

British Sign Language an inferior form of communication to spoken language?



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Kateryna Pavlyuk argues that British Sign Language is in no way inferior to spoken language

Language can be described as communicating through ‘a system of arbitrary vocal symbols’, or by ‘modulating the sound we make when we exhale’. Both of these definitions are ignorant of the fourth most spoken language in the UK and the first language of approx. 150,000 deaf people: British Sign Language (BSL). Due to being a minority language; being in use in the same community as the globe’s *lingua franca* – English; and creating a visual as opposed to auditory output, BSL is rarely regarded as a ‘real’ language. However through the study of the history, psychology, neurology and primarily, linguistics, of BSL, its social status as a mere pantomime can transform into recognition as an independent method of communication, in no way inferior to spoken language.

Only 10% of deaf children in Britain are born to deaf parents, while 90% have hearing parents, which alters exposure to sign language at an early age. Those with deaf parents are exposed to sign language earlier and at a fluent level. Consequently, this group is seen as a linguistic elite. Therefore the deaf people’s community has a social class in the same way that English does.

Furthermore, researchers from Bristol University have discovered the existence of regional lexical differences in BSL by asking signers from various parts of the country to translate a list of English words and receiving a wide variety of different signs. Reasons for regional dialects in BSL include: deaf people previously often being isolated and only knowing the BSL of the people around them; BSL cannot be used on the telephone; and there is no way to send letters/emails due to no written form existing. However such dialects may be decreasing now due to increased broadcasting of BSL on television, creating a more uniform way of signing.

On the other hand, a greater generational gap exists in sign language than in spoken languages. This is because before the 1940s, sign language was taught through lip-reading and fingerspelling, however now signers are encouraged to develop and learn established signs instead. This results in differentiation in signing between generations. Similarly, as technology has advanced, so have signs. Therefore how older people may sign TELEPHONE (a two-part apparatus with a mouthpiece) differs to how young people will (one single earpiece) [Figure 1 overleaf]. Other words such as TRAIN and CAMERA share the same problems as they are ever-evolving.



Figure 1 – Changes in TELEPHONE

“BSL has both grammar, which is far more flexible than English yet definite rules exist, and lexicon, which is smaller than English, yet certainly substantial. BSL even contains untranslatable terms – like ‘schadenfreude’ in German and ‘duende’ in Spanish – which English can only express via explanation.”

Some linguists have proposed that the first human utterances were gestural as opposed to vocal. This poses a historical debate about the origins and legitimacy of BSL, however studying the history of BSL is curtailed by the lack of written records. Most resources for studying sign language history are written descriptions of the language in English, some printed drawings and photographs of signs, and even some films dating back to the 1920s of British deaf signers. Due to modern technology such as video recording, we are able to supply future generations with a much better record of BSL.

The earliest written record of British Sign Language comes from 1575; the parish register of St Martin’s, Leicester, mentions a deaf man, Thomas Tillsye, making his marriage vows in sign: “to show his continuance to dwell with her to his lyves ende he did it by closing of his eyes with his handes and digginge out of the earth with his foote.”

The publication of an official BSL dictionary in 1992, not only created a coded written format of signs, but has also legitimated BSL’s position as a language.

A study carried out in 1979 found that most deaf school leavers had an average reading age of 8.75 years, thus incapable of reading tabloid newspapers, safety regulations and instruction manuals. Similarly, studies conducted in 1973 found that deaf adolescents had more difficulty with symbolic logic reasoning tasks than hearing children. Conversely, in recent studies, in which speaking and deaf children completed various psychological assessment tests, and it was discovered that performance levels were similar in both categories.

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via explanation. For example, in American Sign Language, a sign which can be glossed as TRAIN-GO-SORRY, is used when somebody joins a conversation at too late a stage for all information exchanged prior to their arrival to be retold.

In the pronominal system alone, there are many differences between English and BSL:

- English distinguishes between ‘he’ and ‘she’ whereas BSL does not. This does not make BSL inferior; the same applies in Finnish and Hungarian.
- BSL has more pronouns than English and is able to specify within the pronoun sign how many individuals are being referred to. Therefore whereas English is limited to ‘we’, BSL has WE-TWO, WE-THREE. This same elaboration is available in ‘you’ and ‘they’.
- BSL provides further implied information about a referent through hand shapes. The English pronoun ‘it’ can be used in the place of almost anything that is not human, ranging from a single bacterium to a country. In BSL on the other hand, it is possible to use specific hand shapes – called ‘proforms’ – to provide information about the shape of a referent. An example of a frequently used proform is a single finger (known as the ‘G’ hand shape), which represents referents that are long and thin (PERSON, PENCIL), whilst indicating only one dimension (length or height). English pronouns are therefore ‘zero-dimensional’, as they simply replace a noun, but do not provide any information about their shape.

