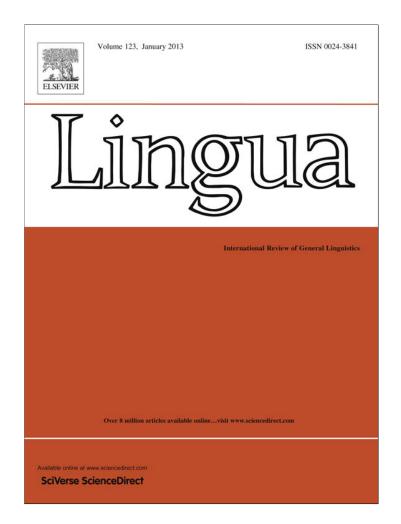
Provided for non-commercial research and education use. Not for reproduction, distribution or commercial use.



This article appeared in a journal published by Elsevier. The attached copy is furnished to the author for internal non-commercial research and education use, including for instruction at the authors institution and sharing with colleagues.

Other uses, including reproduction and distribution, or selling or licensing copies, or posting to personal, institutional or third party websites are prohibited.

In most cases authors are permitted to post their version of the article (e.g. in Word or Tex form) to their personal website or institutional repository. Authors requiring further information regarding Elsevier's archiving and manuscript policies are encouraged to visit:

http://www.elsevier.com/copyright



Available online at www.sciencedirect.com

SciVerse ScienceDirect

Lingua 123 (2013) 148-167



Bleached taboo-term predicates in American Sign Language

Donna Jo Napoli ^{a,*}, Jami Fisher ^b, Gene Mirus ^c

^a Department of Linguistics, Swarthmore College, 500 College Ave., Swarthmore, PA 19081, United States
 ^b Department of Linguistics, 611 Williams Hall, University of Pennsylvania, Philadelphia, PA 19104-6305, United States
 ^c Department of ASL and Deaf Studies, Gallaudet University, 800 Florida Avenue, NE, Washington, DC 20002-3695, United States
 Received 22 April 2012; received in revised form 31 October 2012; accepted 1 November 2012

Abstract

Others have noticed that taboo terms in spoken language present unusual morphological and syntactic behavior. In this paper we examine a number of predicates in American Sign Language that have recently been formed from what were, historically, taboo-terms, as well as one more recently coined mildly taboo-term, and we show that they, likewise, behave in unusual ways morphologically and syntactically. We look at conversion from noun to verb that restricts the movement of the resultant verb to that typically associated with continuative aspect, at a non-presentational predicate that takes a sentential subject, at a verb that agrees with something properly within its sentential object, at a verb that takes an adverbial clause following it, and at a verb string that involves neither conjoining nor embedding. Thus, while taboo terms have been severely understudied in sign languages, their analysis offers new insights on linguistic structure. We suggest that the (historical) taboo nature of these terms makes them susceptible to innovation, particularly among adolescent males.

© 2012 Elsevier B.V. All rights reserved.

Keywords: Sign language; Taboo-terms; Syntax; Nonmanual features; Language innovation

1. Introduction

Taboo terms are an understudied area in linguistics. Nevertheless, it's clear that they present unusual morphological and syntactic behavior in spoken languages (as in Brame, 1978; den Dikken and Giannakidou, 2002; Hoeksema, 2001, 2002; Hoeksema and Napoli, 2008; Horn, 2001; Huang and Ochi, 2004; Merchant, 2002, 2006; Napoli and Hoeksema, 2009; Pesetsky, 1987; Postal, 2004; Postma, 1995, 2001; Sprouse, 2005; Zonneveld, 1984; Zwicky et al., 1971). In this paper we examine some uses of taboo terms in American Sign Language (ASL), pursuing an area that, so far as we know, was initially opened only recently (Mirus et al., 2012). There is no obvious a priori reason to expect taboo terms to behave in unusual ways in sign languages. Yet a number of predicates in ASL that have recently been formed from what were, historically, taboo-terms do turn out to behave in unusual ways morphologically and syntactically. We here look at a handful of such predicates, examining one morphological and four syntactic phenomena. Also, we discuss the syntax of one mildly taboo term that our younger consultants use, which is not historically related to any stronger taboo term.

We suggest that it is, indeed, the taboo nature of these terms that makes them susceptible to innovation in sign language and, perhaps, in spoken language, as well.

^{*} Corresponding author. Tel.: +1 610 328 8422; fax: +1 610 690 6846.

E-mail addresses: donnajonapoli@gmail.com (D.J. Napoli), jami@sas.upenn.edu (J. Fisher), gene.mirus@gmail.com (G. Mirus).

2. Taboo terms and bleaching

Mirus et al. (2012) argue that taboo terms in sign languages regard for the most part religion, disease and death, sex, and bodily excretions, like taboo terms in spoken language (Andersson and Trudgill, 1990; Hughes, 1992; Montagu, 1967). All these topics can be discussed in ordinary polite conversation, of course; often it is the situational context that determines whether or not use of a term is considered rude, crude, vulgar, or insulting – not the term itself (Andersson and Trudgill, 1990). In fact, the use of taboo terms can signal in-group membership; they establish local social norms and boundaries for language use (Dewaele, 2010; Drescher, 2000; Rayson et al., 1997; Stenstrom, 1995).

Taboo in sign languages differs from taboo in spoken languages, however, in at least two ways. First, references to visually apparent body parts typically occur in describing people in ASL (Mindess, 2006), and such usage is in no way taboo, even when reference is made to obvious gender characteristics (Mirus et al., 2012). On the other hand, references to whether or not one is hearing can constitute insults strong enough to be considered not politically correct (Mirus et al., 2012).

