



LA SCIENZA DEL COMPORTAMENTO
TRA TRADIZIONE E INNOVAZIONE
1° Convegno internazionale di ABAIT

Dopo il VB-MAPP e l'intervento precoce, quali interventi ABA?

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EIBI

- Dai dati in letteratura emerge che
- In linea generale, l'EIBI può essere un intervento valido in grado di produrre incrementi nel QI e/o nel comportamento adattivo dei bambini piccoli.
- Esistono molte differenze tra le meta-analisi, che portano a stime di effetto e conclusioni complessive diverse.
- La gamma di strumenti utilizzati per valutare l'efficacia è ampia e spesso non è adatta a misurare i risultati dell'intervento.
- Gli studi con gruppi di controllo riportano un effetto medio maggiore per il QI e più piccolo per la sfera comportamentale adattiva rispetto a studi che non contenevano gruppi di controllo (sono necessari studi con disegni più rigorosi).
- L'intensità dell'intervento predice i guadagni sia nel QI che nel comportamento adattivo.

Eldevik et al. 2010, Reichow 2012

I bambini crescono...

J Contemp Psychother (2011) 41:37–45
DOI 10.1007/s10879-010-9160-2

ORIGINAL PAPER

Addressing the Needs of Adolescents and Adults with Autism: A Crisis on the Horizon

Peter F. Gerhardt · Ilene Lainer

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Abstract The cohort of individuals with autism spectrum disorder (ASD) diagnosed as part of the first wave of what is often referred to as the autism epidemic is rapidly approaching adulthood. This cohort represents only the proverbial tip of the iceberg with some reports noting that 70% of the currently identified individuals with ASD are less than 14-years old. These numbers represent a looming crisis of unprecedented magnitude for adults with autism, their families, and the ill-prepared and underfunded adult service system charged with meeting their needs. A review of the current literature on outcomes for adults with ASD indicates that, independent of current ability levels, the vast majority of adults on the spectrum are either unemployed or underemployed and, further, that large numbers of adults with autism remain without any appropriate services. Many

Introduction

The past decade has seen reports citing the dramatic increase in the prevalence of Autism Spectrum disorders (ASD). From an earlier prevalence estimate of approximately .25 cases per 1,000 individuals (DSM-IV 1994) the figure most often cited today is 1 case per 110 (CDC 2009). While the reasons behind this increase remain unclear (e.g., Gernsbacher et al. 2005; Shattuck 2006) and at times, controversial (e.g., Kirby 2005; Williams et al. 2005), what is generally accepted is that there are greater numbers of individuals being diagnosed with ASD than ever before and subsequently, steadily growing numbers of adolescent and young adults on the autism spectrum. The increase in prevalence has created an increased demand for

The cohort of individuals with autism spectrum disorder (ASD) diagnosed as part of the first wave of what is often referred to as the autism epidemic is **rapidly approaching adulthood**. This cohort represents only the proverbial tip of the iceberg with some reports noting that **70% of the currently identified individuals with ASD are less than 14-years old**. These numbers represent a **looming crisis of unprecedented magnitude for adults with autism, their families, and the ill-prepared and underfunded adult service system** charged with meeting their needs.

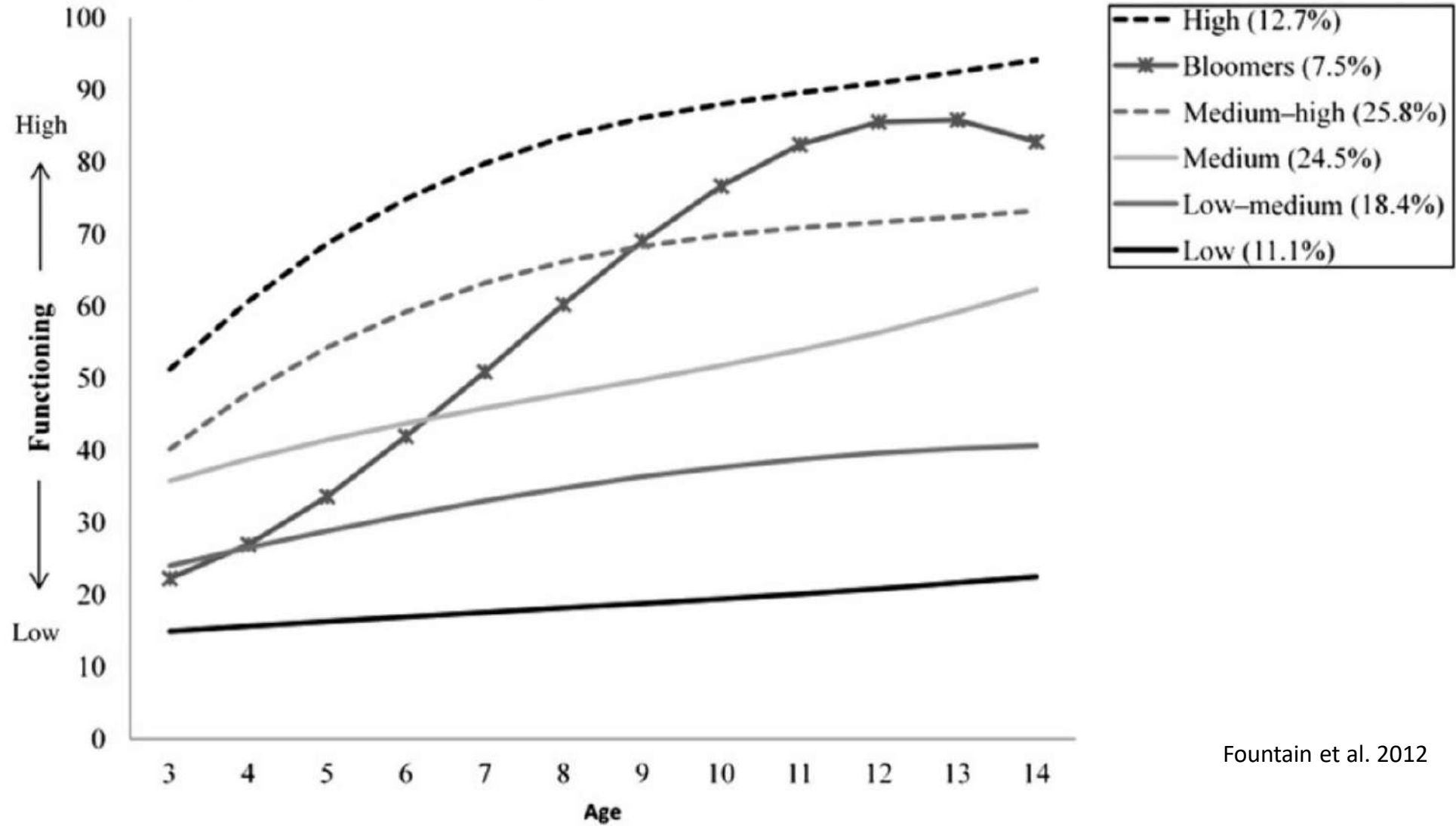


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Dopo l'early intervention?

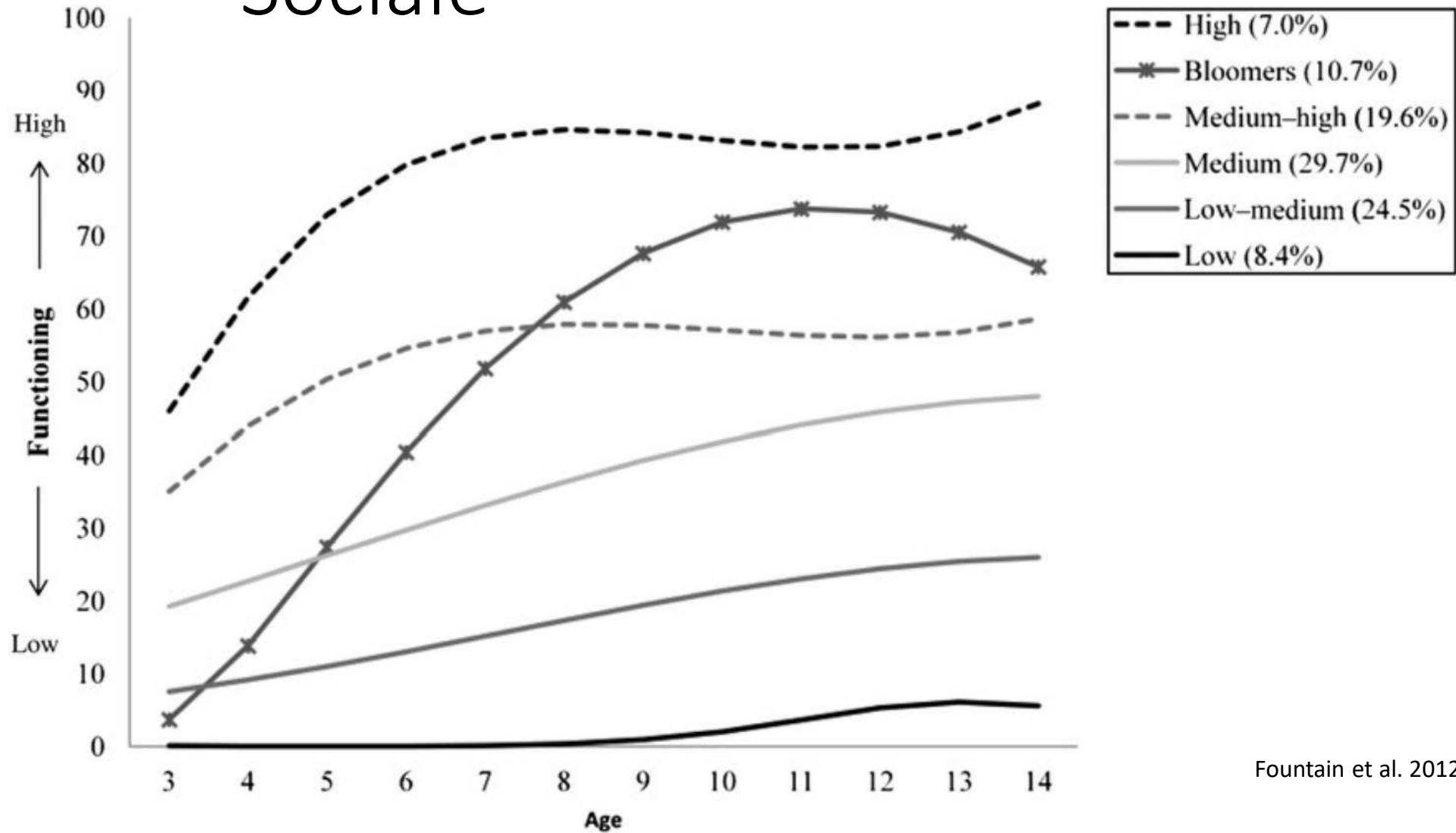
- Carenza di dati di FU dopo intervento precoce di due/tre anni
- Qual è la prognosi per coloro che hanno risposto bene al trattamento?
 - Buona (c'è una probabilità di mantenere lo stesso livello guadagnato)
 - Non come la controparte neurotipica della stessa età (la forbice si riapre)

