

DIFICULTADES DE REGULACIÓN E INTEGRACIÓN SENSORIAL EN EL ÁMBITO EDUCATIVO

CURRO DE LOS SANTOS BEAMUD

TERAPEUTA OCUPACIONAL MAESTRO DE EDUCACIÓN ESPECIAL Y FISIOTERAPEUTA
EXPERTO EN INTEGRACIÓN SENSORIAL



11 NOVIEMBRE 2021



OBJETIVOS SESIÓN 1

- COMPRENDER DE QUÉ VAMOS A HABLAR
- CONOCER LA EXTENSIÓN DE LAS DIFICULTADES DE INTEGRACIÓN SENSORIAL
- CONOCER A LOS SIETE SISTEMAS SENSORIALES
- IDENTIFICAR EN NOSOTRAS MISMAS QUE ESTRATEGIAS SENSORIALES UTILIZAMOS PARA REGULARNOS.

**CÓMO LO VE
EL PAPÁ**



**CÓMO LO VE
EL NIÑO**



**CÓMO LO VE
LA MAMÁ**



Si hace tres años me hubieses preguntado por la integración sensorial, te respondería que si eso tiene algo que ver con el reiki, y si me hablabas de un terapeuta ocupacional lo confundiría con un trabajador social. Pues bien, tres años después te diría que son las dos cosas que más nos han ayudado en el avance de nuestra hija.

Y fíjate, las DIS estuvieron presentes desde el día en que mi hija nació. Antes de ese día teníamos unas expectativas muy distintas a lo que luego en realidad fue sucediendo. Recuerdo la estancia en el hospital, la niña desde que nació no paraba de gritar, era un grito ensordecedor, que no se detenía en ningún, ningún momento! Todos los turnos de las enfermeras entraban y salían, llamaban a las enfermeras de la UCI, los pediatras de cada día, de cada turno, de urgencias..., Estuvimos cinco días, y nadie sabía decirnos que pasaba. Nos prohibieron las visitas, porque decían que tenía la ansiedad, que los familiares no podían entrar a conocer a la niña, nosotros no entendíamos nada. Nos llamaba la atención que en una planta de maternidad se referían a nosotros como “la habitación de la niña que grita”, o que mi ginecóloga dijera que nunca había oído a una niña gritar de esa manera después de tantos años asistiendo partos. Al llegar a casa no sabíamos que hacer, ni siquiera podíamos tocarla. Mi marido tenía la sensación constantemente que le hacía daño al tocarla. Dejamos de bañarla, porque por los gritos parecía que la metimos en lava en lugar de agua. No sabíamos como quitarle la ropa, hasta la opción era cortar los bodys con tijeras. Recuerdo el armario de Elena, lleno de ropa de primera puesta, y vestiditos preciosos de 0-3 meses, que nunca le pusimos, el primer día que pudimos ponerle un vestido fue el primer fin de semana de mayo, y ella nació el 27 de enero...

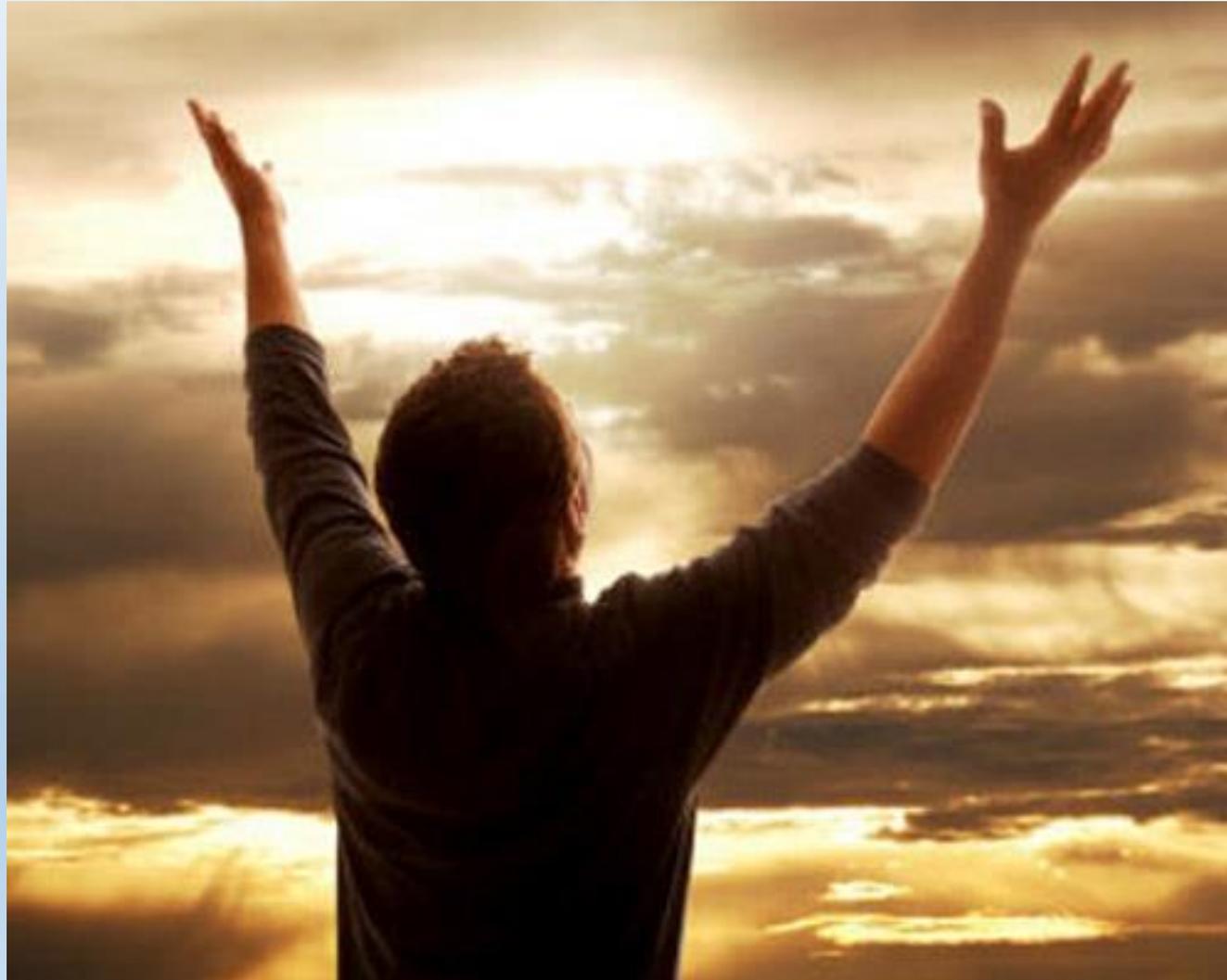
y esto solo fue el principio, podría seguir diciendo lo que son las DIS, o mejor dicho lo que es sufrirlas. No poder salir a la calle, porque si cualquier persona cuando se convierte en padre es cuando se da cuenta lo ruidoso que es el mundo, imaginar lo que es salir con una niña que no es capaz de procesar ningún sonido, ni ninguna sensación y que vive en un estado continuo de alerta. ¿Un restaurante? es impensable con el bullicio, ¿una cafetería? con platos, vasos, cubiertos, cafetera... ¿Un paseo por la calle? Los coches, sonidos de badenes, claxon, etc.

