

Lexical blends and lexical patterns in English and in American Sign Language

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1. Introduction

Lexical blends are words that have been coined through the fusion of parts of other words, and lexical blending is the creative process through which new blends are made. Some blends, like *brunch* and *motel*, are widely known and well-established, while others, like *cronut* 'a kind of sweet pastry', from *croissant+donut*, and *mansplaining* 'patronizing explanation', from *man+explaining*, are relatively novel creations. Lexical blends therefore provide an excellent opportunity to examine the relationship between how conventional words are formed and how novel words are created¹. Accordingly, this paper seeks to answer two questions about the role of lexical blends in morphology. First, what do blends and blending reveal about the morphological systems of individual languages? Second, when taken seriously, what consequences do blends hold for theories of morphological structure in human language? To answer these questions, this paper presents examples of lexical blends from English, as a representative spoken language, and American Sign Language (ASL), as a representative sign language. I argue that, both in speech and in sign, lexical blending is an analogical process that both exploits and creates paradigmatic relationships among whole words. The examples presented here also suggest that lexical blend constructions can be strikingly similar across languages, even those with quite different structural properties.

Perhaps more than other neologisms, lexical blends are highly salient as new words in English (cf. Metcalf 2002). Speakers seem to hold a wide range of opinions about the suitability of individual blends and of the process of blending. For example, two "pop-linguistics" articles from 2013 speak out against the (perceived) increasing popularity of lexical blending (Figure 1). Citing examples like *bridezilla*, *manscaping*, *chillax*, and *staycation*, and lamenting that many blends are simply not that funny, the authors conclude that lexical blending is a newly popular phenomenon, a viral trend that, they hope, will quickly pass.

¹ Following Halle (1973), many studies of word-formation seek to procedurally build up complex words from smaller parts, and so "word-formation" refers to the process through which a target word like *transformational* is formed from the elements *trans-*, *form*, *-at*, *-ion*, and *-al*. This view of word-formation does not explicitly distinguish between the formation (=derivation) of an established, conventional word and the formation (=creation) of a novel, previously-un-encountered word. Separate terminology is needed to distinguish between different senses of "word-formation". Zwicky and Pullum (1987) and Miller (2014) therefore distinguish "plain/core" morphology from "expressive" morphology, and Ronneberger-Sibold (1999), uses the more neutral terms "word-formation" and "word-creation" to make a similar distinction. Here I use "word-formation" to refer to the description of static sub-lexical structure in established words, and "word-creation" to refer to the process of coining a new word.

THE GOOD WORD LANGUAGE AND HOW WE USE IT MARCH 6 2013 5:37 AM

Please Do Not *Chillax*

Adjoinages and the death of the American pun.

By Simon Akam



I am appalled by *Bridezillas*. I should make it clear that I have never seen an episode of the reality show. I hate *Bridezillas* for one simple reason: *Bride* does not rhyme with *god*. Ergo, *Bridezillas* is not a functioning pun.

The point is significant because *bridezilla* appears to be symptomatic of a wider malaise: the death of the American pun, replaced by something grosser, dumber, uglier. Examples abound: Take one of the most read websites in the world, *Wikipedia*, a "pun" on *encyclopedia* that shares nothing but its suffix. Or *techpreneur*, the loathsome fusion of *technology* and *entrepreneur*.

Likewise *mansplain*, a coinage popular with Internet feminists that adroitly glosses a man addressing a woman in a condescending fashion (e.g., "Akam mansplains that *mansplain* is not a functioning pun.") but is still not a functioning pun. *Manscaping*, the removal of all or part of male body hair, is better—there is at least assonance between the vowel sounds in *man* and *land*—but as a pun it remains perilously

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http://www.slate.com/articles/life/the_good_word/2013/03/chillax_wikipedia_and_bridezilla_are_not_puns_against_adjoinages.html

BROW BEAT SLATE'S CULTURE BLOG JULY 19 2013 11:29 AM

Sharknado, Cronut ... Is This the Summer of the Neolexic Portmanteau?

By L.V. Anderson



Dominique Ansel's witless pastry.

Photo illustration by Andrew Burton/Getty Images

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http://www.slate.com/blogs/browbeat/2013/07/19/sharknado_cronut_and_the_summer_of_the_neolexic_portmanteau.html

Figure 1: Two pop-linguistics articles discussing blends in English: "Please do not *chillax*: Adjoinages and the death of the American pun" (left) and "*Sharknado*, Cronut ... Is this the summer of the neolexic portmanteau?" (right)

However, the process of blending two words together to create a new one, and even the meta-linguistic judgment that blending is a new phenomenon, are themselves not that new. Linguists have been discussing the novelty of blending for at least a century: In the prefatory note to her dissertation, for example, Pound admits that the most interesting section is likely to be the one "dealing with the present-day vogue of blend formations", noting that "it seems time that specific attention be called to the contemporary popularity of blends" (1914: ii). Another example can be found in Bryant's (1974) discussion of lexical blends in *American Speech*, the title of which is the simple declaration that "blends are increasing". It is also relatively easy to find examples of historical lexical blends in the Oxford English Dictionary online, for example *foolosopher*, from *fool*+*philosopher*, suggesting that, regardless of whether blends are truly on the rise, the mechanism of blending has been used to create new words in English since at least the Early Modern period:

- (1)
 - a. *Suche men..that in deede are archdoltes, and woulde be taken yet for sages and philosophers, maie I not aptely calle them foolelosophers* (1549)
 - b. *What stand yee idle my fooleosophers* (ca. 1600)
 - c. *A fine foolosopher!* (1694)

<http://www.oed.com/view/Entry/72672>

In the domain of morphology, the enduring perception that lexical blends are unpredictable novelties seems to have precluded a systematic analysis of lexical blending as a productive morphological process. Many accounts view lexical blending as a marginal, peripheral, or extra-grammatical word-formation process, or even deny the reality of blending outright (e.g., Scalise 1984; Zwicky and Pullum 1987; Spencer 1991; Marantz 2013). However, recent work has shown that though lexical blend structure is probabilistic and gradient, rather than deterministic and categorical, it is indeed conditioned by prosodic and semantic considerations (e.g., Bat-El 2000; Gries 2004; Renner, Maniez, and Arnaud 2012; Arndt-

Lappe and Plag 2013; Bauer, Lieber, and Plag 2013). It seems that lexical blending can therefore be counted among the phenomena that an adequate theory of human language should be expected to address.

Beyond whether or not it is possible to correctly predict the formal structure of individual blends, one aspect of lexical blending that is of particular interest for morphology is the fact that some lexical blends can come together to form families of related blend words, giving rise to new morphological patterns (see Berman 1961; Lehrer 1998; Kemmer 2003; Booij 2010; Lepic 2015). The classic example concerns the word *Watergate* which, through reanalysis, has come to serve as the basis for a number of *gate* words, including *nipplegate*, *deflategate*, and *gamergate*. These new words all have in common that they reanalyze and repurpose the *gate* from *Watergate* in order to name political scandals and pop culture controversies.

A less well-established set of examples involves the recent blend *cronut*, already mentioned above. The *cronut* is a hybrid pastry with characteristics of both a *croissant* and a *donut*. Bakers hoping to cash in on the popularity of the *cronut* have also created their own "knockoff" pastries with corresponding blend names, including the *dossant*, from *donut+croissant*; the *crullant*, from *cruller+croissant*; the *churron*, from *churro+macaron*; and the *cronot*, from *cronut+not*. These words have all apparently been formed on analogy to the original blend *cronut*, combining and recombining words to create a product that is quite similar to, yet legally distinct from, their source of inspiration.

The remainder of this paper analyzes this tendency for certain lexical blends to serve as a template from which other blends may be created, by drawing on examples from English and ASL. Lexical blends have not yet, to my knowledge, been described in a sign language. As I suggest in section 2, this may be because many blends fit into the morphological patterns of sign languages so seamlessly that they are not even remarkable as new words to the same extent that blends are in English. In section 3, I argue that the facts about lexical blend families in English and in ASL can be straightforwardly accounted for under the theory of Construction Morphology (Booij 2010), which anticipates the notion of analogical motivation in morphology.

2. The structure of blends in English and in ASL

Though English and ASL are typologically quite different languages, in part because they are expressed in distinct perceptual modalities (see Sandler and Lillo-Martin 2006), both languages contain words that can be analyzed as having been created through the recombination of parts of other words. In addition to the examples already mentioned above, in English, examples of lexical blends include *sharrows* 'marks indicating lanes to be shared by motorists and cyclists', from *share+arrows*; *webinar* 'an online lecture or class', from *web+seminar*; and *glamping* 'luxurious accommodations at scenic vacation destinations', from *glam(orous)+camping*. Following Arndt-Lappe and Plag (2013) and Lepic (2015), these blends can be analyzed as incorporating the segmental material of one word into the overall prosodic/segmental frame provided by the other. This can be formally represented as in Figure 2, where the words *share* (Figure 2a) and *arrows* (Figure 2b) are aligned so as to share the stressed syllable ['eɪ.] in the resulting blend *sharrows* (Figure 2c).

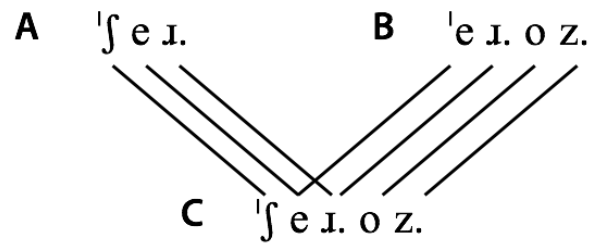


Figure 2: Phonological elements of the English words (a) *share* and (b) *arrows* combine to form the blend (c) *sharrows*.

In ASL, blends also incorporate phonological sub-constituents from one word into the overall prosodic frame provided by another.² Some examples are the sign glossed as TRIPPING³ 'to be on drugs', from TRAVEL⁴+INVENT⁵; HEARING-MINDED⁶ 'to uncritically embrace the values of the hearing majority', from THINK⁷+HEARING⁸ (see Padden and Humphries 1988; Wilcox 2000); and even one of the handful of variant signs for MORPHOLOGY, from WORD⁹+MEANING¹⁰. In each of these examples, the resulting blend sign retains the overall movement pattern of one of its constituent signs, yielding blend signs that are segmentally and prosodically indistinguishable from simplex signs (see Sandler 1989, 1999 for discussions of canonical sign length and complexity).

