The Development of Language and the Universal Modelling Processes:
A Personal Perspective

By Joe Cheal MSc

Introduction

For the past few years my interest has wandered further afield than the NLP language patterns and broadened out to psycholinguistics, cognitive/embodied linguistics, etymology and the history of language. The aim of this article is not to provide an exhaustive analysis of the development of language but to highlight some examples that have interested me in my studies.

It is my hope that this article will give the reader a broader scope of the Universal Modelling Processes in NLP and how to apply them beyond the meta-model language categories. It may also help to provide an 'anchor collapse' (or *anger collapse*'!) for those of us who can, at times, become rather cross and pedantic about the *correct* use of language. Language is an ever-evolving thing: today's 'misuse' may become tomorrow's standard rules and definitions.

My main source herein is a book by Guy Deutscher (2006), *The Unfolding Language.* In his book he explores and traces the evolution of language all the way back to the *origins* of language vocabulary and grammar.

As I read *The Unfolding Language*, I was struck by some interconnections between the Universal Modelling Processes in NLP and how they may have been (and continue to be) influential in the development of language. This article is an exploration into those interconnections.

The Universal Modelling Processes

As far as I can establish, the three categories of the meta-model (i.e. the Universal Modelling Processes of deletion, generalisation and distortion) were originally proposed by Bandler and Grinder (1975). As well as providing a useful categorisation of language

patterns, the Universal Modelling Processes (UMPs) provide us with a *model* of how people filter, process and store information. In this sense, the dynamics of 'deletion', 'generalisation' and 'distortion' transcend grammatical categories and give us a psychological model.

I have suggested elsewhere (Cheal 2015) that the UMPs have a distinct dynamic, where generalisations provide the foundations or 'norms' for a system and these affect what is deleted and what is distorted (which in turn help to maintain the norms). I believe that the UMPs are a self referencing ('self-fulfilling') system:
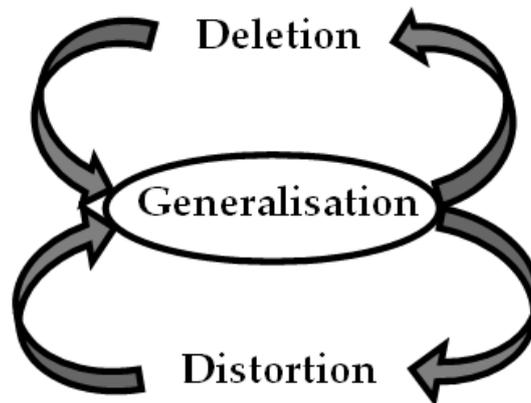
As well as providing a model for how we think as individuals, what if the UMPs provide a model (at a bigger picture level) for the development of a culture and of its language?

The Development of Language

In any culture and at any point in time, we could apply the UMPs both to vocabulary (i.e. the words we use) and to grammar (i.e. the rules of the language). Today, in the English language, generalisation is expressed through dictionaries and grammar books (telling us what is correct usage/a 'real word' and what is not). Over time we will delete and distort both words (e.g. changing their meaning and adding new words as 'archaic' words are removed) and grammar (e.g. over a longer period of time the rules of language use may change). Even though there is a shift in vocabulary and grammar through time, there is still a desire to hold on to rules and correctness (and hence we continue to create 'order' through generalisation).

Deutscher (2006) suggests that there are three motives for change in language over time: Economy (saving effort, creating short cuts), Expressiveness (achieving greater effect, extending range of meaning) and Analogy (creating order and regularity in the language). Although not expressed overtly, these three motives act on each other in a similar way to

the UMPs. Indeed, we might draw some connections between Deutscher's motives and the three UMPs, where Economy is akin to Deletion, Expressiveness is akin to Distortion and Analogy is akin to Generalisation.