In the present paper, the terms studied involve religion and sex. While the predicates here, with one exception, are historically based on taboo-terms, they have lost the emotional charge typically associated with taboo terms to such an extent that many signers use them now without intending any sense of rudeness, crudeness, vulgarity, or insult, nor with any necessary pejorative connotation. Therefore, while some members of the Deaf community might consider various of the examples in this paper to be inappropriate for polite conversation, many others (especially younger signers, if our small sampling is representative) do not, although a few have told us they still retain enough sensitivity to the historical roots of the signs that they would not use them in certain environments, such as a classroom or a synagogue. This kind of weakening is noted for taboo items in various languages (such as *shit* in English sentences like *l've got a lot of shit to take care of this weekend*; see Fortson, 2003; Hoeksema and Napoli, 2008) and has been placed under the rubric of semantic bleaching. Our labels of these predicates below indicate their historical sense (reflected in their phonological shape), so these labels are indeed vulgar, while the glosses in English indicate their bleached sense in ASL today, showing they are not generally vulgar at all.

3. Gathering and analyzing the data

We collected the examples discussed in this paper by interviewing a total of ten native signers of ASL: 4 in Austin, Texas; 1 in Washington, D.C.; and 5 in the Philadelphia, PA area. All of them grew up in those areas. The term 'native signers' as used here indicates people born to deaf signing parents who use sign language as their mother language, regardless of whether or not they are themselves deaf. All of our consultants are deaf except one. Two of them were older (58 and 61), and the remaining were between the ages of 19 and mid 30's.

Two of the authors of this paper are native signers, one deaf, one hearing; one grew up in the Austin area and one grew up in the Philadelphia area; both were under 40 at the time of this study. We mention this because we believe these facts may have been a conducive factor in the data-collecting process described below.

We noted few differences in the signing of our consultants with respect to this study, all indicated in the text below, and none related to geographical region. We have vetted this paper with several deaf people who have been signing most of their lives and with additional native deaf signers, from varying geographic regions, and received confirmation of the data. One of the referees of this paper also self-identified as a native signer (we don't know whether deaf or hearing, we don't know where from) and made several confirmatory comments about the data and none non-confirmatory. For these reasons we are hopeful that our findings reflect the use of taboo-terms in ASL in general.

Study of casual spoken language today is arguably best done using large data bases of spontaneous conversation that are properly annotated (see The SLX Corpus of Sociolinguistic Interviews, n.d.). Such data bases are presently unavailable for most sign languages, although major data corpuses are available for Auslan (Johnston, 2008, 2010; Johnston and Schembri, 2007), and Sign Language of the Netherlands (Crasborn et al., 2008; Crasborn and Zwitserlood, 2008; Corpus NGT, n.d.), and will soon be available for British Sign Language (BSL corpus project, 2012), German Sign Language (DGS Korpus, n.d.) and Italian Sign Language (Branchini et al., 2009). In the absence of such corpuses for ASL, we gathered data in as close to a conversational context as possible, using friends and relatives (see discussion of data-collection methodology in Llisterri, 1992). By putting together people who know each other and (some of) us well, we hoped our consultants would be forthcoming and not encounter inhibitions that might otherwise arise due to the taboo nature of the language we are studying. This turned out to be the case; we sensed no inhibitions.

Our work with informants took place in casual settings (conversations in their homes). We asked them to demonstrate how they use in conversation the terms they identify as taboo. Often when one person brought up a term, another person would expand on how it was used and then the conversation would take off, as though we researchers were no longer in

150

the room, with joking and lots of playful and spontaneous language use that turned out to supply us with additional examples.

Now and then the researchers jumped in and asked if certain variations were possible. For example, if someone negated an utterance with NONE, we would ask if anyone could negate it with NEVER. Quick, direct, and simple questions of this sort usually led to thorough discussions that often yielded subtle insights into differences between relatively similar utterances.

The technique of using jamming sessions of this sort to gather data is known as Think Aloud Protocols (van Someren et al., 1994). These protocols were developed to study the problem-solving process; researchers observed people speaking their thoughts while solving a problem. Stone (2009) adapted the technique to understand how sign language interpreters make choices when facing translation work. Sutton-Spence and Boyes Braem (2012) adapted it yet again to studying mimes and Deaf poets as they shared comments on the tasks involved in their performances or creations.

We here adapt it to our study, since the predicates at issue are used (almost) exclusively in casual conversation, usually among people who know each other well and/or who are young (teens or young adults). Further, there is a distinctly playful and creative connotation in their language use. So we hoped the jam sessions would lead to discussions that fed off each other and, crucially, supplied more examples or more contexts for examples – as, indeed, they did. In fact, our two older consultants hosted a jamming session in their home and wound up being drawn into the conversation and contributing freely, something we had not anticipated. While they use the terms discussed in this paper, they report using them infrequently and they say their age cohorts use them infrequently as well. Despite this, their contributions were frequent.

If we were familiar with a bleached taboo term from our own experience and it didn't come up in the first hour of conversation on its own, we explicitly asked our informants if they'd ever seen it or used it. Every time the answer was positive and the conversation again became lively and fecund with additional examples.

When analyzing the data gathered in this way, we sometimes needed to return to our informants to seek examples crucial to deciding between analyses. For this part, we approached our original informants individually rather than in a group, both for their own convenience and to see if we came up with more variation on acceptability judgments when they were not in a room together. We asked general questions, such as whether subject tags could be added to a sentence that had come up in a jamming session and which tags, specifically, or whether they could come up with a scenario in which you started a conversation with a particular utterance from a jamming session. In this way we elicited both sentences they considered grammatical and ones they considered ungrammatical. We found no variation in their judgments with respect to the types of sentences elicited. The two of us who are native signers agree with all the grammaticality judgments presented in this paper.