As an illustration of this point, consider the (partial) forms of the signs glossed as INVENT, TRAVEL, and TRIPPING, shown in Figure 3. Like the sign INVENT (Figure 3a), the blend TRIPPING (Figure 3c) is a one-handed sign in which the hand first makes contact with the temple, and then moves up and forward, away from the head. Like the sign TRAVEL (Figure 3b), the blend sign TRIPPING is formed with the hand configured in what is known as a "bent-V" handshape, with the index and middle fingers extended and slightly bent. The blend sign TRIPPING therefore matches the overall prosodic shape of the sign INVENT, however incorporating the handshape of the sign TRAVEL.

² In sign language linguistics, there is no agreed-upon or practical notational system for transcribing the forms of signs. Instead, it is typical to refer to signs with glosses that approximate their meanings, and to supplement these sign glosses with still images of signs and impressionistic descriptions of their forms. This poses a serious descriptive and representational challenge, especially for readers unfamiliar with a sign language. Wherever possible, I have provided links to videos of individual signs posted online, to help bridge this gap.

³ Lapiak, Jolanta. "trip (drug)". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2498>

⁴ Lapiak, Jolanta. "trip". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2497>

⁵ Lapiak, Jolanta. "make up". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=1332>

⁶ Lapiak, Jolanta. "hearing-minded". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=1010>

⁷ Lapiak, Jolanta. "think". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2201>

⁸ Lapiak, Jolanta. "hearing". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=1001>

⁹ Lapiak, Jolanta. "word". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2422>

¹⁰ Lapiak, Jolanta. "meaning". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=1364>

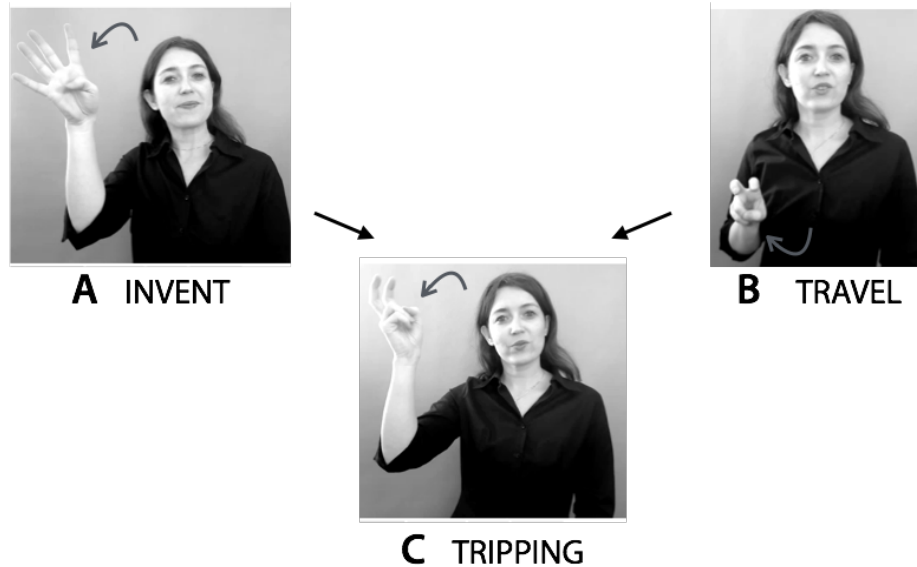


Figure 3: The ASL signs (a) INVENT and (b) TRAVEL combine to form the blend (c) TRIPPING.

These correspondences between INVENT, TRAVEL, and the blend TRIPPING can be formally represented as in Figure 4, where the appropriate values for the formational parameters of handshape, location, and movement are listed for each sign. Similar to the representation of the blend *sharrows* in Figure 2, this representation captures the fact that INVENT (Figure 4a) and TRIPPING (Figure 4c) are articulated with similar movement patterns, and that TRAVEL (Figure 4b) and TRIPPING are signed with the same handshape.

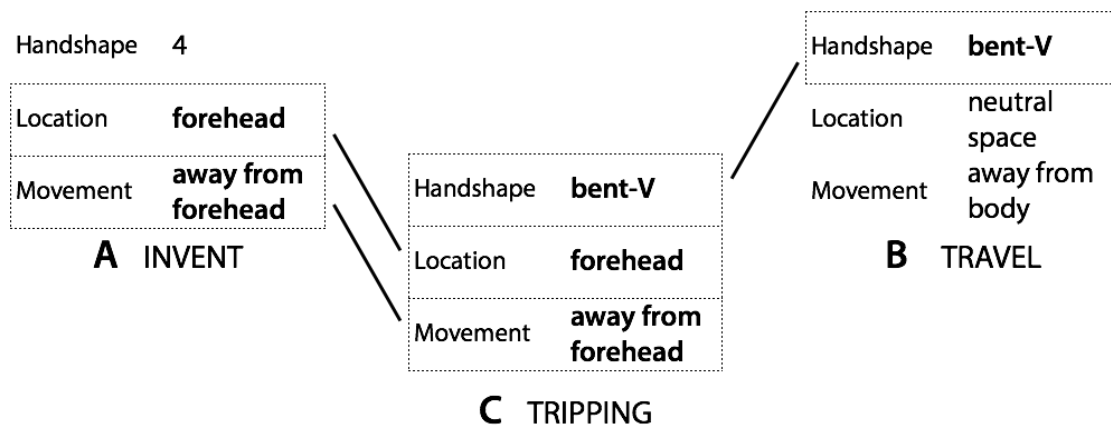


Figure 4: Phonological elements of the ASL signs (a) INVENT and (b) TRAVEL combine to form the blend (c) TRIPPING.