For illustration, it is perhaps worth applying the three UMPs to the English language to give examples of the forces acting on language as it changes over time. For each UMP, I have given examples in three key areas of language:

a) *Speech style and pronunciation*
b) *Vocabulary and word meaning*
c) *Grammar and the written form*

1) <u>Deletion</u>

In language, deletion can be expressed through omission, shortening words and abbreviation. The process of deletion in language is (most probably) for the sake of convenience. It is also possible that deletion, distortion and generalisation may be part of a 'rebellion' against the current norms and rules in the language.

a) *Speech style and pronunciation*

When at University I remember being fascinated by the different accents I heard and how a friend from Hull would greet me ("Hallo Joe") with what sounded like: "Hallur Jur" whereas friends from the south would say what sounded like "Hallowe Jowe". Trying the Hull version on, it seemed easier or 'lazier' to say (as there is no enunciation at the end). The Southern version however seemed more laboured, requiring more effort with the pursing of the lips, adding an apparent 'W' at the end. Neither is right or wrong of course, but it got me curious about accents and enunciation.

A classic deletion in pronunciation is the glottal stop, where 'T's are missed in the middle (or end) of words (and replaced with a mild 'grunt'!): 'bottle' becomes 'bo-all', 'dirty' sounds like 'der-ee' and 'bucket' becomes 'bucke-'. In addition, letters might be dropped at the start of words, particularly 'H's (e.g. 'horse' becomes 'orse', 'half' becomes 'alf'). In the UK, this form of deletion is often associated with class (the stereotype being to delete is to be lower class!) In the US, 'herbs' being pronounced 'erbs' appears to hold no reference to class, but merely a general pattern of speech.

A further example of deletion is the shortening of words in speech, for example 'isn't it' becomes 'innit'. In the UK, this is not so much a class distinction than an expression of youth/'next generation'.

b) *Vocabulary and word meaning*

In recent parlance, one might '*diss'* someone for not being '*rad'* enough. Here we find the abbreviated words 'diss' from disrespect, 'rad' from radical (meaning a more extreme version of 'cool' – though how anything could be cooler than cool, I simply don't know!).

In abbreviation, we also find acronyms *becoming* new words. For example, we might be accused of being a 'yuppy' (young and up-and-coming people), a 'dinky' (double income no kids) or a 'nimby' (not in my back yard); we may go 'awol' (absent without leave) on a 'scuba' dive (self contained under-water breathing apparatus) and pick up something on a 'radar' (radio detection and ranging) or a 'laser' (light amplification by stimulated emission of radiation). Some terms seem to lose their origins and hence we might be asked for our 'PIN' number (which means our 'personal identification number' number) when we take money out at an 'ATM' machine ('automated teller machine' machine)!

Some words may simply get deleted from current usage, perhaps because they are deemed obsolete or 'archaic' and are hence no longer represented in a modern dictionary. This removal of words in a culture appears to be driven 'unconsciously' and 'consciously'.

As an example of 'unconscious' change, an interesting piece of research by Montemurro & Zanette (2016) demonstrated a fourteen to sixteen year cycle in the rise and fall of the popularity of words in a culture (e.g. English, French, German, Italian, Russian & Spanish). The authors found that (a) some word-popularity coincided with big events (e.g. first world war) and (b) related words tended rise and fall in popularity together (e.g. king, queen, duchess). However the authors were ultimately unclear why this popularity cycle happens beyond reflecting some cultural dynamics.

On a more 'conscious' level, words may be removed purposefully and systematically perhaps due to a cultural or political agenda. According to Robert Macfarlane (2015), around the year 2007/8, the Oxford Junior Dictionary deleted over fifty 'nature' related words (including *acorn, adder, ash, beech, bluebell, buttercup, catkin, conker, cowslip, cygnet, dandelion, fern, hazel, heather, heron, ivy, kingfisher, lark,*

mistletoe, nectar, newt, otter, pasture and *willow) and these were replaced with words like attachment, block-graph, blog, broadband, bullet-point, celebrity, chatroom, committee, cut-and-paste, MP3 player* and *voice-mail*. Ironically, the word 'blackberry' (a fruit) was replaced with the word 'Blackberry' (a device)! Whilst this may not really be a political conspiracy, it is perhaps reflective of the early 2000s, shifting education away from nature and towards technology.

c) *Grammar and the written form*

A brief example here would be the demise of certain punctuation marks, for example missing apostrophes (e.g. my brothers hat) and less use of colons and semi-colons.