Although it often takes longer to produce a sign than to pronounce a word, signs often express meaning far more succinctly than corresponding speech. For example, it is possible to produce multiple signs simultaneously in BSL using both the dominant and non-dominant hand. BSL also utilises aspect modulations, in which differences in direction, duration and the number of repetitions of a sign all convey subtle distinctions in meaning. For example, the uninflected sign meaning ‘be sick’,

when repeated three times in a circular motion, alters the meaning to 'prone to be sick'. This method of performing the same sign with slightly different hand shapes is a key feature of BSL which expresses minor differences in meaning [Figure 2].

In a similar manner, locations of signs can also be altered. Various semantic fields can be expressed depending on where the sign is produced in relation to the body. For example, signs made on or near the forehead usually indicate thought or knowledge, such as REMEMBER, THOUGHTFUL, IDEA, etc. Similarly, signs made near the chest cover the semantic field of affections and desires, such as FEEL, LIKE, WANT, etc.

Grammatical features

TIME/TENSE: Time and tense can be expressed by dividing signing space into neutral (present tense), further forwards (future tense), and further back (past tense). Tense is also commonly expressed in BSL by simply indicating a time framework at the beginning of a sentence with time markers such as LAST WEEK or TOMORROW, and one must assume that all following statements are in the specified tense, until the time frame is changed again.

QUESTIONS: BSL, like any legitimate language, offers the opportunity to both ask and answer questions. Question words are placed at the end of sentences in BSL:

PEN WHERE: Where is the pen?

BEN WHO: Who is Ben?

BSL is also able to show questions such as 'what time' and 'how long' as single units, demonstrating efficiency. In Yes-No questions, in contrast to English, BSL often repeats the verb in the asked question, as opposed to merely stating 'yes' or 'no'. For example:

BSL: Mary – MOON LIFE EXIST-THERE Jane – EXIST-THERE

English: Mary – 'Is there life on the moon?'

Jane – 'Yes'

Arguably therefore, BSL actually offers more information when answering 'Yes-No' questions, by reminding and reinforcing the topic of the asked question in their answer. BSL also uses tag questions, which are a form of yes-no question, in which a statement can be made into a question with the addition of, in BSL, the signs RIGHT or TRUE. For example:

LAST-WEEK WENT AMERICA TRUE

"You went to America last week, didn't you?"

This shows that BSL has the capability to easily and informally transform a statement into a question, just as many spoken languages can. BSL is also equipped with all the necessary fundamental question words ('what', 'why', 'where', 'when', 'who', 'which', 'how') which specify what type of information the question is asking for.

NEGATION: In the same way that English uses negation words ('no', 'not', 'never', etc.) or affixes such (un-, dis-), BSL has various methods of conveying negation, such as hand shapes, head movements and in particular, facial expressions. Weak (e.g. 'quite') and strong (e.g. 'very') negations are often shown through facial expression alone, varying from slightly narrowing the eyes and pushing out the lips, to the mouth being strongly turned down, the nose being very wrinkled and the eyes being almost closed.

Non-manual features

Contrary to what is commonly thought, BSL does not only utilise the hands to communicate. According to the Dutch sign linguist Trude Schermer, the non-manual components of sign language can be split into 'spoken' and 'oral' components.

Spoken components largely borrow mouth patterns from English, which often serve to identify or establish a sign. However despite this borrowing from English, BSL grammatical rules are still applied; verbs, for example, would be mouthed in their basic, uninflected form ('take', as opposed to 'took' or 'taking'). Oral components on the other



Figure 2 – Identical actions performed with different hand-shapes to create different signs (left to right: CANDY, APPLE, JEALOUS)



Figure 3 – Marking a question with a facial expression (Top: REASON, Bottom: WHY)

“A particularly shocking discovery made by Laura Ann Petitto is that babies exposed to sign language babble with their hands. Human infants therefore have an innate sensitivity to the rhythm of language. Hand-babbling is functionally identical to verbal babbling, only the input is different. This supports the idea that children are born with a propensity to learn language, regardless of how that language is mediated.”

hand include all other uses of the mouth. These include enacting mouth movements, where in signs such as LAUGH or BITE, the mouth imitates the action described; multi-channel signs, in which the mouth mirrors the action of the hand, such as in DISAPPEAR, where the hands close abruptly, as does the mouth; and manner and degree adverbs, where mouth shape gives extra information about the extent/degree/size of an object/event.

Another fundamental non-manual feature of BSL is facial expression, which can mark a question [Figure 3], topic, or a conditional ('if'). Facial expressions are also obligatory in signs such as RELIEVED or SHOCK, in order to mirror the emotion associated with the meaning.

Similarly, eye gaze has various important uses, such as indicating role shift, marking time, and even lexical distinction, as in some signs eye gaze alters the meaning of a sign. For example, the signs GOD and BOSS differ only in eye gaze [Figure 4].