Comunicazione



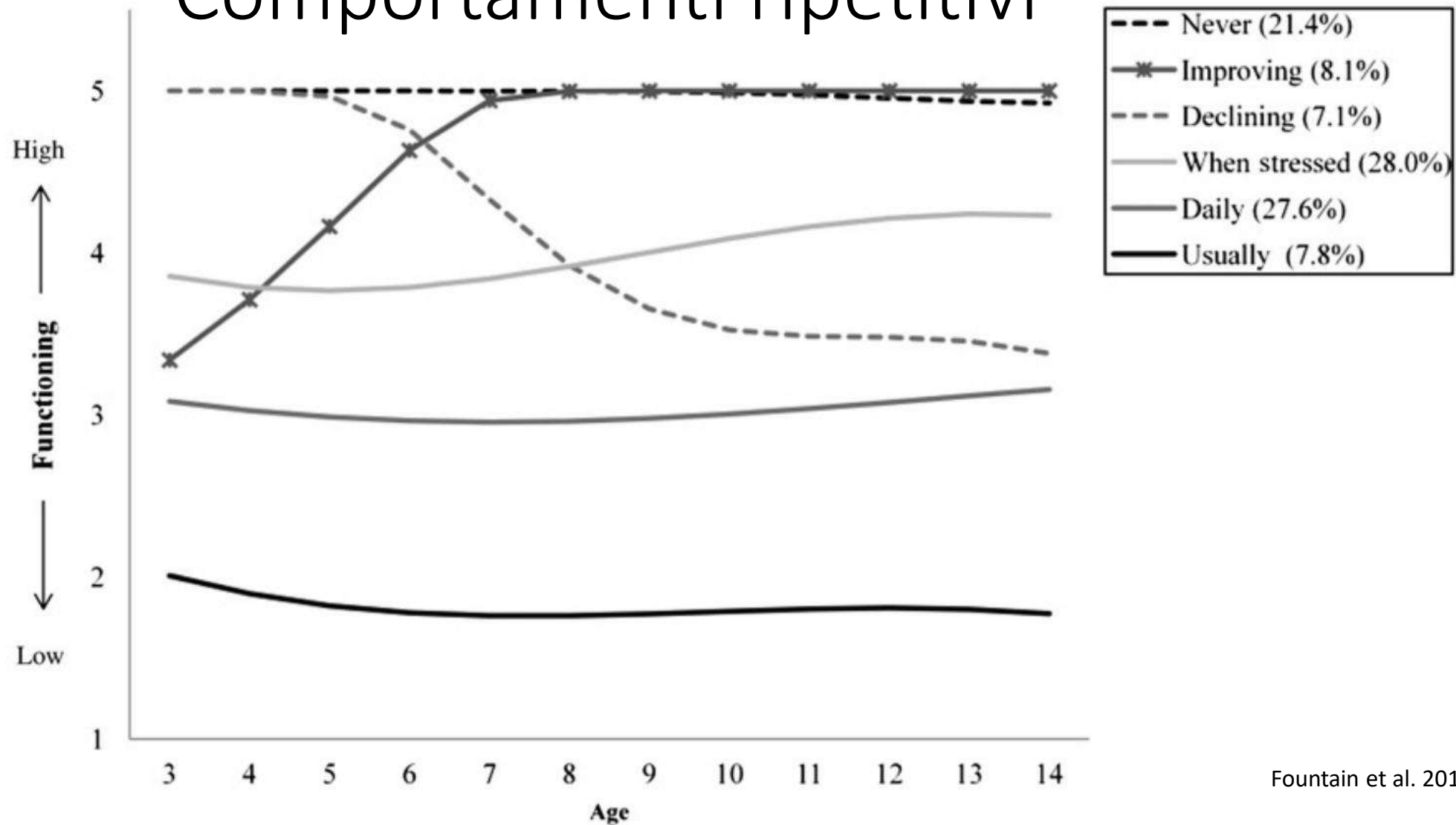
Fountain et al. 2012

Sociale



Fountain et al. 2012

Comportamenti ripetitivi



Fountain et al. 2012

ADAPTABILITY



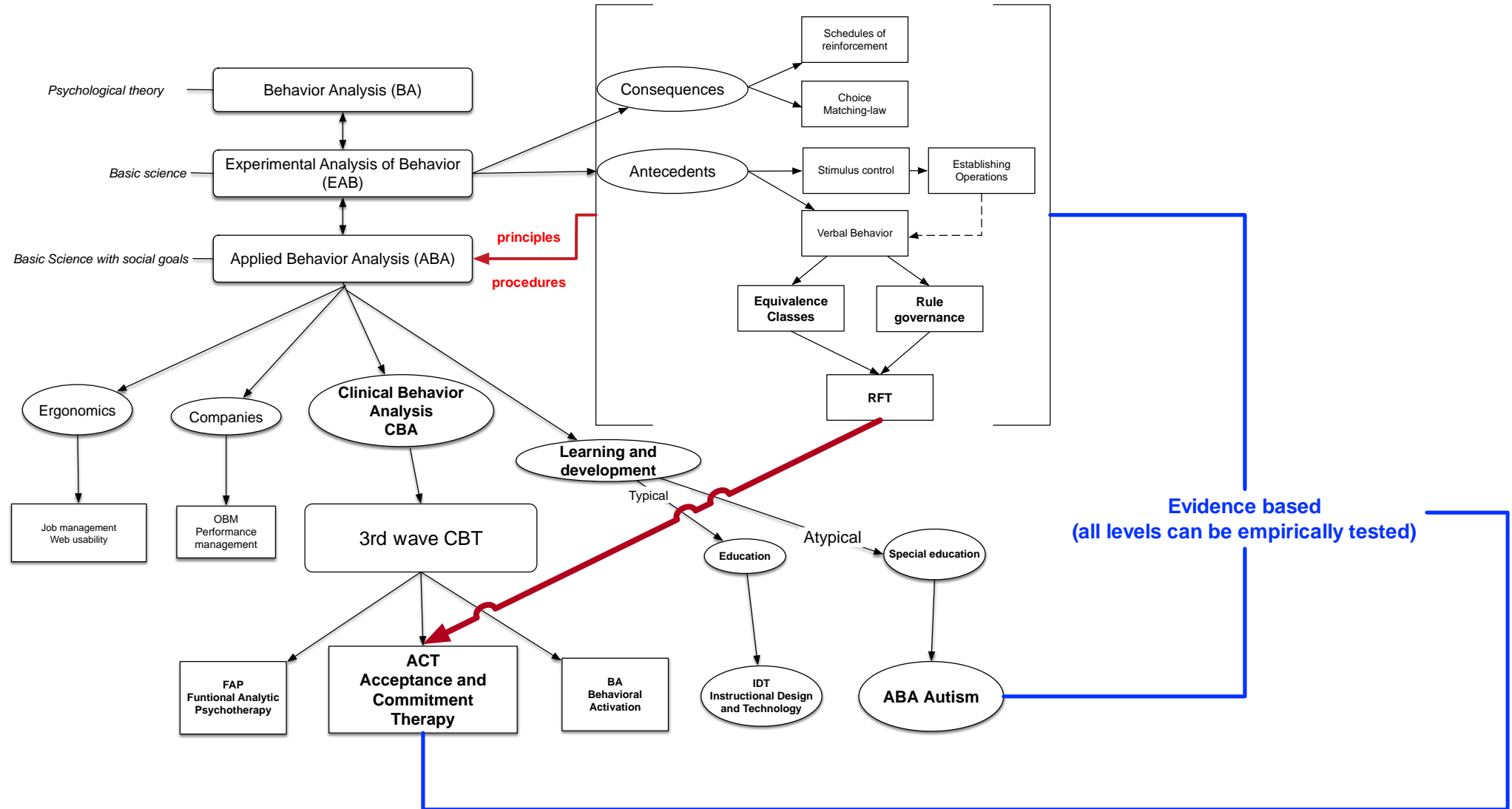
ABA...what is all about

Cosa ha caratterizzato l'ABA negli ultimi 25 anni?



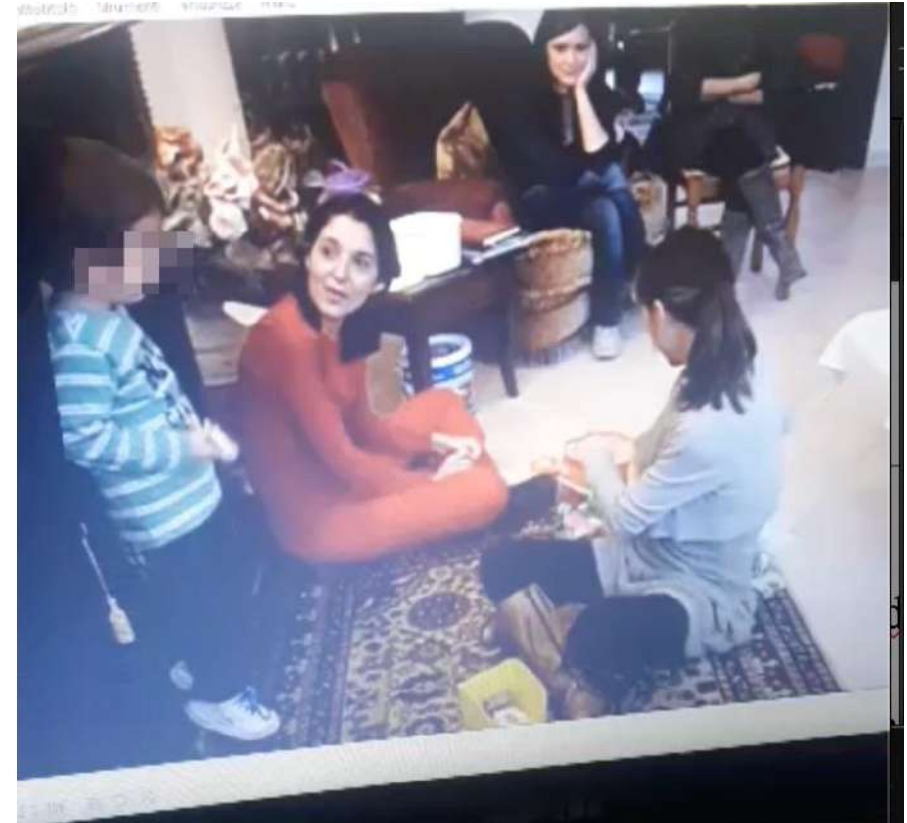
ABA vs VB

Identificare la Scienza con le Procedure



Filippo (Bloomer?)