In addition, we find a gradual removal of the word 'whom' being replaced with a generic 'who'. (This is also an example of a generalisation where exceptions in the language become 'ironed out' over a period of time.)

2) <u>Distortion</u>

Another aspect of language is the desire to express ourselves. As time passes, some words and phrases become hackneyed and clichéd; they become so 'normal' that they begin to feel overused and carry less power than they once had. When faced with these passé words and phrases, we tend to become more inventive, for example, instead of saying 'no' we say 'no way' because it delivers a stronger message. According to Deutscher the meanings of words are just as prone to 'decay' as the words themselves: this may be due to people's desire to 'big up' what they are saying i.e. to add more expressiveness. Eventually of course, this new word may become overused and over familiar, losing its impact.

a) *Speech style and pronunciation*

Perhaps one of the most insightful pieces of linguistic research was carried out by Jacob Grimm (of Grimm's fairy tales fame) who noticed a pattern in the development of languages as they moved geographically across Europe (see Crystal 2010): it seemed that the language was shifting due to *changes in pronunciation*. His research became known as Grimm's Law. Latin gave birth to the Romantic languages (French, Spanish, Romanian and Italian) whilst another different 'branch' travelled northwards across the Germanic/Gothic regions.

The spoken form of the language (i.e. pronunciation and accent) shifted and evolved in the following manner:

$b^h > b > p > ph > f$ e.g. ped > foot

                              peisk > [piscis (Latin)] fisc > fish

$d^h > d > t > th$ e.g. dekmt > [decem (Latin)] tehun > ten

$g^h > g > k > x$ e.g. gel > kaldaz (Old German) > cold

$g^w > kw > qu/hw > wh$ e.g. quod (Latin) > hwat (Old English) > what
                    kwon > [kuon (Greek), canus (Latin)] kun > hound

As the Romans took the word 'dekmt' (or something like it) and pronounced it 'decem', so the same word became 'tehun' as it took its Germanic journey. And as the word 'kwon' for dog travelled in different directions, so it was distorted, giving us 'canus' and 'hound' but with the same origins.

b) *Vocabulary and word meaning*

As words are added to our lexicon (e.g. coachee, comix, crowdfund, declutter), other words change (or have additions to) their meaning (e.g. cool, gay, wicked, sick, dope). Perhaps we might associate some of these changes with 'youth cultures' but this was not always the case. It seems that some words changed meaning over time in an ironic sense. The word 'silly' once meant happy and prosperous (in Old English). Perhaps people who were happy were deemed rather giddy and carefree and hence ultimately silly became synonymous with foolish and stupid. Conversely, the word 'nice' used to mean foolish, stupid and senseless (from the Latin 'nescius' meaning ignorant or 'not-knowing' – 'scire' meaning 'to know' also gives the word 'science'). The meaning of 'nice' took a trip of distortion from the Thirteenth century onwards through weak, timid, fussy, dainty, precise, careful, agreeable, delightful and then to kind and thoughtful.

Whilst most distortions in the meaning and spelling of words happen over a longer period of time, there have been occasional dramatic shifts, often driven by one person. A classic example is in the publication of the Webster's Dictionary. Noah Webster was an American who wanted to simplify the spelling of English words. Single-handedly, in the early 1800s, Webster was responsible for spelling reforms such as '-ow' where English has '-ough' (e.g. plow-plough, bow-bough), dropping the 'u' in '-our' (e.g. humor-humour, color-colour), '-re' to 'er' (e.g. meter from metre, theater from theatre), '-ce' to '-se' (defense from defence) and removing some

'unnecessary' double letters (e.g. jeweler from jeweller, canceling from cancelling). Whilst not all of his changes took hold, Webster was certainly a force for change and reform. Perhaps he was also responsible for program (programme), kinaesthetic (kinaesthetic) and encylopedia (encyclopaedia)?

c) Grammar and the written form

From personal observation, I am hearing and seeing: "me and Fred went to the cinema" instead of "Fred and I". Conversely, I notice: "Daphne came to the cinema with Fred and I" instead of "Fred and me". Sometimes it might be: "Daphne came to the cinema with Fred and myself." For the stickler of grammar, these examples may rankle – however, I refer to them here without judgement, simply as observation.