Esto nos ha limitado desde el primer día, y que la gente, no entiende lo que esto significa. Incluso no solo que no lo entienden sino que tienden a hacer comentarios que son muy dolorosos como: “la estás sobreprotegiendo, o “lo que necesita es venirse a mi casa una temporada” o “lo que tenéis que hacer es dejarla, que ya se le pasará”.

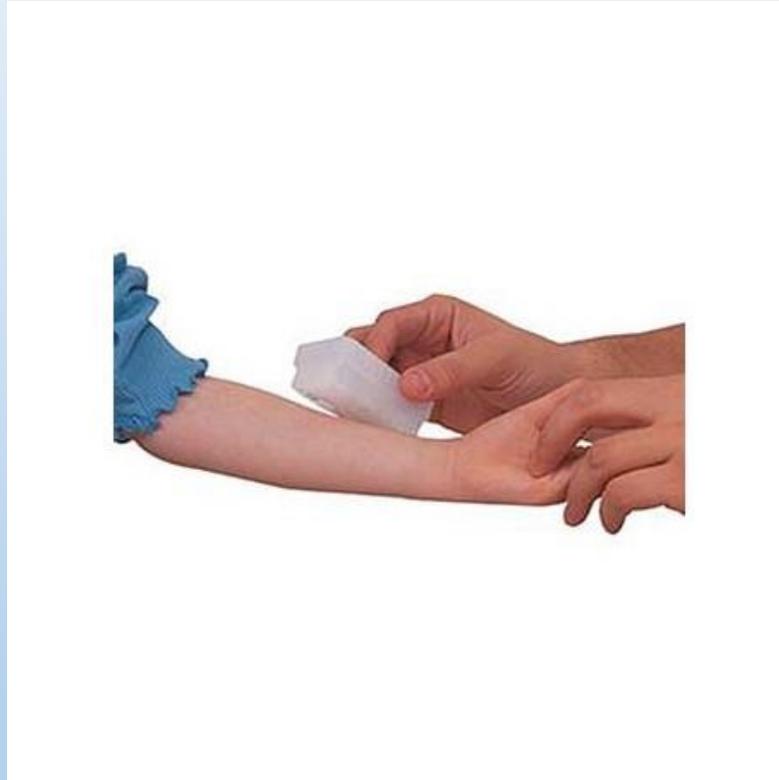
Nosotros siempre lo hemos explicado como que Elena no es capaz de soportar las sensaciones que recibe del mundo, como si el propio aire la molestase.

A pesar de tener una niña con un TGD, con un retraso psicomotor, podemos decir sin duda alguna que lo que más limita nuestra vida son las DIS.