We videotaped one signer, who made up utterances using bleached taboo predicates without knowing the particular linguistic issues we were concerned with at the time. These tapes form the basis for our discussion of intonational phrase markers in several examples of section 4. While head-on videotapes of a single signer allow one to see the full range of the various potential markers of intonational phrase boundaries (something difficult to capture in videos of spontaneous conversation), certainly videotapes of a mock situation limit what one can glean regarding natural intonation. Our purpose in making these videotapes was to help clarify the intuitions of the two native signers among our authors.

Sometimes the video-taped signer produced several variations on a given utterance, sometimes only one. All these taped utterances were judged grammatical by our consultants. Each of the three coauthors watched the video clips independently at regular speed, noted intonational cues, and coded them. We then watched the clips in slow motion for a self-check. Our findings were cross-checked among us.

4. Bleached predicates

We will now discuss three types of bleached taboo-term predicates. In each case, study of these predicates reveals information about the grammar of ASL that, to our knowledge, has not been discussed elsewhere.

4.1. Conversion between ordinary noun and predicate

There are many ways to sign 'bullshit' in ASL. We here adopt the convention of representing signs with all capital letters. One sign BULLSHIT uses the 1-l-handshape (a fist with index finger and pinky finger extended, as seen in Fig. 1) moving forward in front of the chest (in what is known as neutral space) with the palm facing the signer. (All handshapes referred to in this paper are found in Appendix A.) It is often used in relatively rude or crude interjections, but it can also certainly be used without any pejorative sense. For example, if someone said something



Fig. 1. BULLSHIT.

funny and you knew that it couldn't be true or that it had to be exaggerated, and you laughed, you might then make this sign, seen in Fig. 1.

Another one-handed sign meaning 'bullshit' uses handshapes influenced by English in a coining process called initialization. ASL has a manual alphabet with handshapes standing for letters and a manual numerical system with handshapes standing for numbers. So when we talk about the "B-handshape", for example, we mean the handshape that is used to represent the letter B in the manual alphabet. Using the manual letter handshape of the first letter of the corresponding English word in making a sign is called initialization. One sign meaning 'bullshit' uses initialization: this sign has the B-handshape (a flat hand, all fingers extended and close to each other with the thumb slightly folded in front of the others, as in the first frame of Fig. 2) followed by the S-handshape (a fist, as in the second frame of Fig. 2). We call this B-S. B-S is made in neutral space (the area in front of the chest).

Additionally, with respect to B-S, for some of our informants (all young, but not regionally identifiable) the movement of the sign is toward the addressee or an appropriate spatial index (that is, a point in space that has been designated to represent a referent, by pointing to it with finger, chin, lip, head tilt, or gaze, see Neidle et al., 2000), where the addressee or the referent of the spatial index is understood to be the one that is the recipient of the bullshit. Across sign languages, this kind of directionality of movement is a characteristic of action signs (typically verbs) only (Zeshan, 2000; Schwager and Zeshan, 2008). So we analyze this variant as an agreeing verb, since the motion is toward one of the verb's objects (for discussion of various types of agreeing verbs and many cited works, see Sandler and Lillo-Martin, 2006, chapter 3; for a revised approach, which we rely on below, see Meir et al., 2007). In contrast, we will call the B-S that is made in neutral-space "non-directional" so as to avoid any label that is prejudicial as to its analysis. In the discussion that follows, we look at non-direction B-S only, but we return briefly to the agreeing verb B-S at the end.

It is a question as to what word class BULLSHIT and non-directional B-S belong to, since nouns and verbs are not always phonologically distinguishable (and for Auslan, see Johnston, 2001; for Italian Sign Language, see Pizzuto and Corazza, 1996). Further, these signs are often used as isolated interjections without any inflection, and in these instances, in particular, their sense (or logical content, as in Prillwitz, 1985) does not cleanly identify their word class. However, in a larger syntactic context, distinctions in word classes can be made on the basis of inflectional or positional information (Padden, 1988; Schwager and Zeshan, 2008).

We begin with evidence that BULLSHIT (in Fig. 1) and non-directional B-S (in Fig. 2) are nouns. First, consider the independent word ZERO/NONE as a negative (as contrasted to the clitic – ZERO, which has different properties; see





Fig. 2. B-S (one variant of 'bullshit').

Aronoff et al., 2000, 2004). ZERO/NONE negates nouns but not verbs, and follows them (Wood, 1999). We find that BULLSHIT can be negated with a following NONE:

(1) BULLSHIT NONE.

'This is not bullshit/This is the truth.'

For those signers who use non-directional B-S, it, also, can be negated by a following NONE:

(2) B-S NONE.

'This is not bullshit/This is the truth.'

These findings follow if BULLSHIT and non-directional B-S are nouns. (We discuss verbal negation below.)

Second, BULLSHIT collocates as a noun. For example, the verb ACCEPT is subcategorized to take as direct object a clause or a noun phrase. But if the direct object is a clause, that clause will have a subject (whether expressed lexically or by spatial indexing, or is simply clear from the conversation – and see Lillo-Martin, 1991). In other words, we don't have bare verbs as the complement of ACCEPT (in contrast to verbs like TRY, which can have bare verbs as complements).

(3) YOU NOT ACCEPT {HE/YOU/I} COMICS READ.

'You don't accept the fact that {he/you/l} read comics.'

*YOU NOT ACCEPT COMICS READ.

'You don't accept reading comics.'

We find that BULLSHIT can occur as the direct object of ACCEPT, as in:

(4) (A.) YOU ACCEPT BULLSHIT (FROM HIM).

'You accept bullshit (from him)."

(B.) I ACCEPT BULLSHIT? YOU CRAZY. I ACCEPT FLOWERS, CANDY, PERFUME.

'I accept bullshit? You're crazy. I accept flowers, candy, perfume.'

