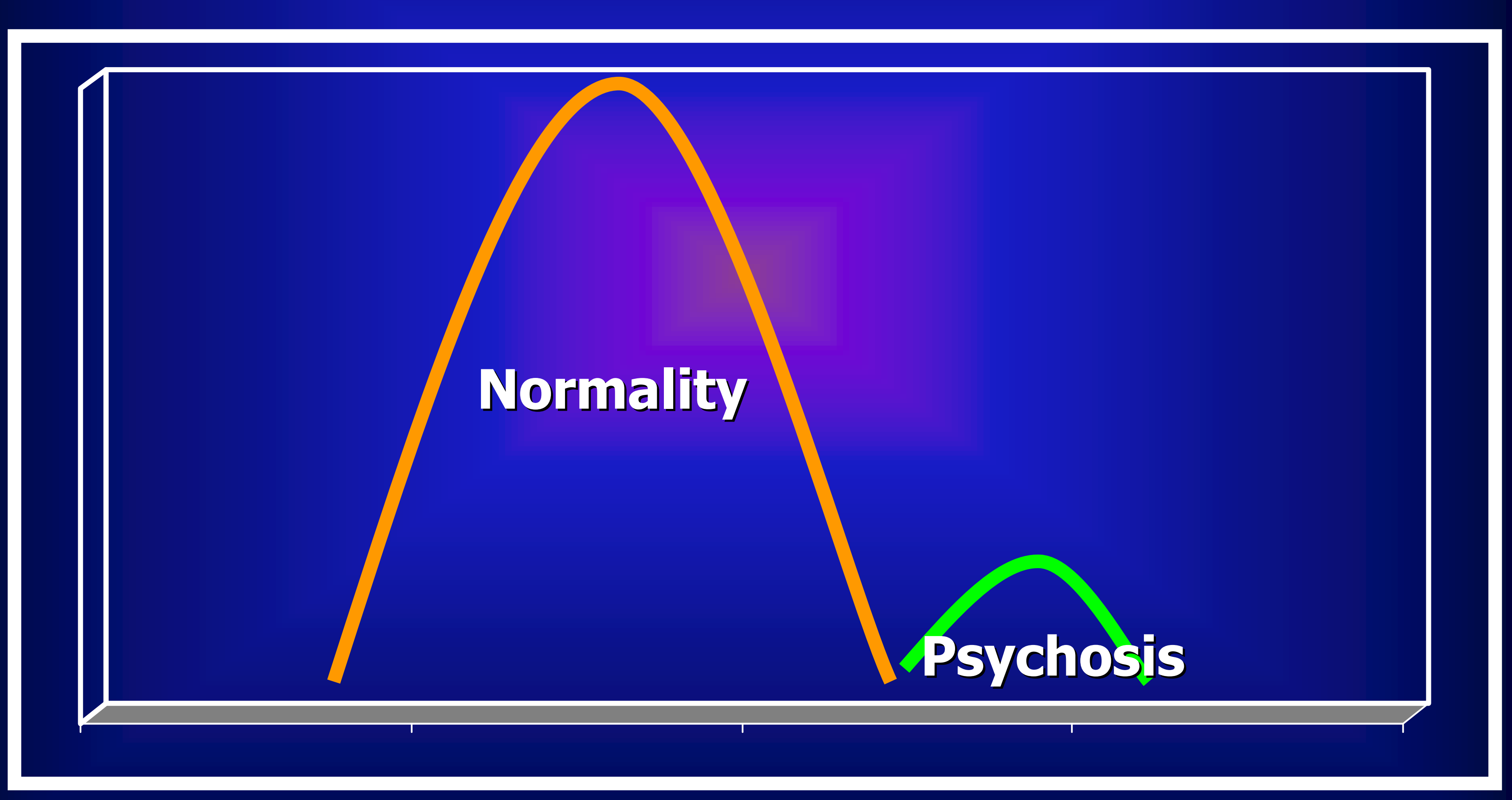
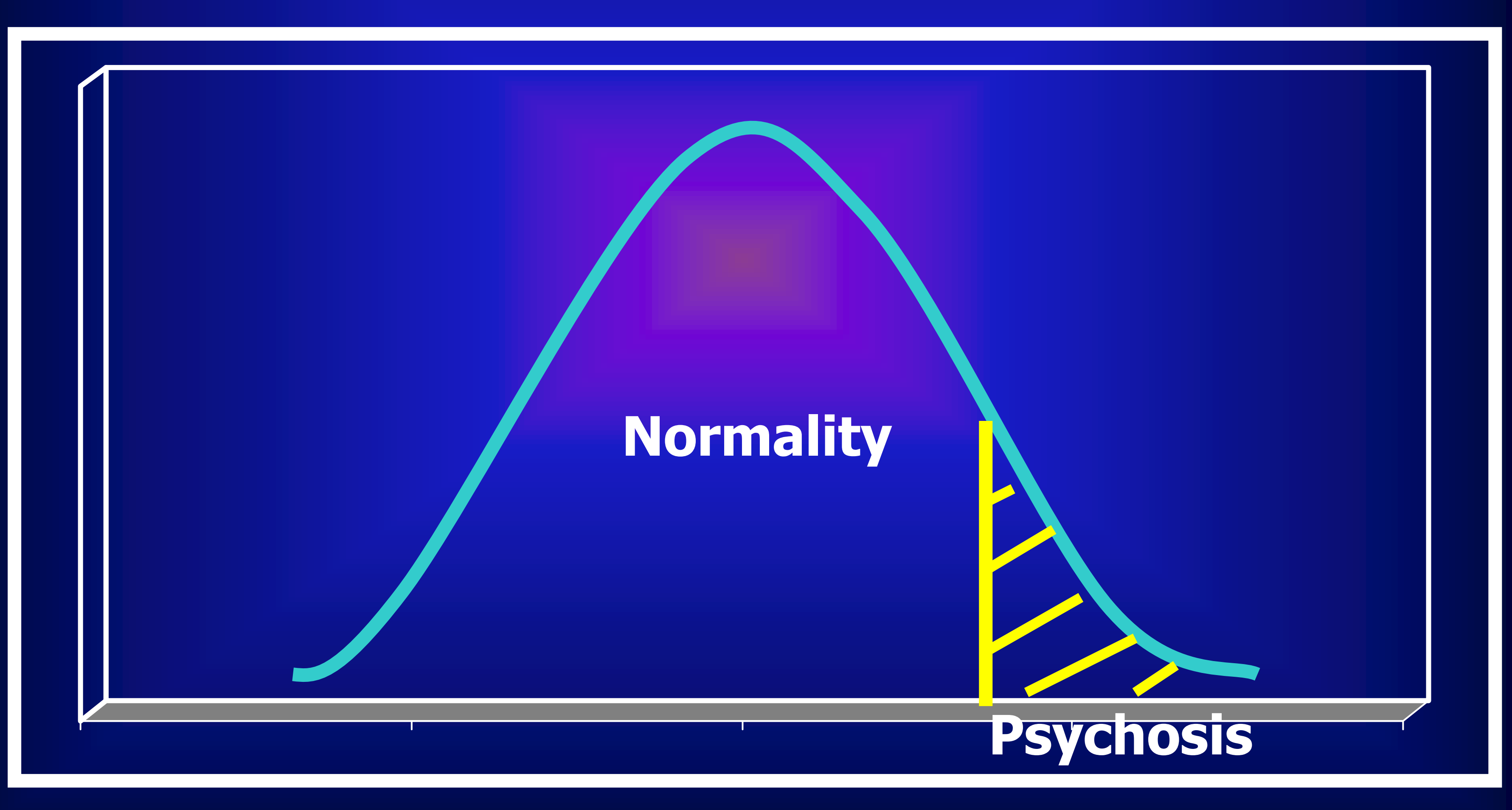
Psychosis is a disorder of the brain

Psychosis as a distinct category



Psychosis on a continuum



Psychotic experiences in general population are common

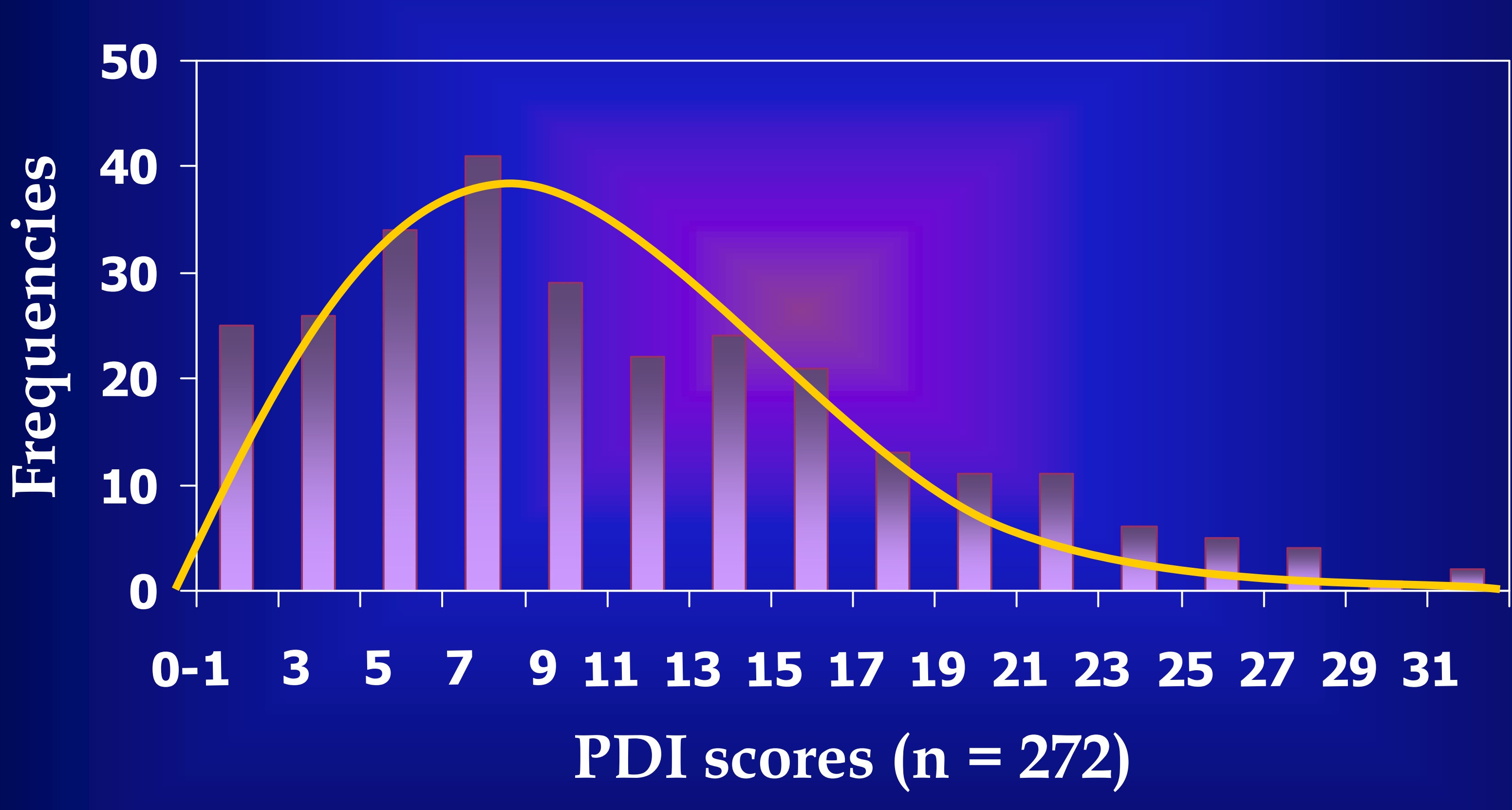
Van Os et al (09) A systematic review and meta-analysis of the psychosis continuum.

Psychological Medicine, **39**, 179-195

- 47 studies (35 cohorts yielding 217 estimates of prevalence/1-year incidence)
- Median prevalence rate of around 5%
- Median incidence rate of around 3%
- With distress, prevalence = 4%
- Without distress, prevalence = 8%

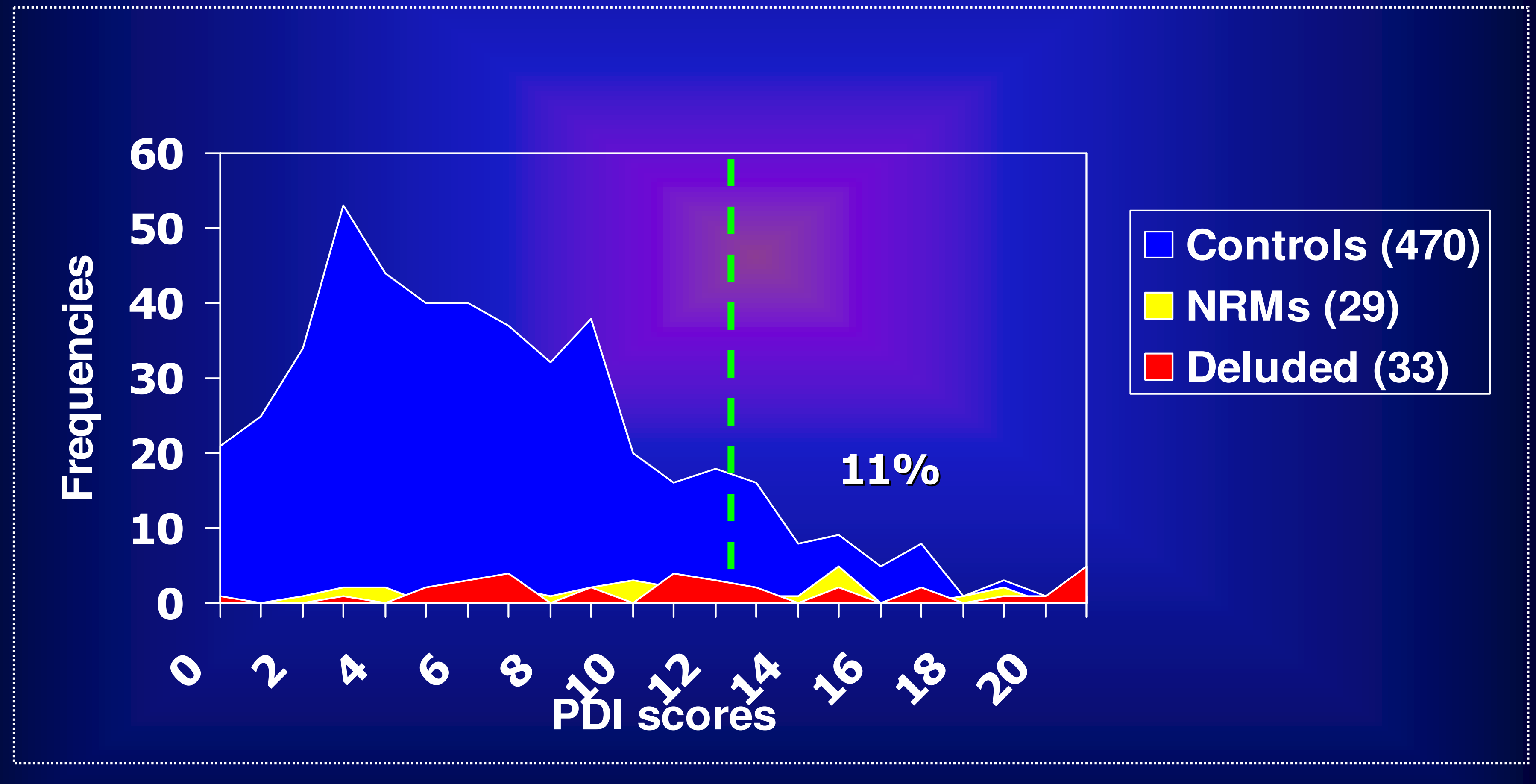
Delusions

PDI-40 – distribution of scores in general population



Peters et al (99b) *Schizophrenia Bulletin,* 25, 553-576;

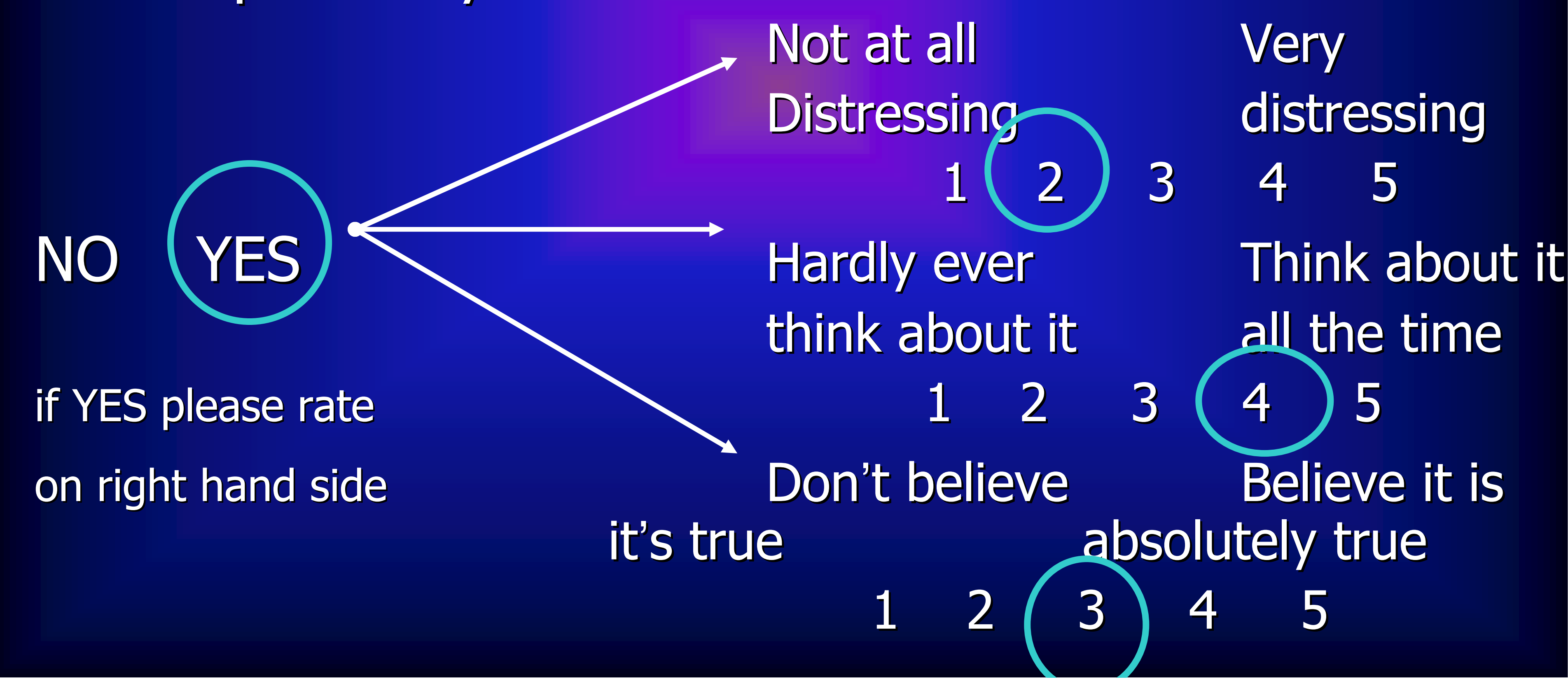
Comparison between controls, New Religious Movements & deluded



Peters et al (99a) *British Journal of Clinical Psychology,* 38, 83-96

Dimensions of the PDI

Do you ever think people can communicate telepathically?