Mitos sobre la integración sensorial



Mitos sobre la integración sensorial



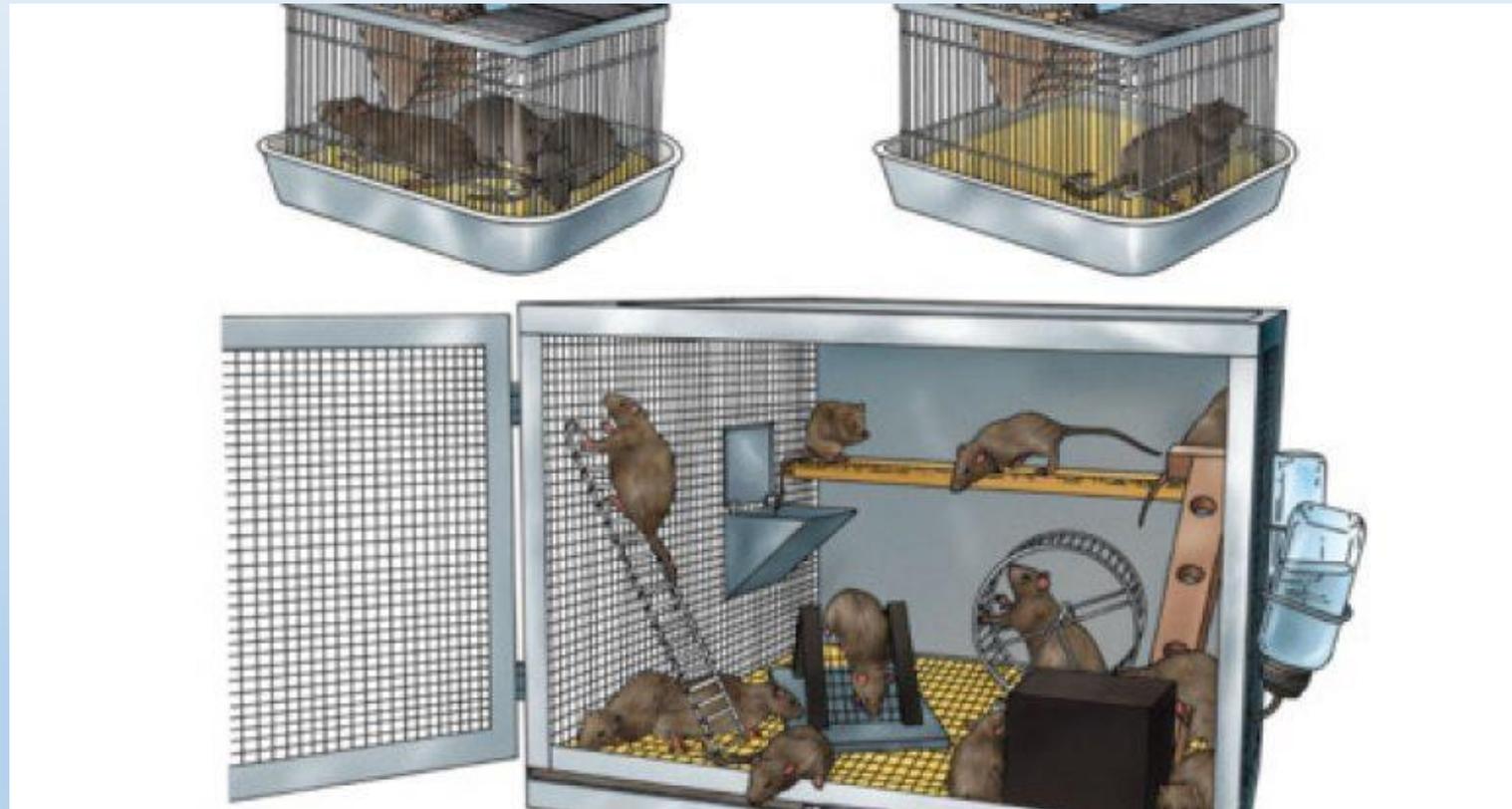
Mitos sobre la integración sensorial



Mitos sobre la integración sensorial

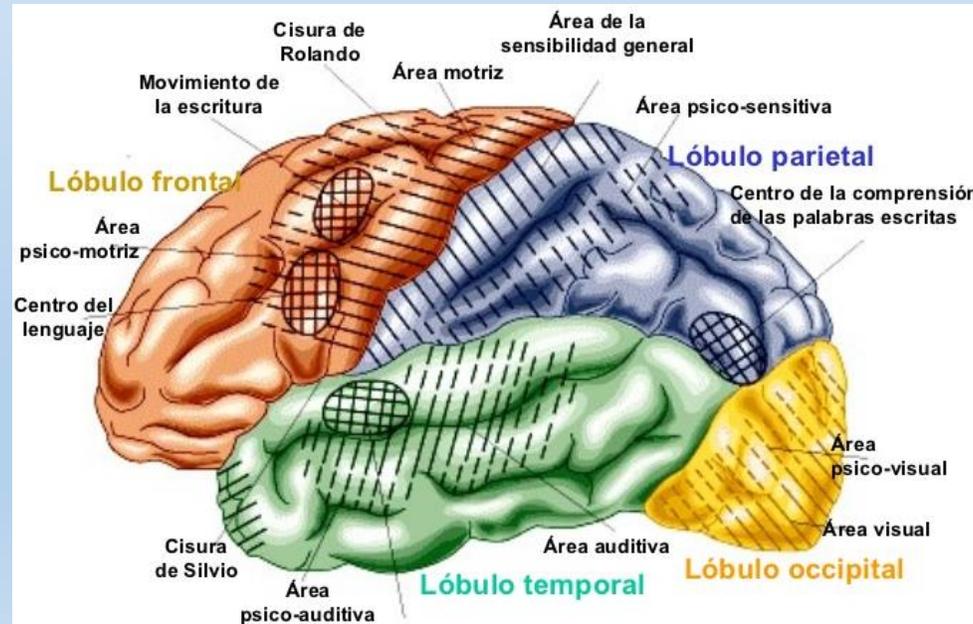


Mitos sobre la integración sensorial



Entonces ¿Qué es la integración Sensorial?

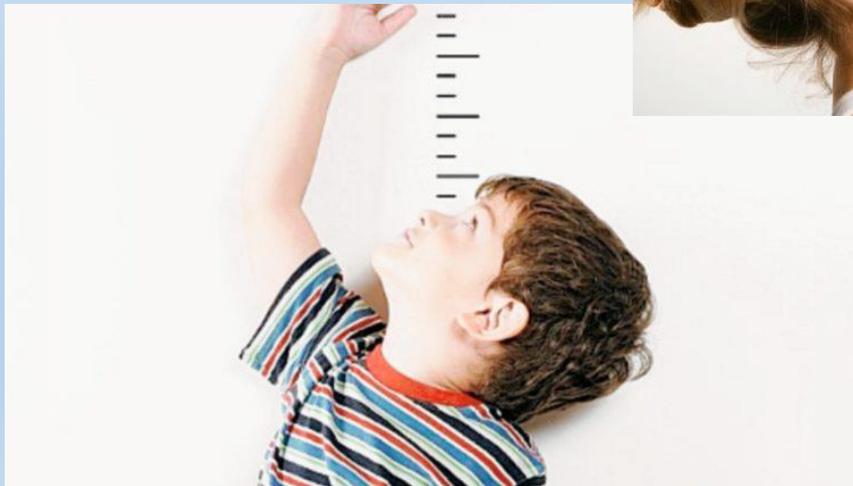
- Complejos procesos neurológicos en los que intervienen millones de neuronas que se organizan en áreas funcionales y que se interconectan entre si, para dar la respuesta precisa a las demandas del entorno en función de los intereses propios.



Eins, No me queda claro



Integración sensorial es:



TAMBIÉN ES...