- Diagnosi precose (3 anni)
- Buon livello VB-MAPP (rispetto all'età)
- Intervento iniziato subito dopo la diagnosi
- Eccellente supporto dei genitori
- 10 ore di programmi basati domiciliari; AdC ha avuto ottima collaborazione con l'insegnante di educazione speciale a scuola, per estendere il programma nel contesto scolastico



...alla fine dell'early intervention



- A 6 anni Filippo era più o meno allo stesso livello di funzionamento dei suoi coetanei.
- È tutto oro quello che luccica?
- Cosa succede dopo?

Filippo

- Descriveva (tact) i suoi modelli comportamentali problematici
- Confrontava i suoi modelli con il comportamento di altre persone
- Discriminava problemi nelle interazioni sociali
- Desiderava dare un senso ai suoi sensi
- Restrizione degli argomenti fonte di conversazione
- Regole rigide
- Ansia



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L'ABA è iatrogena?

- Una provocazione deliberata
- Cosa succede quando il linguaggio si sviluppa?
- Possiamo evitare gli effetti del "lato oscuro" del linguaggio?
- Una nota a margine: quali sono gli effetti di applicazioni rigide dei protocolli?

Table 1 Distribution of the number of patients who met DSM-5 criteria (DSM-5 group) and patients who did not (Non DSM-5) showing the prevalence of the different Autism Spectrum Disorders (ASD) subgroups and comorbidity with Attention Deficit Hyperactivity Disorder (ADHD), Obsessive Compulsive Disorder (OCD), Anxiety, Eating behavior problems, Auto-aggression, Hetero-aggression and Self-harm. Statistical differences between both groups are described.

		No DSM-5 Count (%)	DSM-5 Count (%)	Total Count (%)	<i>p</i>
ASD subtypes	Autism	17 (25.8%)	17 (29.8%)	34 (27.6%)	.61
	Asperger	13 (19.7%)	14 (24.6%)	27 (22%)	
	PDD-NOS	36 (54.5%)	26 (45.6%)	62 (50.4%)	
	Total	66 (100%)	57 (100%)	123 (100%)	
ADHD	No	33 (50%)	19 (33.3%)	52 (42.3%)	.06
	Yes	33 (50%)	38 (66.7%)	71 (57.7%)	
	Total	66 (100%)	57 (100%)	123 (100%)	
OCD	No	51 (77.3%)	22 (38.6%)	73 (59.3%)	.0001
	Yes	15 (22.7%)	35 (61.4%)	50 (40.7%)	
	Total	66 (100%)	57 (100%)	123 (100%)	
Anxiety	No occur	6 (9.5%)	4 (7%)	10 (8.3%)	.09
	Occasional	39 (61.9%)	24 (42.1%)	63 (52.5%)	
	Quite often	4 (6.3%)	5 (8.8%)	9 (7.5%)	
	Severe problem	14 (22.2%)	24 (42.1%)	38 (31.7%)	
Eating behaviour problems	No occur	33 (52.4%)	16 (28.6%)	49 (41.2%)	.05
	Occasional	12 (19%)	17 (30.4%)	29 (24.4%)	
	Quite often	4 (6.3%)	3 (5.4%)	7 (5.9%)	
	Severe problem	14 (22.2%)	20 (35.7%)	34 (28.6%)	
Auto-aggression	No occur	42 (66.7%)	31 (54.4%)	73 (60.8%)	.57
	Occasional	5 (7.9%)	6 (10.5%)	11 (9.2%)	
	Quite often	4 (6.3%)	6 (10.5%)	10 (8.3%)	
	Severe problem	12 (19%)	14 (24.6%)	26 (21.7%)	
Hetero-aggression	No occur	40 (64.5%)	31 (56.4%)	71 (60.7%)	.31
	Occasional	12 (19.4%)	12 (21.8%)	24 (20.5%)	
	Quite often	1 (1.6%)	5 (9.1%)	6 (5.1%)	
	Severe problem	9 (14.5%)	7 (12.7%)	16 (13.7%)	
Self-harm	No	54 (81.8%)	41 (71.9%)	95 (77.2%)	.20
	Yes	12 (18.2%)	16 (28.1%)	28 (22.8%)	
	Total	66 (100%)	57 (100%)	123 (100%)	

Il lato oscuro del linguaggio:
comorbidity

Pensieri suicidali

- Fattori di rischio
 - Restrizione nel repertorio sociale
 - Comunicazione
 - Essere vittima di bullismo

Evitamento: camuffamento dei tratti autistici correla con problemi di salute mentale

	Probability of scoring above cut-off		
	GAD > = 10	PHQ > = 10	LSAS > = 30
CAT-Q = 25	.04	.13	.16
CAT-Q = 50	.09	.22	.44
CAT-Q = 75	.19	.36	.76
CAT-Q = 100	.37	.51	.92
CAT-Q = 125	.60	.67	.98
CAT-Q = 150	.79	.80	.99
CAT-Q = 175	.90	.88	.99

Probabilities with the greatest increase for each mental health problem are in bold

GAD Generalised Anxiety Disorder Assessment, PHQ Patient Health Questionnaire, LSAS Liebowitz Social Anxiety Scale, CAT-Q Camouflaging Autistic Traits Questionnaire

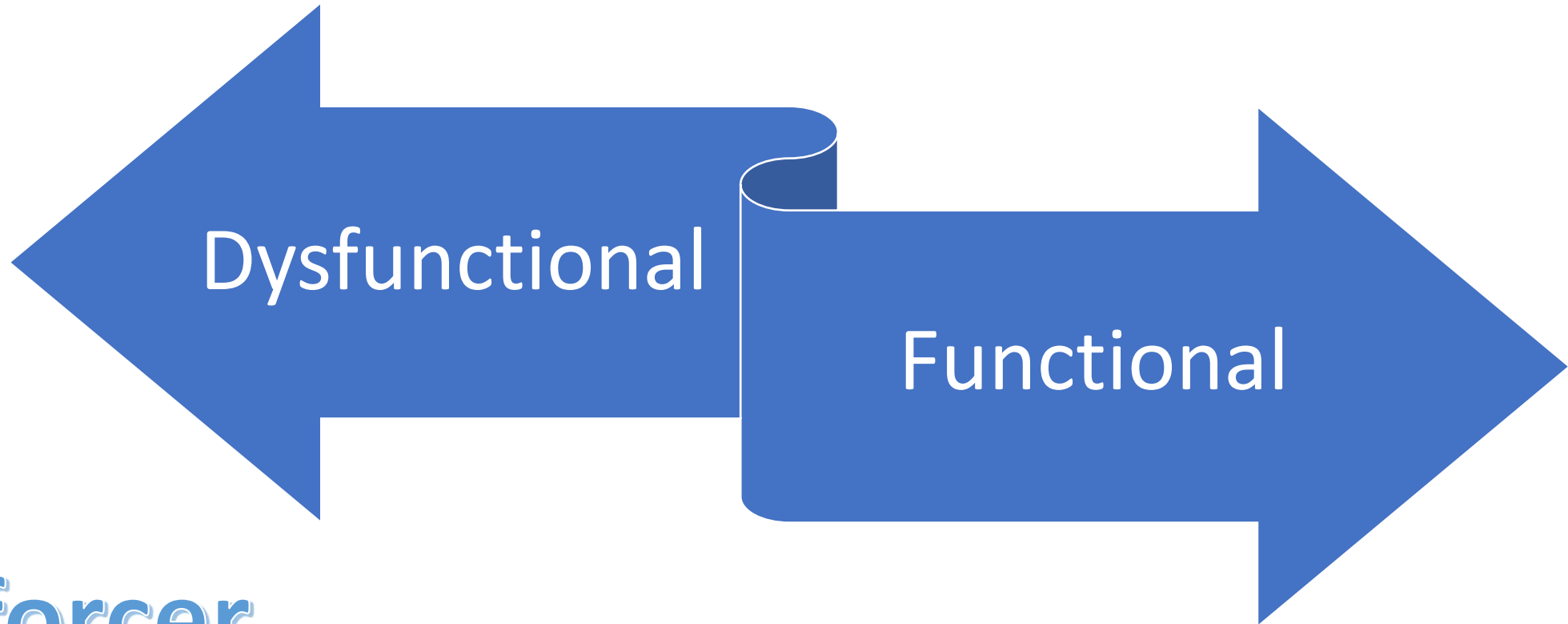
Cosa succede quando promuoviamo lo sviluppo del linguaggio?

- Gli antecedenti verbali modificano il modo in cui entriamo in contatto con le contingenze (vedi letteratura su RGB).
- Quando stimoliamo lo sviluppo del comportamento verbale non possiamo fare nulla per evitare gli effetti collaterali.
- Non possiamo separare il lato oscuro del linguaggio dalla faccia luminosa.