PDI dimensions (New Religious Movements vs. inpatients)

	NRMs (n = 29)	Deluded (n = 33)
PDI	11.5	11.8
Distress	22.8	36.2 ***
Preoccupation	24.9	37.6*
Conviction	39.8	49

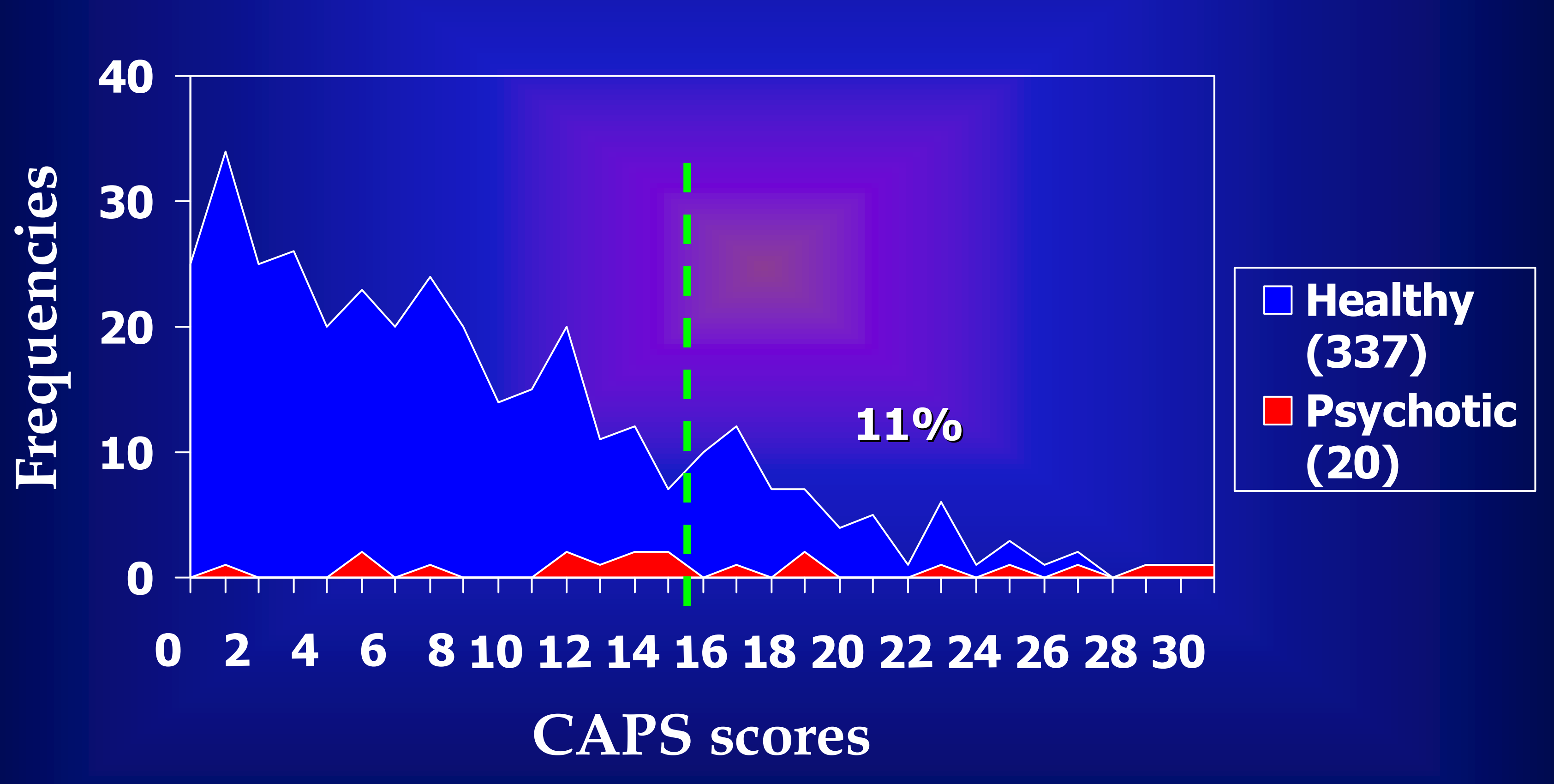
***: *Mann-Whitney tests*

Peters et al (99a) *British Journal of Clinical Psychology*, 38, 83-96

It’s not *what* you believe, it’s *how* you believe it

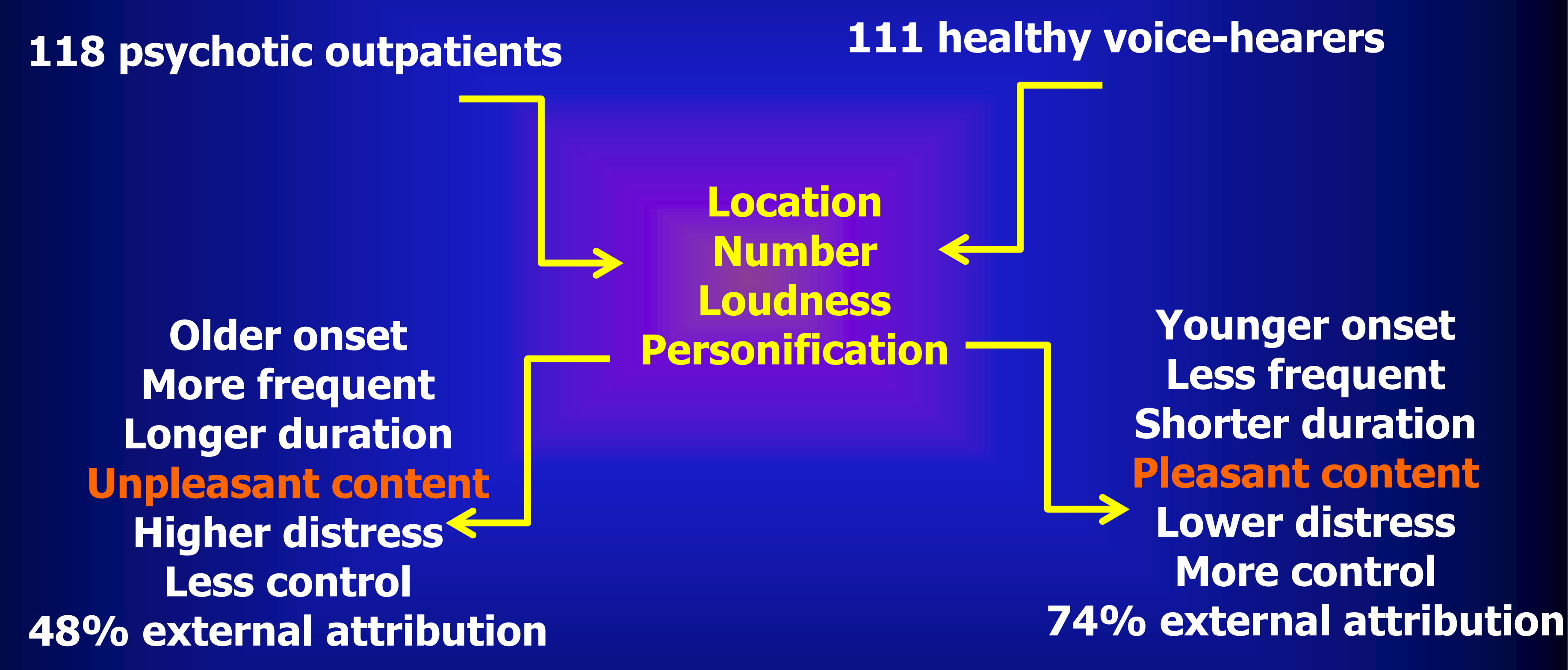
Hallucinations

Comparison between healthy & psychotics on CAPS



Bell et al (2006) *Schizophrenia Bulletin*, 32, 366-377

Same or different? Voices in psychotic and healthy samples



Daalman et al (11) *Journal Clinical Psychiatry*, 72, 320-325

Beliefs and relating to voices in psychotic and healthy samples

22 psychiatric (Andrew et al) 21 healthy voice-hearers
32 psychiatric (Sorrell et al) 18 healthy voice-hearers

Location
Number
Personification
Gender & identity of voice

Psychiatric	Healthy
Louder	Quieter
Older onset	Younger onset
More frequent	Less frequent
Longer duration	Shorter duration
Unpleasant content	Pleasant content
Higher distress	Lower distress
Less control	More control
41% external attribution	33% external attribution
Omnipotent & malevolent beliefs	Benevolent beliefs
Dominant, intrusive	Engagement and closeness
Resistance and distance	

Andrew et al (08) *Psychological Medicine*, 38, 1409-1417
Sorrell, Hayward & Meddings (10) *Behav & Cogn Psych,* 38, 127-140

Developing good relationships with voices (both healthy & psychiatric)

Core processes	**Diminishing fear** **Establishing control**		
Categories that impact on core processes	Relating to voice and self	Connecting with a community	Developing personally meaningful narrative
Subcategories	Personification of voices Actively engaging Asserting boundaries Developing strong sense of self and independence	Seeking understanding through others Developing sense of belonging	Finding hope and meaning: spirituality, culture and trauma Integrating and accepting voices: creating balance

Jackson, Hayward & Cooke (12) ***Int Journal Social Psychiatry*****,** ***57*****, 487-495**

It’s not *what* you hear, it’s *how* you relate to it

(although content is important)

Cognitive models of psychosis

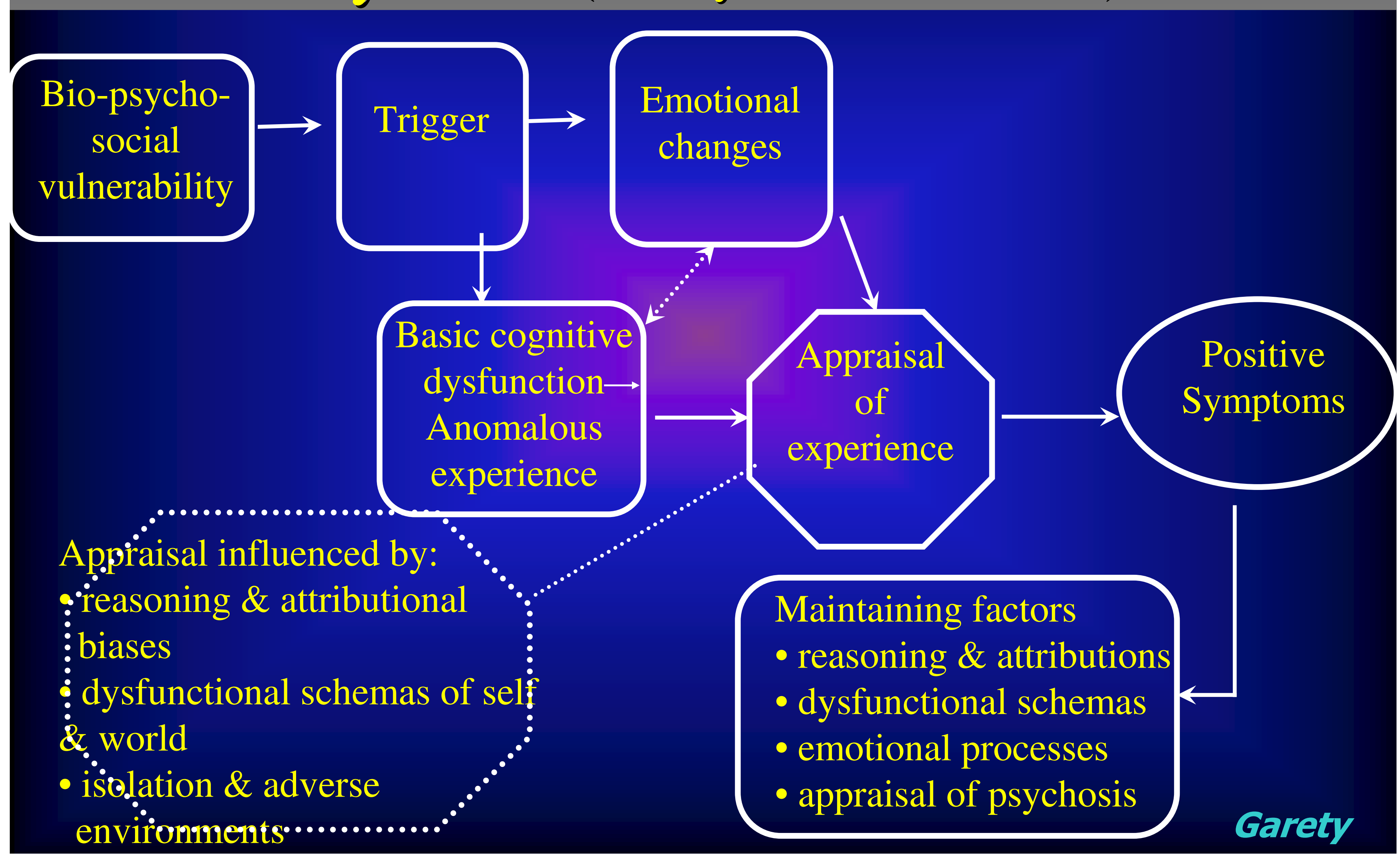
Basic Cognitive Model

Events and experiences

Symptoms

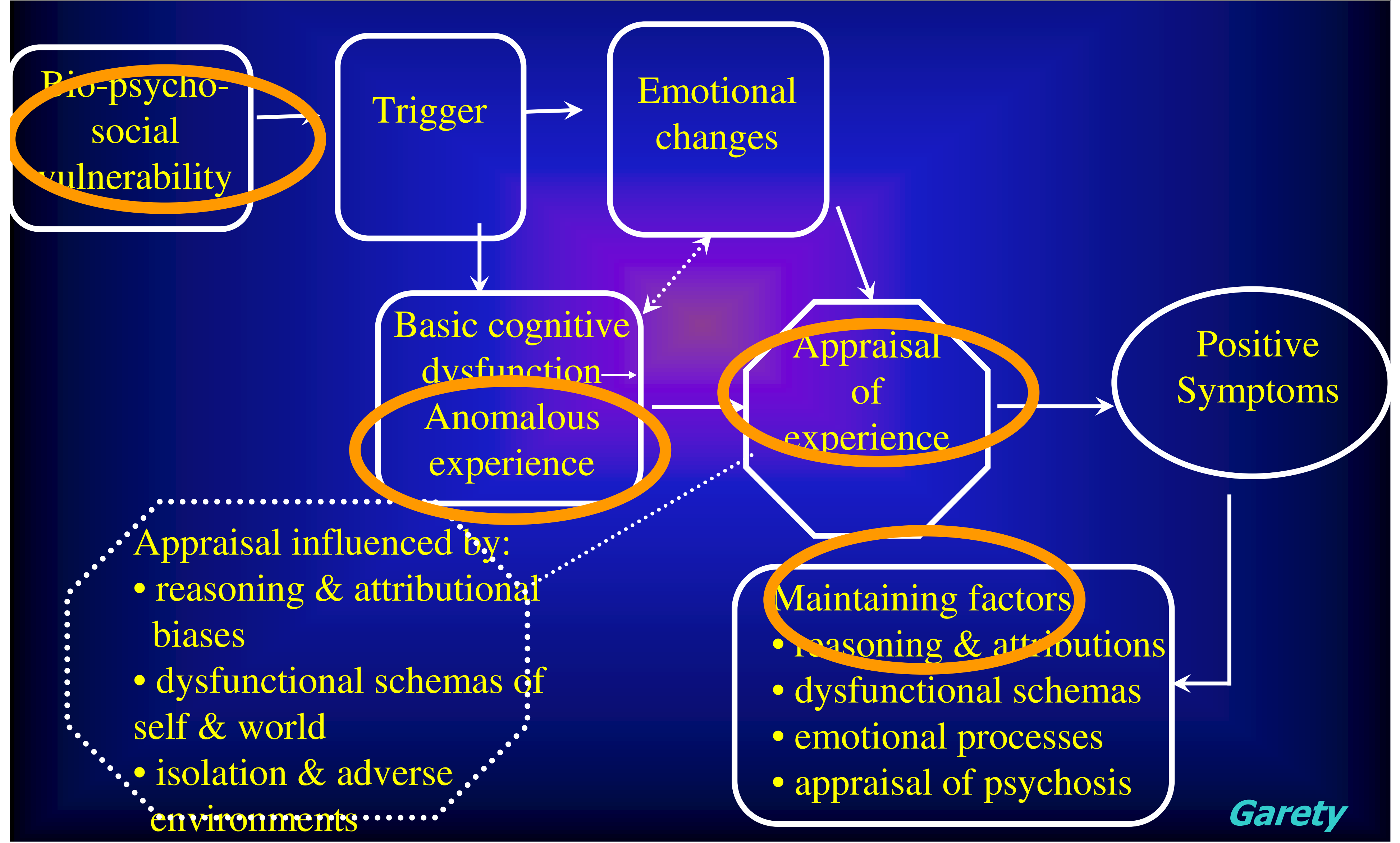
Slide reproduced with permission from Philippa Garety