BSL is also able to demonstrate more abstract/figurative elements of language, such as rhetorical questions and metaphor. Some metaphors are even exclusive to BSL, such as saying that 'someone's signing is wearing a bow tie', meaning that they are being overly formal. BSL is particularly good at showing spatial metaphors, where space or distance are part of the metaphor – such as down in the dumps – which is due to BSL already using space as part of the language.

Idioms, a key kind of figurative language, also exist in BSL. Some idioms are borrowed directly from English such as NOT MY CUP-OF-TEA,

however many common English idioms have been manipulated to make them exclusive to BSL. For example, “in one ear and out the other” becoming IN-ONE-EYE-AND-OUT-THE-OTHER, or “my lips are sealed” becoming MY-HANDS-ARE-SEALED.

BSL has also developed its own humour and even poetry. In the same way that Yeats is a renowned Irish poet, sign language poets gain equal recognition within the deaf communities, such as Clayton Valli, a leading American Sign Language poet.

It has been discovered that deaf children exposed to sign language acquire the language on an identical maturational timeline as hearing children acquire spoken language. Similarly, language milestones are reached by children communicating using sign language or spoken language at the same time, ranging from ‘syllabic babbling stage’ (7-10 months) to ‘first two-word stage’ (16-22 months). Signing children also develop systematic morphological and syntactic elements at the same time as speaking children (e.g.: ‘over-regularizations’, negation and question formation).

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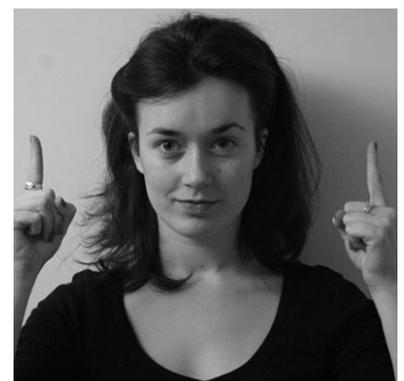
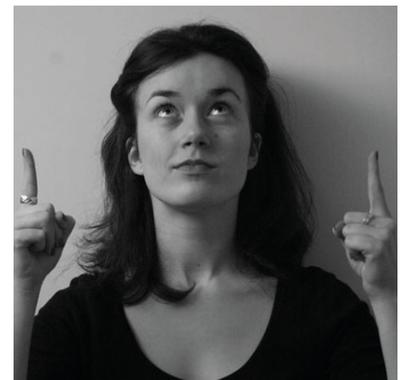


Figure 4 – The signs GOD and BOSS differ only in eye gaze (Top: GOD, Bottom: BOSS)

born with a propensity to learn language, regardless of how that language is mediated.

Hearing children exposed to both signed and spoken languages from birth demonstrate no preference for speech. Instead they acquire both at an equal speed. For example, children learning both French and LSQ (Quebec Sign Language) simultaneously produced their first word in each language at the same time. This challenges the hypothesis that speech is critical to normal language acquisition. Therefore, the brain is not exclusively 'hardwired' for speech, rather it is simply sensitive to the structure and patterning of language, irrespective of the input modality. Signed and spoken languages occupy equal biological status in the brain.

For over a century it has been understood that the brain's left hemisphere is the primary location for processing language and particular brain sites have been assumed to be unimodal processing areas, in that they respond only to speech or sound. One such neural area is the Planum Temporale (PT), which is described as a neural location receptive only to phonetic-syllabic units that form spoken words. It was believed that sound waves exert pressure on the inner ear, which then converts into neural signals, thus triggering the PT. Remarkably, however, recent experiments have discovered that profoundly deaf people's PT was activated while processing signs. This presents shocking new findings that visual stimuli are equally as effective as phonetic/spoken stimuli in triggering the PT, which was previously believed to be an exclusively auditory cortex. Therefore, it is now understood that the PT reacts not only to

sound, but to linguistic patterns – rhythmically contrasting phonetic-syllabic units – whether they be expressed using the tongue or hands. This discovery also highlights multiple commonalities between the sublexical organisation of signed and spoken language; for according to Cognitive Neuroscientist, Laura-Ann Petitto, "both use a highly restricted set of units, organised into regular patterns, which are produced in rapid temporal alternation". Ultimately, there is neurological evidence of the equality of spoken and signed languages.

Signed languages therefore possess all the linguistic elements deemed necessary to qualify as a human language, and arguably, sometimes even demonstrate linguistic advantages over spoken language. The evidence accumulated here fossilises BSL's position as a language and eschewed any stereotype of inferiority. ¶

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Find out more

Books

Sutton-Spence, Rachel and Bencie Woll. (1999), *The Linguistics of British Sign Language – An Introduction*, Cambridge University Press: Cambridge

Dictionary of British Sign Language/English. David Brien. (1992), Faber and Faber: London

COMPETITION

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