- Una forma de explicar muchas de las conductas observables en las personas, que dio origen al Modelo de Integración Sensorial de Jean Ayres. Las personas con Disfunción de Integración Sensorial pueden ser hiper-reativas o hipo-reativas a los distintos sistemas sensoriales, lo que les llevará a generar respuestas que buscan su protección y seguridad pero que, a menudo interfieren de forma significativa en su vida diaria.

[Am J Occup Ther](#). 2018 Jan/Feb;72(1):7201190010p1-7201190010p10. doi: 10.5014/ajot.2018.028431.

Efficacy of Occupational Therapy Using Ayres Sensory Integration®: A Systematic Review.

Schaaf RC¹, Dumont RL², Arbesman M³, May-Benson TA⁴.

[Author information](#)

Abstract

This systematic review addresses the question "What is the efficacy of occupational therapy using Ayres Sensory Integration® (ASI) to support functioning and participation as defined by the International Classification of Functioning, Disability and Health for persons with challenges in processing and integrating sensory information that interfere with everyday life participation?" Three randomized controlled trials, 1 retroactive analysis, and 1 single-subject ABA design published from 2007 to 2015, all of which happened to study children with autism, met inclusion criteria. The evidence is strong that ASI intervention demonstrates positive outcomes for improving individually generated goals of functioning and participation as measured by Goal Attainment Scaling for children with autism. Moderate evidence supported improvements in impairment-level outcomes of improvement in autistic behaviors and skills-based outcomes of reduction in caregiver assistance with self-care activities. Child outcomes in play, sensory-motor, and language skills and reduced caregiver assistance with social skills had emerging but insufficient evidence.

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PMID: 29280711 DOI: [10.5014/ajot.2018.028431](#)



¿a que pueden afectar los procesos de integración sensorial?



Seguridad y crianza del bebé

The Journal of Genetic Psychology, 1959, 94, 77-83.

EMOTIONALITY AND AGGRESSIVE BEHAVIOR IN THE MOUSE AS A FUNCTION OF INFANTILE EXPERIENCE*

Columbus Psychiatric Institute and Hospital, Columbus, Ohio

SEYMOUR LEVINE¹

A. THE PROBLEM

Several recent experiments (8, 9) have shown that rats given some form of experience in infancy (shock or handling) were more emotionally stable in adulthood than either late-handled or non-handled Ss. There is, however, little available evidence concerning the effects of infantile (pre-weaning) experience on adult behavior in the mouse.

THE EFFECTS OF EXTRA TACTILE STIMULATION ON A GROUP OF INSTITUTIONALIZED INFANTS.

CASLER L.

PMID: 14279691

[Indexed for MEDLINE]

Role Preparation: Sensory Integration, Attachment, Behavior Perspectives

Ke, MA, OTR, FAOTA
PhD, OTR, FAOTA
Dodd, MA, OTR
Tomoto, OTR

S¹

Role Preparation (MRP) project demonstration-
therapeutic approach to increasing
maternal competence in first time mothers. This four session pro-
gram provided women with discussion, demonstration, practice and
written materials covering topics concerning their infants (attach-
ment, sensory systems, developmental abilities) and themselves.
behavioral revolution of Watson. The
new psychology intuitively disposed of
instincts and painlessly disposed of he-
donism. But having completed this St.
Bartholomew-type massacre, behavior-
n theory was left with an
a nonhedonistic aching
to say.

probably best for
ch lax, ill-defined,
pain, pleasure, anx-
iety, frustration, and hypotheses—par-
ticularly in descriptive and theoretical
rodentology.

Instinct theory, for all its termino-
logical limitations, put proper emphasis
on the motivating power of external
stimuli; for, as so brilliantly described
by Watson (31) in 1941, the instinctive

Regularse y organizar la conducta



NIH Public Access

Author Manuscript

J Child Fam Stud. Author manuscript; available in PMC 2014 October 01.

Published in final edited form as:

J Child Fam Stud. 2013 October 1; 22(7): 912–921. doi:10.1007/s10826-012-9650-9.

Sensory Processing Difficulties, Behavioral Problems, and Parental Stress in a Clinical Population of Young Children

Lauren Gourley, Carina Wind, Erin M. Henninger, and Susan Chinitz
Department of Pediatrics, Albert Einstein College of Medicine, Bronx, NY 10461 Early Childhood Center, 1731 Seminole Avenue Bronx, NY 10461

Sensory Processing, Problem Behavior, Adaptive Behavior, and Cognition in Preschool Children With Autism Spectrum Disorders

Shelley O'Donnell, Jean Deitz, Deborah Kartin, Theresa Nalty, Geraldine Dawson

frontiers in
INTEGRATIVE NEUROSCIENCE

ORIGINAL

Parasympathetic functions in children with sensory processing disorder

Effects of Sensory Integration Intervention on Self-Stimulating and Self-Injurious Behaviors

Roseann C. Schaaf^{1*}, Teal Benevides², Erna Imperatore Blanche³, Barbara A. Brett-G Ellen S. Cohn⁶, Jane Koomar⁷, Shelly J. Lane⁸, Lucy Jane Miller⁹, Teresa A. May-Bens Stacey Reynolds¹² and Sarah A. Schoen⁹

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⁷ Occupational Therapy Associates-Watertown, Watertown, MA, USA

⁸ Department of Occupational Therapy, Virginia Commonwealth University, Richmond, VA, USA

⁹ Sensory Processing Disorders Foundation, Greenwood Village, CO, USA

¹⁰ The Spiral Foundation, Watertown, MA, USA

¹¹ Department of Pediatrics, University of New Mexico, Albuquerque, NM, USA

¹² Virginia Commonwealth University, Richmond, VA, USA

Sinclair A. Smith, Bracha Press,
Kristie P. Koenig, Moya Kinnealey

This study compared the effects of occupational therapy, using a sensory integration (SI) approach and a control intervention of tabletop activities, on the frequency of self-stimulating behaviors in seven children 8–19 years of age with pervasive developmental delay and mental retardation. Daily 15-min videotape segments of the subjects were recorded before, immediately after, and 1 hour after either SI or control interventions performed during alternating weeks for 4 weeks. Each 15-min video segment was evaluated by investigators to