Regole e loro effetti

- Tracking
- Pliancing
- Valuing
- Insensibilità alle contingenze

Behavioral processes



reinforcer

reinforcer



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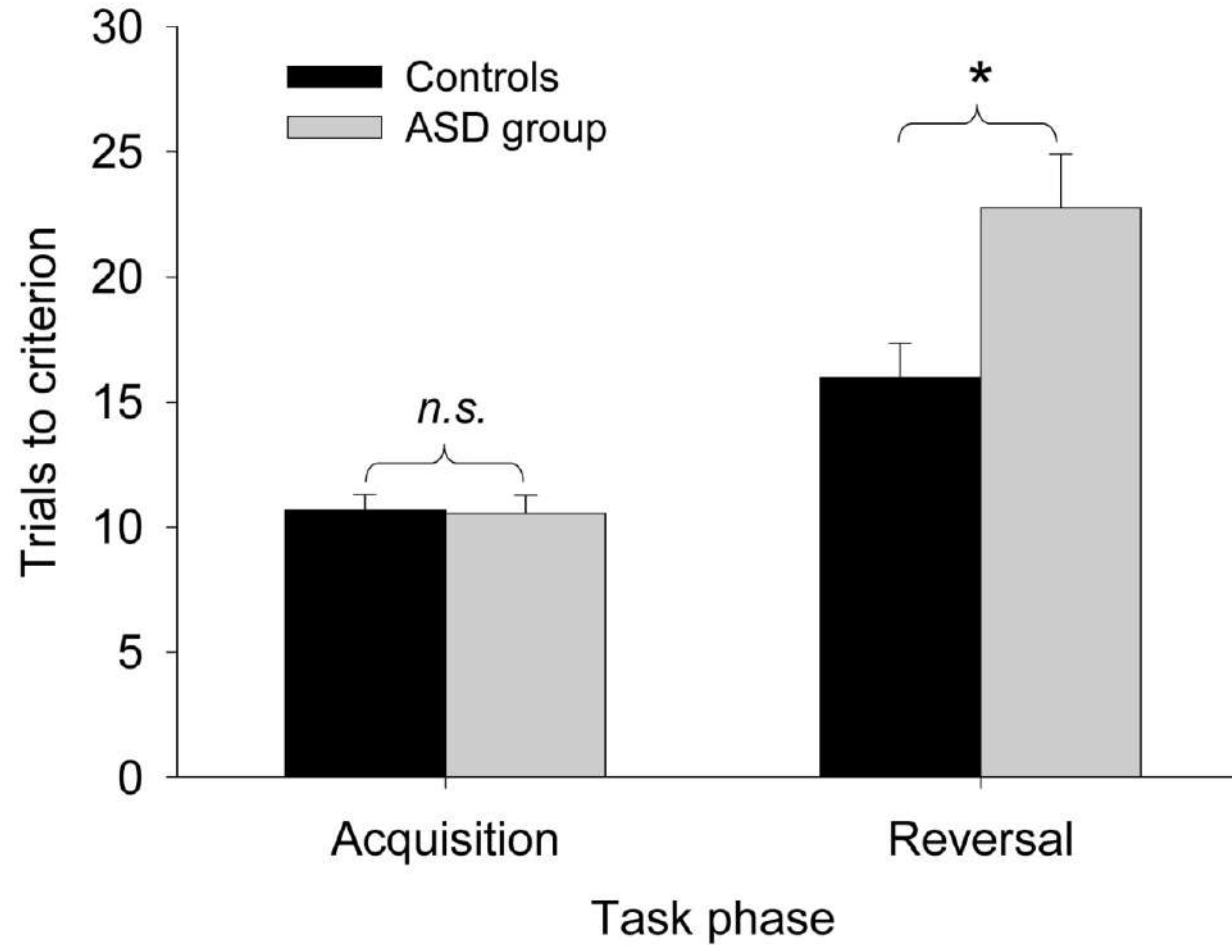
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Inflessibilità psicologica



D'Cruz et al. (2013)