Again, those signers who accept (2) above also allow non-directional B-S in (4) in place of BULLSHIT. This follows if BULLSHIT and non-directional B-S are nouns.

Nouns cannot have aspectual inflection in sign languages (Voghel, 2005), although some can be inflected for pluralization, typically by reduplication, a common strategy (as in Italian Sign Language, Pizzuto and Corazza, 1996, and German Sign Language, Pfau and Steinbach, 2006). In contrast, verbs exhibit a wide range of aspectual inflection, such as continuative, which is rendered by moving the hand(s) in a (relatively large) circle (where the circle is visible on a vertical plane) (Klima and Bellugi, 1979) with an uneven rhythmic structure (the return part of the movement takes more time than the away part) and the sense of keeping on doing something (Brentari, 1998; Wilbur, 2005, 2009). If a one-handed verb such as EAT has continuative aspect, often both hands are used, making alternating circles (i.e., circles with inversion, in the sense of Napoli and Wu, 2003). Additionally, adjectives can exhibit continuative inflection to yield new adjectives with the sense of characteristic behavior (such as TACITURN deriving from QUIET), where a one-handed adjective will become two-handed and the same circular movement seen in continuative verbs will occur, again alternating (Padden and Perlmutter, 1987). Nouns, however, do not take continuative aspect. Thus BOOK cannot take continuative aspect (no matter how many books one reads); BOOK simply cannot have a verb use – instead, READ exists as the corresponding verb. But STORY is both a verb and a noun; it can take continuative aspect – and when it does, it is interpreted to mean telling story after story, in other words, the verb interpretation.

Surprisingly, BULLSHIT and non-directional B-S, which we have just argued are nouns, can take continuative aspect, where the form of this aspectual marking exactly (to our eyes) coincides with the marking used on verbs. We use +++ to indicate all movement features associated with continuative aspect in sentence (5), and see Figs. 3 and 4.



Fig. 3. BULLSHITTING (BULLSHIT with continuative aspect).



Fig. 4. B-S-ING (B-S with continuative aspect).

(5) HE {BULLSHIT-+++/B-S-+++}. 'He's bullshitting.'

The senses of (5) range from 'He's {just killing time/not doing anything seriously},' to 'He's not trustworthy/He's always bullshitting.' The sense of lying (rather than wasting time) is accompanied by slightly open pursed lips (as in playing a reed instrument) during the verbs BULLSHIT-+++/B-S-+++ only, indicating a sense of slyness to the lying (on the various uses of mouth morphemes, see, in particular Boyes Braem and Sutton-Spence, 2001).

One might try to argue that what we have in (5) are nouns with a sense something like 'characteristic bullshitter' (and we will return to a discussion of this sense below). However, the evidence is that what we really have are verbs.

Our first argument for the verbal status of the predicates in (5) comes from looking at sentences with NEVER. NEVER can negate verbs but not nouns (Wilbur, 1996). NEVER can negate both BULLSHIT and non-directional B-S, but only when they have +++:

(6) HE NEVER {BULLSHIT-+++/B-S-+++}.

'He never bullshits on and on.'

*HE NEVER {BULLSHIT/B-S}.

'He never bullshits.'

This follows if BULLSHIT and non-directional B-S are verbs when they have the marker +++, and only then.

Second, FINISH can be used as a negative imperative following verbs but not nouns (Benedicto and Brentari, 2004). Negative imperative FINISH can occur after BULLSHIT and non-directional B-S when they have the marker +++, but not otherwise.

(7) {BULLSHIT-+++/B-S-+++} FINISH!

'Stop bullshitting!'

*{BULLSHIT/B-S} FINISH!

'Stop bullshitting!'

These facts, then, point us to the conclusion that BULLSHIT and non-directional B-S are verbs only when they have the marker +++. The examples we've given so far are single-clause sentences. However, BULLSHIT-+++ and non-directional B-S-+++ can occur in complex sentences, as in (8).

(8) MAN INDEX; I SICK-OF INDEX; BULLSHIT-+++ NOT TRUST.

'I'm sick of that man because he's always bullshitting; I don't trust him.'

Here $INDEX_i$ indicates a spatial index, which the signer points to. So in (8) the signer makes the sign MAN, then points to a place in space, then signs I, then SICK-OF, then points to that same place in space, then signs BULLSHIT-+++, NOT, and TRUST.

In the following section we discuss diagnostics for sentence boundaries. For now we note that none of the diagnostics that would indicate a sentence boundary occur in (8). So BULLSHIT-+++ and non-directional B-S-+++ can appear as embedded verbs, just like other verbs. It seems the only thing special about these verbs is that they must have the +++ marker associated with continuative aspect.

What we have then are two nouns, BULLSHIT and non-directional B-S, which are morphologically related to verbs that obligatorily take the +++ marker. Given that the N uses are familiar to all our informants, whereas the V uses were brought up by our younger informants and simply acknowledged as familiar by our older informants, we hypothesize that the derivation goes from N to V.

The morpho-syntactic behavior of the lexical items BULLSHIT and non-directional B-S is unique in ASL, so far as we know. Certainly a range of verbs are derived from nouns (Supalla and Newport, 1978) and a range of nouns are derived from verbs (Klima and Bellugi, 1979; Padden and Perlmutter, 1987). But we know of no other derivation from noun to verb that requires this particular marker, or, indeed, any particular verbal marker, on the resultant verb.

The pressing question is whether the +++ marker indicates continuative aspect in these instances, or whether, instead, it is a derivational morpheme that produces a verb from a noun and just happens to be identical in form to the continuative aspect marker. Certainly, one would want to avoid proliferation of homophonous verbal morphemes, particularly when the +++ marker indicates continuative aspect with all other verbs. However, the normal sense of continuative aspect is not always present with these two taboo verbs. For example, in signing the equivalent of 'He bullshits too much' or 'If she puts him on the spot, I just know he'll bullshit', we can find BULLSHIT-+++ and non directional B-S-+++.