Things are no longer simply 'good' for some people, they are 'well good'. Ironically, this is a return to an Anglo Saxon grammar structure where things would indeed be '*wel god*'.

Another example, which appears to be the bane of many (e.g. Truss 2009), is the incorrect use of punctuation, including apostrophes (or should that be apostrophe's?) Shop signs offer "Apple's for sale" or "Famous for it's flavour"; it's a small thing but is a distortion too far for some!

 3) <u>Generalisation</u>

In generalising language, we attempt to simplify rules, seek patterns and iron out exceptions. According to Deutscher (2006, p177): "The mind is constantly on the lookout for any signs of recurrent patterns, because the more regularity it can recognise, the easier its task of coping with the mass of linguistic detail it has to absorb. When the mind picks out a recurrent pattern, it naturally tries to extend it to whatever seems to fit."

In this section, we might discuss the whole of the English grammar structure with all its rules and intricacies. However, instead, I will present a few examples of where generalisation has affected language.

a) Speech style and pronunciation

Whilst we have different dialects and accents in the English speaking world, the likelihood is that the pronunciation of some words is an attempt to generalise to rule (albeit locally to that region). The word 'tomato' inspired a whole song about

how to pronounce it – but whilst it is said '*tomarto*' in the UK (a hangover from the French pronunciation), in the US it has been generalised to the same rule as saying 'potato'.

The French for cherry is 'cherise' but when cherries first appeared in the England, the word 'cherise' was thought to be a plural term (i.e. applying to many cherries), and hence cherries (pl.) became cherry (sing.) following the rule of adding -s/-es for many 'cherries' and working back to a singular 'cherry'.

b) *Vocabulary and word meaning*

Over time, there is a tendency to apply simplifying rules to irregular language. For example, in Anglo Saxon, we had one cow but many 'kine', one eye and two 'eyn'. 'Kine' became cows and 'eyn' became eyes.

A lovely example of generalising vocabulary from rules is the word 'grot' (meaning 'rubbish'). Apparently, the word 'grotty' was first used by George Harrison in the Beatle's film 'A Hard Day's Night' as a slang word for grotesque. This was then taken as an adjective and back-formed into a noun, hence the word 'grot'. The general rule is take a noun, add a '-y' and you have an adjective. In the case of grotty however, the process was worked backwards.

c) *Grammar and the written form*

To whom this may concern, the '-m' may be disappearing. It seems that it is becoming more acceptable to simply use the word 'who' for all cases. And you may have noticed a 'split infinitive' (i.e. 'to simply use') in the previous sentence... itself a 'rule' which is becoming more obscure (ever since Star Trek 'boldly went'!) And of course, I have just used the term 'more obscure' instead of 'obscurer'.

As a personal observation, I am noticing a greater use of the terms 'more/most' when the words should technically end in '-er/-est'. The weather is becoming more mild, one rugby player is more strong than the other and certain items in the supermarket are more cheap than they used to be. This is a fascinating change for me because it demonstrates two competing rules in grammar... should something be 'more/most' or should it be '-er/-est'? It seems the more/most generalisation is 'winning'! Perhaps this makes sense since we have 'less strong', 'less mild' and 'less cheap' – so why not 'more' of these things. There is no opposite rule for 'bigger' so

we might say smaller, but this may not be the same as 'less big'. Things are more expensive so why not more cheap?

The Systemic Effect of the UMPs on Language

If we treat the UMPs as a systemic, dynamic model (where generalisation drives distortion and deletion while deletion and distortion feed into generalisation), we can see examples of where words have grown, contracted and shifted over time. Here a few of my favourite things...