Capacidades cognitivas, aprendizaje y funciones ejecutivas

Early Human Development 91 (2015) 227–233

Contents lists available at ScienceDirect

Early Human Development

journal homepage: www.elsevier.com/locate/earhudev

Sensory processing in preterm preschoolers and its association with executive function

Jenn
Devian
A. R. 1

Article/
Review
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Sensory Integration and Learning Disabilities: Ayres' Factor Analyses Reappraised

Robert A. Cummins

birth, but have not yet been
ry processing and other de-
ic development of preterm

processing symptoms than
function and adaptive func-

Between 1965 and 1987 Ayres published eight papers that contain among them 10 multivariate analyses that bear upon her conception of sensory integration. These analyses purport to have identified factors that emerge from the scores of children with learning disabilities but not from the scores of academically nondisabled children. A reappraisal of these analyses in combination finds no support for this claim. As a consequence, these data provide no validity for either the diagnostic procedures or the remedial programs for children with learning disabilities that have been derived from this work.

Sensory Integration Treatment for Children With Learning Disabilities: Its Status 20 Years Later

J Dev Phys Disabil
DOI 10.1007/s10882-014-9408-y

ORIGINAL ARTICLE

Meta-analysis of Research on Sensory Integration Therapy for Individuals with Developmental and Learning Disabilities

Han Ming Leong · Mark Carter ·
Jennifer R. Stephenson

© Springer Science+Business Media New York 2014

Desarrollo motor, lectura y escritura

Sensory integration and activities of daily living in children with developmental coordination disorder

Bülent Elbasan^{1*}, Hilya Kayihan² and Irem Duzgun¹

Abstract

Objective: The aim of our study was to evaluate sensory integration and activities of daily living in children with developmental coordination disorder

Subjects and methods: 37 cases with developmental coordination disorder were included in this study. Ayres Southern California Sensory Integration and Functional Independence Measure for Children (WISC-III) and Vineland Adaptive Behavior Scales were used for daily living.

Results: Significant differences were found in the visual shape perception ($p < 0.05$). According to the results of somatosensory perception to kinesthesia, manual form perception, finger identification, figure-ground, double tactile stimuli perception ($p < 0.05$). Control group was better in expression, social communication, problem solving, and memory span ($p < 0.05$). Graphesthesia and self-care domain was found to be correlated.

Discussion: Special education and rehabilitation programs including occupational therapy will increase independence in the activities of daily living in children with developmental coordination disorder.

Keywords: Developmental coordination disorder, Sensory integration, Activities of daily living

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Deficits in Sensory Integration in Educationally Handicapped Children

A. Jean Ayres, Ph.D.

Visiting Associate Professor

University of Southern California, Los Angeles

Occupational Therapy for Children with Developmental Coordination Disorder: a Study of the Effectiveness of a Combined Sensory Integration and Perceptual-Motor Intervention

Tracy Davidson and Brian Williams

A theoretical model based on statistical typologies derived from associations between behavioral parameters is consistent with the hypothesis that the brain operates on the basis of functional systems involving simultaneous contributions of several levels of the brain to its higher functions. Luria¹¹ has set forth the idea lucidly. Postulation of neural systems enables development of therapy designed to remediate the sensorimotor dysfunction underlying the learning disorder.

METHOD

Sixty-four tests were given to 36 children in public school classes for children with educational handicaps. The age range, mean, and standard deviation of each of the measures at initial

small sample size, the study revealed a significant difference between the groups after 10 years. The clumsy children continued to have lower verbal and performance IQ and poorer academic performance. Other results, although non-

Empatía e interpretación de emociones praxis y emociones

Dissociating linguistic and nonlinguistic gestural communication in the brain

Mairéad MacSweeney,^{a,b,*} Ruth Campbell,^c Bencie Woll,^d Vincent Giampietro,^b
Anthony S. David,^b Philip K. McGuire,^b Gemma A. Calvert,^c and Michael J. Brammer^b

^aBBSU, Institute of Child Health, University College London, London, WC1N 1EH, UK

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Received 1 December 2003; revised 3 March 2004; accepted 9 March 2004

Sensory systems and emotion: A model of affective processing.

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Database: APA PsycInfo Journal Article

[LeDoux, Joseph E.](#)

Citation

LeDoux, J. E. (1986). Sensory systems and emotion: A model of affective processing. *Integrative Psychiatry*, 4(4), 237–243.

Abstract

Discusses the neural pathways by which the brain interprets the emotional significance of environmental events. Contemporary hypotheses suggest that emotional coloration is added to afferent signals via classical sensory projection systems transmitting inputs through thalamic relay nuclei to neocortical sensory receiving areas, over multisynaptic cortical association circuits, to subcortical regions of the forebrain. However, experimental data show that pathways capable of transmitting sensory messages to the subcortical forebrain directly from thalamic nuclei are essential for certain elemental forms of emotional processing. These

Los procesos de integración sensorial afectan a la personalidad, el autoconcepto y la salud mental:

Schizophrenia Bulletin vol. 35 no. 6 pp. 1059–1064, 2009
doi:10.1093/schbul/sbp110
Advance Access publication on October 14, 2009

Sensory Processing in Schizophrenia: Neither Simple nor Intact

Daniel C. Javitt^{1,2}

²Departments of Psychiatry and Neuroscience, New York University Langone School of Medicine, Schizophrenia Research Center, Nathan Kline Institute for Psychiatric Research, Orangeburg, NY

This special issue focuses on the theme of sensory processing dysfunction in schizophrenia. For more than 50 years, from approximately the time of Bleuler until

schizophrenia, recent findings suggest that in this case Bleuler may have been wrong.