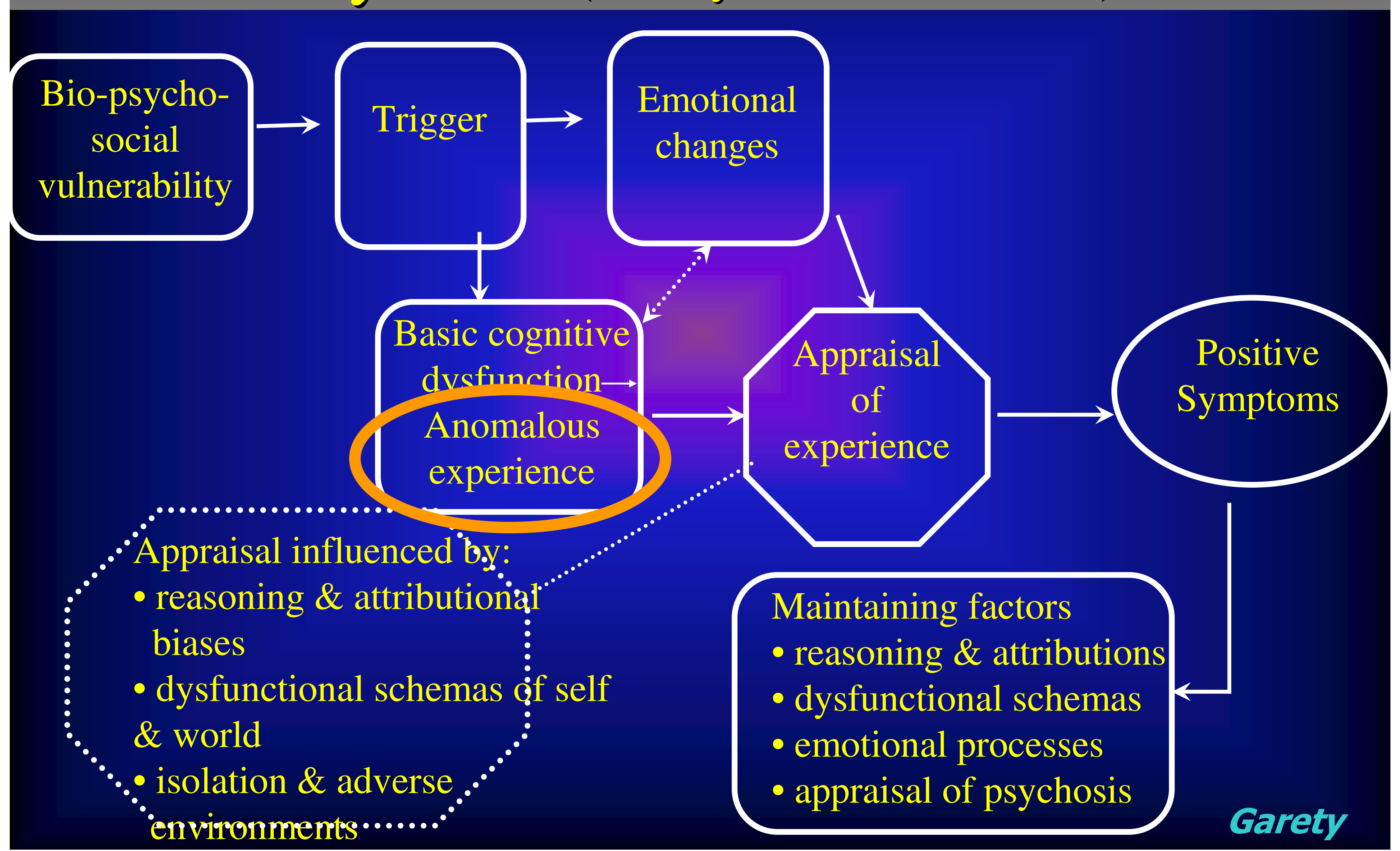
A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007)



What is the pathway to psychosis?

A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007)




A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007)
Bio-psycho-social vulnerability
Trigger
Emotional changes
Basic cognitive dysfunction
Anomalous experience
Appraisal of experience
Positive Symptoms
Appraisal influenced by:
• reasoning & attributional biases
• dysfunctional schemas of self & world
• isolation & adverse environments
Maintaining factors
• reasoning & attributions
• dysfunctional schemas
• emotional processes
• appraisal of psychosis
Garety

Appraisals of Anomalous Experiences Interview (AANEX)

- **Meaning/reference:** e.g. ideas of reference, sense of having insights, elation
- **Cognitive/Attentional:** e.g. thought blockages, distractibility, loss of automatic skills
- **Hallucinatory/Paranormal:** e.g. visual or somatic hallucinations, passivity, magical and precognitive experiences.
- **Dissociative/Perceptual:** e.g. depersonalisation, derealisation, Out of Body Experiences, oversensitivity to stimuli
- **First Rank Symptoms:** e.g. voices, thought transmission and insertion, 'made' emotions

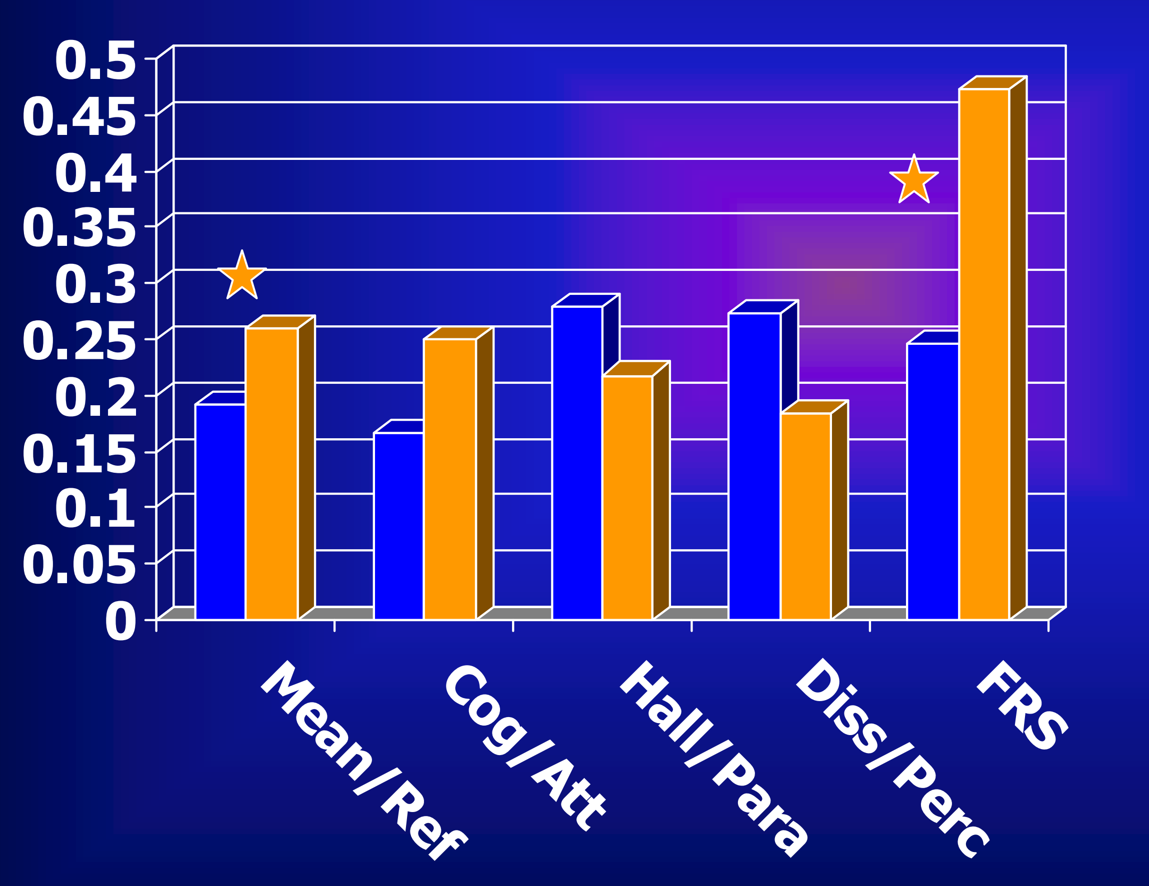
Brett et al (2007) *British Journal of Psychiatry,* 191 (Suppl. 51), s23-s30.

Participants

Undiagnosed	Diagnosed	'At Risk'
n = 38	n = 37	n = 21
Age = 25 – 51yrs (mean = 34 yrs)	Age = 17 – 62yrs (mean = 32 yrs)	Age = 19 – 29yrs (mean = 24 yrs)
Male/Female = 20/18	Male/Female = 20/17	Male/Female =14/7
Advertisement + Screening	Inpatients and Outpatients	OASIS clinical service

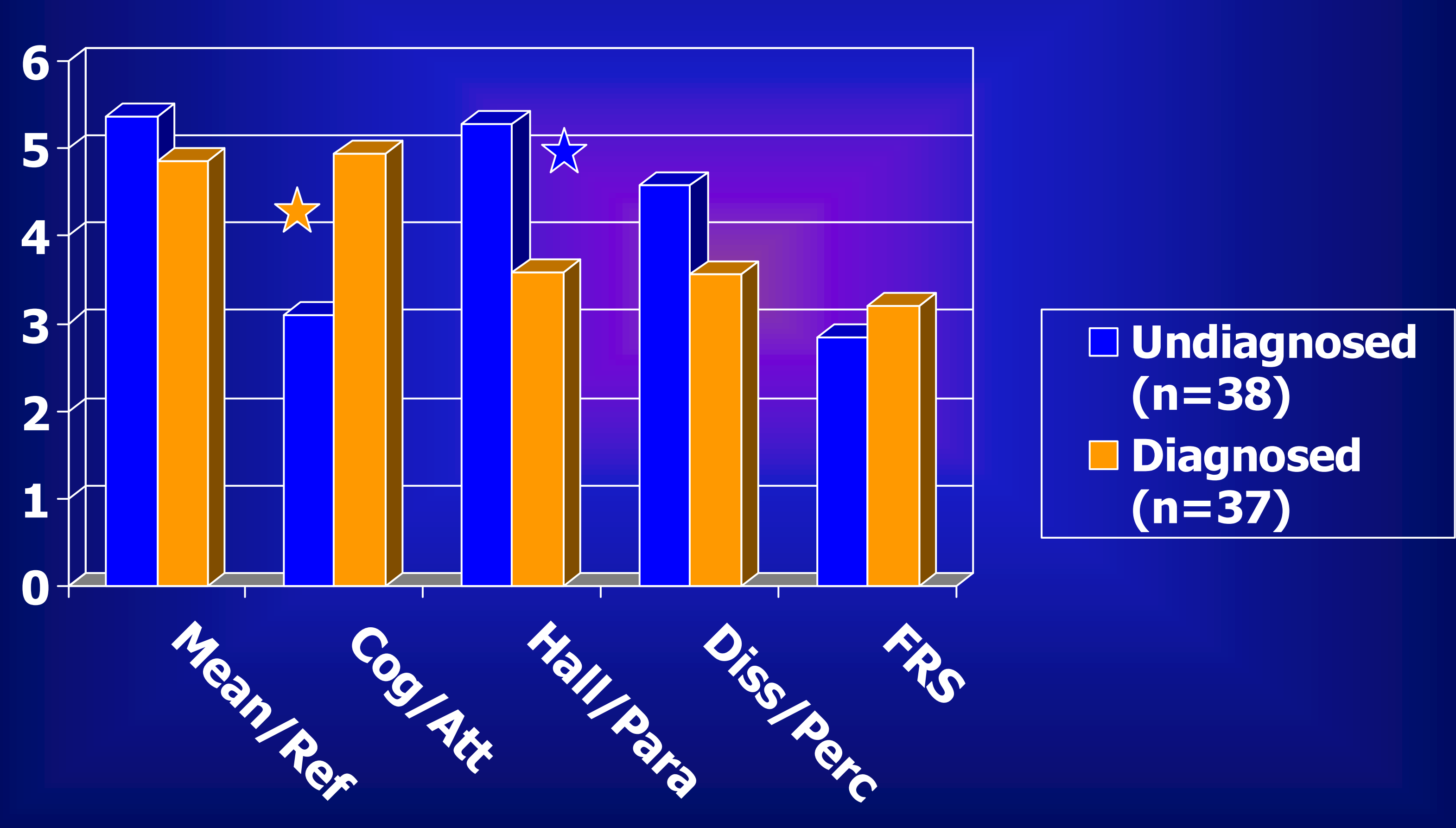
Is there a continuum of severity of experiences between undiagnosed and diagnosed individuals?

Is there a *quantitative* difference? (1) Frequency of experiences

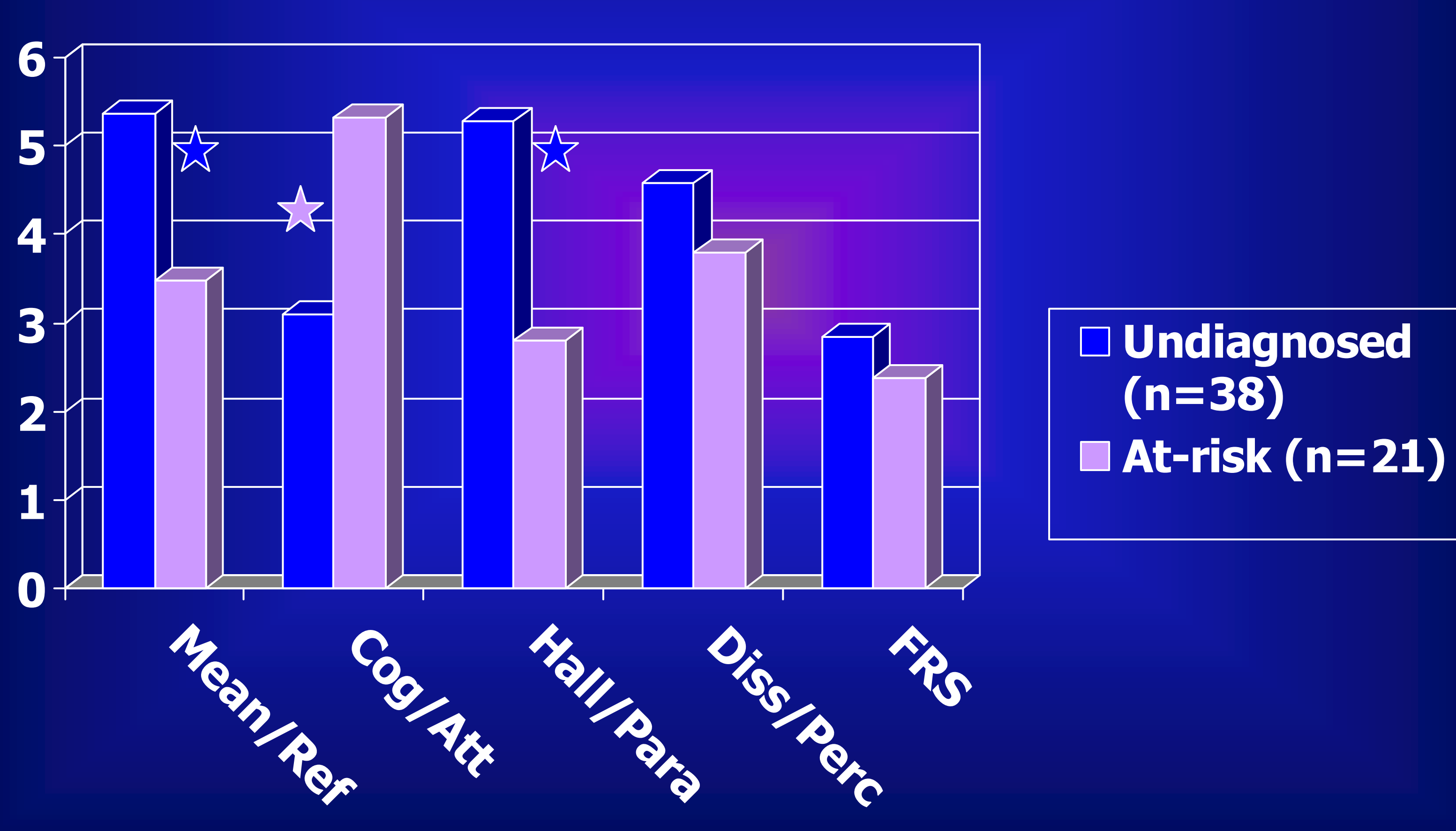


Do the undiagnosed and diagnosed groups have different types of experiences?