In ASL as in English, then, we can identify examples of words that have been created through the combination of sub-parts of other words. Beyond these singleton blends, in both languages we can also find families of blends that all share aspects of form and meaning in common. An example in English involves words containing *(a)licious*, for example *bubblicious*, *snugglicious*, *cougarlicious*, *divalicious*, *hunkalicious*, and *bootylicious*. These words are all relatively new creations that combine an existing word with the element *(a)licious*, which adds the connotation of being 'deliciously or extremely X'. Similarly, in ASL, a recurring word-formation pattern, relevant for the previously-mentioned example

HEARING-MINDED, involves changing the location of an existing sign so that it is instead articulated at the forehead. This has the effect of adding 'the mind as the site of cognition' to the original sign's meaning, as in COMMIT-TO-MEMORY, from WRITE-DOWN¹¹, MENTAL-SCAR, from SCRATCH¹², and WEAK-MINDED¹³, from WEAK¹⁴. These blend words in English and in ASL can be considered members of small lexical families because they have all changed an existing word in similar ways, whether affixing the element *(a)licious* or changing their place of articulation to the forehead, to create new word with a corresponding change in meaning, as is represented in Figure 5.

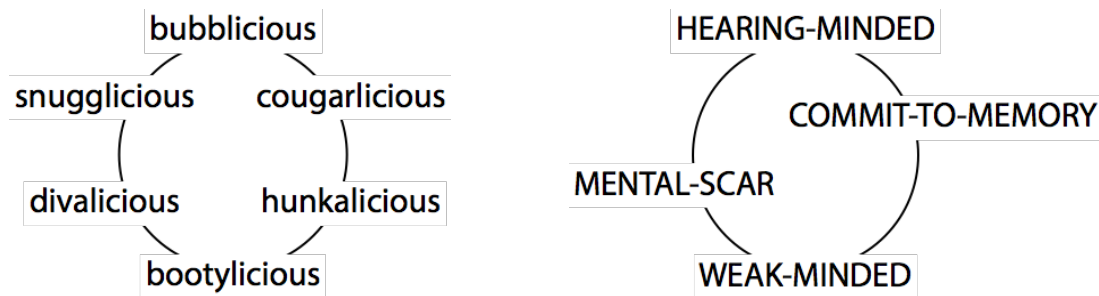


Figure 5: A family of related blends in English (left) and in ASL (right)

It seems obvious, even though the meaning of *(a)licious* differs from the meaning of the English word *delicious*, that the use of *(a)licious* to form new words is the result of repeated lexical blends involving the word *delicious*. With the ASL pattern, however, it is not entirely clear which particular sign the forehead location has been extracted from. There are many conventional ASL signs that are signed at the forehead and relate to 'cognition' (Frishberg and Gough 1973/2000; Meir, Padden, Aronoff, and Sandler 2013), for example THINK, KNOW¹⁵, and WONDER¹⁶. Accordingly, and owing to the simultaneous, non-concatenative structure of many ASL signs (Emmorey and Corina 1990; Aronoff, Meir, and Sandler 2005), any of these signs could be the potential source for the creation of a blend sign like COMMIT-TO-MEMORY.

Though both languages contain families of blends, the English and ASL examples seem to differ in that, in English, we see a pattern where repeated blending of the same word, *delicious*, has led to the association of a particular meaning with an element of form, *(a)licious*, that was not previously meaningful in its source word. In ASL, in contrast, blending seems to take advantage of elements which have already achieved some "meaningful" status, by virtue of the fact that they recur in groups of related signs. Thus, the fact that the forehead location is selected in the formation of signs like WEAK-MINDED is neither arbitrary nor surprising; the forehead location is available to be factored out of conventional ASL signs, and it can be put to work making new signs.

¹¹ Lapiak, Jolanta. "write down". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2647>

¹² Lapiak, Jolanta. "scratch". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=4083>

¹³ Lapiak, Jolanta. "feeble-minded". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=5956>

¹⁴ Lapiak, Jolanta. "weak". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2365>

¹⁵ Lapiak, Jolanta. "know". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=1207>

¹⁶ Lapiak, Jolanta. "wonder". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2420>

3. Analogical and schematic blend-formation

In English, families of new blends can lead to the formation of new affix-like elements, while in ASL, new words typically result from changing the form of an existing sign so as to join an already-conventionalized family of words. Interestingly, though many individual novel blends are unlikely to go on to become established, conventional lexical items, speakers can, and often do, produce and interpret novel blends. This suggests that, for any group of related attested blends, at least some speakers will have identified an abstract pattern that generalizes over families of blend words that they have encountered. My proposal is that at the morphological level, blending takes advantage of proportional analogy, which then results in the formation of small patterns, or *constructions*, that can be used to form new words. Here, I adopt a very general construction-theoretic view of morphology to provide a formal account for the development of these patterns (following e.g., Jackendoff 1975; Bochner 1993; Goldberg 1995, 2006; Booij 2010; Jackendoff 2013; Bauer, Lieber, and Plag 2013). In the morphological constructions discussed here, elements of form are paired with elements of meaning, with some aspects of the construction left unspecified, or *schematic*, in ways that allow them to be extended to create new words.