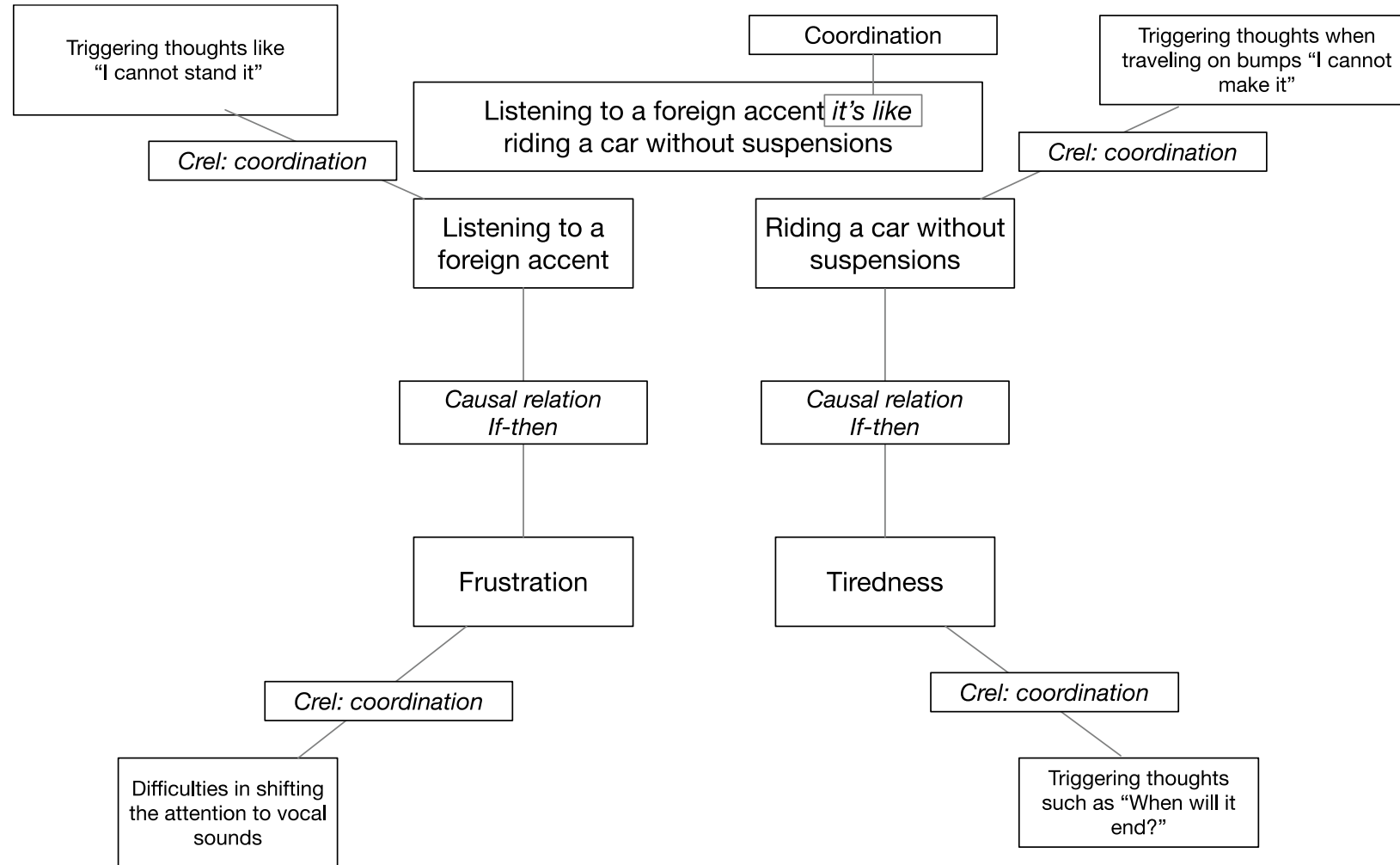
Sottigliezza degli stimoli contestuali



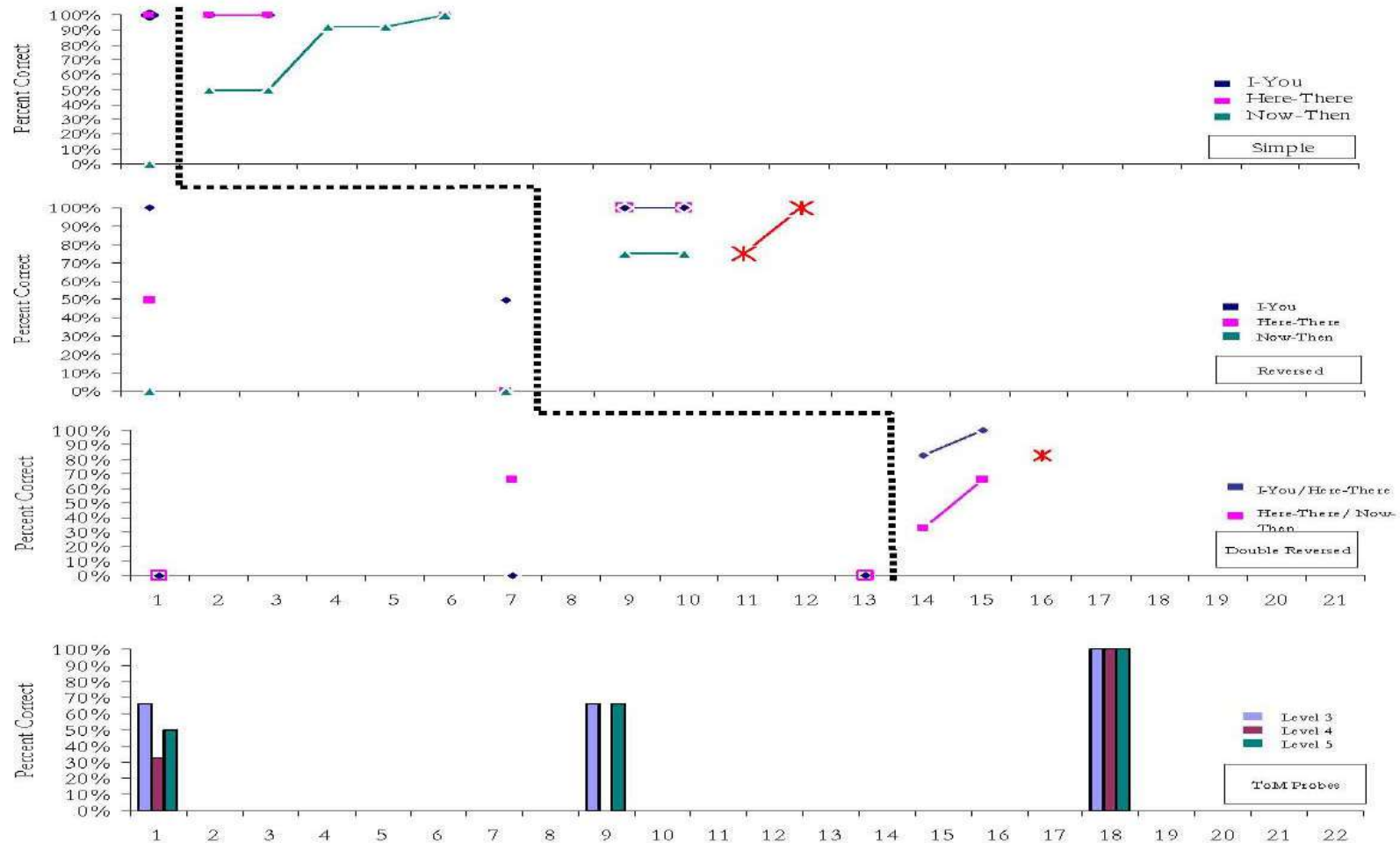
Amplificazione degli stimoli



Aspetti sofisticati del linguaggio: le metafore

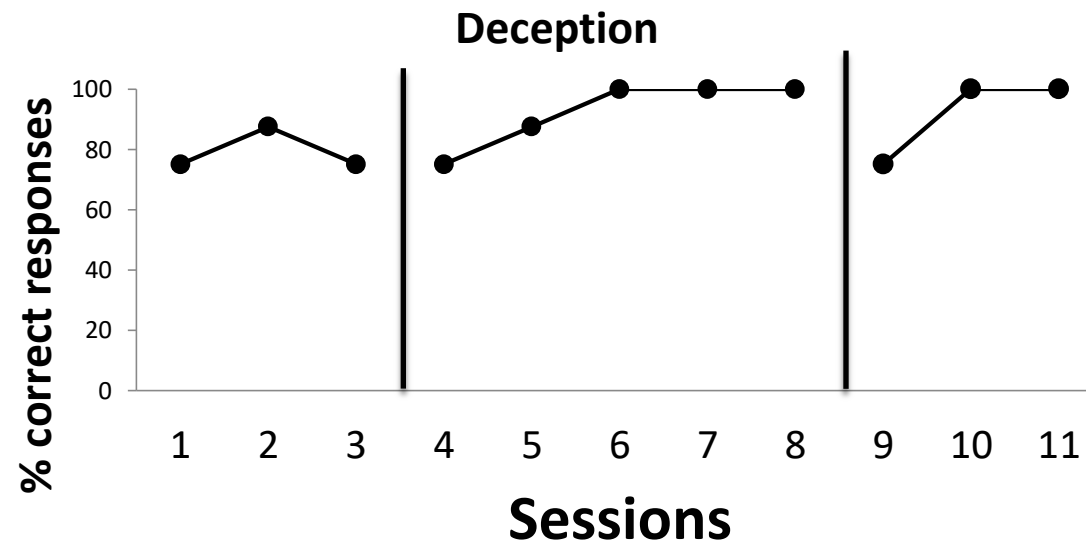
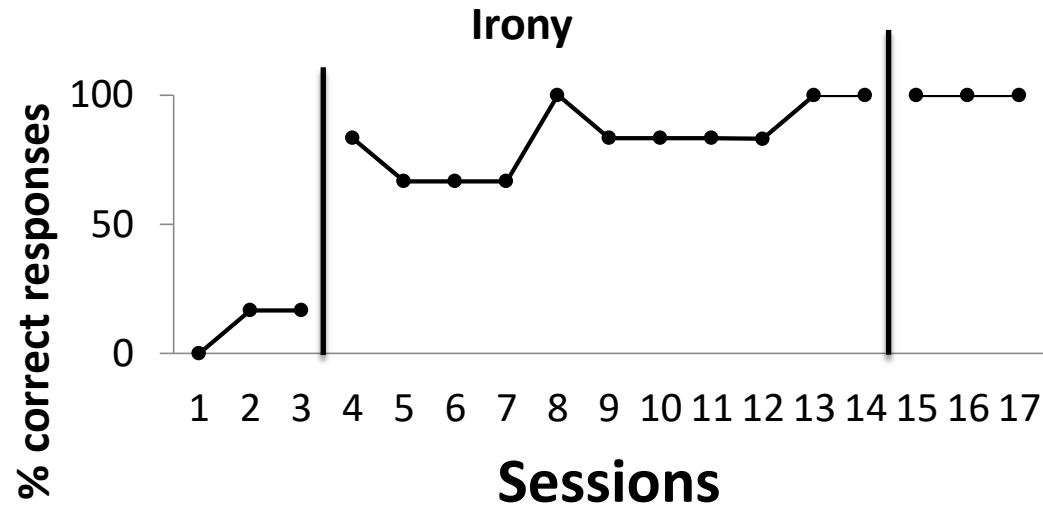


PT e teoria della mente

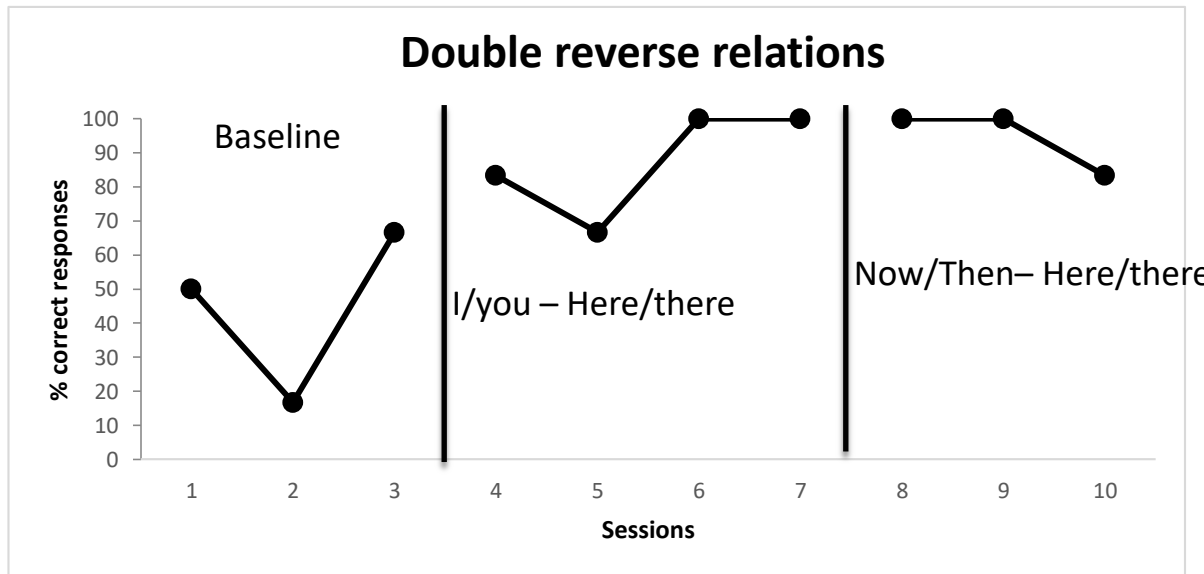
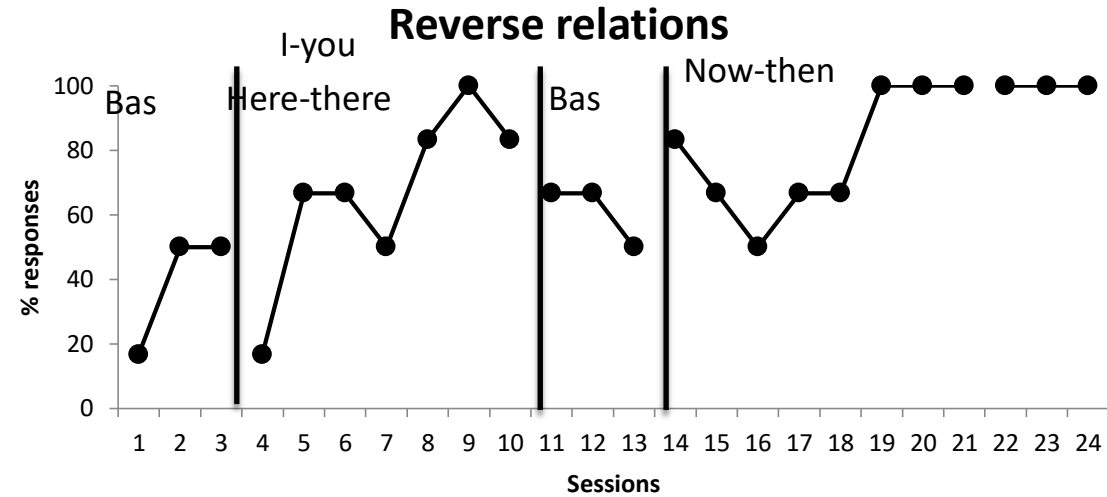
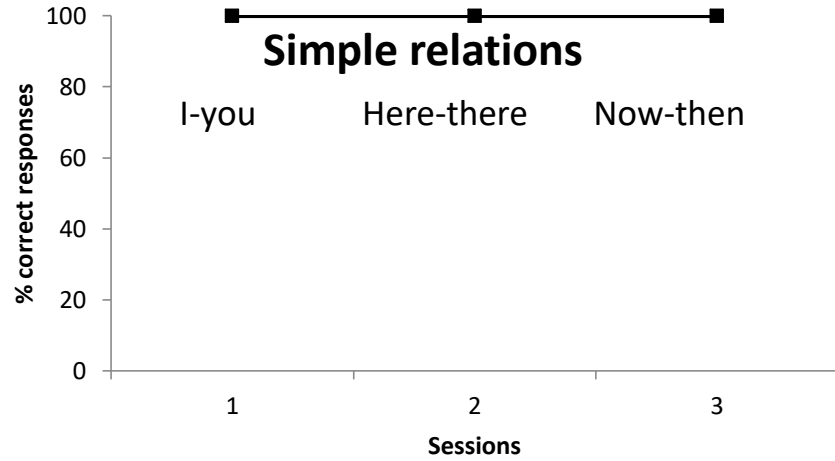


-Figure 2. Within subject analysis for Aladdin. Multiple baseline across levels of Complexity includes data series for each deictic relational frame. The lower panel represents Theory of Mind probe percentages.