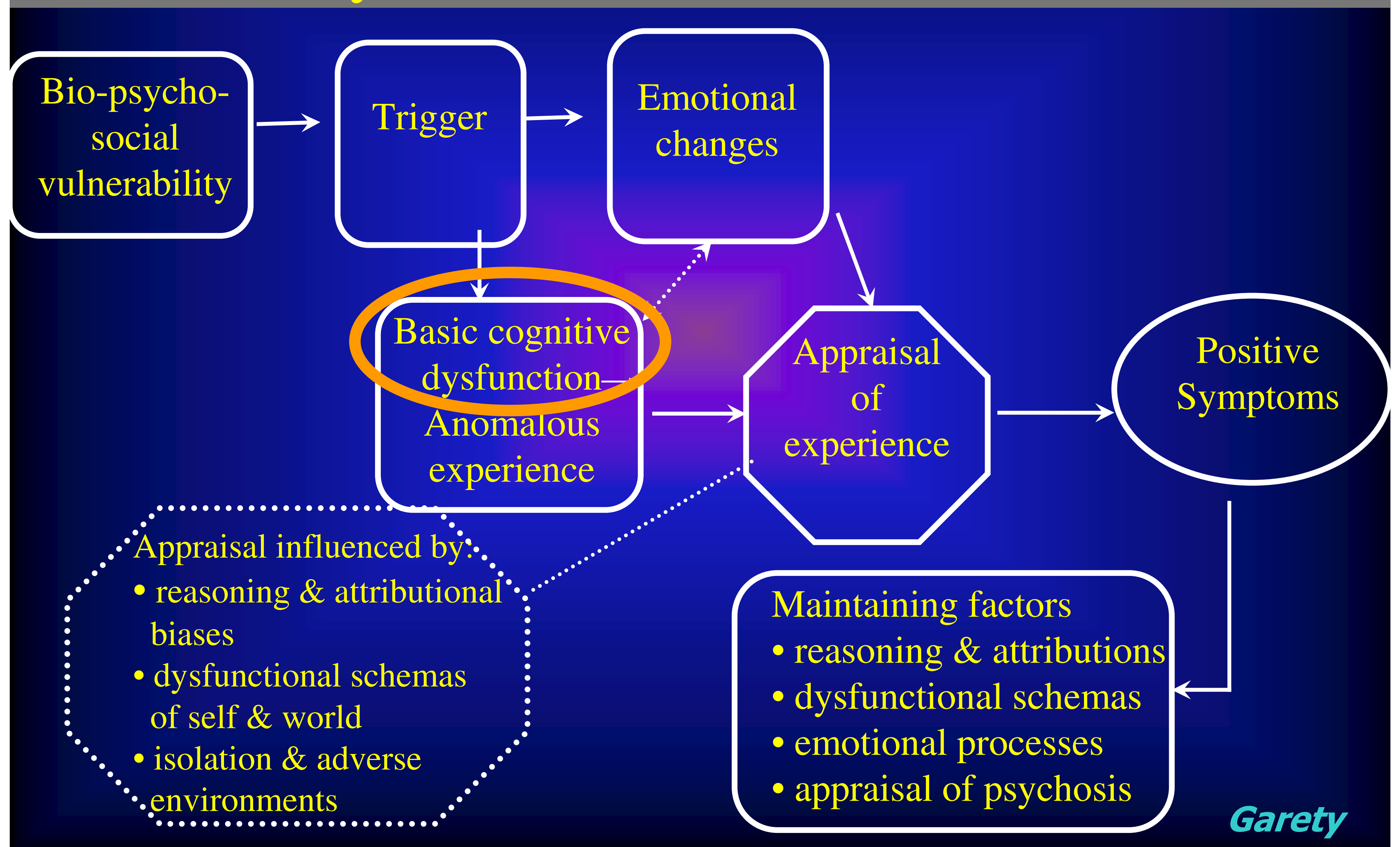
Is there a *qualitative* difference? (2) Types of experiences



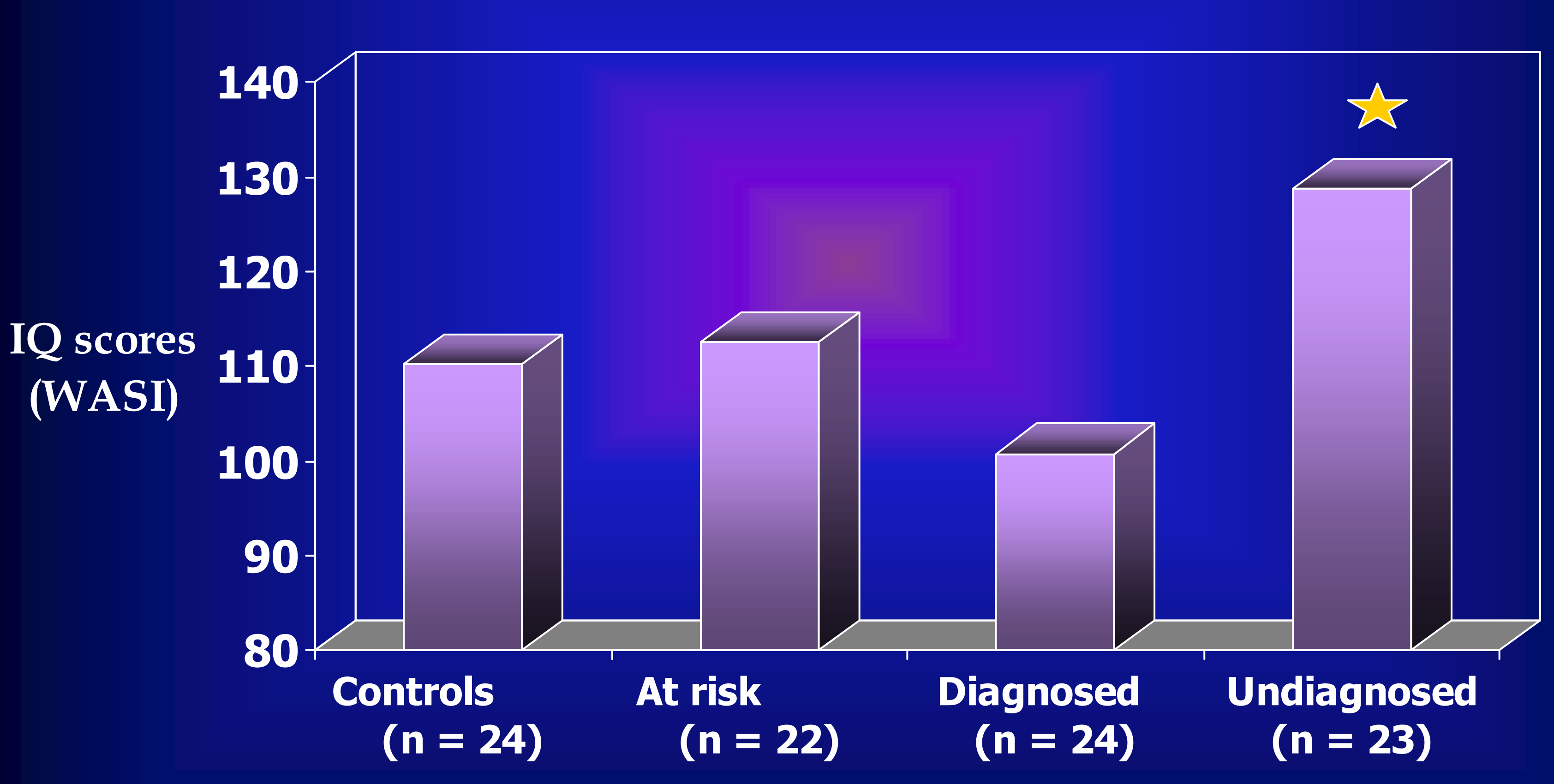
Qualitative differences between undiagnosed and “at-risk” group



A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007)



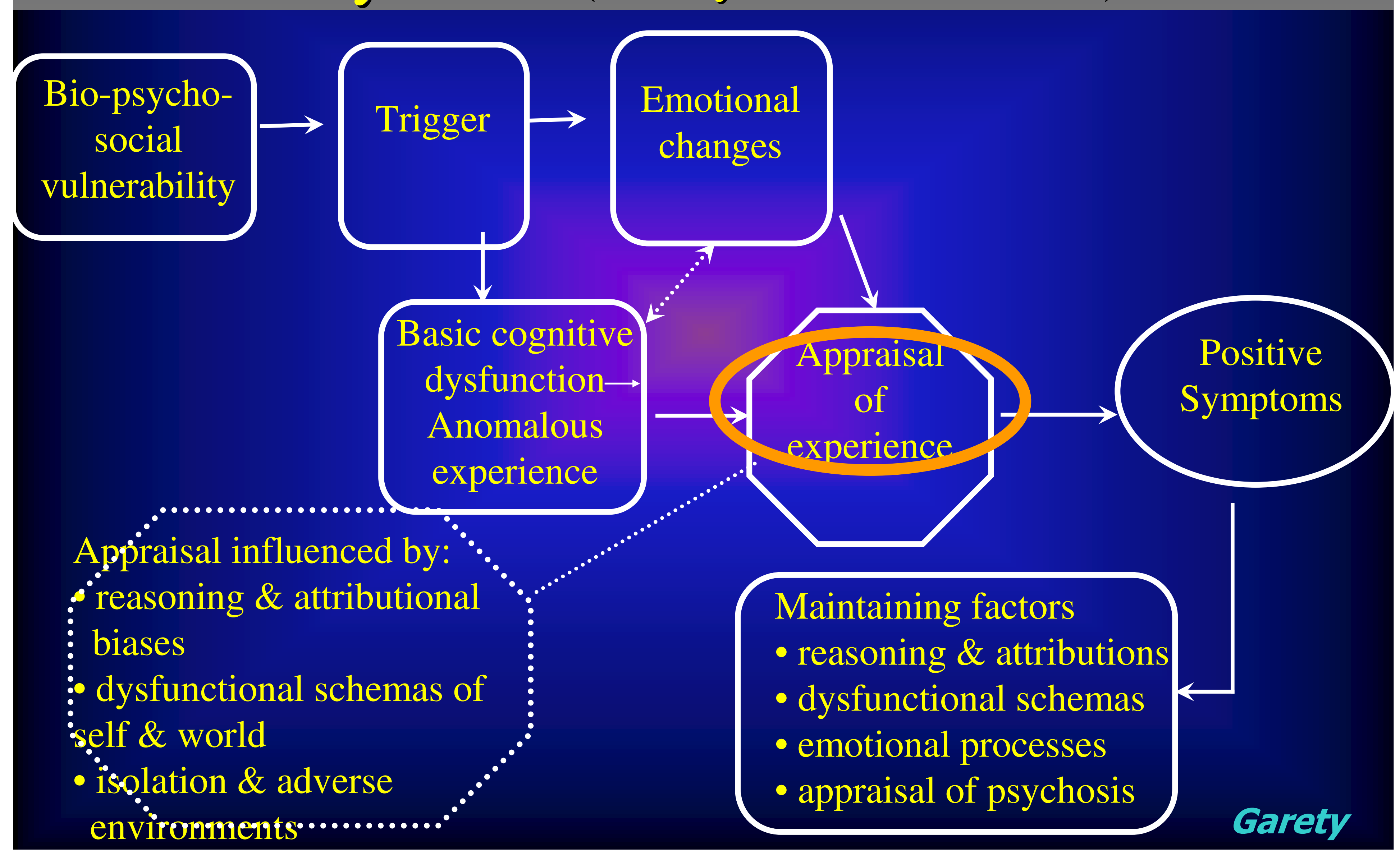
IQ scores in undiagnosed and diagnosed groups (Brett, unpublished PhD



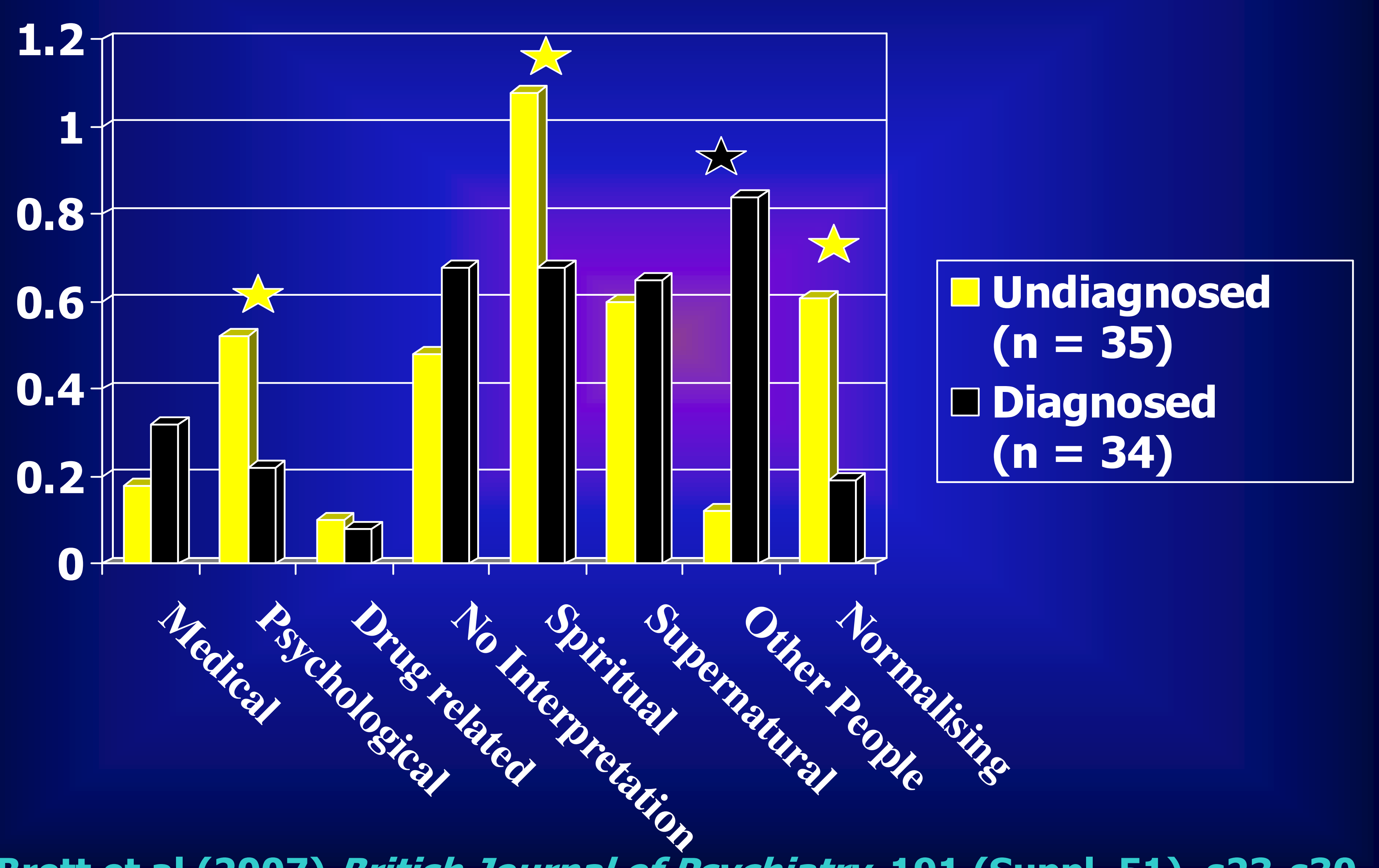
It's not *what* you experience, it's *how much* you experience it

[but cognitive difficulties important]

A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007)

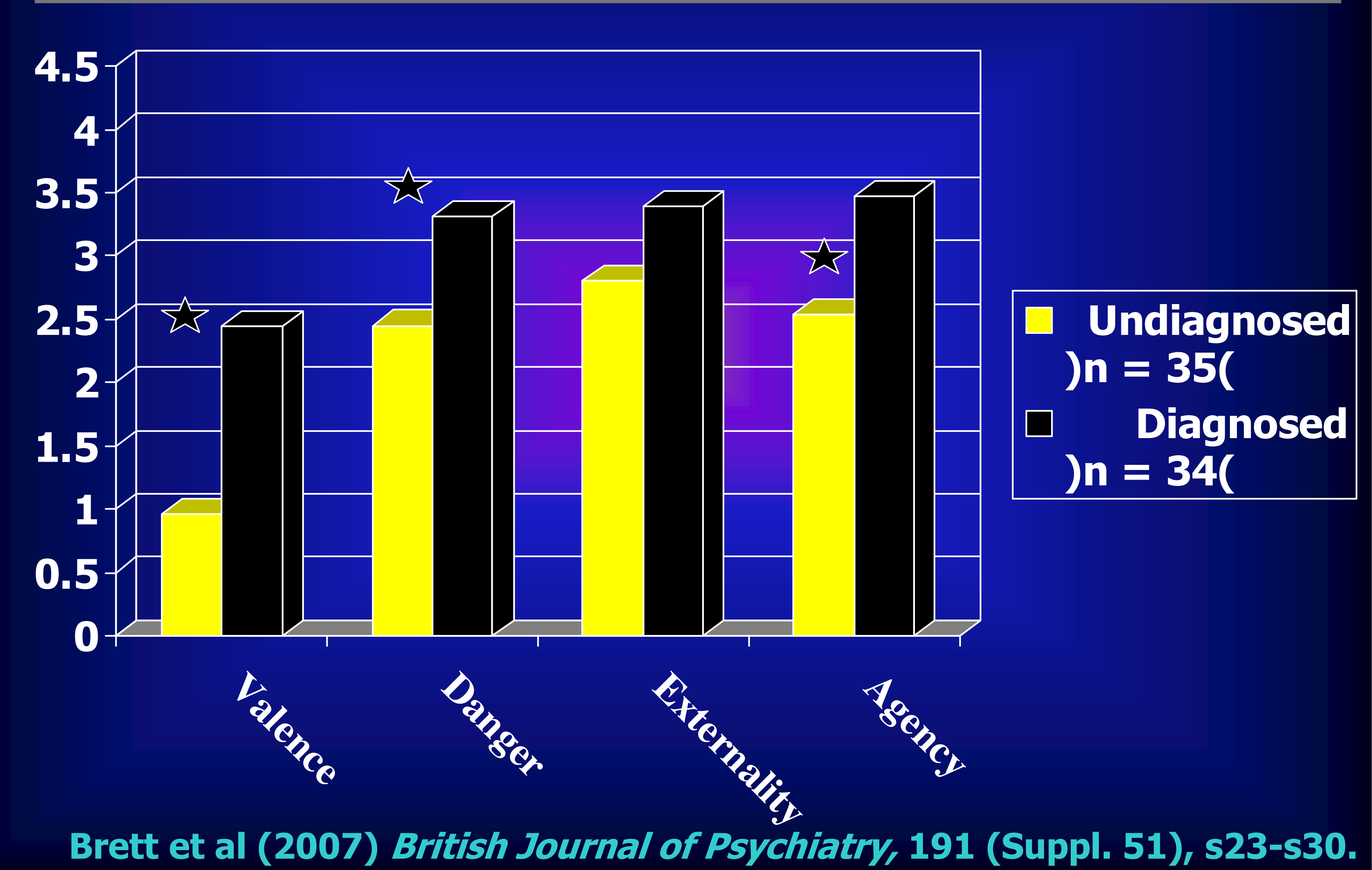


Appraisals of anomalous experiences



Brett et al (2007) *British Journal of Psychiatry,* 191 (Suppl. 51), s23-s30.