Deutscher tells us about the journey of the word 'up'. In Old High German the term used was 'uf'. Then, into Old English (Anglo Saxon) we have 'ufan' (which in effect meant *up-on*). It then shifted to 'be-ufan' (*by-up-on*) and then contracted to 'bufan'. It was then grown to 'an-bufan' (*on-by-up-on*) and then distorted to 'anbufun' to the word we know today as 'above'. And now, we have added again to make the phrase 'up above' (which means *up-on-by-up-on*). If English was primarily a spoken language (as opposed to written), I wonder how long it would be before 'up above' might be contracted to, for example, 'pabove'.

Another Deutscher example is the negation word 'not'. Like the French, the Anglo Saxon word for not was 'ne'. In order to become more expressive, 'ne' became 'ne-a-whit' (meaning roughly 'no-ever-thing' or we might say today 'not a chance'!) This became 'nawhit' then 'ne [verb] nawt' (like the French double negative of ne [verb] pas – which incidentally translates to 'not a step'). Continuing the French structure, this became 'ne [verb] not/nowt' and then losing the double negative, we now have 'not' (where 'nowt' is still a Northern English expression for 'nothing'). In addition, as a suffix, we often contract 'not' to '-n't'. Perhaps the next step in the future is to bring back the double negative.

Curiously, the double negative was once popular in Old and Middle English. Indeed, it was used to emphasise the strength of the negative. To say: "I don't know nothing" would have *really* meant it! The double negative went out of fashion in English in the late 18th Century when the influential linguists (e.g. Lindley Murray) of the time deemed it no longer acceptable; in part because of a 'mathematical desire' for order and for an adherence to the Latin grammar structure which was considered to be superior to English grammar (Crystal 2004, Kirby 2009)

Predicting the future of language

I do wonder whether much of the changes in language come from the youth, the teenagers of each generation. Perhaps it is a necessary form of expression, breaking rules and breaking new ground; creating an independent identity perhaps. In addition we see new technical terms entering our language to describe new discoveries in science, inventions in technology and products and services in business.

It is possible that in 30 to 40 years time, the word 'wicked' will have a primary meaning of 'good', and the meaning of 'cruel' will become archaic and eventually dropped. People won't get sacked or laid off from work; they will be 'sacked off'! The suffixes '-er' and '-est' will mostly disappear being replaced by 'more' and 'most' (e.g. 'stronger' becomes 'more strong' and 'cheapest' becomes 'most cheap').

So heres to being more happy than other's are about the wicked future of language!

Biography

Joe Cheal has been working with NLP since 1993. As well as being a master trainer of NLP, he holds an MSc in Organisational Development and NLT, a degree in Philosophy and Psychology, and diplomas in Coaching and in Ericksonian Hypnotherapy, Psychotherapy and NLP. He is also a licensed EI practitioner.

He is the author of '*Solving Impossible Problems: Working Through Tensions and Paradox in Business*', '*Who Stole My Pie?*' and co-author of '*The Model Presenter: Developing Excellence in Presenting and Training*' and '*The Little Book of Persuasion*'.

References

Bandler, R. & Grinder, J. (1975) *The Structure of Magic I* Science & Behaviour Books

Cheal, J. (2015) "A dynamic model for the meta-model (Distortions in thinking: part 4)" *Rapport*, 47 Autumn, pp20-22

Crystal, D. (2010). *Cambridge Encyclopedia of Language 3rd ed.* Cambridge, United Kingdom: Cambridge University Press

Deutscher, G. (2006) *The Unfolding of Language* Arrow Books

Kirby, P (2009) "Double and Multiple Negatives" https://www.american.edu/cas/tesol/resources/upload/Kirby_Philippa.pdf (accessed 15.01.2017)

Macfarlane, R. (2015) "The word-hoard: Robert Macfarlane on rewilding our language of landscape" *The Guardian*, Friday 27 February https://www.theguardian.com/books/2015/feb/27/robert-macfarlane-word-hoard-rewilding-landscape (accessed 15.01.2017)

Marcelo A Montemurro & Damián H Zanette (2016) "Coherent oscillations in word-use data from 1700 to 2008", *Palgrave Communications* 2, Article number: 16084

Truss, L. (2009) *Eats Shoots and Leaves: The Zero Tolerance Approach to Punctuation* Fourth Estate