The recent focus on sensory dysfunction in schizophrenia arises from a confluence of findings. First, careful psychophysiological studies beginning in the 1960s began to document objective deficits in sensory processing that could not be attributed easily to either attention or emotion. Key events included the description by McGhie and Chapman³ of sensory distortions spontaneously reported

Available at SciVerse ScienceDirect

Journal of Behavior Therapy and Experimental Psychiatry

www.elsevier.com/locate/jbtep



Sensory processing, childhood rituals

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Article history:

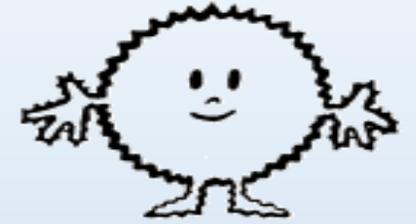
Received 5 November 2010
Received in revised form
13 August 2011
Accepted 7 September 2011

Keywords:

Hypersensitivity
Sensory processing

Background and objectives: Studies of Obsessive–Compulsive Disorder (OCD) and research in occupational therapy suggest a link between sensory hypersensitivity and excessive use of rituals. The present research constitutes an initial attempt to examine this potential link.

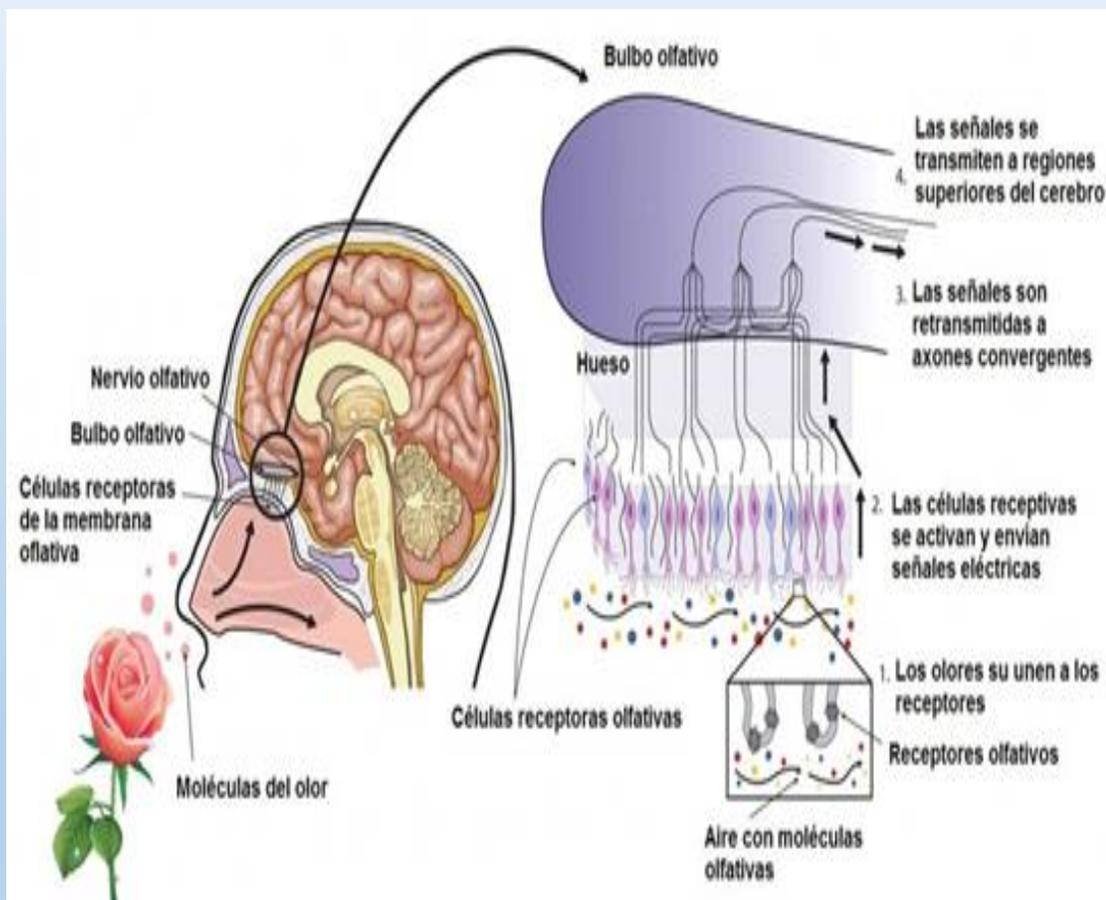
Methods: In Study 1, parents of 4–6-year old children ($N = 61$) completed the Childhood Routine Inventory, the Sensory Profile and the Screen for Child Anxiety Related Emotional Disorders. In Study 2 we administered an adapted version of the sensory profile to an internet sample of adult participants ($N = 314$) together with the Obsessive–Compulsive Inventory-Revised, the anxiety subscale of the International Personality Item Pool – NEO and items measuring participants' recollection of their



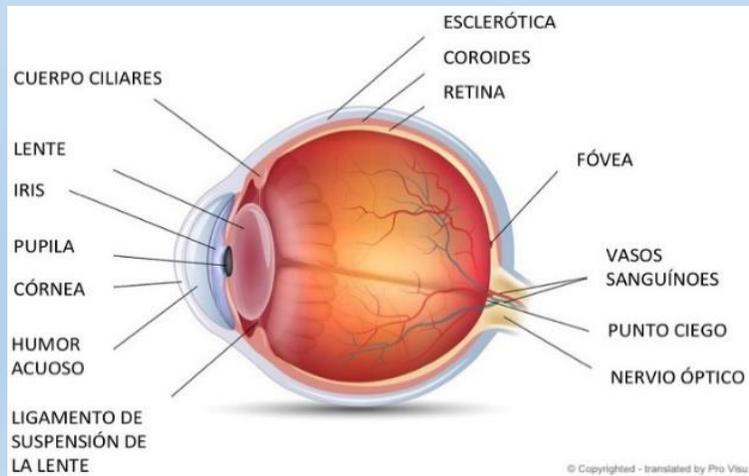
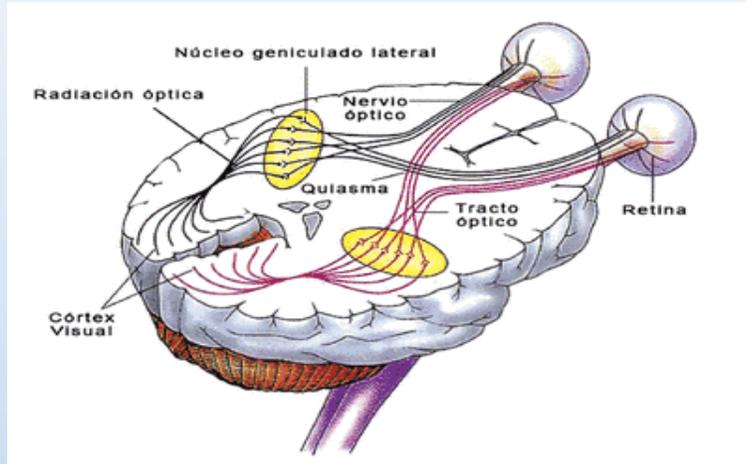
Conozcamos a los siete sistemas sensoriales



