

Word Formation Processes in E4BT

** Conversion / Functional Shift **

CONVERSION (also called **ZERO-DERIVATION**) may be defined as a word-formation process by which a word, belonging to one word-class, is transferred to another word-class without any concomitant change of form.

e.g.: **to cut** (v) → **a cut** (C-n)
epidemic (adj) → **an epidemic** (C-n)
pandemic (adj) → **a pandemic** (C-n)
a wound (C-n) → **to wound** (v)
(the) most (adv) → **most** (indefinite adj, before 'people'/'animals', etc.)
for → **for** (conjunction/ synonym of because)
(multifunctional preposition)
since → **since** → **since**
(preposition) (adv) (conjunction)

It is a highly prolific source for the production of new words, since there is no restriction on the form that can undergo conversion in English.

The main kinds of conversion are

- **noun** → **verb**
- **verb** → **noun**
- **adjective** → **noun**
- **adjective** → **verb**
- **adjective** → **adverb**
- **preposition** → **noun**
- **preposition** → **verb**

but also interjection → verb and noun may occur.

EXAMPLES

1) NOUN TO VERB:

evidence	→	to evidence
[an] experience	→	to experience
[an] eye	→	to eye
[a] network	→	to network
[a] farm	→	to farm

“Naïve¹ herds can **experience** losses up to 80%, and many cattle that survive remain chronic carriers.”

“Respiratory distress may be **evidenced** by bleeding or exercise-induced pulmonary haemorrhage (EIPD).”

“Based on phylogenetic analysis, each of the five lineages may have an independent origin, with vast genetic variability **evidenced** by greater homology between strains of different lineages than within strains of a single lineage.”

“Our local staff provide the tools and expertise to enable smallholders in eastern Africa to increase their harvests, whether they **farm** crops, livestock, fish or the forest.”

2) VERB TO NOUN:

to fly	→	[a] fly
to increase	→	[an] increase
to decrease	→	[a] decrease
to isolate	→	[an] isolate
to make up	→	[a genetic] makeup
don't know	→	a don't-know

“Noncultivable, apparently nonpathogenic **isolates** have also been detected in wild salmonids.”

“Marine mammal **isolates** of Brucella can infect terrestrial mammals, but the frequency of this event is unknown. Some polar bears, which feed on marine mammals, are seropositive for Brucella, and there are **concerns** about possible impacts on this species.”

“The factor for the recessive trait, while not apparent, is still part of the individual's **genetic makeup** and may be passed to offspring.”

¹ In immunology, it refers to a person or an immune system which has not been previously exposed to a particular antigen and thus does not form antibodies against the antigen. **Adjectival paradigm:** naïve, naïver (than), the naïvest; **Italian equivalent:** “intatto/-a”. (sources: <https://www.thefreedictionary.com/>).

“The situation regarding therapeutic cloning, or the possibility of extracting stem cells from extra embryos resulting from artificial insemination or from specially produced embryos is uncertain, clearly highlighted by the high percentage of ‘**don’t knows**’ (13%)”.

3) ADJECTIVE TO NOUN:

high	→	[a] high
elderly	→	[the] elderly
pandemic	→	[a] pandemic
animal	→	[an] animal
human	→	[a] human
biologic	→	[a] biologic
chemical	→	[a] chemical
renewable	→	renewables
basic	→	basics

“Influenza **pandemics** occur when a new strain of the influenza virus is transmitted to **humans** from another animal species. Species that are thought to be important in the emergence of new **human** strains are pigs, chickens and ducks. These novel strains are unaffected by any immunity people may have to older strains of **human** influenza and can therefore spread extremely rapidly and infect very large numbers of people. Influenza A viruses can occasionally be transmitted from wild birds to other species causing outbreaks in domestic poultry and may give **rise** to **human** influenza pandemics”.