Dimensions of appraisals



Brett et al (2007) *British Journal of Psychiatry,* 191 (Suppl. 51), s23-s30.

It's not *external* appraisals, but *paranoid* world-view

Disentangling experiences and appraisals experimentally

Can the Card Task be used to investigate appraisals?

Anomalous experience

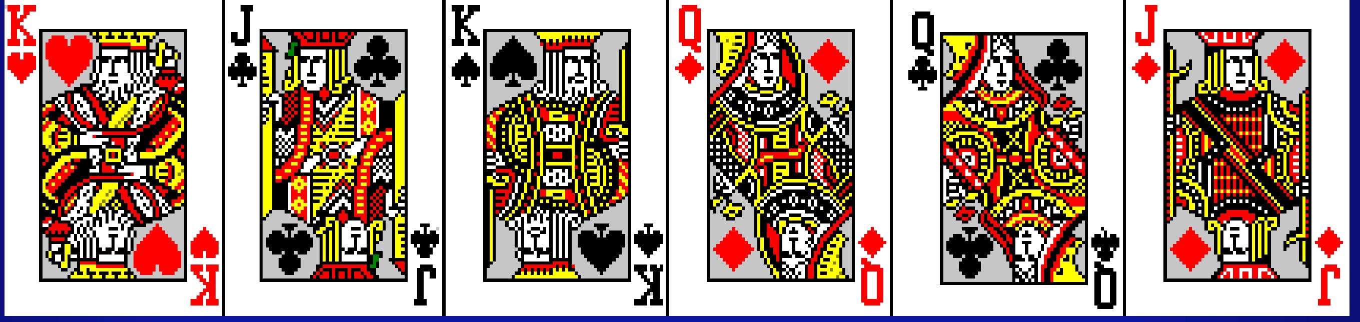
Appraisal?

The Card Task

Please mentally select a card and concentrate on it

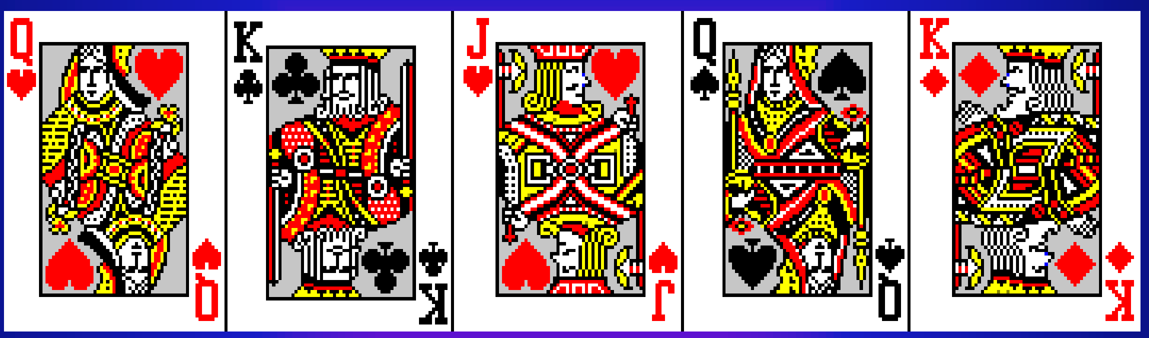
Do not click on your card or say it aloud

After you have memorised your card, please press any key to continue…..



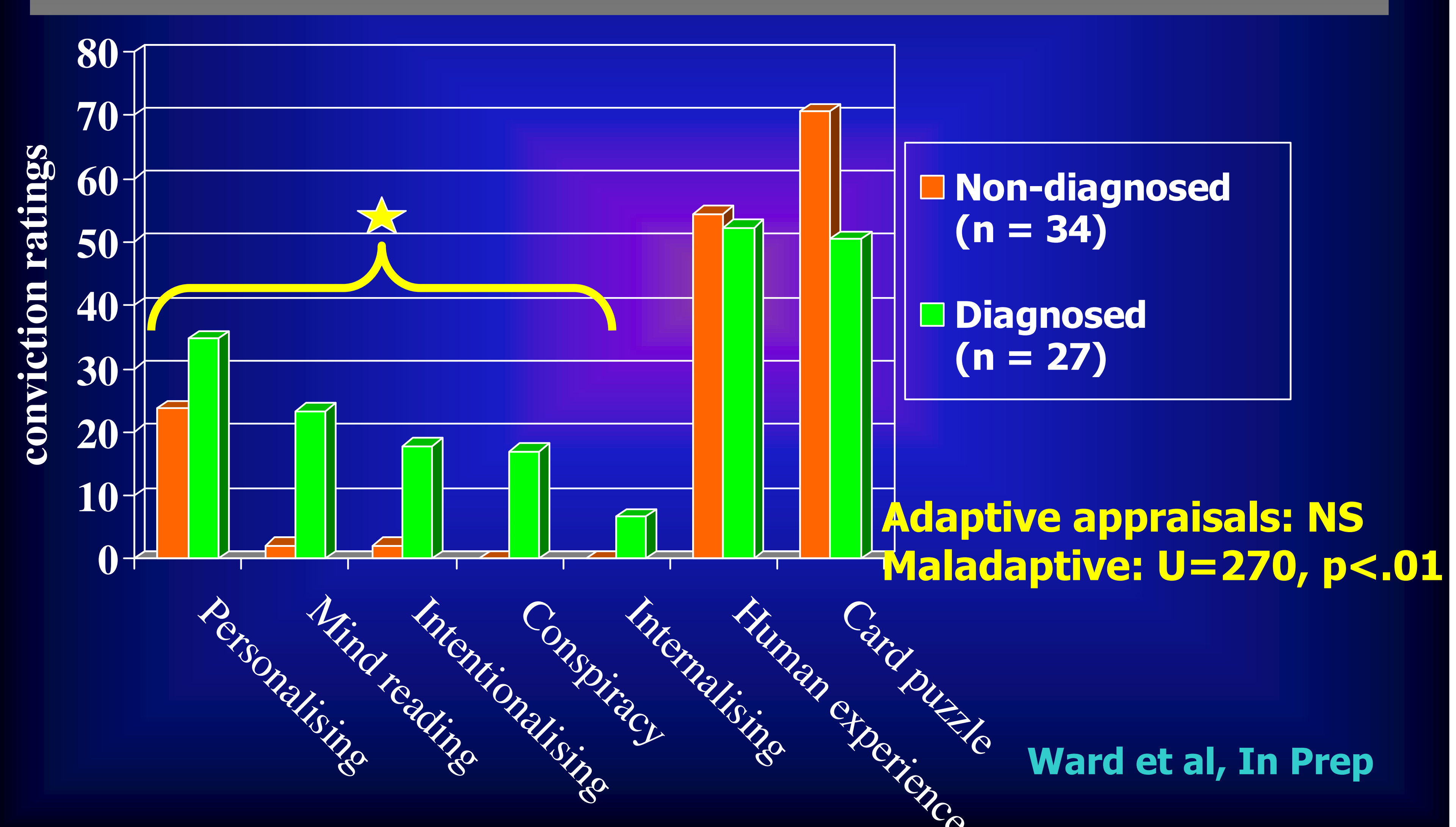
The card you have chosen will now be selected and removed from the pile

Please press any key to continue…..

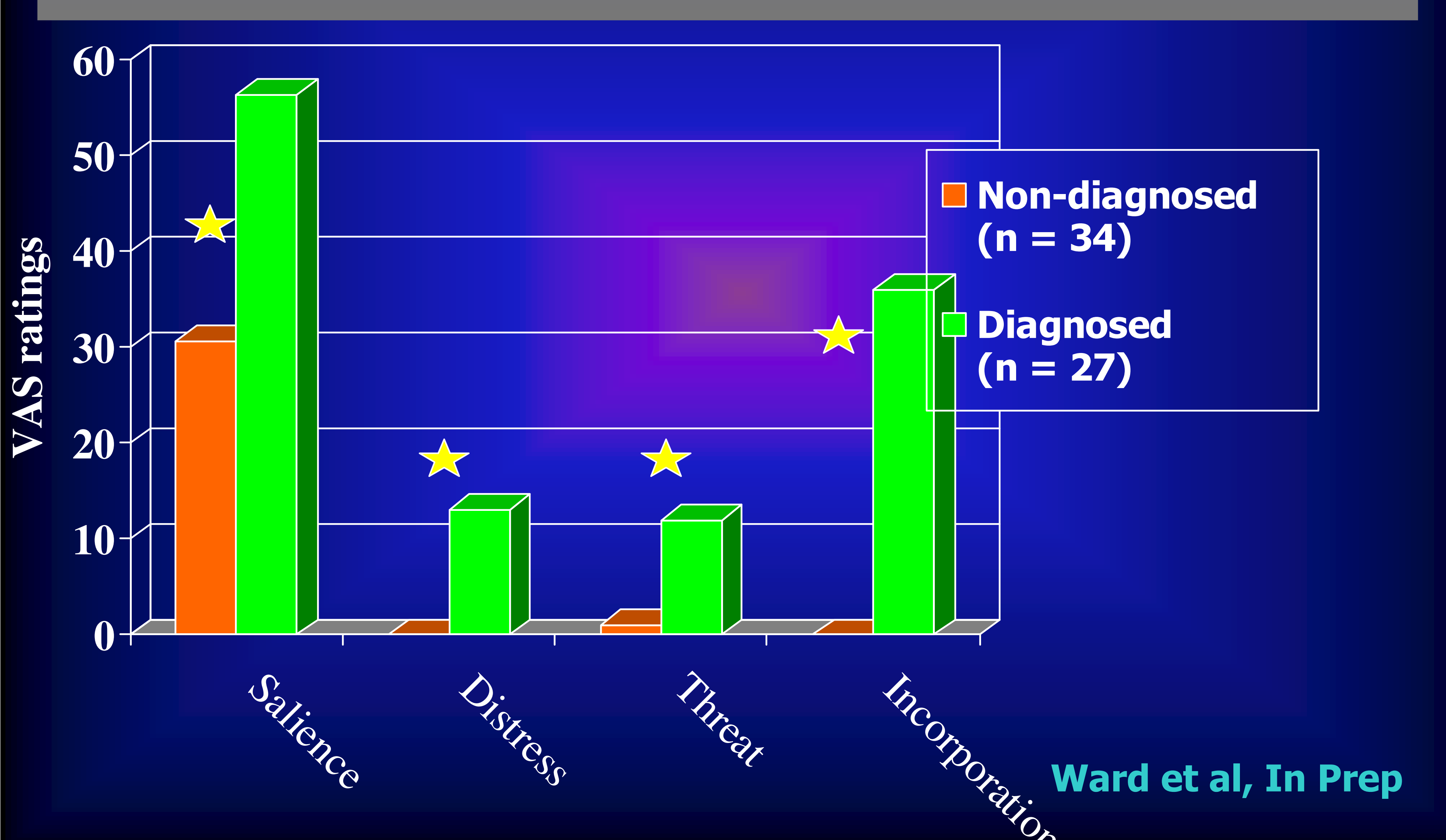


How do you think this was done?

Appraisals in diagnosed & undiagnosed people – Cards task



Appraisals in diagnosed & undiagnosed people – Cards task



Ward et al, In Prep

Virtual Acoustic Task:

Headphone presentation of voices ‘outside-the-head’

Hunter et al (03) *Brain,* 126, 161-169.

Conviction ratings

90
80
70
60
50
40
30
20
10
0

Personalising
Spirit/entity
Intentionalising
Conspiracy
Internalising
Human experience
Pre-recorded voice