Nevertheless, there is something special about the sense of the verbs even in the present and future tenses. Most of the time the subject is understood not just to be bullshitting, but, in general, to be a characteristic bullshitter. But not always. If NOT is inserted in (5) preceding {BULLSHIT-+++/B-S-+++}, for example, the sense is 'He's not just killing time' or 'He's not bullshitting', rather than 'He's not a characteristic bullshitter.' Indeed, he might well be a characteristic bullshitter, but the particular utterance (that is, complete string of signs) we're discussing is not an example of that.

What we believe the +++ adds to the verb is a sense of duration. That is, the subject didn't utter simply one bullshitty thing; he elaborated on it or he repeated it or something to that effect. It appears we have three uses of +++, then. One use lends to an adjective a sense of characteristic behavior. One use lends to a verb (most verbs, that is) the continuative aspect. And one use lends to a de-nominal verb a sense of duration, where the only two de-nominal verbs we have encountered it with are BULLSHIT-+++ and non-directional B-S-+++. Further, +++ is necessary to the de-nominal verb.

This is not as distressing as it might seem at first; the requirement that a verb appear in a given aspect (if we are allowed to call duration an aspect here) is unusual, but not unheard of. Consider the verb *shit* in English. With its literal sense, it can occur in any tense and/or aspect. But with its non-literal meaning of 'kid' (similar to 'bullshit'), it occurs only in continuative aspect, see (9a). The only exception to this that we know of is the sassy use of a sentence final *not* with a first person subject in the simple present tense, see (9b):

- (9) a. He {is/was} shitting you. *He {shits/shat} you.
 - b. I shit you not but: *I don't shit you.

Certainly, data of this sort beg for investigation of the semantics of aspect with respect to the semantics of certain kinds of activities, such as kidding, something we leave for others to pursue.

Finally, we return to the agreeing verb B-S, as promised. For signers who have only the agreeing verb B-S (that is, for whom the movement is always directed toward a referent), it does not co-occur with NONE, and, regardless of aspect, it can be negated with NEVER, can co-occur with the negative imperative FINISH, and can appear as an embedded verb. Thus it is an ordinary, quite unremarkable, verb.

4.2. Predicates taking clauses as their arguments or as modifiers

We'll now look at three predicates that occur in complex sentences and exhibit syntactic behavior that gives information about the grammar of ASL that we have not seen discussed elsewhere.

The bleached taboo-term predicates we present in this and the following sections often occur in final position of an utterance that already contains another predicate. The question arises then as to whether these final predicates stand alone, as their own sentence or as an interjection, or whether they do in fact constitute part of a larger sentence that contains the string preceding them. Although we will use a variety of diagnostics in this regard, unfortunately, many

familiar diagnostics for syntactic structure will not aid in our analysis of the utterances discussed below. Matters of binding cannot help, for example, because the argument structure of the predicates we consider does not allow for syntactically-telling binding opportunities; these predicates take either sentential subjects or a single subject that serves for them and for another adjacent predicate.

One familiar diagnostic, however, that based on intonational phrases, can, in fact, help us. A major tenet of work on prosody is that phonological and syntactic constituents are not consistently isomorphic, and this is as true of sign languages as it is of spoken languages (Nespor and Sandler, 1999; Sandler, 2010). Both modalities of language use prosodic structure to mark discourse function and to emphasize particular constituents (Sandler and Lillo-Martin, 2001). For example, parentheticals, nonrestrictive relative clauses, topicalized elements, and extraposed elements form intonational phrases of their own in all languages, so far as we know (Sandler and Lillo-Martin, 2006). Thus a sentence may consist of multiple intonational phrases. However, the final intonational phrase and the final syntactic phrase of a sentence must coincide, per force, so if there is no intonational phrase boundary between two lexical items, then those lexical items belong to the same sentence (and see Fenlon et al., 2007; for overview, see Ormel and Crasborn, 2012). In other words, an intonational phrase boundary is a necessary but not sufficient diagnostic for a break between sentences. We repeatedly apply that particular generalization as a diagnostic in the present work.

While prosodic clues in sign language are encoded differently depending on the sentence and on the signer (Wilbur and Martínez, 2002), signers are clearly sensitive to the prosody of signing since they are able to tap to the rhythm of input signing (Allen et al., 1991). Intonational boundaries, in particular, are indicated by multiple prosodic markers working together, at the very least two, but often more, as many as eight, and typically blink is among them (Nicodemus, 2009). These markers include blinks, changes in head position, body leans, lengthening of signs, and hand clasping, as well as changes in facial expression, such as eye aperture, cheek puffing, and nose wrinkling (Sandler, 1999; Tang et al., 2010). We thus take the absence of such markers between two lexical items as clear evidence that an intonational phrase boundary is not present, and thus that the lexical items are part of a single sentence.

We note, however, that movement dynamics are part of prosody, and these dynamics change when a signer wants to emphasize something. For example, emphasized signs generally use more proximal joints, whereas the non-emphatic version uses more distal ones, with concomitant changes in movement dynamics, such as lengthening (Mirus et al., 2001). Since emphasis is frequently present when using taboo terms (even the bleached taboo terms we discuss below), we might well expect to find an intonational phrase boundary preceding our taboo terms, particularly one indicated by lengthening, even though they could well be within the same sentence as the sign preceding them. So the absence of an intonational boundary between two elements indicates they are part of the same overall sentence, but the presence of such a boundary indicates nothing about sentencehood.

We will refer to this background about intonational phrases in the rest of section 4, with crucial reliance on it in the final argument of section 4.2.1 and in the initial argument of section 4.2.3.

We now proceed to our discussion of three bleached predicates.