An illustrative example can be seen with the English word *bromance*. As an established but recently coined blend, *bromance* has served as the template for the creation of a number of other *bro* words, including *brototype* 'a prototypical bro', from *prototype*; *brocabulary* 'the language of bros', from *vocabulary*; *brogrammers* 'men who program together', from *programmers*; and even *bromanteaux* 'blends containing bro', from *portmanteaux*. Though any one of these blends may have been formed on the basis of an analogical extension of the relationship between *romance* and *bromance*, the aspects of form and meaning shared among all of them can be described using a constructional template, as in Figure 6. In this representation, proportional analogy eventually gives way to a construction as a more abstract pairing of form and meaning.

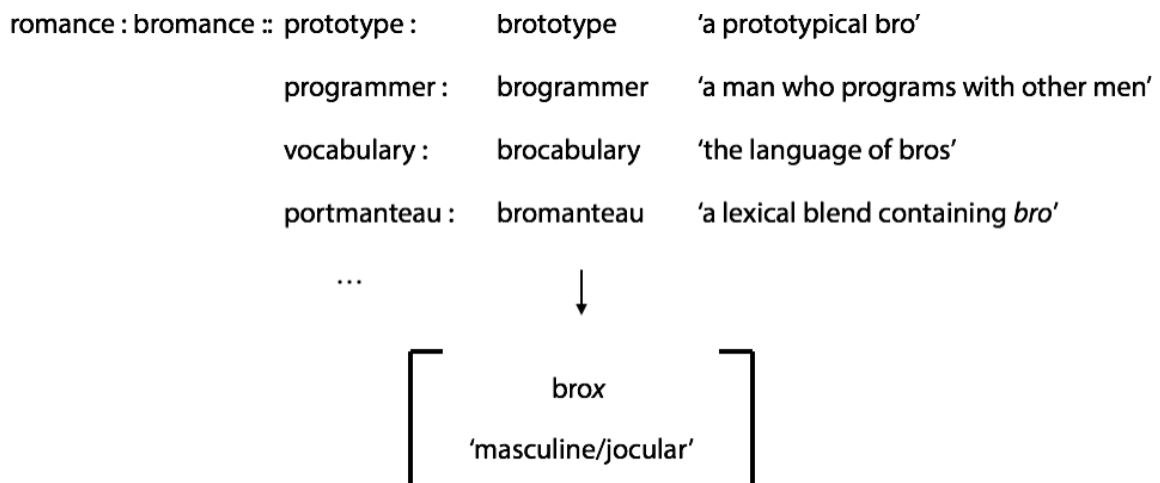


Figure 6: The relationship between analogical and schematic *bro* words

The pattern involving *bro* is notable for being fun and jocular, but another, slightly more serious example in English is *splain(ing)*, which is used to denote a condescending explanation from a position of privilege, as in the pair of examples in (2).

- (2) ...a junior colleague in another department, who is both black and of Caribbean origins, likes to **mansplain** to me about how I *must* wear a suit or I will not be taken seriously. I am thus in the bizarre position of **whitesplaining** to him that I, indeed, as a rich white lady, can get away with being tweedy and disheveled because students will accept that from me as an expected full professor costume...

<http://whatever.scalzi.com/2013/10/30/why-i-wear-what-i-do/>

Here as well, with *mansplain* and *whitesplaining*, we see that the relatively more-established blend *mansplaining* serves as the basis for the formation of other blends referring to other kinds of privilege. This pattern has been extended not only to form *whitesplaining* 'white condescension', but also yields other new words, including *straightsplaining* 'heterosexual condescension', *cissplaining* 'cisgendered condescension', and *geeksplaining* 'over-explaining to assumed non-experts'. As with *bro*, the construction-theoretic analysis of this group of words is that they reflect that at least some speakers of English have generalized an abstract constructional pairing of meaning and form, such that words ending in *splaining* can refer to a patronizing kind of explanation from a position of privilege, resulting in a constructional template that pairs the form *splaining* with the meaning 'patronizing explanation'.

In Construction Morphology (Booij 2010), constructions serve two grammatical functions. The first is that they are a description of how known words are formed, that is, of the relationship between meaning and form that can be observed in actually-occurring lexical items. Second, they serve as a template for producing or interpreting novel words. In English, then, a word like *anniversary*, or even a phrase like *Military Industrial Complex*, when re-used to create a set of blend derivatives, can serve as the source for the innovation of new affix-like elements with meanings like 'commemorative milestone' and 'suspiciously corporate', respectively. These constructions can then be deployed to create other new words (Figure 7). This analysis suggests that in at least some domains of English derivational morphology, we have a cumulative gradient shift from things that look more like canonical blends to things that look more like derivational affixes; the development of affix-like elements from blends follows a transition from more analogical formations to more schematic ones.