Non-diagnosed)n = 34(

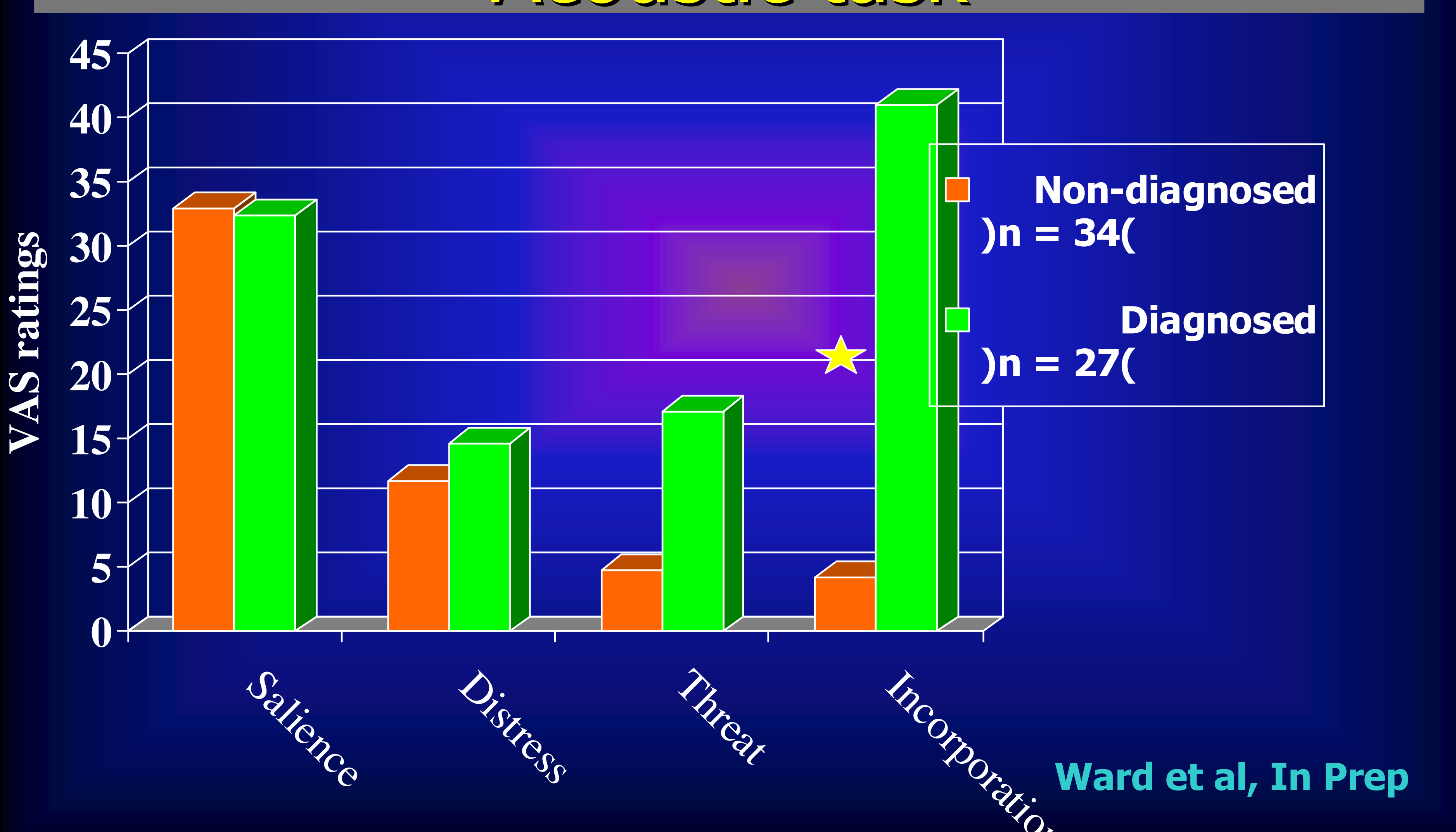
Diagnosed)n = 28(

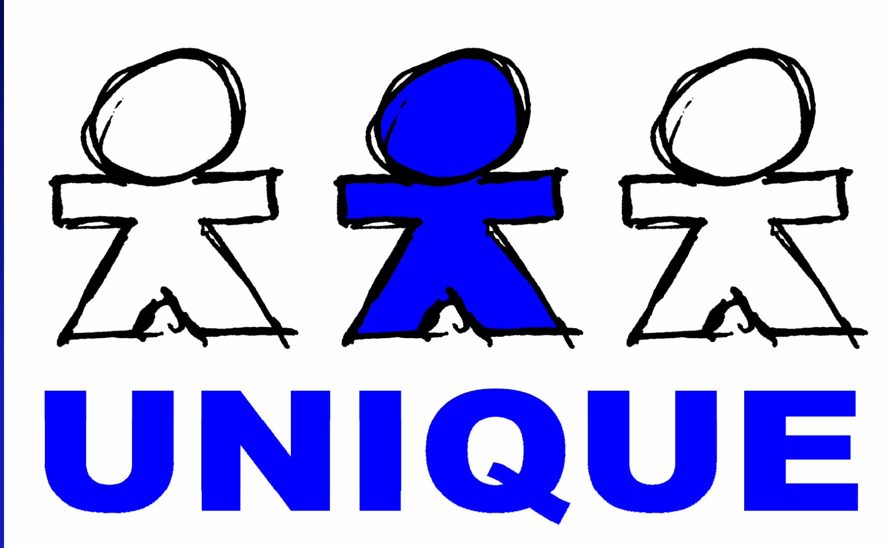
Adaptive appraisals: NS

Maladaptive: U=238, p < .001

Ward et al, In Prep

Appraisals in diagnosed & undiagnosed people – Virtual Acoustic task





Institute of Psychiatry at The Maudsley

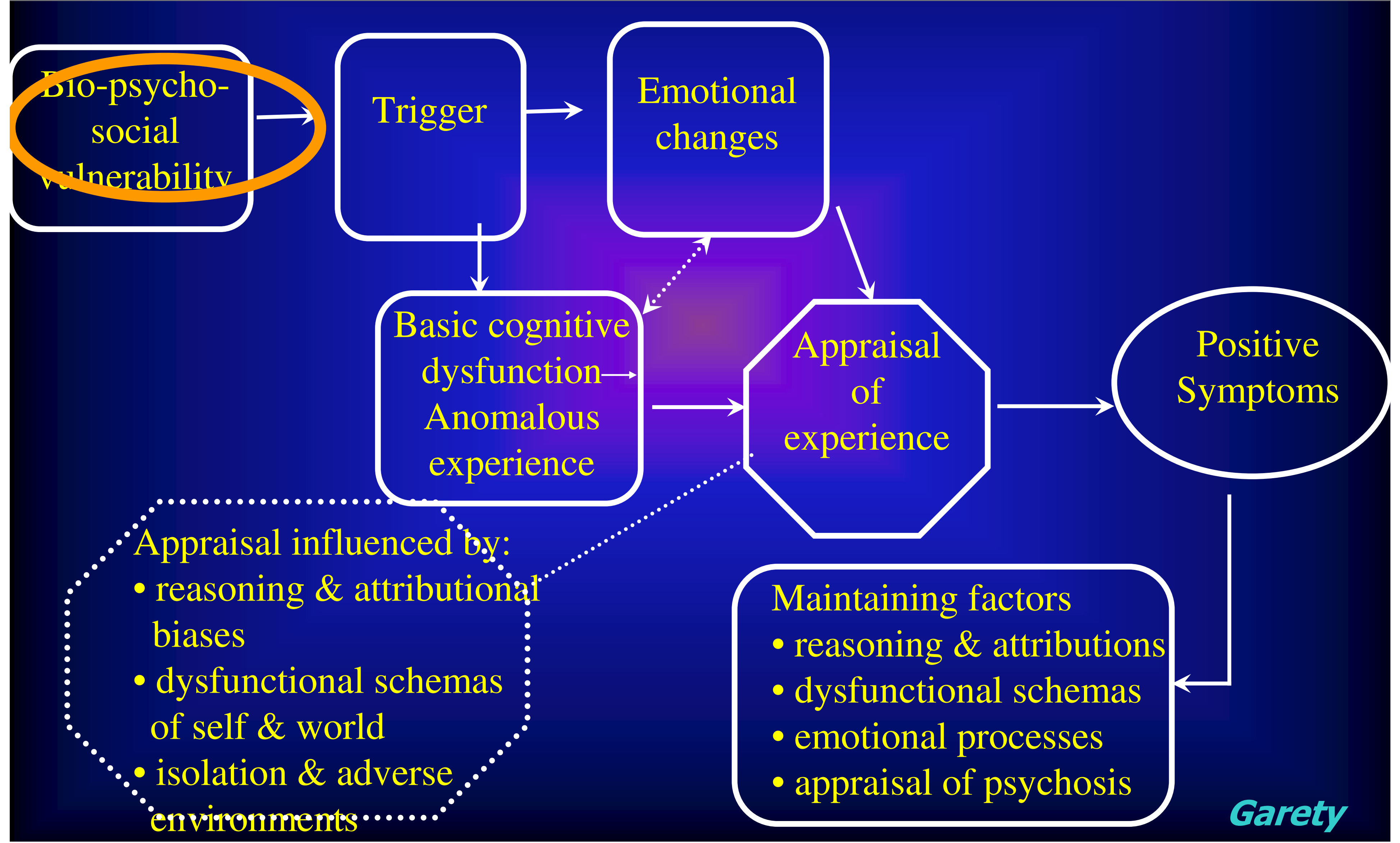
Unusual Experiences Enquiry study

Emmanuelle Peters, Mike Jackson & Philippa Garety
Tom Ward, Craig Morgan, Mike Hunter, Peter Woodruff, Philip McGuire

Funded by:

Recruitment in the two main sites is about to begin and will run until early 2015. Participants in the 'non-need for care' group will also be recruited from Sussex.

A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007; Psych Med)



Trauma in diagnosed and undiagnosed groups

(% scoring >1 for each trauma category)	Diagnosed (N = 25)	Undiagnosed (N = 27)
Interpersonal trauma	2.76 (1.83) 88%	2.44 (1.42) 92.6%
Impersonal trauma	1.04 (.94) 64%	1.19 (1.36) 59.3%
Stressful experiences	1.44 (1.04) 80%	1.85 (.95) 96.3%
Total number of types of traumatic event	5.24 (2.62)	5.44 (2.52)

Lovatt et al (2010) *Journal Nervous & Mental Disease*, **198**, 813-19

Regression of types of trauma on appraisals

Appraisal	Type of trauma	ORs	95% C.I.s (lower)	95% C.I.s (upper)	p
Other people	Interpersonal	2.01	1.27	3.18	<.01
Normalising	Interpersonal	0.58	0.38	0.87	<.01

Lovatt et al (2010) *Journal Nervous & Mental Disease,* 198, 813-19

Trauma in psychiatric and non-psychiatric voice-hearers

Trauma (NB > 75% in both groups had a trauma)	Psychiatric (n=22)	Non-psychiatric (n=21)
Childhood (No. traumas)	1.4	0.7
Adulthood (No. traumas)	2.1	1.1
CSA (n)	11*	3
Intrusion (IES)	20.5*	4.2
Avoidance (IES)	21.3*	3.4
PTSD (% meeting criteria)	78*	25

Andrew et al (2008) *Psychological Medicine,* 38, 1409-17

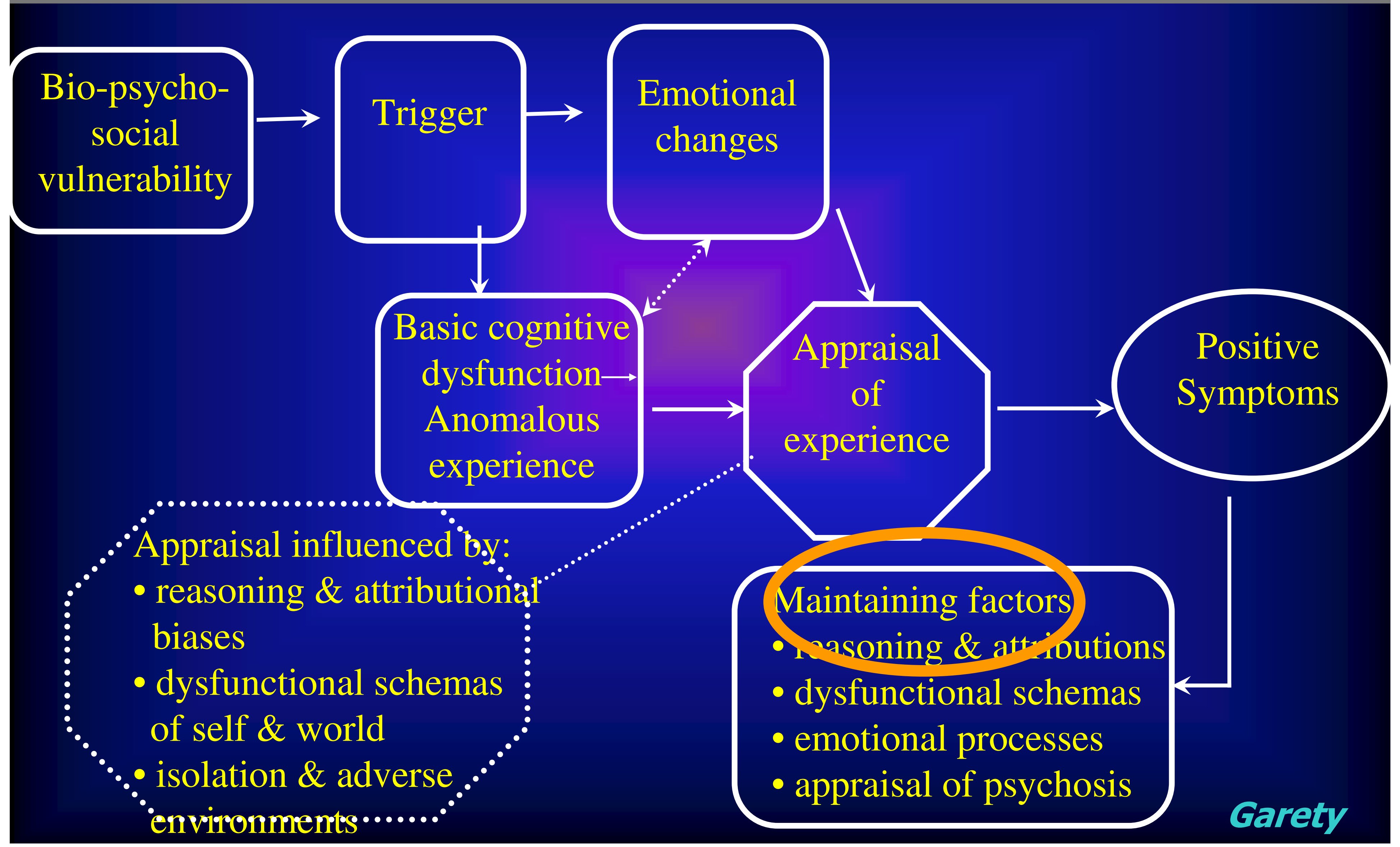
Trauma in psychiatric and non-psychiatric voice-hearers

Beliefs about voices	Trauma	B	t	P
Malevolence	IES scores	.91	7.0	<.001
Benevolence	IES scores	.25	5.0	<.001
Omnipotence	IES scores	.19	4.2	<.001

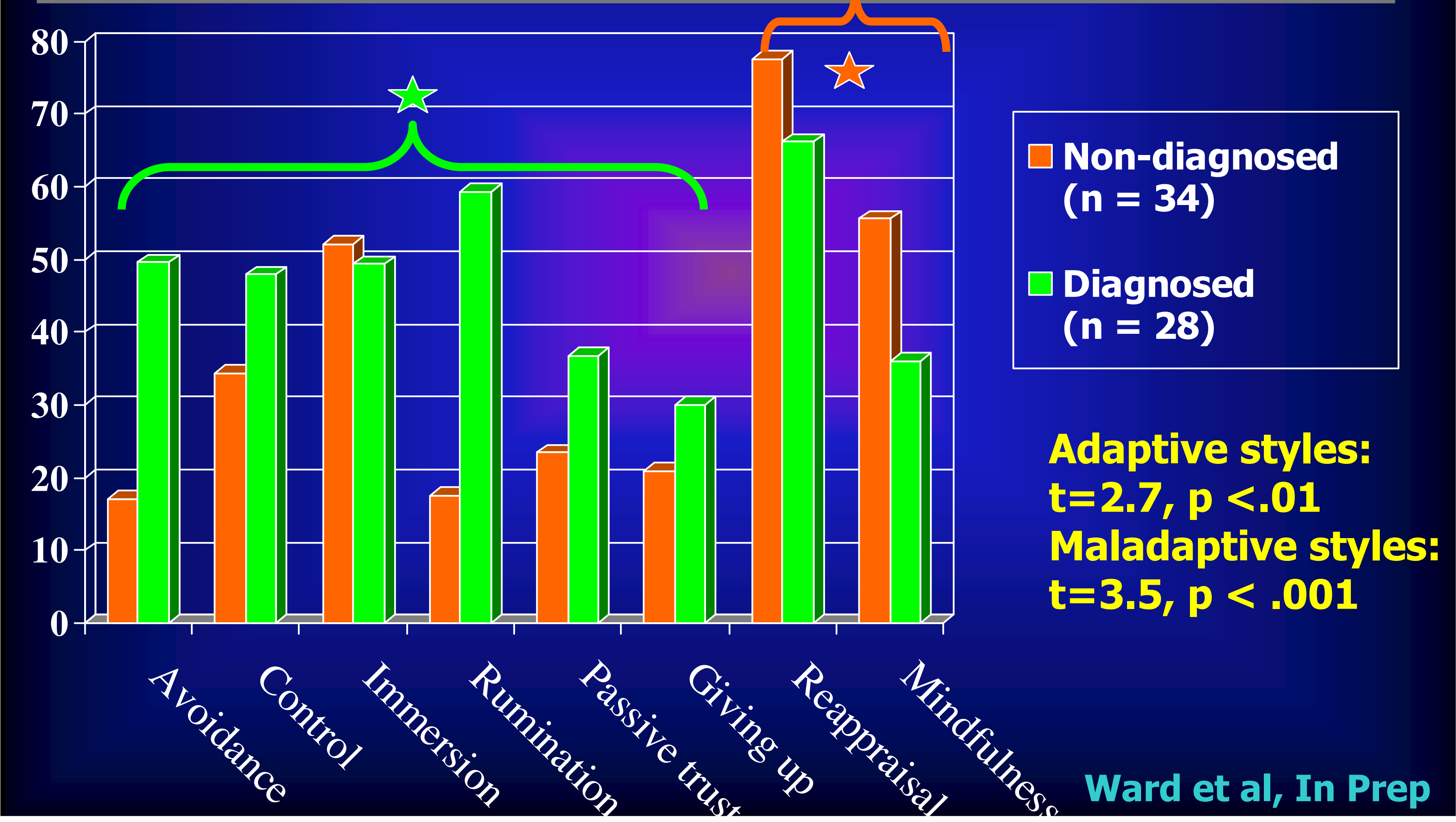
Andrew et al (2008) *Psychological Medicine,* **38, 1409-17**

Type (interpersonal) and *impact* of trauma, not *presence*, linked to pathological appraisals

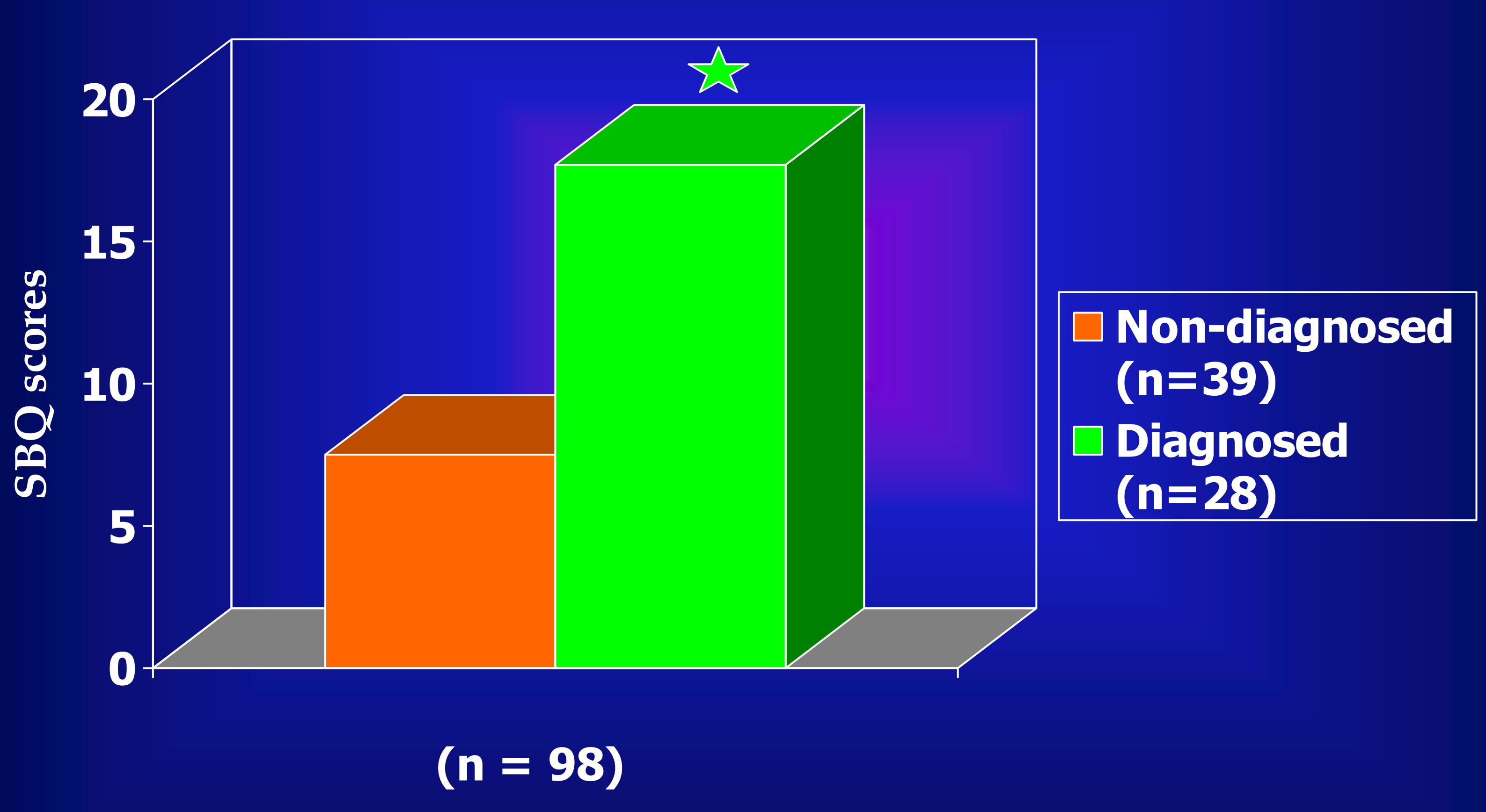
A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007; Psych Med)



