

02. Linguistic Impairment

The identifying feature of the data used in clinical linguistics is linguistic deficit.

The term **linguistic impairment** refers to linguistic disorders that have a neurological origin, whether in processes of neurodevelopment, in neurodegenerative processes or in situations where brain damage has occurred. Disorders arising from vocal apparatus problems, psychological problems (for example, discursive features of anorexia, depression, stress, etc.), or functional problems (dyslalia, dysglossia) are therefore excluded from this designation; in such cases, the what is "deficient" is not the system but the execution (what Chomsky termed *performance*).

There are three classification criteria for linguistic impairment (LI):

1. Grammatical components of language
2. Semiotic skills
3. Language structures or levels

1. Linguistic Impairment by components

- Phonological: phonological paraphasias (omissions, substitutions, dislocations, etc.)
- Morphosyntactic: agrammatisms, paragrammatisms, discordances, etc.
- Semantic: anomies, semantic paraphasias, perseveration, stereotyping, glossomania, etc.
- Pragmatic: textual or enunciative incoherence, deictic shift, socio-pragmatic inappropriateness, dissociation between locutive and illocutive speech acts, etc.

This consideration of deficit focuses on the language component that is particularly affected.

Phonological deficit involves some kind of disorder in the speaker's phonological system and should not be confused with a phonetic deficit affecting motor or functional aspects; this type of situation is found in dyslalia, for which the bibliography identifies three basic aetiologies:

- Auditory dyslalia: caused by auditory problems.
- Functional dyslalia: caused by motor disorders that may be nervous in origin.
- Organic dyslalia or dysglossia: caused by malformations in the phonetic apparatus.

In phonological deficit, the speaker's phonological system is affected, their inventory of phonological units, in their allophonic realisations or in their distribution. The most striking symptom is paraphasia, which Vendrell (1999) defines as

"the use of the wrong phonemes, syllables or names, instead of appropriate phonemes, syllables or names. Paraphasia may be caused by impairment of the sensory-motor mechanisms for speech or if acoustic and articulatory language organisation is impaired. In the latter case, as a result of the appearance of phonemic or syllabic paraphasia, disturbances may be observed in word structure even though no articulatory disorder is present"
<http://www.uninet.edu/union99/congress/conf/lang/03Vendrell.html>).

There are a number of tests available to assess phonological deficit and to discriminate it from solely phonetic disorders; one of the best known is the *Induced Phonological Register* by Marc Monfort and Adoración Juárez.



Morphological deficit affects word structure and the correct use of word units that provide grammatical information to the lexeme. In fusional languages, such as Spanish or Catalan, grammatical word units are added to lexical word units to enable them to fuse together and use a single formal element (word

Construcciones agramáticas de una hablante de 54 años con Afasia de Conducción.

La logopeda le ha pedido que construya una oración a partir de dos imágenes: "sentarse" y "embarazada".

Una embarazada sentado-
sentarse- sembarazada- se
siéntese- sientno- no, se sienten-
sentarse- no, sensar- sen se
sante- se sienta/ se siento

unit or exponent) to convey the grammatical information for more than one morpheme; for example in the verb form "cant-o", the word unit /-o/ is the vehicle for the morpheme of person (1st person), number (singular), tense (present) and mode (indicative). Disorders affecting the morphological component are typical of the symptom referred to by the bibliography as *paragrammatism*, described by Pérez-Pamies, Manero and Bertran Serra, (1988, PeñaCasanova, Ed: *Manual de Logopedia*) as

"syntactic simplification and the suppression of grammatical monemes, with relative preservation of informative value [...] employ strategies such as always giving the role of agent to an 'animate' element that is compatible with the action" (1988: 397).

As can be seen from the example, the problem is apparent particularly in the choice of a certain word for a specific distributional environment; doubts affect the members of a same morphological paradigm.

[Suggested additional reading: You can look up the differences between phrase and paradigm in Justo Fernández López's Hispanoteca portal]

In **syntactic deficit**, the problem is not choosing a member of the paradigm, but combining *in presentia* verbal units that should appear in the phrasal chain, which goes back to the concept of *paragrammatism* or *dyssyntaxis*. As will be discussed below, researchers have developed models for analysing syntactic deficit that measure various units in the chain.

However, it is not always easy to isolate the morphological or syntactic nature of any one deficient expression, and it is normal for the bibliography to speak in general terms of "morphosyntactic deficit".

Semantic deficit affects the organisation of the semantic component and how it is expressed in lexical relations and semantic fields; *semantic paraphasias* are produced when the speaker uses one word instead of another. Other semantic and/or lexical symptoms are anomies, the appearance of slang and neologisms, glossomanias or preferred topics, perseverations or repetitions, or stereotyping. Semantic disorders can be found in a number of situations such as aphasia, Alzheimer-type dementias and Pick's Disease (sometimes called "semantic dementia").