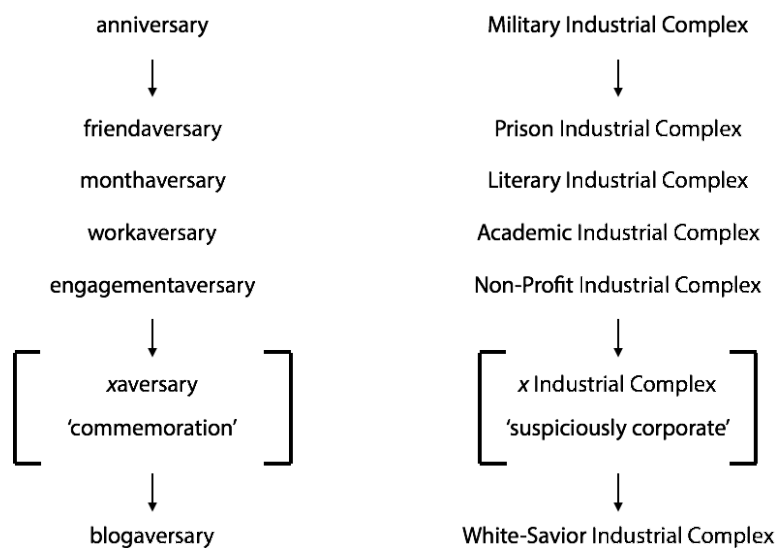


Figure 7: The creation of new blends from schematic constructions

However, in American Sign Language, which makes relatively infrequent use of segmental and concatenative morphology (Fernald and Napoli 2000; Aronoff, Meir, and Sandler 2005), we instead observe ambiguity between things that look like blends and things that look like typical non-concatenative morphology: In ASL, families of blends seem to exploit and systematize existing, partially motivated pairings of form and meaning. Beyond the example that we have already seen, in which the forehead location is systematically reused among signs relating to cognition and mental processes, another quite productive word-formation construction concerns the practice of *initialization* (Lepic 2015). Initialization is a conventional system for borrowing words from English into ASL, and is driven by English/ASL diglossia in the American Sign Language community. Initialization is also facilitated by the practice of fingerspelling, which pairs ASL handshapes with written English letters (Padden 1998; Fernald and Napoli 2000; Brentari and Padden 2001).

Initialized signs in ASL can be identified as signs whose handshapes correspond, via the conventions of fingerspelling, to the initial letters of their English translations. An example is the sign MATH¹⁷, which combines the movement and location of the ASL sign FIGURE-OUT¹⁸ with the "M"-handshape from fingerspelling in order to create a sign that blends aspects of ASL FIGURE-OUT with English *math*. MATH and FIGURE-OUT also belong to a somewhat large family of signs; these signs, including TRIGONOMETRY¹⁹, ALGEBRA²⁰, CALCULUS²¹, and GEOMETRY²², all have in common that they are signed with the same movement pattern, that their handshapes correspond to fingerspelled English letters borrowed from English words, and that they denote 'a kind of calculation'. We can therefore hypothesize that these signs have led to the abstraction of a construction where a particular configuration of location and movement can be used to create or interpret previously unseen initialized signs relating to 'calculation'.

In initialized signs, two different kinds of constructions, one based on shared movements and a second based on shared handshapes, together describe the structure of existing signs. These constructions also provide a template for producing or interpreting novel words. As an example, another lexical family in ASL provides the basis for a morphological construction for signs denoting 'groups of people', abstracted from the ASL sign GROUP²³ and established initialized signs like FAMILY²⁴, TEAM²⁵, and CLASS²⁶. These 'group' signs are all articulated with the same tracing movement, however their handshapes differ. Another morphological construction describes the structure of "U-initialized" signs, abstracted from signs like UNIVERSE²⁷, UNIVERSITY²⁸, and UNCLE²⁹. These signs have in common only that they are initialized: they articulated with a "U"-handshape, and that they correspond to concepts for which there is a "U-initial" word in English, but their movement and location features differ.

The construction that has been abstracted from signs denoting 'groups of people' has its movement pattern specified, and its handshape left schematic, while the construction for "U-

¹⁷ Signing Savvy. "math". <https://www.signingsavvy.com/sign/MATH/801/1>

¹⁸ Signing Savvy. "figure out". [https://www.signingsavvy.com/sign/FIGURE OUT/6603/1](https://www.signingsavvy.com/sign/FIGURE%20OUT/6603/1)

¹⁹ Signing Savvy. "trigonometry". <https://www.signingsavvy.com/sign/TRIGONOMETRY/5737/1>

²⁰ Signing Savvy. "algebra". <https://www.signingsavvy.com/sign/ALGEBRA/871/1>

²¹ Signing Savvy. "calculus". <https://www.signingsavvy.com/sign/CALCULUS/1073/1>

²² Signing Savvy. "geometry". <https://www.signingsavvy.com/sign/GEOMETRY/1391/1>

²³ Signing Savvy. "group". <https://www.signingsavvy.com/sign/GROUP/1432/1>

²⁴ Signing Savvy. "family". <https://www.signingsavvy.com/sign/family>

²⁵ Signing Savvy. "team". <https://www.signingsavvy.com/sign/TEAM/421/1>

²⁶ Signing Savvy. "class". <https://www.signingsavvy.com/sign/CLASS/75/1>

²⁷ Signing Savvy. "universe". <https://www.signingsavvy.com/sign/UNIVERSE/840/1>

²⁸ Signing Savvy. "university". <https://www.signingsavvy.com/sign/UNIVERSITY/457/1>

²⁹ Signing Savvy. "uncle". <https://www.signingsavvy.com/sign/uncle>

initialized" signs, in contrast, requires a specific handshake, but its movement is schematic. These constructions are therefore complementary, each specifying a phonological value that is left schematic in the other; what happens when they combine to form a new sign? Its form is predictable, taking the movement and location that are observed in signs like GROUP, and combining them with the U-handshake from signs like UNIVERSE, as Figure 8 shows.