Filippo: rispondere a ironia e inganno



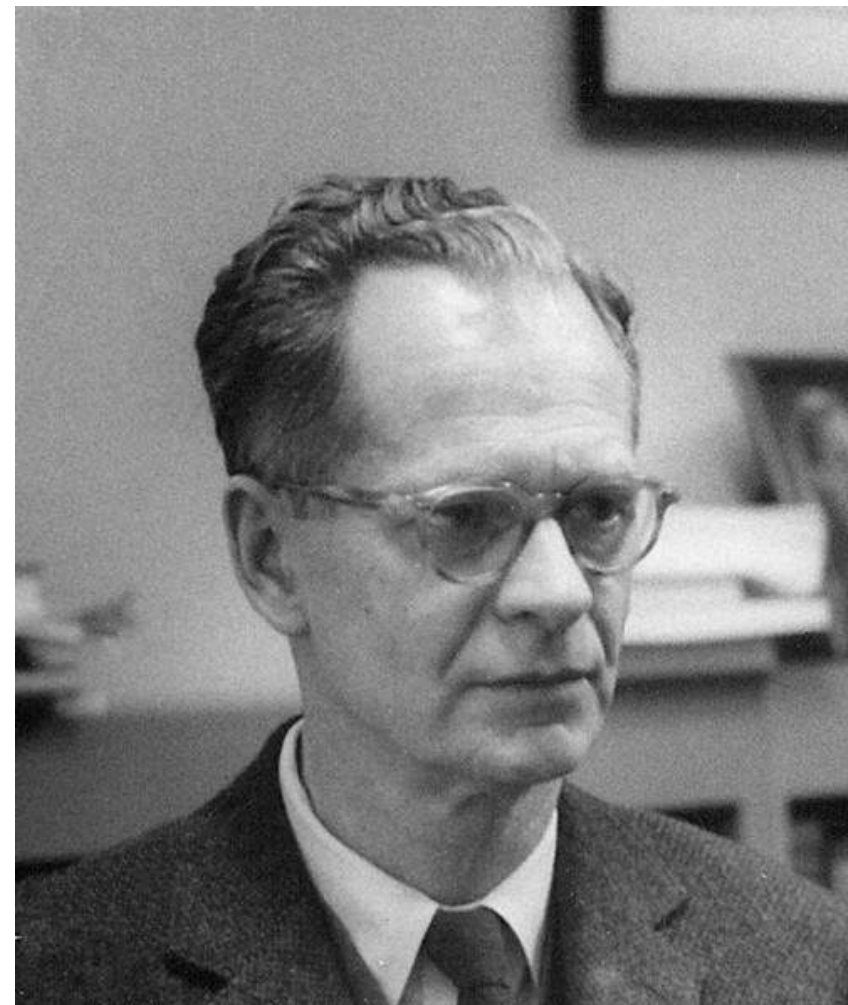
Perspective Taking



A volte le cose sono più complicate



“The **distinction between public and private is by no means the same as that between physical and mental...I contend that my toothache is just as physical as my typewriter, though not public**, and I see no reason why an objective and operational science cannot consider the processes through which a vocabulary descriptive of a toothache is acquired and maintained. It is an amusing bit of irony that, **while Boring must confine himself to an account of my external behavior, I am still reasonably interested in what might be called Boring-from-within.**”.(Skinner, 1972, p. 384)





EQUIVALENCE TRAIN (EXPERIMENTAL SUBJECTS ONLY):

<p>A1 B1 B2 B3</p>	<p>A2 B1 B2 B3</p>	<p>A3 B1 B2 B3</p>
<p>A1 C1 C2 C3</p>	<p>A2 C1 C2 C3</p>	<p>A3 C1 C2 C3</p>

EQUIVALENCE TEST (EXPERIMENTAL SUBJECTS ONLY):

<p>B1 C1 C2 C3</p>	<p>B2 C1 C2 C3</p>	<p>B3 C1 C2 C3</p>
------------------------	------------------------	------------------------

SELF DISCRIMINATION TRAINING (ALL SUBJECTS):

SELF DISCRIMINATION TRAINING (STAGE 1):

TASK 1: NO RESPONSE = B1
RESPONSE = B2

TASK 2:

<p>B1 B1 B2</p>	<p>B2 B1 B2</p>
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SELF DISCRIMINATION TRAINING (STAGE 2):

TASK 1: NO RESPONSE = B1
RESPONSE = B2

TASK 2:

<p>NO SAMPLE B1 B2</p>	<p>NO SAMPLE B1 B2</p>
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SELF DISCRIMINATION TRAINING (STAGE 3):

TASK 1: NO RESPONSE =
RESPONSE = NO STIMULI

TASK 2:

<p>NO SAMPLE B1 B2</p>	<p>NO SAMPLE B1 B2</p>
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SELF DISCRIMINATION TRANSFER TEST 1:

TASK 1: NO RESPONSE =
RESPONSE = NO STIMULI

TASK 2:

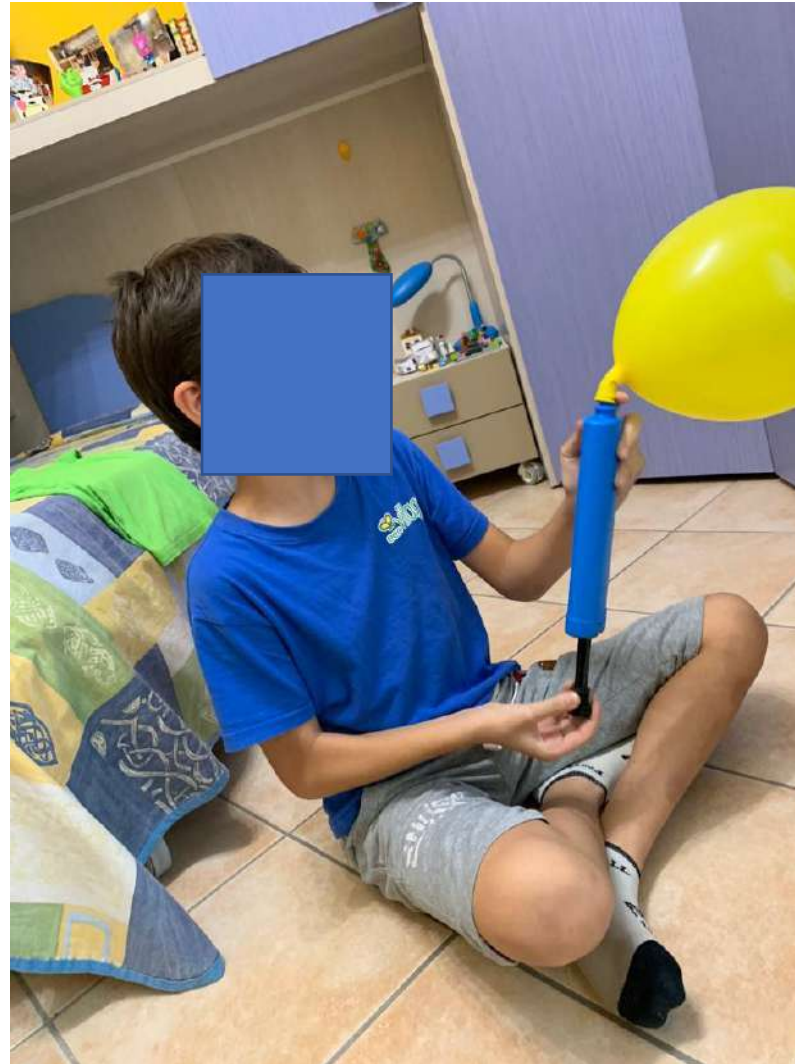
<p>NO SAMPLE C1 C2</p>	<p>NO SAMPLE C1 C2</p>
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SELF DISCRIMINATION TRANSFER TEST 2: TASKS 1 AND 2 PRESENTED IN REVERSE ORDER
(SUBJECT REPORTS ON FUTURE BEHAVIOUR)

Rispondere simbolicamente agli eventi interni

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(Dymond & Barnes, 1994)



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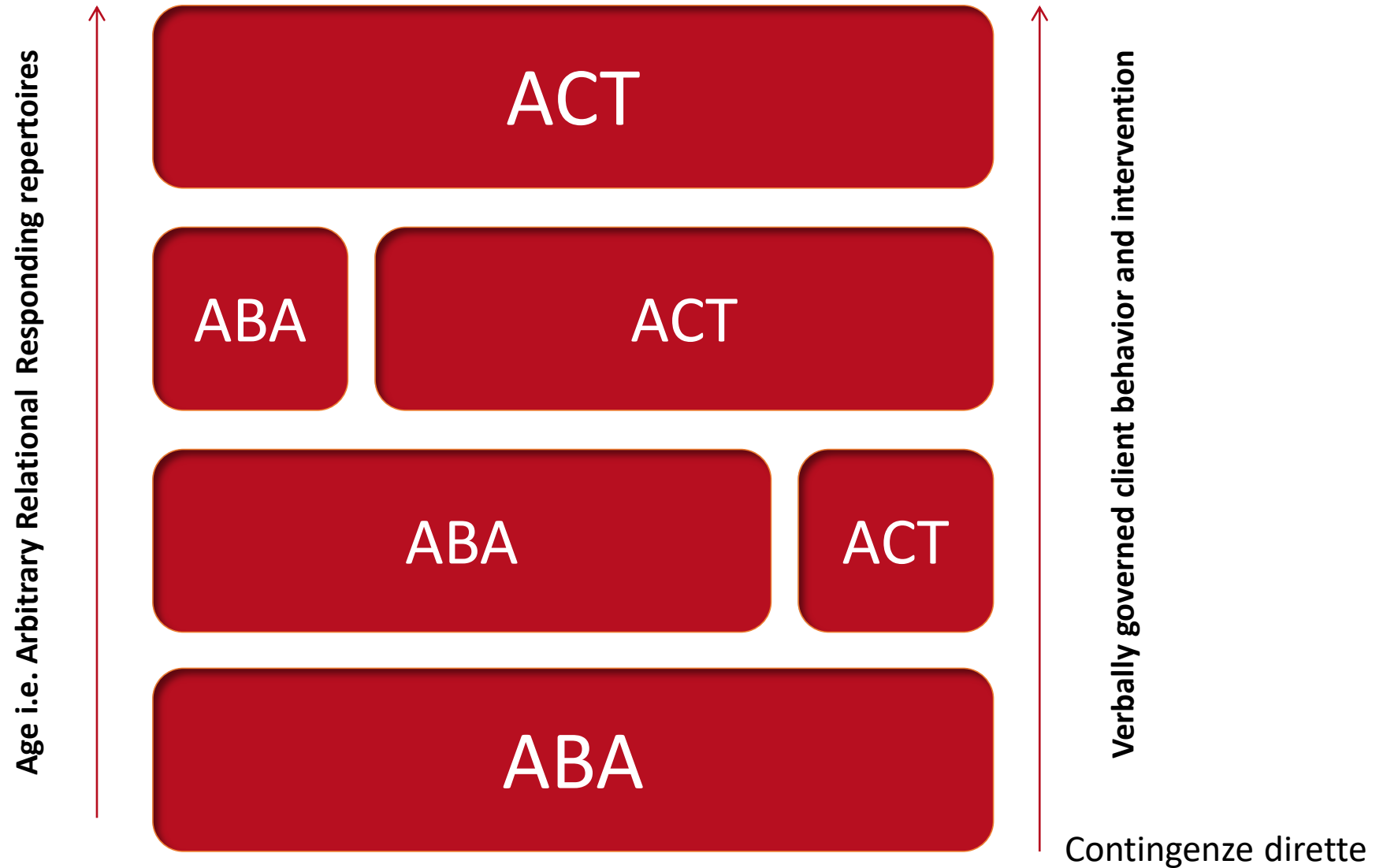