Response styles in diagnosed & undiagnosed people – Cards task

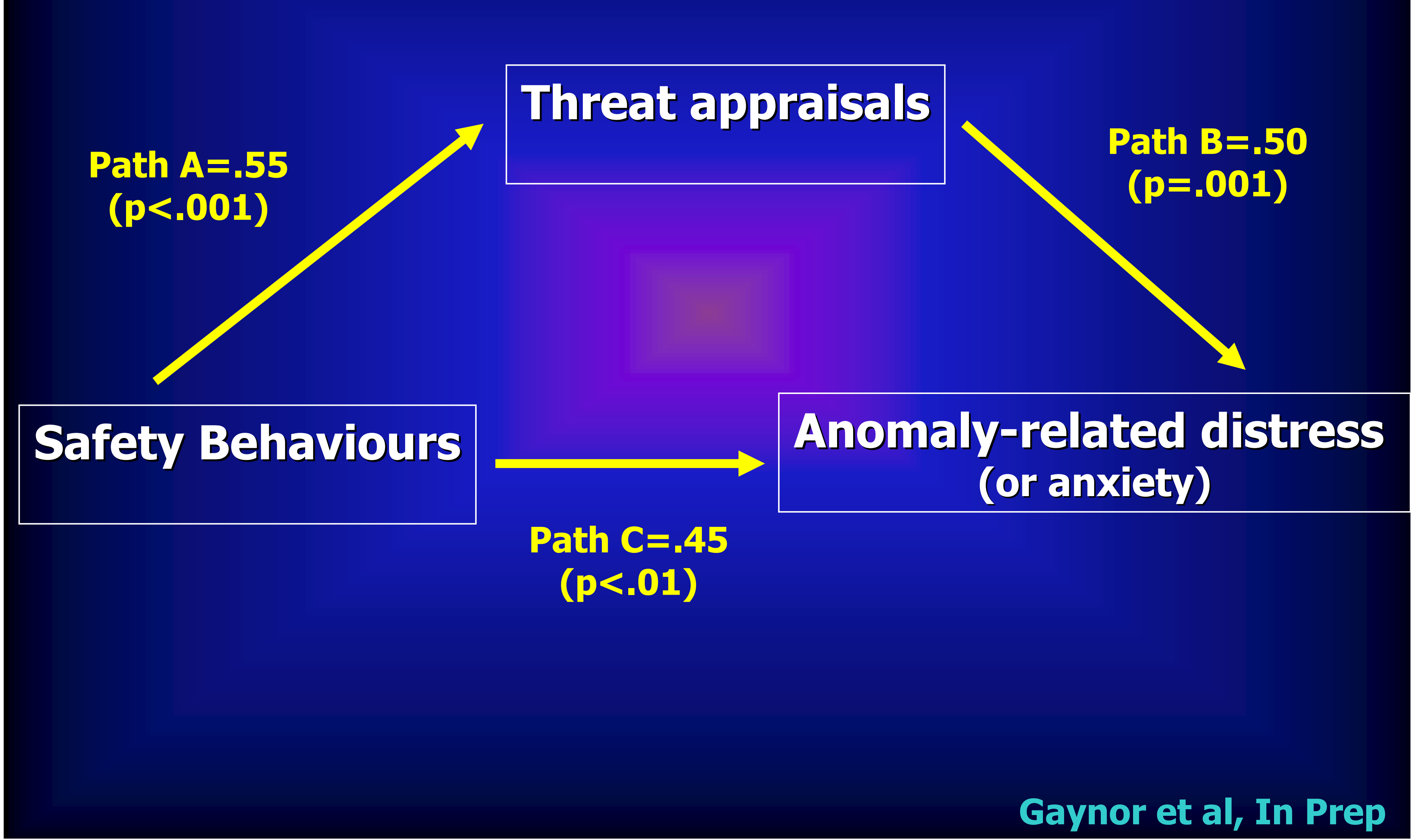


Safety behaviours in diagnosed & undiagnosed groups

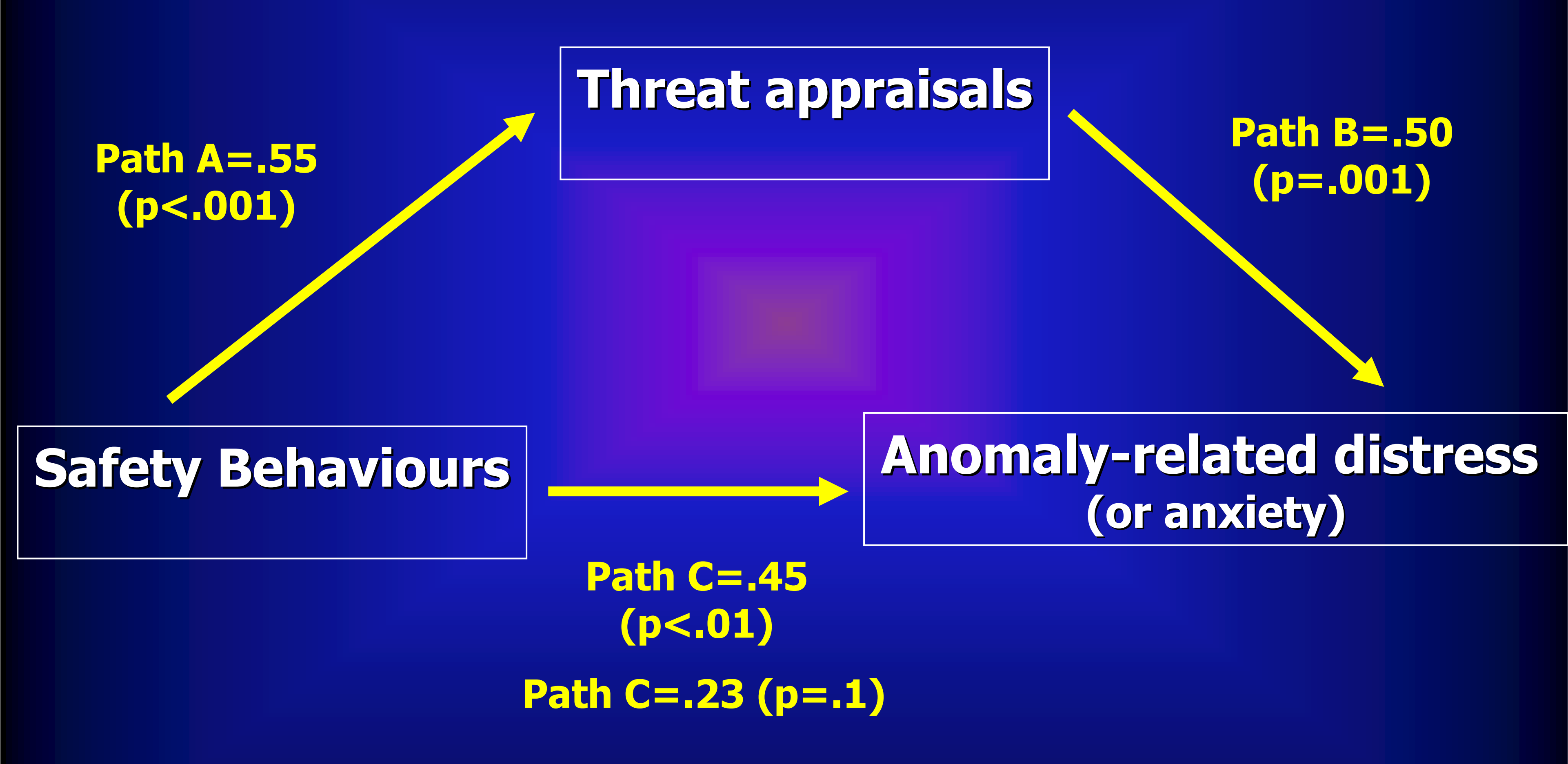


Gaynor et al, In Prep

Mediation model between safety behaviours, threat appraisals, & distress



Mediation model between safety behaviours, threat appraisals, & distress

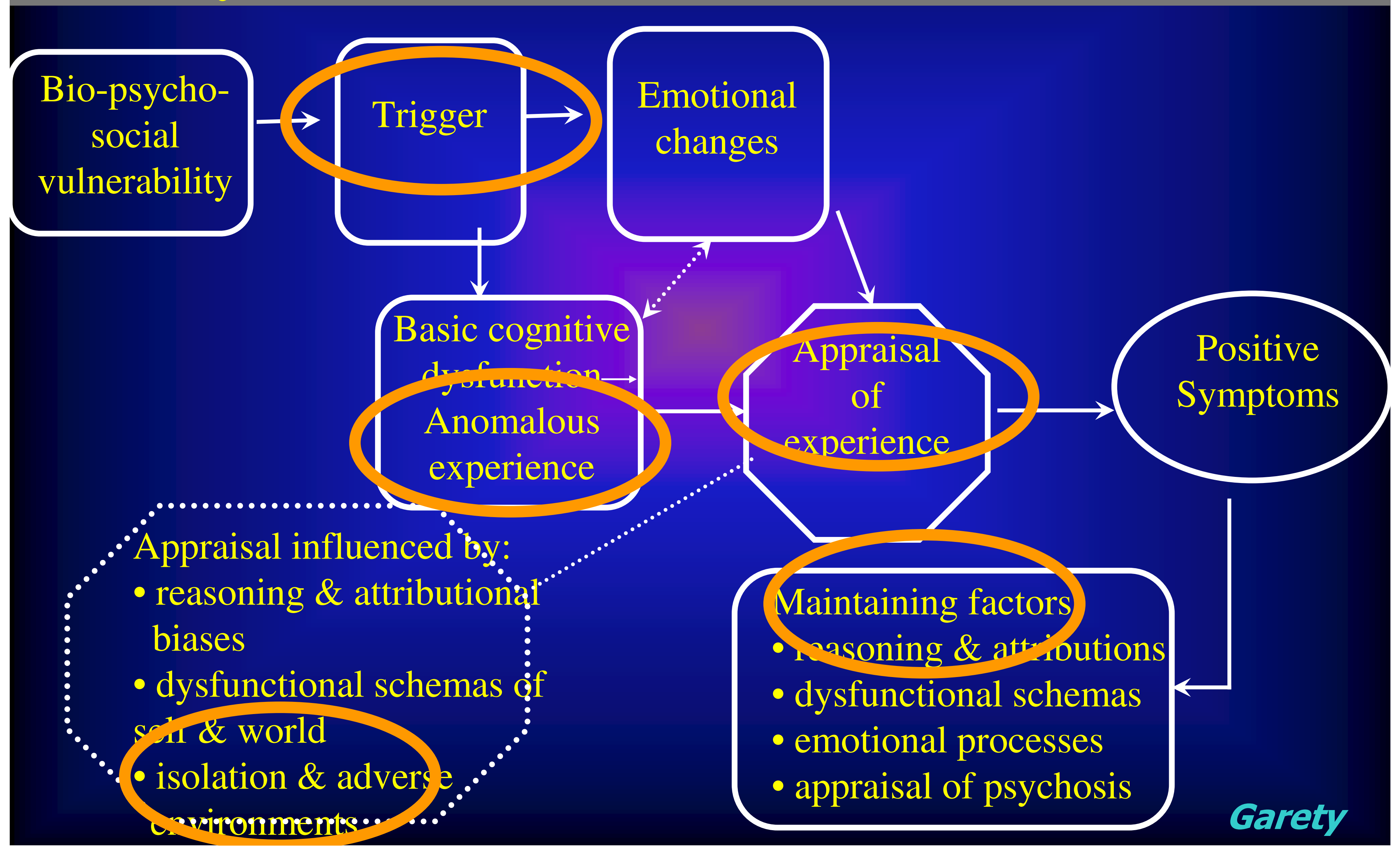


Path C shows initial relationship between SBs & distress, and its reduction when threat added to equation (Sobel test: Z=3.04, p=.001)

Gaynor et al, In Prep

How you *deal* with experiences matter, but driven by what you *think* about them

A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007; Psych Med)



Participant		Out-of-the-ordinary experience (OOE)	Group
Holly	(26F)	Receiving visions from God	
Omar	(24M)	Body taken over by spirits	
Beth	(25F)	Telepathic communication and speaking with God	
Tom	(24M)	Receiving symbolic messages from other realms	
Nessa	(24F)	Hearing voices, and thoughts of being watched / filmed	
Leroy	(27M)	Hearing voices when nobody is there	
Jenny	(27F)	Body taken over by spiritual energy	
Clive	(53M)	Visions of people who have died and religious figures	
Maria	(63F)	Receiving words directly from God	
Daniel	(30M)	Spiritual calling, and developing intuitive perception	
Flora	(20F)	Visions and voices of spirits (mediumship skills)	
Stefan	(23M)	Body taken over by an external force	

Heriot-Maitland et al (12) *British Journal of Clinical Psychology,* 51, 37-53

Super-ordinate theme	Group theme	Group differences
Immediate situational context	Emotional suffering Existential questioning Isolation	6 C, 5NC 2C, 6NC 4C, 4NC
Subjective nature	Emotional fulfilment Loss of ego boundaries/control Fearful absorption Insight into deeper meaning New way of thinking	3C, 4NC 3C, 2NC 4C, 3NC 3C, 5NC 3C, 3NC

Few differences in triggers & nature of experiences

Heriot-Maitland et al (12) *British Journal of Clinical Psychology,* 51, 37-53

Super-ordinate theme	Group theme	Group differences
Inter-personal context	Others' views (pathologising) (normalising) Validation from others (accepting) (invalidating)	6C, 6NC 3C, 6NC 1.5C, 5NC 5C, 2NC
Background personal context	Previous knowledge/understanding Attitude of experiential openness	3.5C, 6NC 0C, 3NC
Appraisal/ incorporation	Considering multiple appraisals Desirability (desirable) (undesirable) Transiency (temporary process) (permanent state) Spirituality-psychosis link	2C, 5NC 4C, 5.5 NC 2C, 0.5NC 2C, 5NC 2C, 0NC 4C, 6NC

Differences in interpersonal & personal context, and how experiences appraised & incorporated