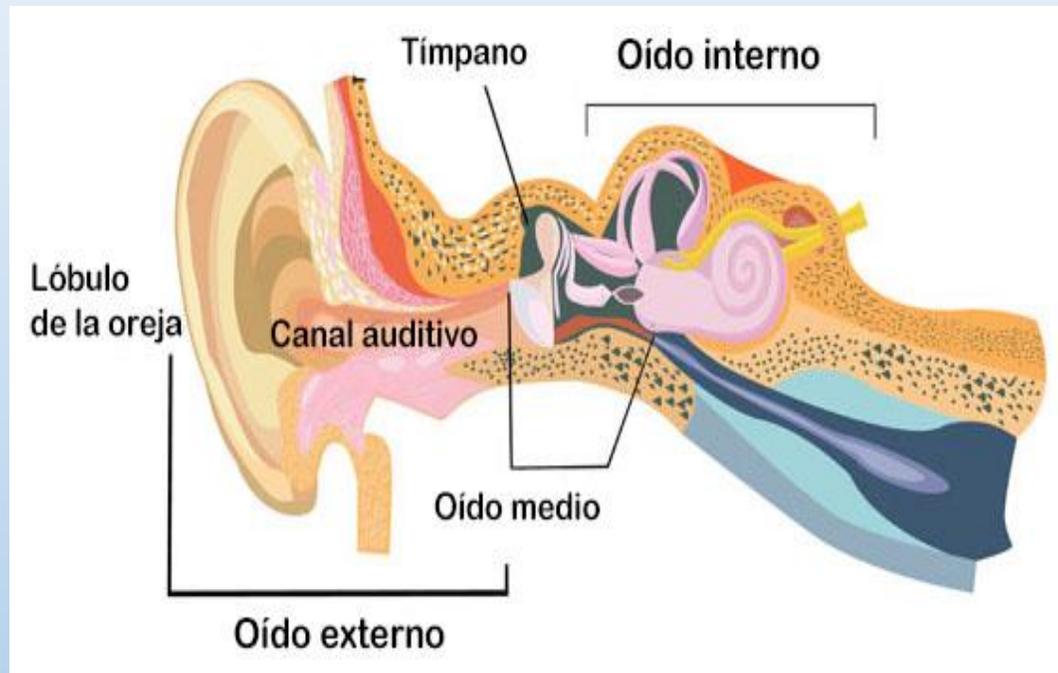
Gusto y olfato



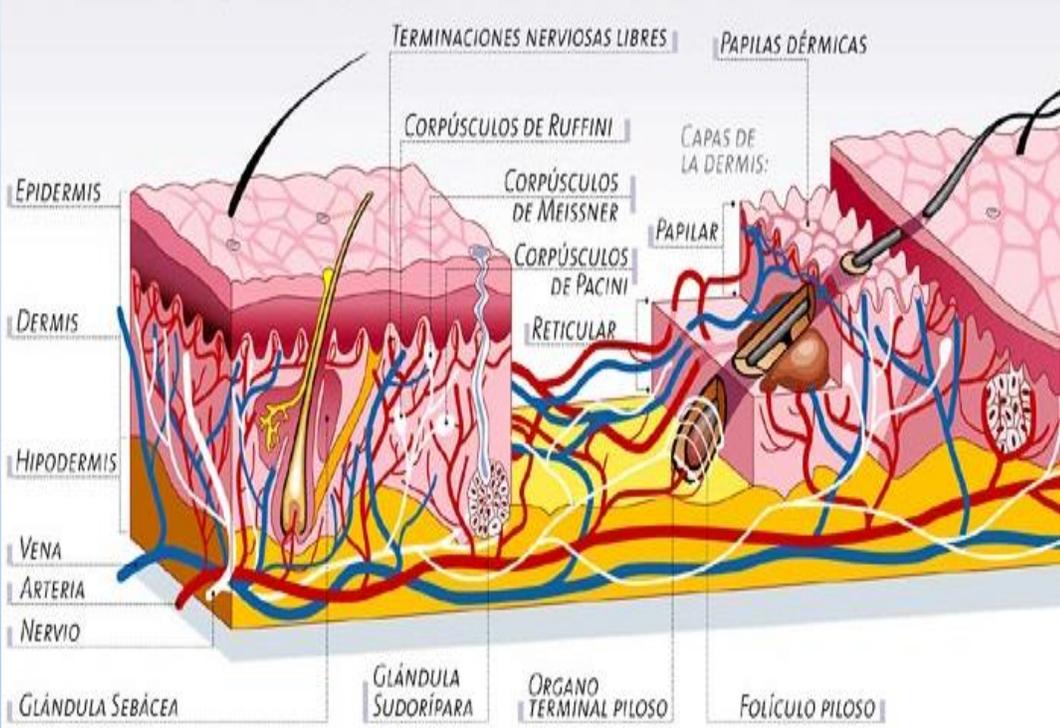
Vista



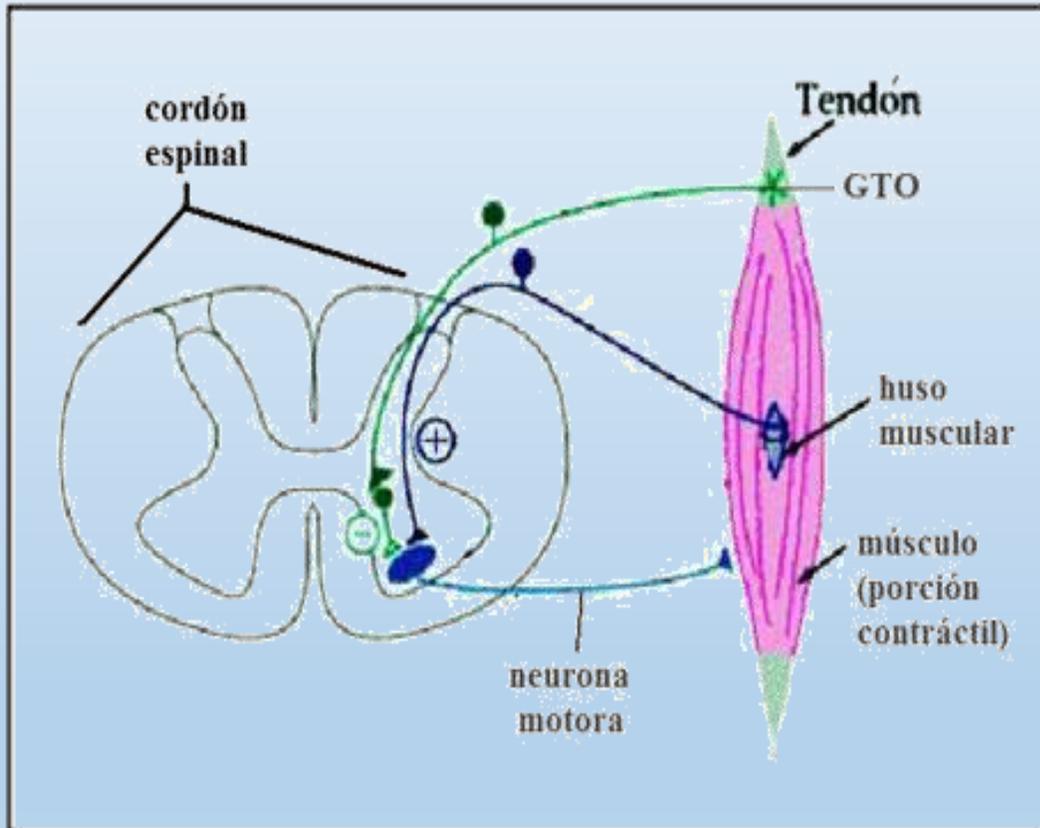
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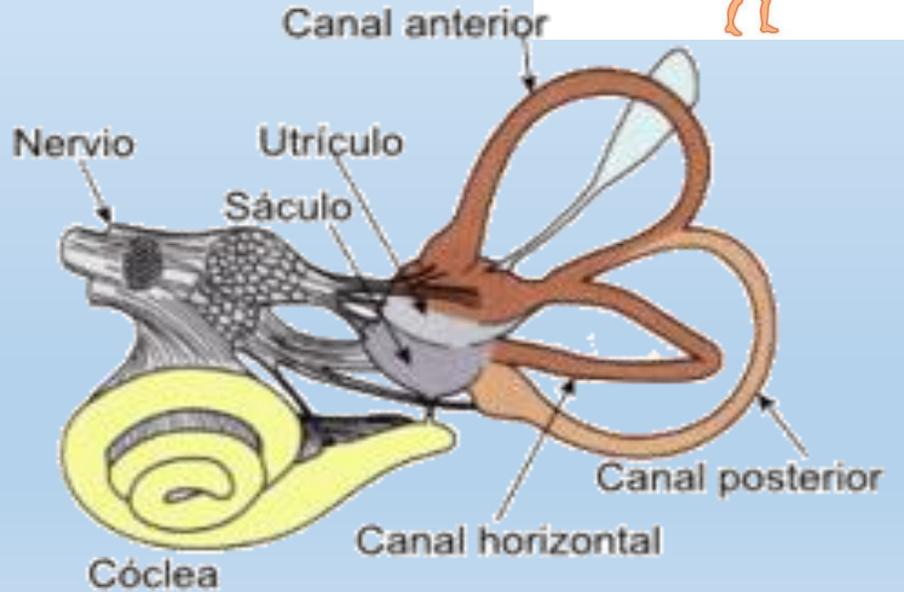
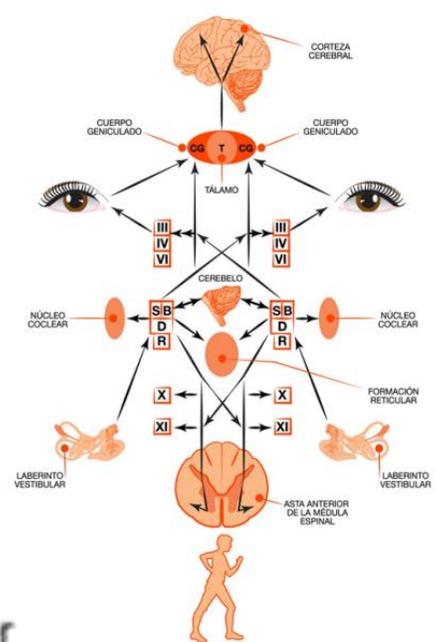
Tacto



propiocepción



vestibular



Ejercicio final: Identifica en tu alumno/a como se comporta ante los siguientes estímulos.

TIPO DE ESTÍMULO	DESCRIPCIÓN DEL ESTÍMULO	ME ACTIVA	ME RELAJA	ME GUSTA	ME DISGUSTA
OLFATIVO					
GUSTATIVO					
AUDITIVO					
VISUAL					
TÁCTIL SUPERFICIAL					
TÁCTIL PROFUNDO					
PROPIOCEPTIVO					
VESTIBULAR LINEAL					
VESTIBULAR ANGULAR					