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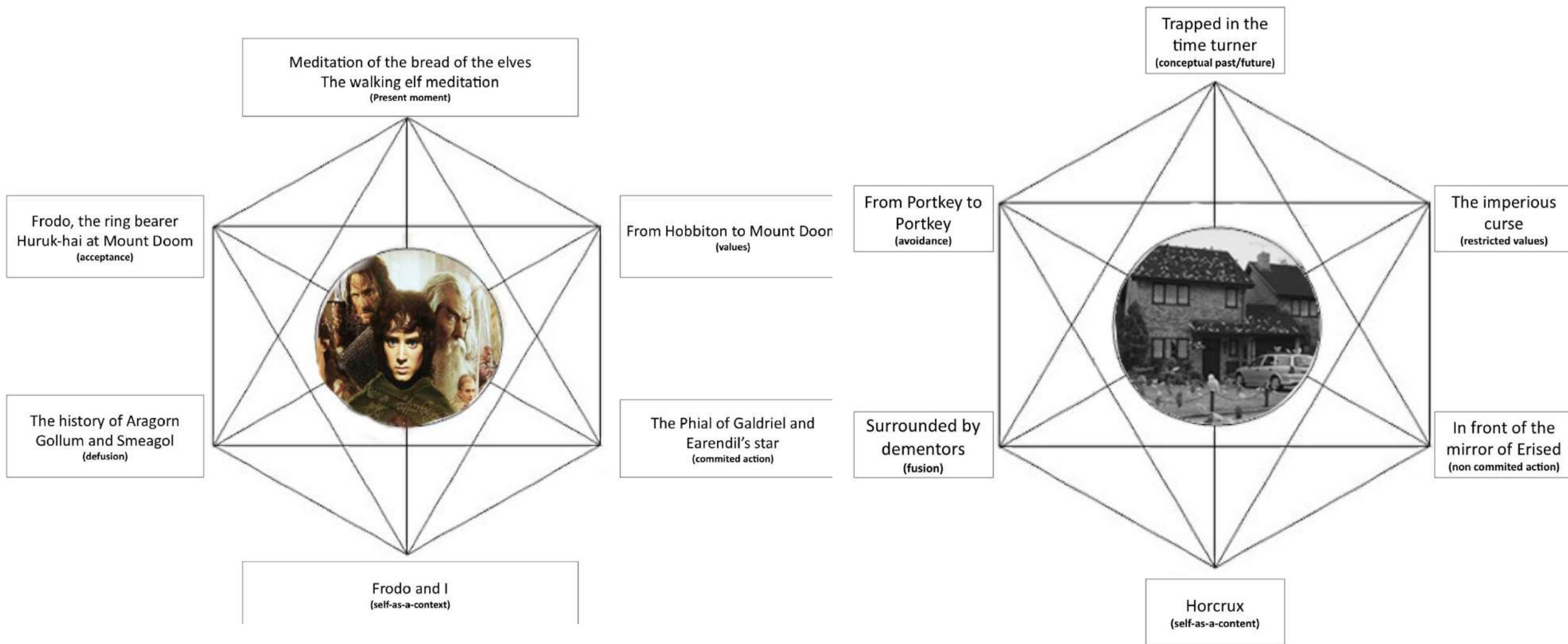
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Functional analysis

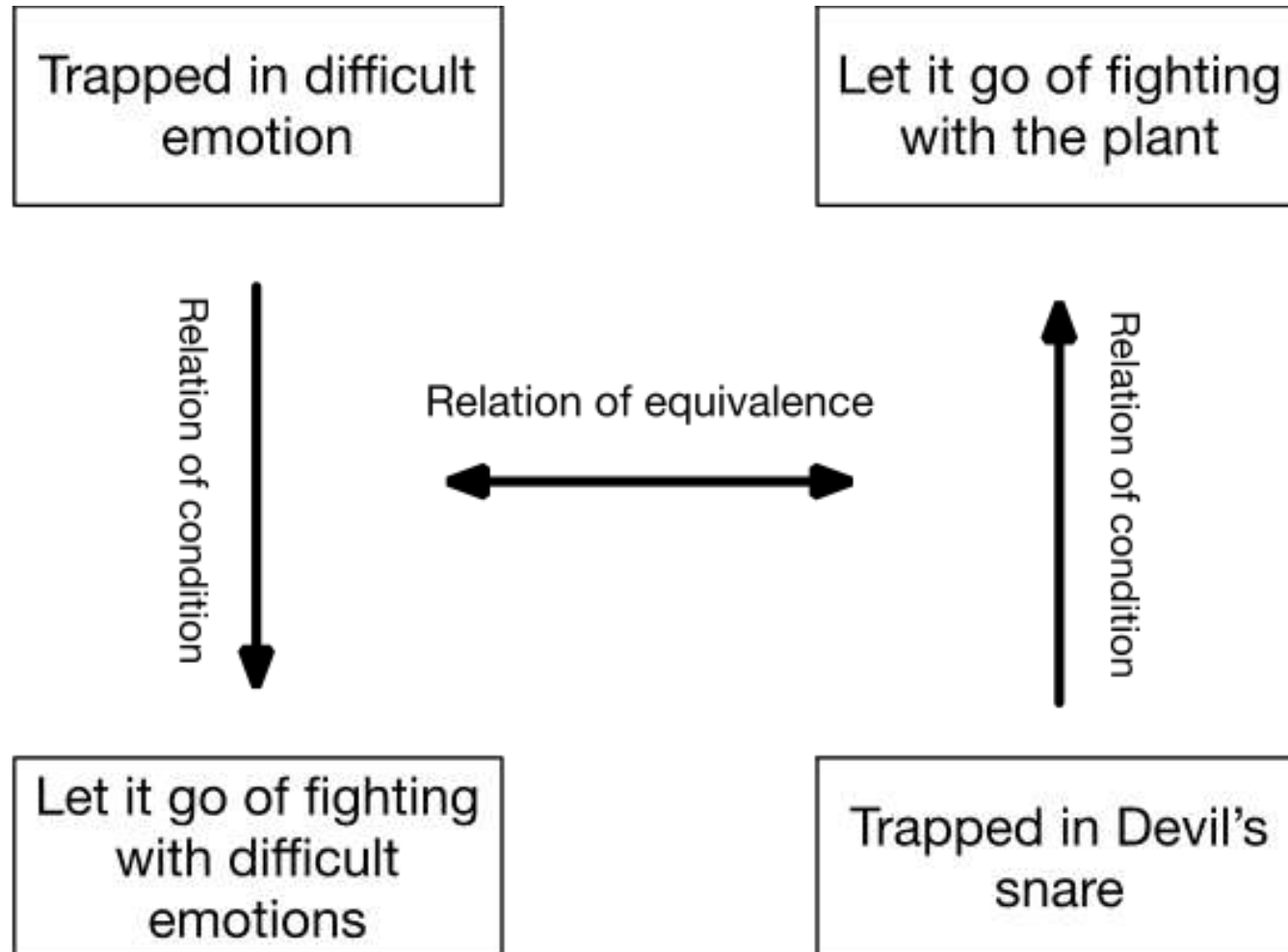
Contingenze mediate verbalmente



ACTraining è un NET



Versioni per bambini delle metafore ACT



Effetti dell'ACT sui sintomi emotivi e sulla condotta

		Pre-skills training	Post-skills training	2- month follow-up	Effect of time	Between-group effect	Group-by-time interaction effect	Correlation with teacher-rating at baseline
The SDQ total score	ACT	14.00 (5.75)	13.20 (6.46)	11.13 (4.97)	$F_{(2, 52)} = 1.39; p = .258; \eta_p^2 = .05$	NS	$F_{(2, 52)} = 1.95; p = .152; \eta_p^2 = .07$	$r = .23$ $p = .248$
	C	11.92 (5.98)	10.92 (5.17)	11.92 (6.78)				
<i>The SDQ subscales</i>								
Emotional symptoms	ACT	3.87 (2.97)	3.27 (3.31)	2.93 (2.60)	$F_{(2, 52)} = .27; p = .768; \eta_p^2 = .01$	NS	$F_{(2, 52)} = 2.13; p = .13; \eta_p^2 = .08$	$r = .42$ $p = .027$
	C	2.38 (2.50)	2.62 (1.85)	2.85 (2.51)				
Hyperactivity/inattention	ACT	4.07 (2.05)	4.73 (2.19)	3.20 (1.61)	$F_{(2, 52)} = 2.54; p = .089; \eta_p^2 = .09$	NS	$F_{(2, 52)} = 3.90; p = .026; \eta_p^2 = .13$	$r = .18$ $p = .366$
	C	4.54 (2.57)	3.23 (2.68)	3.62 (2.63)				
Conduct problems	ACT	2.33 (1.80)	2.07 (1.79)	2.07 (2.12)	$F_{(2, 52)} = .51; p = .951; \eta_p^2 = .00$	NS	$F_{(2, 52)} = .91; p = .410; \eta_p^2 = .03$	$r = .54$ $p = .003$
	C	1.85 (1.35)	2.08 (1.89)	2.23 (1.83)				
Peer relation problems	ACT	3.73 (1.91)	3.13 (1.41)	2.93 (1.67)	$F_{(2, 52)} = .93; p = .402; \eta_p^2 = .03$	NS	$F_{(2, 52)} = 1.27; p = .289; \eta_p^2 = .05$	$r = .50$ $p = .007$
	C	3.15 (1.99)	3.00 (1.35)	3.31 (2.21)				
Prosocial behaviour ^a	ACT	7.27 (1.91)	7.33 (2.02)	7.53 (1.77)	$F_{(2, 52)} = 1.54; p = .224; \eta_p^2 = .06$	NS	$F_{(2, 52)} = 3.61; p = .034; \eta_p^2 = .12$	$r = .362$ $p = .058$
	C	7.38 (1.39)	6.69 (2.18)	6.15 (2.30)				

ANOVA: analysis of variance; ACT = acceptance and commitment therapy-based skills training group; C = control group; SDQ: Strengths and Difficulties Questionnaire.