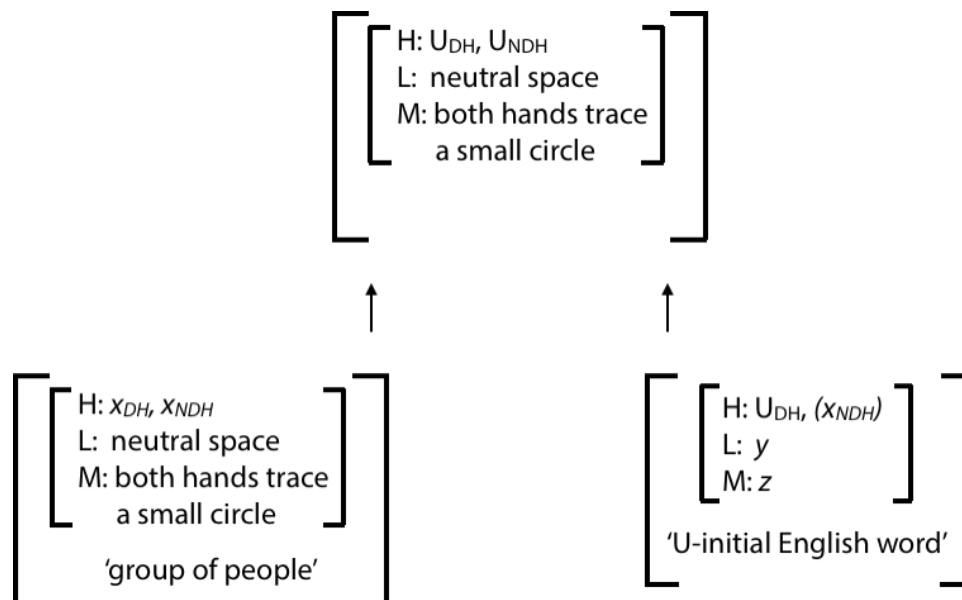


Figure 8: The creation of a new blend from schematic constructions in ASL

However, in seeing this particular initialized sign for the first time, the only inference that can be made about its meaning, in the absence of any discourse context, is that it refers to some kind of "U-group" in English, perhaps a *unit*, or a *union*, or something done in *unison*. Indeed, the fact that this sign means UNION³⁰ in ASL is something that must be learned. This is precisely because the U-handshape does not mean 'union', but rather, one of the functions of this handshape is to represent the fingerspelled letter U in certain types of signs. This fact is also captured by the representation in Figure 8: With the sign UNION, we have the unification of two complementary configurations of meaning and form which potentiate, rather than determine, the correct interpretation of a particular novel or previously-un-encountered sign.

While initialized signs present an illustrative example, it is not only initialized signs that demonstrate that ASL signers are aware of, and can systematically deploy, partially schematic configurations of meaning and form that can be formalized as constructions. The benefit of positing morphological constructions is that they also account for other examples of signs that have changed their form in order to join an existing family of signs. An example is the abstraction of the "horns" handshape from the signs MOCK³¹, STUCK-UP³², and IRONY³³, which all share an implied 'negative' aspect of meaning. Recognition of this pattern among conventional ASL signs licenses the formation of a construction that can be deployed to coin another negative sign, OVER-IT, made by changing the handshape of the already-existing sign BORED³⁴ to the "horns" handshape. Returning to an example we have already seen, we can also analyze signs like THINK, KNOW, and WONDER as licensing the abstraction of a

³⁰ Lapiak, Jolanta. "union". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=3835>

³¹ Signing Savvy. "mock". <https://www.signingsavvy.com/sign/MOCK/3908/1>

³² Lapiak, Jolanta. "snob". *Handspeak*. <http://www.handspeak.com/word/search/index.php?id=2002>

³³ Signing Savvy. "irony". <https://www.signingsavvy.com/sign/IRONY/1598/1>

³⁴ Signing Savvy. "bored". <https://www.signingsavvy.com/sign/BORED/50/1>

construction that pairs the forehead location with a particular meaning, and can then be deployed to create a new sign, like COMMIT-TO-MEMORY, made by changing the location but reusing the handshape and movement of the existing sign WRITE-DOWN.

In addition to these patterns, which involve recurring pairings of handshape or location values with specific meanings, we also find word-creation patterns that involve movement contrasts in ASL. One example involves two movement patterns that themselves participate in a "second-order" construction (see Booij and Masini 2015): In ASL, several pairs of signs differ only by the direction of their movement and the polarity of their meaning, and these patterns are systematically opposed. For example, in the sign IMPROVE³⁵ the non-dominant hand moves up the non-dominant arm, while in WORSEN³⁶ the hand moves down the non-dominant arm. Similarly, THRILLED³⁷ is signed with an upward movement, while DEPRESSED³⁸ differs only in that it is signed with a downward movement. The relationship between these groups of positive and negative signs, in addition to the opposition between the negative and positive signs in general, can be schematized as in Figure 9. Here, 'positivity' is conventionally paired with an upward movement, and 'negativity' is similarly paired with a downward movement, and these patterns are also mutually contrastive in certain pairs of signs.