4.2.1. The predicate HARSH-AS-HELL

An only slightly derogatory sign for 'hell' (though others may gloss it differently) is made by hopping the bent-V-handshape (where the index and middle finger extend from the fist and are bent, as in Fig. 5) from the side of the forehead down to the side of the chin. This sign does not have the whole range of meanings that *hell* has, nor does it have the literal meaning of *hell*; rather it tells us that the entity it is predicated of is grueling or harsh. It does, however, have a derogatory connotation that borders on cursing to the same extent as the other signs discussed in this paper. And it was spontaneously produced by our consultants. Thus we include it here, although it is, strictly speaking, not a "bleached" taboo predicate, but simply a mild one. We call this sign HARSH-AS-HELL and it is seen in Fig. 5.

We find HARSH-AS-HELL in (10):

(10) I WORK ALL-NIGHT-LONG WOW HARSH-AS-HELL. 'It's really awful that I (have to) work all night long.'

The WOW in (10) is an intensifier (similar to the way in English sentences such as *That's way bad*). The hand shakes a little off to the side in neutral space, with the thumb extended and the other four fingers curved loosely. The sense of (10) is that working all night long is grueling, that is, hellish. And, while the subject of WORK ALL-NIGHT-LONG is coreferential with the signer here, it need not be (the relevance of which will become apparent in the following discussion); we could as easily have had a sentence about Suzie working all night long and the signer commenting that that situation is hellish.

We contend that HARSH-AS-HELL in (10) is not an interjection, forming its own utterance, but instead a matrix predicate, predicating hellishness of the preceding clause, which is, therefore, its syntactic subject. That is, HARSH-AS-HELL is an evaluative meta-comment on the clause that precedes it.



Fig. 5. HARSH-AS-HELL.

In support of this analysis, Gaurav Mathur (personal communication, March 2011) pointed out to us that if we insert the modal CAN, it will precede and, optionally, also follow (WOW) HARSH-AS-HELL, as in the situation in which one is generalizing to say that working all night long can be super hard. Modals appear to the left of the verb they have scope over or at the end of that verb's clause (Neidle et al., 2000; and for discussion of the differences in scope interpretation connected to position, see Shaffer, 2004). Thus the ability of CAN to appear at all, as well as its particular location(s), give evidence that HARSH-AS-HELL is a predicate in (10). We note that if CAN does appear, its nonmanuals will be the same as those on the signs that precede and follow it.

Second, HARSH-AS-HELL cannot appear at the start of a conversation. So, for example, the discourse in (11) is ill-formed with HARSH-AS-HELL:

- (11) (A) *HARSH-AS-HELL! 'It's really awful.'
 - (B) WHAT'S-UP? 'What's up?'
 - (A) MY BOOK I LOST. 'I lost my book.'

But if in (11) we were to substitute in place of HARSH-AS-HELL the taboo finger gesture (a fist with the middle finger extended, as used by hearing people, as well), or for some signers the sign F-K (that is, a lexicalized fingerspelling of *fuck* that has been reduced to the F-handshape followed by K-handshape with movement going outward from the signer), the conversation would work. So HARSH-AS-HELL, unlike the taboo finger gesture or F-K, is not an interjection that can stand on its own.

Note, however, that HARSH-AS-HELL can appear without a visually articulated preceding clause in the same utterance in other discourses, such as the following:

- (12) (A) I WORK ALL-NIGHT-LONG. 'I work all night long.'
 - (B) OH-YEAH? YOU HAPPY? 'Oh, yeah? Are you happy (about that)?'
 - (A) NO. HARSH-AS-HELL. 'No. It's really awful.'

Here we have a tightly coherent discourse. We have a statement, then a response that asks about happiness with respect to that statement, then a response with HARSH-AS-HELL which brings us back to the opening statement. HARSH-AS-HELL is remarking on the event of working all night long, which is exactly the interpretation we expect if HARSH-AS-HELL has a phonetically null subject coreferential with the event of the already mentioned clause about working all night long

(comparable to the *it* that appears in the English translation of the last sentence of (12)). In fact, HARSH-AS-HELL is always understood as taking an event as its argument. So we never find it predicated of an individual or of an object.

A third particularly telling fact with respect to the analysis of (10) as a single sentence is that HARSH-AS-HELL occurs only when the preceding predicate is in the continuative aspect. That is, HARSH-AS-HELL puts constraints on that predicate, just as other predicates can put constraints on their sentential arguments. For example, in spoken languages we often note rules of consecutio temporum (sequence of tenses, discussed for many languages, such as Spanish, in Farley, 1965), where the tense of a subordinate clause is constrained by that of the matrix (among other factors), or where the interpretation of tense of a subordinate clause is constrained by that of the matrix (such as in Japanese, in Ogihara, 1995; and note that Japanese is a V-final language, so the fact that HARSH-AS-HELL follows the clause whose tense it constrains is not a problem).

Fourth, there is syntactic evidence that I WORK ALL-NIGHT-LONG is a subordinate clause. A subject tag can appear at the end of a sentence whether simplex or complex, but it must refer to the matrix clause subject (Padden, 1988).

- (13) MOTHER INDEX; SINCE PERSUADE SISTER INDEX; COME INDEX;
 - 'My mother has been urging my sister to come and stay here, she (mother) has.'
 - *MOTHER INDEX; SINCE PERSUADE SISTER INDEX; COME INDEX;
 - 'My mother has been urging my sister to come and stay here, she (sister) has.'

Here the tag (the final INDEX) can be coreferential with the matrix subject, MOTHER, but not with the embedded subject SISTER.

If I WORK ALL-NIGHT-LONG were a matrix clause, we'd expect that the subject tag 'I' could be added either after ALL-NIGHT-LONG (if HARSH-AS-HELL were not part of the overall sentence) or at the end of (10). However, it cannot appear in either position.