^aThe SDQ subscale prosocial behaviour is not included in the SDQ total score. In contrast to other SDQ subscales, higher scores in the SDQ prosocial behaviour indicate better adjustment.

Bold values = statistically significant p-values.

ACT, comportamenti inflessibili e manding

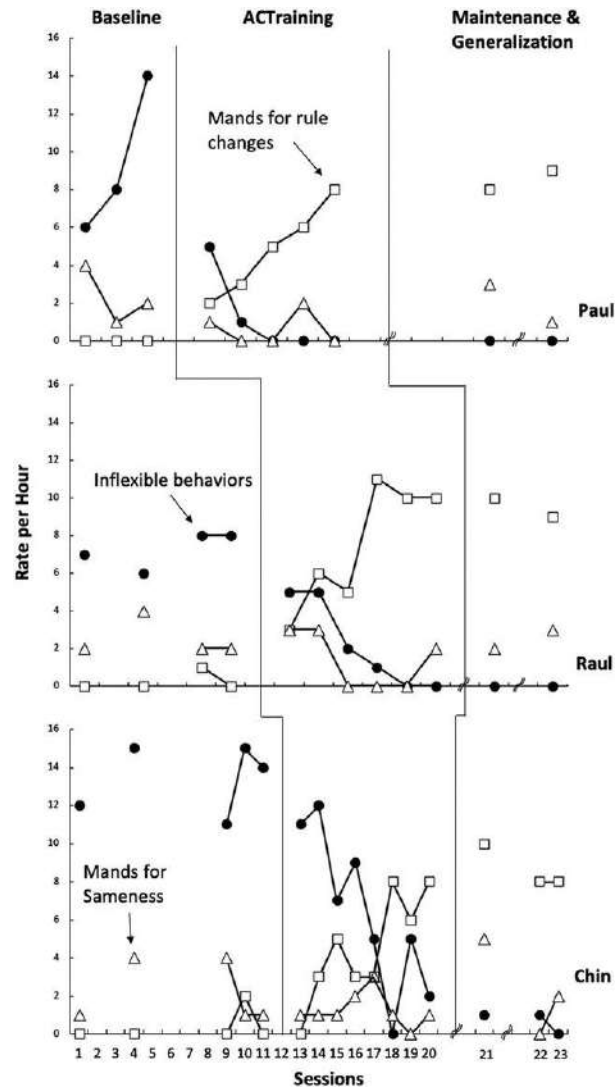


Fig. 2. Responses to S D (closed triangles) and S Δ (open circles) for Paul (top), Raul (center), and Chin (bottom) during discrimination training. Fig. 3. Inflexible behaviors (closed circles), manding for sameness (open triangles), and manding for rule changes (open squares) for Paul (top), Raul (center), and Chin (bottom). Maintenance probes were at one and two months. Chin received an additional maintenance session at 2.5 months. Generalization to new people (Paul and Chin) and novel games (all) was assessed at follow up.

Szabo, 2019

ACT e mindfulness: riduzione impulsività

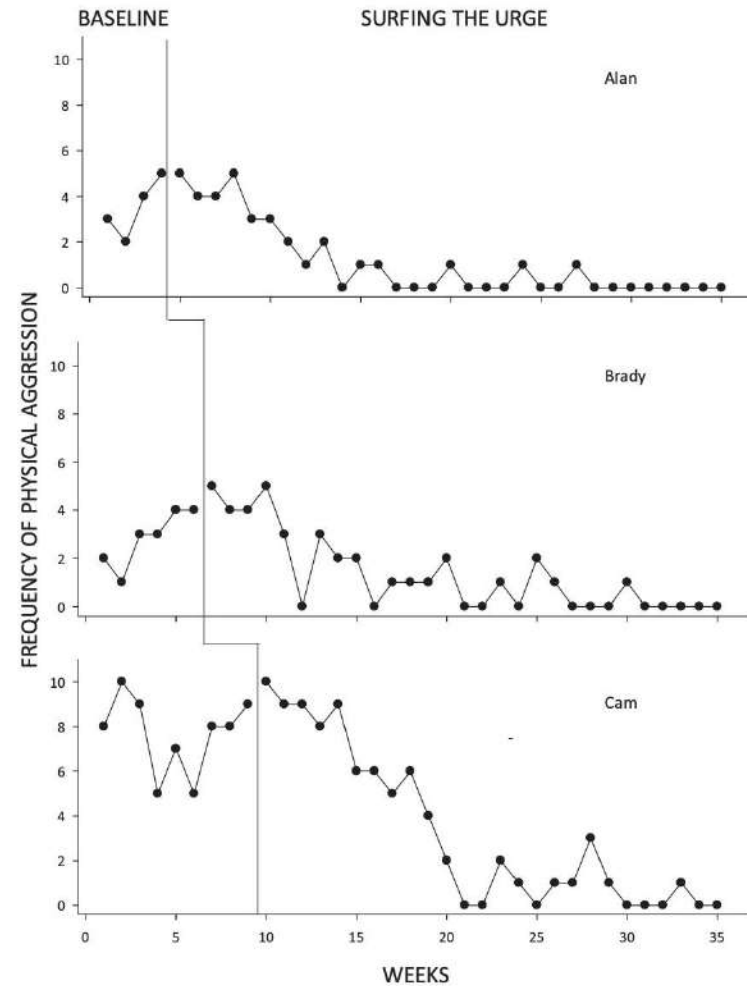
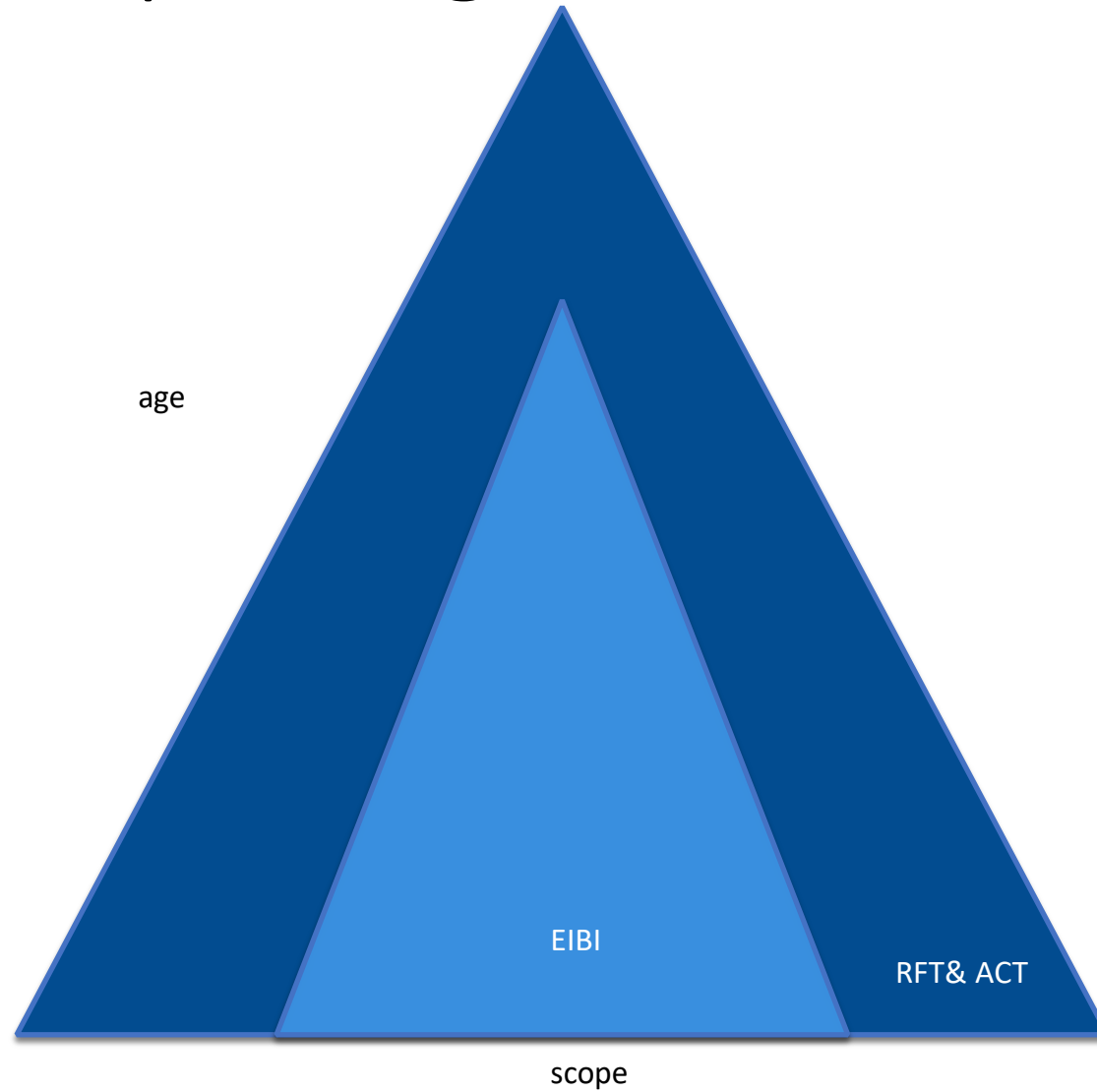


Fig. 2. Frequency of physical aggression per week across three adolescents with autism spectrum disorder during baseline and intervention using Surfing the Urge.

Singha et al. 2018

Ampliare gli interventi ABA



Filippo

- Ampliamento dell'autonomia
- Ha aumentato il numero di amici
- Ha organizzato da solo la sua festa di compleanno
- Gestisce le situazioni in cui si presenta l'assillo
- Ignora il bullismo
- ...e dopo?

I miei desideri per il settore nei prossimi anni

- Abbracciare un campo d'azione più ampio mantenendo la precisione
- Ampliare la formazione
- Espandere i profili professionali (legati alle normative e alle leggi di ogni nazione)
- Espandere la ricerca (andando oltre il disegno a soggetto singolo)
- Ampliare gli orizzonti e i livelli di ricerca
- Collaborazione internazionale per ricerche più grandi e più forti

Aiutare a crescere in un mondo imprevedibile

Vorrei vivere un solo giorno senza imprevedibilità, senza casualità.

Vorrei sapere esattamente cosa penseranno, immagineranno e faranno le persone intorno a me ..

Giuliano