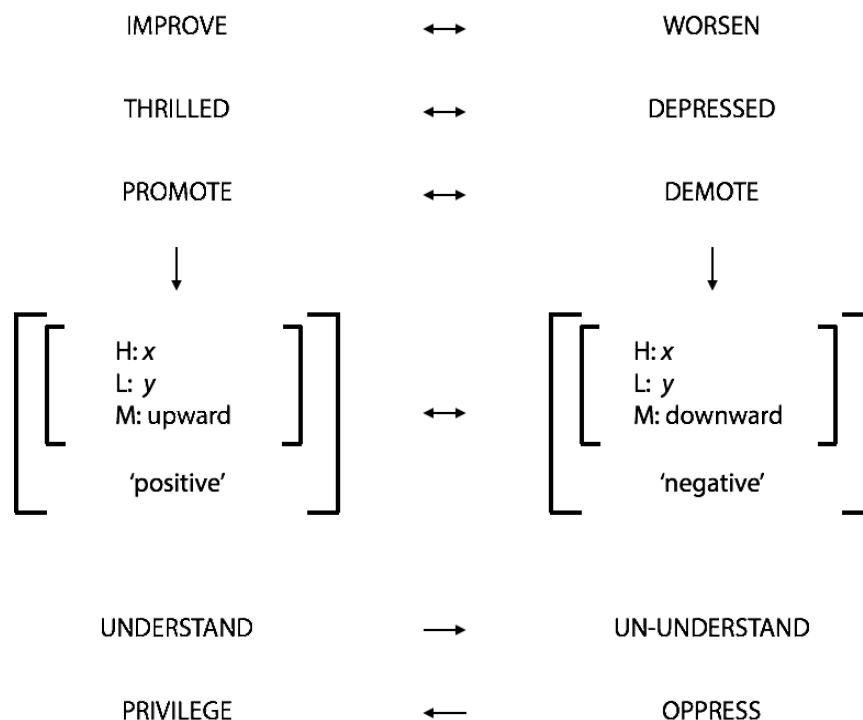


Figure 9: A second-order schema in ASL

Beyond a straightforward description of lexical relatedness, this second-order schema also accounts for the creation of new signs by changing the movement pattern associated with an existing sign. In their description of wordplay in ASL, Klima and Bellugi (1979:326) discuss how one signer changed the upward movement of the sign UNDERSTAND³⁹ to coin the nonce

³⁵ Signing Savvy. "improve". <https://www.signingsavvy.com/sign/IMPROVE/594/1>

³⁶ Signing Savvy. "worsen". <https://www.signingsavvy.com/sign/WORSEN/5551/1>

³⁷ Signing Savvy. "thrill". <https://www.signingsavvy.com/sign/THRILL/5579/1>

³⁸ Signing Savvy. "depressed". <https://www.signingsavvy.com/sign/DEPRESSED/542/1>

³⁹ Signing Savvy. "understand". <https://www.signingsavvy.com/sign/UNDERSTAND/715/1>

sign UN-UNDERSTAND, articulated with a downward movement and used to describe something that was once understood now becoming incomprehensible. Another example, already anticipated in Figure 9, involves inverting the downward movement of the ASL sign OPPRESS⁴⁰ to form a possible sign for PRIVILEGE, as recently observed in an ASL video log posted online⁴¹. The conventional sign OPPRESS is signed with the dominant hand pushing the non-dominant hand downward, while in the nonce sign PRIVILEGE, this configuration is reversed such that the dominant hand lifts the non-dominant hand upward (Figure 10).



Figure 10: The conventional sign OPPRESS (left) has downward movement, and the related neologism PRIVILEGE (right) has upward movement

4. Conclusion

The main questions addressed in this paper concerned the consequences that lexical blends hold for the morphological systems of individual human languages, as well as the consequences that lexical blends hold for the development of adequate morphological theories. Here I have suggested that in English, lexical blending is a productive word-creation process that can, in certain cases, lead to the creation of elements that resemble affixes, for example, the reanalysis of *splaining* in *explaining* and *mansplaining*, or of *aversary* in *anniversary* and *monthaversary*. In ASL, in contrast, lexical blends reveal when nascent patterns in the language have become systematically organized in a way that allows signers to deploy them in the production of new signs. These examples included the formation of COMMIT-TO-MEMORY by changing the location of WRITE-DOWN to match that of signs like THINK and KNOW, and also the creation of the sign OVER-IT by changing the handshape of BORED to match that of the signs IRONY and MOCK.

Crucially for this description of lexical blends in English and in ASL, a construction-theoretic lexicon treats morphological patterns as emergent phenomena that have been abstracted over whole words as learned pairings of meaning and form. Lexical blends in general provide support for this view because they are necessarily made from existing whole words, rather than more theoretically familiar roots and affixes. ASL derivational morphology in particular also provides support for this construction-theoretic view of the lexicon, because ASL morphology is overwhelmingly non-concatenative (Sandler 1989; Fernald and Napoli 2000; Aronoff, Meir, and Sandler 2005), and, as we have seen, lends itself well to the analogical blending operation described above. The facts about lexical blends in both English and in ASL reveal then, that not only are individual words made up of smaller identifiable

⁴⁰ Signing Savvy. "oppress". <https://www.signingsavvy.com/sign/OPPRESS/1979/1>

⁴¹ <https://youtu.be/P071B5sPCvg?t=1m20s>

parts, but they themselves are also parts that participate in larger patterns known as lexical families. Under this view, the construction-theoretic lexicon is one consisting of whole-part relations all the way down.

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