As further evidence that (10) is a single sentence, we note that in our videotape of (10) none of the elements that optionally mark intonational phrase boundaries occur between ALL-NIGHT-LONG and WOW, nor between WOW and HARSH-AS-HELL, with one exception: mouth shape. In our videotape, the mouth forms a tight O starting at the very end of ALL-NIGHT-LONG (that is, commencing at the end location of the movement of that sign) and extending across both WOW and HARSH-AS-HELL. However, that mouth movement is lexically associated with the sign WOW, and might very well be perseverative with respect to HARSH-AS-HELL (as it often is with respect to the items it has scope over). There is no other non-manual change at this point in the sentence; so there is no blink (which, as we noted earlier, is almost always present at the end of an intonational phrase) and no noticeable changes in body or head posture or in facial expression apart from the lips. In fact, the facial expressions are quite distinct beginning with ALL-NIGHT-LONG and carrying through unchanged onto WOW and HARSH-AS-HELL. So ALL-NIGHT-LONG, WOW, and HARSH-AS-HELL appear to be part of a single intonational phrase.

We conclude that (10) is a single sentence. The only syntactic analysis of (10) consistent with its semantics and syntactic behavior is one in which HARSH-AS-HELL is the matrix predicate.

Again, we see a structure not argued for elsewhere in the literature. That is, sentential subjects in ASL have been proposed with respect to Wh-questions (Wilbur, 1994), but those have been challenged (Wilbur, 1996; Hoza et al., 1997). Other sentential subjects have been proposed and argued for (Lillo-Martin, 1986), but not with respect to predicates that obligatorily take only clauses as their sole argument. Certainly we expect that other kinds of verbs might take sentential subjects, including presentational verbs like HAPPEN (which consists of a protruding tongue between biting teeth) and epistemic verbs like SEEM and TEND, though we know of no work in this area. We note, however, that all three of these predicates come sentence-initially, in contrast to HARSH-AS-HELL.

4.2.2. The predicate FUCK-IT

A different kind of example of a predicate formed from a bleached taboo item is the sign we label as FUCK-IT. This consists of one hand in a fist with the middle finger extended (the handshape we find in the taboo finger gesture, as seen in Figs. 6–8) jabbing with the middle finger toward an object within view or toward an indexed point in space, or, sometimes, toward neutral space (as discussed below with respect to Fig. 6 and example (14)). For example, if the videophone is flashing, one might do FUCK-IT toward the phone to show that he's not going to bother answering it; he's dissociating himself from the videophone. In other words, FUCK-IT is an agreeing verb. We note that the dissociation asserted need not convey a negative attitude. That is, discontinuing association with some event or object does not necessarily cast aspersions on that event or object.

We expect our reader unfamiliar with sign language to be surprised that the particular handshape that occurs in the taboo finger gesture can become bleached in this sign. After all, doesn't everyone recognize this as a rude gesture? However, this handshape occurs without any taboo sense associated with it in the ordinary signs TANK and MONUMENT. So the handshape alone is not a vulgar gesture in ASL. The handshape can be employed in a vulgar



Fig. 6. FUCK-IT.

gesture by jabbing it through the air, middle finger pointing up, palm facing the signer – i.e., the way we see it used in a vulgar gesture by hearing people, as well. But if the handshape is coupled with a different movement or finger orientation or palm orientation, then it is phonologically disguised a bit, analogously to how phonological changes can disguise taboo terms in spoken languages (*damn* vs. *darn*; *shit* vs. *shoot*; *fucking* vs. *freaking*).

We are going to argue that, like HARSH-AS-HELL, FUCK-IT is a predicate that can take a sentential argument. But the two predicates differ. With HARSH-AS-HELL, we see the evaluation of the signer with respect to a sentential clause whose own subject could be anyone (including being coreferential with the signer). So, as noted earlier, one might be commenting that the fact that Susie works all night long is really awful. But with FUCK-IT, we see a particular person dissociate himself from a particular object or event. The interpretation, therefore, tells us this verb has a nominal subject. While the subject of FUCK-IT need not be coreferential with the signer, the signer's body represents the subject (as naturally happens with verbs that agree only with their object, not their subject; see Meir et al., 2007). FUCK-IT, then, is not a meta-comment evaluative, but a predicate that takes an ordinary NP subject (embodied by the signer) and an object that is either an NP or sentential. So one might use FUCK-IT to say that John is dissociating himself from the videophone, as noted earlier, or one might use it to say that John is dissociating himself from the fact that the refrigerator is empty, or the like.

FUCK-IT, when used in a single-clause sentence without any other verb but with other phrases (typically, but not necessarily, noun phrases), has a jabbing motion toward the thing one is dissociating oneself from – that is, it agrees with its object. Importantly, though, if the thing to be dissociated from is abstract (such as an activity or idea), agreement need not occur; one can simply jab toward neutral space, as in Fig. 6, which could be used in a sentence such as:

(14) LOVE FUCK-IT

'I can't be bothered with love.'

The use of this predicate that is of major interest to us occurs in complex sentences in final position. It is exemplified in (15).

'I can't be bothered with studying French.'

The line above STUDY FRENCH with the label br indicates that the eyebrows are raised during these two signs, which indicates that this constituent is a topic (and that this constituent also constitutes an intonational phrase – and see Wilbur and

Patschke, 1999). That means STUDY FRENCH (which is a clause) is the topic of the sentence, and, by definition, is therefore not the whole sentence. The only other lexical element here is FUCK-IT (since the subject is embodied in the signer), so FUCK-IT must be the predicate. This matches the sense well, which is that the event of my studying French is what I want to be dissociated from. In sum, FUCK-IT is the matrix predicate, taking a sentential object, and its subject is whoever does the dissociating (in (15) the signer, but in other sentences it might be someone else embodied by the signer).