Heriot-Maitland et al (12) *British Journal of Clinical Psychology,* 51, 37-53

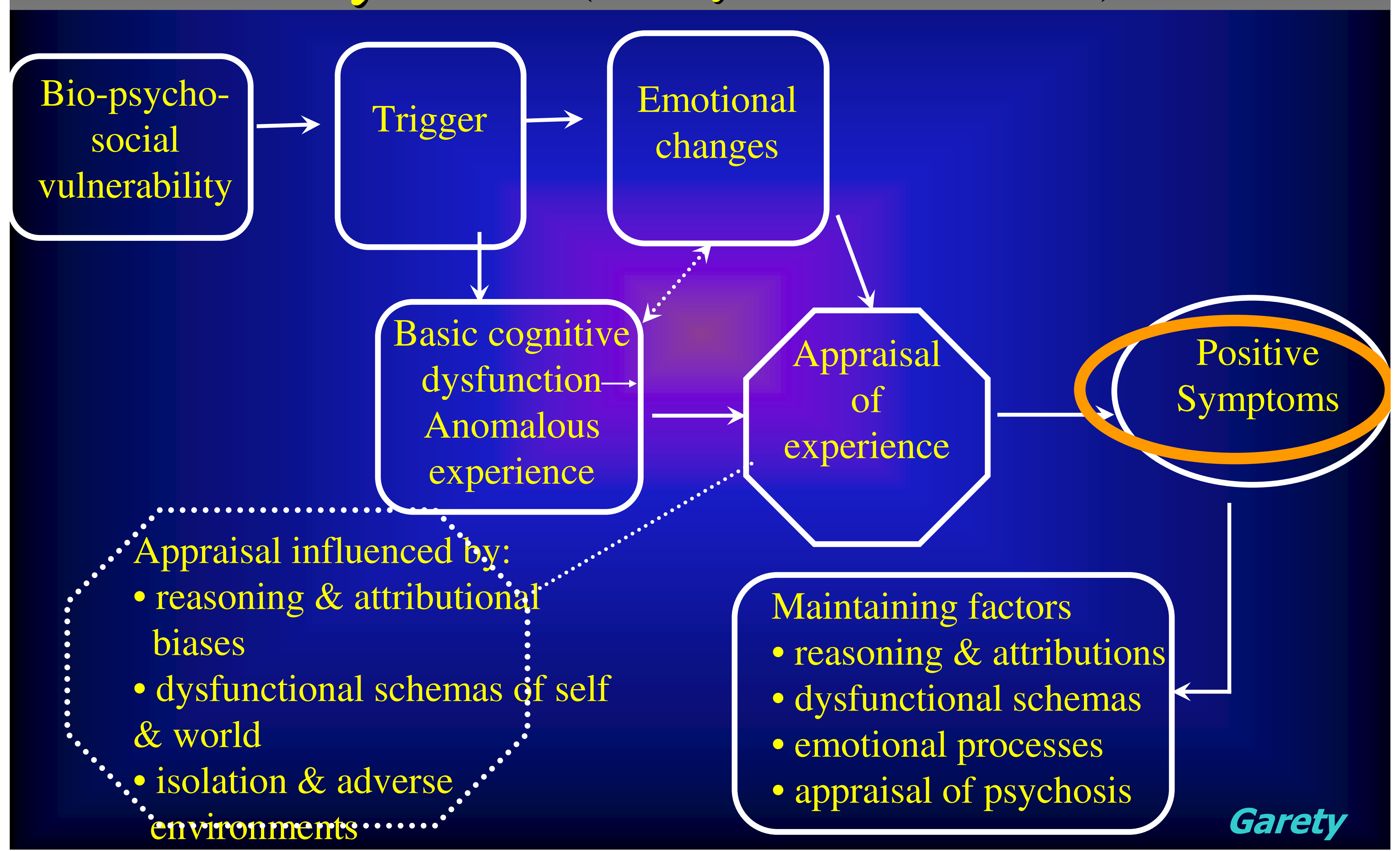
Conclusions

The route to psychosis includes …

- Distressing & preoccupying beliefs
- Unpleasant, malevolent voices
- More severe anomalous experiences
- Cognitive difficulties
- Maladaptive (paranoid) appraisals
- Reasoning biases
- Interpersonal trauma
- Maladaptive response styles and safety behaviours

CBT for psychosis

A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007)



CBTp manuals I

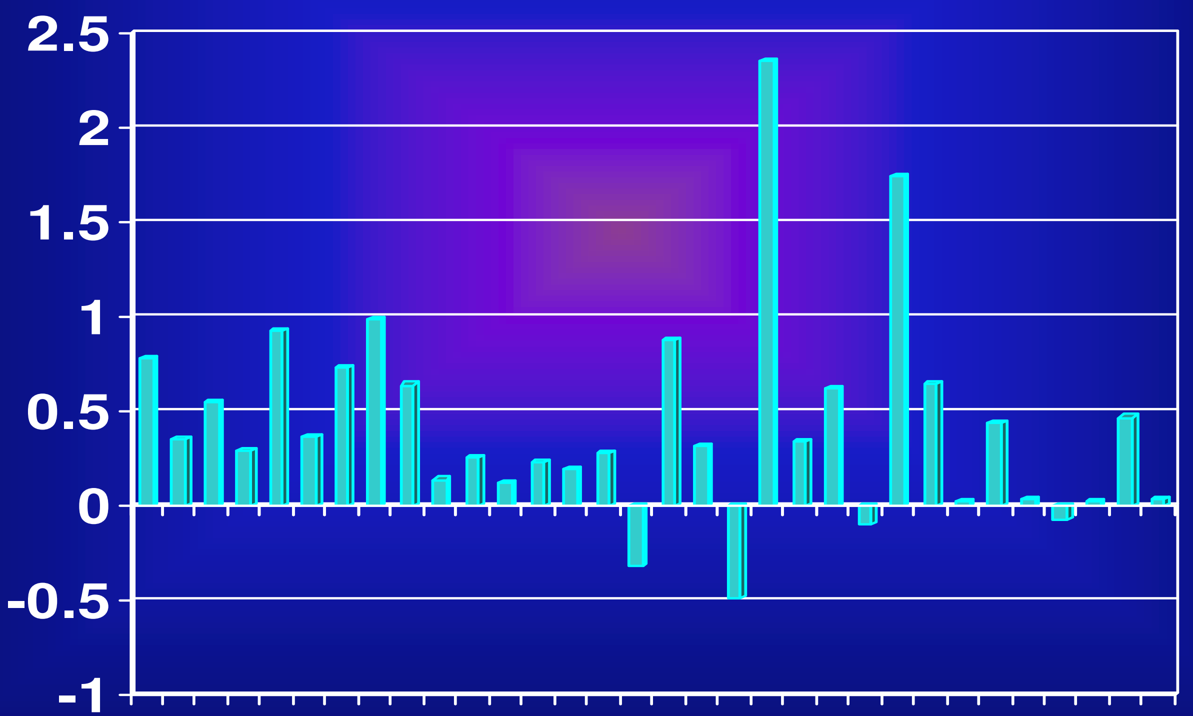
1) Kingdon & Turkington (94) CBT of Schizophrenia.
2) Fowler et al (95) CBT for Psychosis: Theory and Practice.
3) Chadwick et al (96) CT for Delusions, Voices and Paranoia.
4) Nelson (97) CBT with Schizophrenia. A Practice Manual.
5) Kingdon & Turkington (02) The Case-Study Guide to CBT of Psychosis.
6) Morrison (02) A Casebook of CT for Psychosis.
7) Morrison et al (03) CT for Psychosis.
8) Klingberg et al (03) Relapse Prevention in Psychosis (German).
9) French & Morrison (04) Early detection and CT for people at high risk of developing psychosis.

CBTp manuals II

10) Kingdon & Turkington (05) CT of Schizophrenia.
11) Byrne et al (06) A Casebook of CT for Command Hallucinations
12) Freeman et al (06) Overcoming paranoid and suspicious thoughts.
13) Gumley & Schwannauer (06) Staying well after psychosis.
14) Chadwick et al (06) Person-based cognitive therapy for distressing psychosis
15) Beck et al (09) Schizophrenia: Cognitive theory, research & therapy
16) Wright et al (09) Cognitive therapy for severe mental illness.
17) Hagen et al (10) CBT for psychosis: A symptom-based approach.

CBTp RCTs – latest meta-analysis

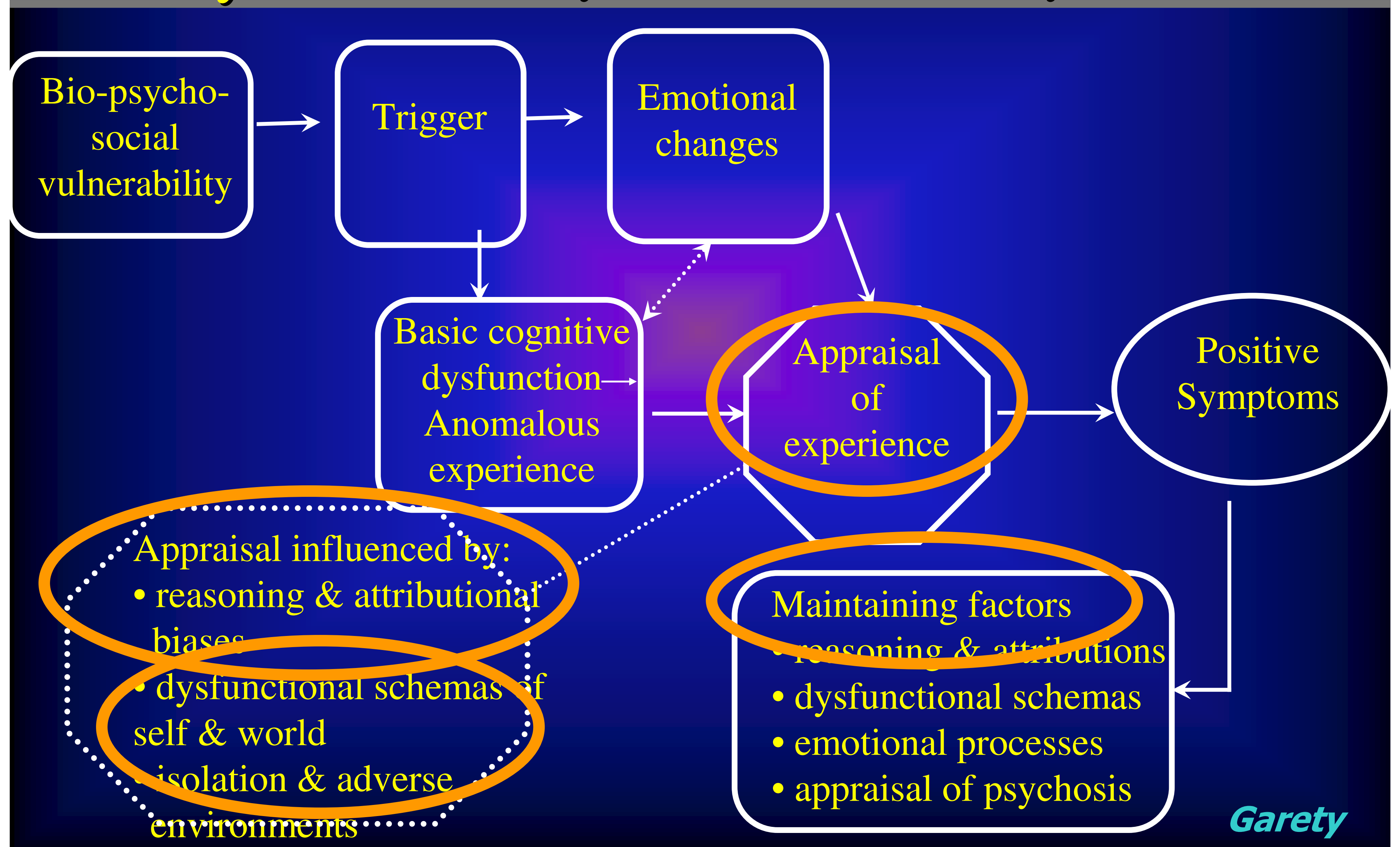
(Wykes et al, 2008, *Schizo Bull*, 34, 523-37)



Mean effect size on positive symptoms: .40 (95% CIs: .25 - .55)

What are we changing in CBT for psychosis?

A Cognitive Model of the Positive Symptoms of Psychosis (Garety et al 2001; 2007; Psych Med)



CBT for command hallucinations

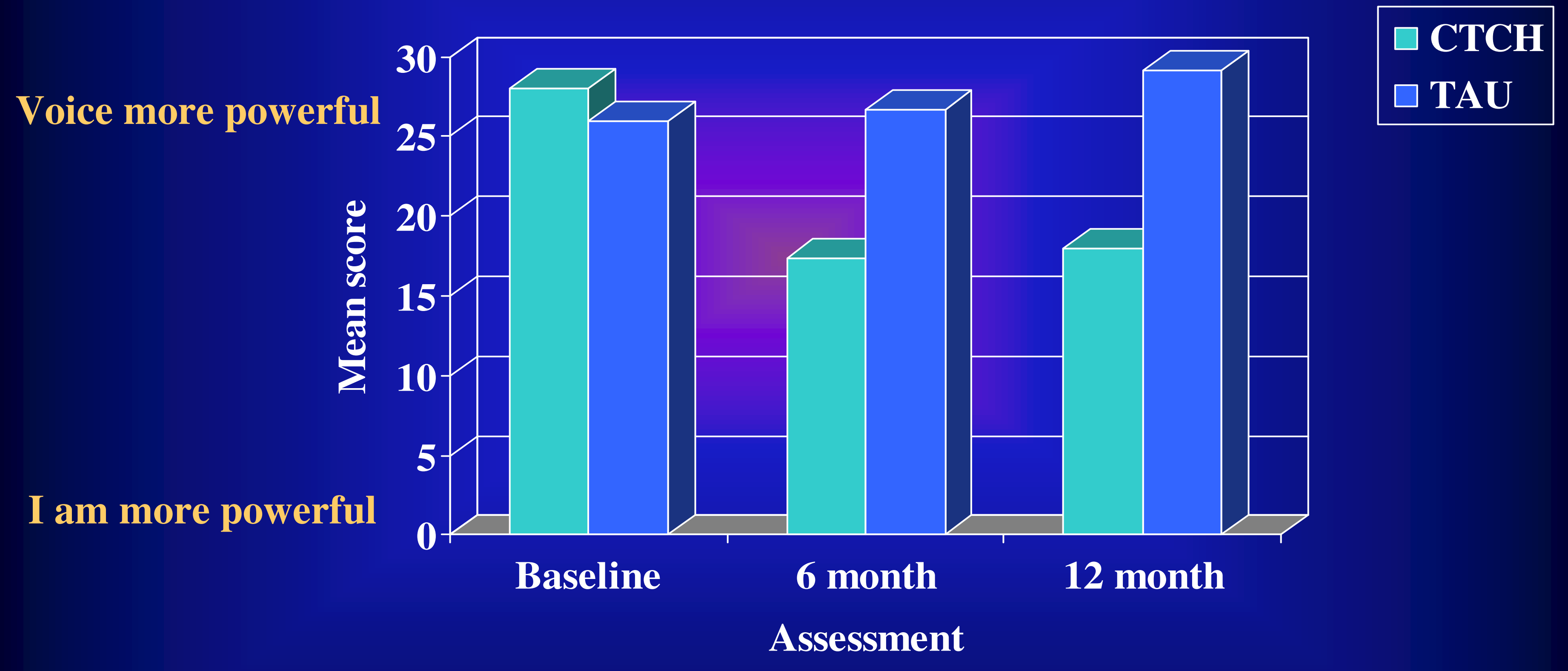
% appeasing or complying:

	TAU	CTCH
Baseline:	94%	100%
6 months:	39%	14%
12 months:	53%	14%

Effect size at 6 months = 1.1

Trower et al (04) ***British Journal of Psychiatry, 184*****, 312-320**

Mean scores on the Voice Power Differential Scale



Group X time :p<0.001

How can the literature inform our therapeutic practices?

- Continuum of anomalous experiences

  ... normalise

- Cognitive deficits

  … acknowledge differences

- Distressing appraisals

  … validate distress

- Reasoning biases

  … don’t just challenge

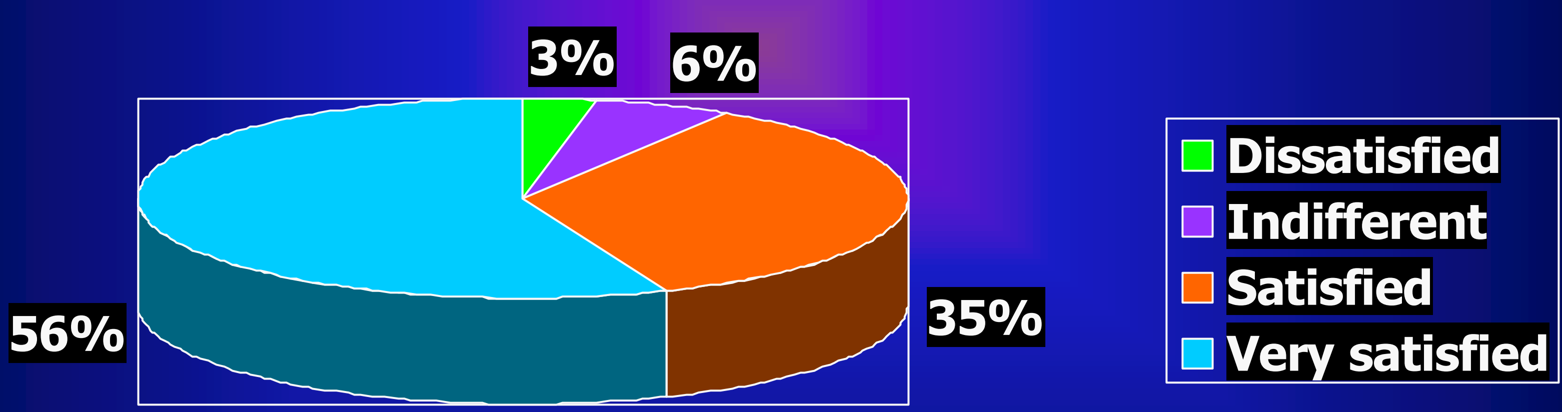
- Experiences in context

  … not just walking symptoms

Service-user satisfaction with CBT (PICuP)

(Psychological Interventions Clinic for outpatients with Psychosis)

91% (N = 250) are satisfied/very satisfied with therapy



Miles, Peters & Kuipers (07) *Behav & Cog Psychotherapy*, 35, 109-117

What do service-users say about CBT for psychosis? (PICuP):

- "I wouldn't be here today if it wasn't for CBT. Not only did it help me recover, but it was educational and empowering"
- "During therapy I have found ways to cope with my problems, and have continued to use them throughout my experience"
- "Looking at different ways of explaining some unusual experiences was so helpful. Now I have the illness – the illness doesn't have me"
- "My therapist helped me make maps of my thinking. Negative thinking is a road made of quicksand … the groove goes deep, it's etched on your bones. CBT is one way of recreating another groove. The value of positive thinking is the most precious CBT has given me" *(D.S., Creative Routes, 2005)*

THE END