In classifying **pragmatic deficit**, the differences between enunciative, textual and interactive categories can be described as follows:

- *Enunciative* pragmatics: the dissociation between the propositional and the enunciative levels of speech acts (aphasia), errors of expression or comprehension in the use of inferential meaning, such as presupposition, tropes or implications (right hemisphere lesions, autistic spectrum disorders); errors in respect of the principle of cooperation (S. Williams).
- *Textual* pragmatics: errors in the mechanisms for syntactic (aphasia) or lexical (aphasia, Williams Syndrome, Downs Syndrome) cohesion; errors of coherence, for example in applying textual superstructures (Attention Deficit Disorder and/or

Hyperactivity; Right Hemisphere Lesions) or in thematic management (Alzheimer-type dementias).

- *Interactive* pragmatics: turn-taking disorders affecting conversational participation rate and turn-taking skills (aphasia, Alzheimer-type dementias).

2. Linguistic Impairment by semiotic skills

By focusing attention on semiotic skills or abilities, a more general approach is taken than in assessment by components, but an artificial difference is created between the processes of expression and comprehension that should be placed in perspective.

The origins of neurolinguistics, and the well documented identification of predominantly expressive (Broca's aphasia) and receptive (Wernicke's aphasia) pathologies, justify this separation between the processes of expression and reception, but this should not mean we lose sight of the fact that both processes are mutually complementary and maintain constitutively interdependent links.

- Oral expression deficit
- Oral comprehension deficit
- Written expression deficit
- Written comprehension deficit
- Repetition deficit

It is well known that this is the usual view in some customary assessment tests, such as the Boston Test.

1. Test de Boston

▪ 3. Expresión oral. Paciente con Af No Fluente, Infarto isquémico bilateral (más evidente en F3). Niveles de A.C. anterior y media

T. (yo digo unas palabras)/ repítalas también/ ¿mm?
MA-MÁ

P. PA

T. a ver/ fijese cómo la pronuncio yo/ MMA-MMÁ

P. PA-PÁ

A. (otra vez papá)

T. vamos a ver// CA-SA

P. AA-PÓO

T. a ver// AR-MA-RIO

P. SE HACE HACIA ATRÁS EN LA SILLA Y, ENTRE SONRISAS, HACE GESTOS DE NEGACIÓN CON LA CABEZA.

Agradezco estos datos al Dr. Raül Espert

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Transcripción de un fragmento de Evaluación con el Test de Boston.

1. Test de Boston

« Transcripción de un fragmento de Evaluación con el Test de Boston »

041 T. bicicleta

042 P. bicicleta

043 T. radiotelevisión

044 P. radiotelevisión. RISAS / me has hecho una trampa/ menuda trampa m'está haciendo ¿eh? / a ver? / ¿sí? / ¿no? / ¿sí? / ¿no? / ¿sí? / ¿no?

045 T. [radio]

046 P. = sí/ je te

047 T. no/ RA/radiotelevisión

048 P. radiotelevisión// [veeeh]

049 T. [muy bien/ ahora más largo/ ¿eh?]

050 P. sí

051 T. aquella casa es grande

052 P. aquella casa es grande

053 T. el río lleva MUCHA agua [porque hoy ha llovido]

054 P. [eso no me gusta/ ¿ee lee/ no me salee hieeh lee lee]

055 T. no te gusta porque no te sale

056 P. no / [a ver]

057 T. [a ver/ aprobamos otra vez?

058 P. sí

059 T. el río lleva mucha AGUAAA[1] / porque hoy ha llovido

060 P. me cuesta mucho/ se me pierdee/((todo el día))

061 T. [(())]

062 P. a ver/ me lo diceh más len[tee]

063 T. [sí-sí]

064 P. y yo te sigo/

065 T. y tú me sigues

066 P. a ver

067 T. el río?

068 P. el río?

069 T. lleva mucha agua→

070 P. lleva mucha agua↑

071 T. porque HOY↑

072 P. porque hoy ha llovido mucho

073 T. vale// mucho sobraa/ pero (b)ueno

074 P. (bueno/ mucha aguaa)

[1] Pronunciación relentizada.

Agradezco estos datos al Dr. Raül Espert

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3. Linguistic Impairment by structures (relations)

This classification aims to use an exclusively linguistic criterion for the deficient situation¹, using as descriptor the type of relation between the atypical element and the other linguistic elements. The forerunner of this view dates back to the proposals put forward by Jakobson and Lesser.

- Deficit of government
- Agreement deficit
- Order deficit
- Integrity or informativity deficit

This classification is dealt with in the following section.

¹ B. Gallardo (2008): Criterios lingüísticos en la consideración del déficit verbal (Linguistic criteria for the consideration of verbal deficit). *Verba*, in press.