“The Department of Agriculture (USDA) published in February projections that indicate U.S. beef, pork, and poultry producers will increase exports and gradually increase production, even though U.S. citizens' mean yearly meat consumption is expected to remain lower than previous **highs**.” (source: AVMA, “Meat, dairy, egg production expected to rise through 2021”, April 2012)

“Drugs versus **Biologics**”

A **biologic** is manufactured in a living system such as a microorganism, or plant or animal cells. Most **biologics** are very large, complex molecules or mixtures of molecules. Many **biologics** are produced using recombinant DNA technology.

A drug is typically manufactured through chemical synthesis, which means that it is made by combining specific chemical ingredients in an ordered process”.

“A **chemical** is any substance consisting of matter. This includes any liquid, solid, or gas. A **chemical** is any pure substance (an element) or any mixture (a solution, compound, or gas). **Chemicals** occur naturally and can be made artificially”.

“The logic for replacing old coal plants with **renewables** that run on costless inputs—wind and sun—looks obvious.”

4) ADJECTIVE TO VERB:	empty	→	to empty
	clean	→	to clean
	open	→	to open
	better	→	to better

“FAO [Food and Agriculture Organization of the United Nations] was founded in October 1945 with a mandate to raise levels of nutrition and standards of living, to improve agricultural productivity and **to better** the condition of rural populations”.

5) VERB TO ADJECTIVE:	would be	→	would-be
	must have	→	must-have
	must see	→	must-see
	must read	→	must-read

“About a dozen years ago, Bellus Health was teetering on the brink of insolvency after a **would-be** treatment for Alzheimer’s disease turned out to be no better than placebo.”

6) PREPOSITION TO NOUN:	up, down	→	ups and downs
	in, out	→	ins and outs

“Ethanol induces **ups and downs** in *Escherichia coli*”.

“The **ins and outs** of gene expression control”.

7) PREPOSITION TO VERB:	down	→	to down
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“The spending is significantly down on last year and, by the end of this year, public spending on medicines will **down** by almost 800 million kroner since 2010”.

FUNCTIONAL SHIFT

A particular sub-type of conversion is **FUNCTIONAL SHIFT**. It refers to the same process, but in such cases words are converted from one grammatical function to another without any change in form.

It occurs when **1** a **noun** changes its function **from a U-noun into a C-noun** (e.g.: *glass, paper, hair*, etc.):

“A drop of blood or the root of **a hair** contains enough DNA for testing”.

or **2** when a **full verb** changes its function **from an intransitive into a transitive or a reflexive verb** (e.g.: *to grow, to run, to suffer, to breed, to spread*, etc.):

“The rapid adoption of biotech crops, during the initial 20 years of commercialization, 1996 to 2015, reflects the substantial multiple benefits realized by both large and small farmers in industrial and developing countries, which **have grown** biotech crops commercially”.

or **3** when an **adjective** changes its function **from a qualifier into an indefinite adjective** (e.g.: *further*, etc.):

“Top 18 scientists from the world's major universities, including Cambridge, Harvard and Yale, demand **further** investigations into the origins of the Covid-19 pandemic”.

Functional shift may involve also **prepositions** such as **by, for, over** and so on; and **conjunctions** such as **since** or **as**.

For example, the preposition **‘by’** can introduce different kinds of complements, as in the following examples:

- “The transformative effect of next-generation sequencers has not been matched **by** an equal transformation at the front end”,
- “In 2007, George Church's group at Harvard in Cambridge, Massachusetts, modified MIPs **by** enlarging the gap to between 60–190 nucleotides, enabling capture of large sequences”,
- “NimbleGen plans to soon offer a five-array human genome set, followed by a single-array system, possibly **by** the end of the year”.

‘Since’ as a conjunction can introduce different kinds of subordinate clauses, as in the following examples:

- “In the quarter of a century **since** biotechnology first became a commercial proposition, the industry has gone through a continuous ferment of change and reinvention”,
- “**Since** the objective of this article is beyond the presentation of each one of these methods, a specific and yet representative primary and secondary phytobiomass model (the juice and the bagasse of sugar cane) has been chosen to describe the analytical bottlenecks associated with biomass utilization”.