In (15) the agreement verb FUCK-IT points toward neutral space. This is not disturbing, since clauses are abstract and, as we noted, FUCK-IT may point toward neutral space when it takes a simple NP object that is abstract, as in (14). Further, clauses do not have a spatial index, so there is no spatial index available for FUCK-IT to agree with.

That FUCK-IT can take a sentential object makes it differ from English *fuck*, which can take NPs but not clauses (*Fuck that whole idea* vs. **Fuck that he said that*; and cf. *Fuck it that he said that*). But taking a sentential object is not in itself remarkable with respect to ASL syntax. Many verbs have been argued to take sentential objects, such as THINK, WANT, EXPECT (Liddell, 1980; Padden, 1988).

Remarkable behavior, however, does emerge when we look at additional sentences and focus our attention on agreement. Consider (16):

$$\begin{array}{ccc} & \underline{br} \\ \text{(16)} & \overline{\text{THAT}_i \text{ CLASS}} & \text{NOT TAKE AGAIN FUCK-IT}_i \end{array}$$

'I can't be bothered with taking that class again.'

Again, the sentence begins with a topic, indicated by raised eyebrows, this time a noun phrase. But, in contrast to (15), there are more lexical items in the overall expression, so it is not immediately clear that (16) is a single sentence, rather than two (with a sentence boundary after AGAIN). For the moment, let us assume that (16) is a single sentence in order to discuss why it is of special interest. Then we will return to our defense of this analysis.

In (16) the subjects of the two clauses are coreferential. So FUCK-IT conveys its subject's decision to dissociate herself from the event of taking that class again. Out of context the subject of the clause THAT CLASS NOT TAKE AGAIN is understood to be coreferential with the signer (which we have indicated in the translation). But in a given context, it could be that the person who's not going to take the class again is Khalia or José or some other referent in the conversation, and in that case the FUCK-IT would indicate Khalia's or José's decision.

The surprising fact is that instead of FUCK-IT pointing toward neutral space, as it does in (15), FUCK-IT in (16) agrees with the spatial index of THAT, as indicated by our referential indices. This agreement fact does not correlate to any new complexity of interpretation. That is, while FUCK-IT is inflected for agreement with an entity inside the preceding clause, we understand the subject to be dissociating herself from an event (i.e., taking the class). The subject might, in fact, have enjoyed the class very much (so she's not dissociating herself from the class), but for a variety of reasons taking it again is not on the agenda.

This is not a unique example. We have found other comparably complex constructions in which our consultants allow FUCK-IT to agree with an entity within a preceding clause or to point to neutral space. So, for example, when conveying the proposition 'Noriko woke up sick this morning and decided not to go to work', the ASL construction would end with WORK FUCK-IT, and the middle finger of FUCK-IT could point toward the location in space where the sign WORK was made, or toward the site of working (for example, if the actual site of working was located over to one side of the signers or if that site had been spatially indexed in the conversation), or toward neutral space.

If (16) and other such constructions are single sentences in which FUCK-IT is the matrix predicate and the clause preceding FUCK-IT is its sentential object (that is, if their structure is the same as that of (15)), then the agreement of FUCK-IT with an entity properly within its sentential object is remarkable. This is exactly the analysis we believe is correct, however.

Arguing that (16) is a single sentence is tricky, precisely because the string of signs in (16) can be said in two different ways. One way is with a sentence boundary after AGAIN; the other way is without such a boundary (which is the way reflected in our translation of (16)).

As two sentences, a better translation of (16) would be 'I'm not going to take that class again. I can't be bothered (with it).' When we have this reading, we always find an intonational phrase boundary after AGAIN (typically marked with multiple nonmanual changes). Further, with this reading and prosody, we can find a subject tag at the end of either sentence and we can find complete additional sentences intervening between these two sentences. For example, in (17) (offered to us by an anonymous referee, to whom we here offer gratitude) the first sentence has a final subject tag and there is a long sentence intervening before we get to the FUCK-IT sentence:

(17) THAT CLASS NOT TAKE AGAIN, WON'T, I. SAME-OVER-AND-OVER, BORING, DON'T-LIKE. FUCK-IT. 'I won't take that class again. It's the same thing over and over, it's boring, I don't like it. I can't be bothered with it.'

With the single clause reading given in (16), instead, we do not find an intonational phrase boundary after AGAIN. Our consultants produced this reading repeatedly with a strongly negative facial expression on AGAIN that carried over, unchanging and without any other intonational phrase boundary markers, onto FUCK-IT. So both prosodic information and semantics support a single-sentence analysis beside the two-sentence analysis.

In the single sentence reading of (16), then, FUCK-IT agrees with an element inside its object complement, rather than with its whole complement. We account for this agreement in the following way. Since FUCK-IT is a verb that usually agrees with its object, and since it is impossible to mark it for agreement with the entire clause, the default is to mark it for agreement with some appropriate lexical item, typically within its sentential object, or with some appropriate real location (such as a nearby worksite), although, again, one could choose to simply point it toward neutral space.

Once more, we have a new syntactic phenomenon in these unique agreement details. FUCK-IT agrees with the spatial index of some constituent of the embedded clause or with the location that the verb of the embedded clause is made in, although its syntactic object is the entire embedded clause. This looks like a metonymic mapping, somewhat similar to what happens when you set up a group of people on one side, and then point an agreement verb toward a single index on that side; it would appear that the verb is agreeing with a single entity when, in fact, it's agreeing with a plural entity because the single index serves to represent the group (Cormier, 2002; Mathur and Rathmann, 2010).

4.2.3. The predicate FUCK-EVERYTHING/EVERYONE

A third kind of predicate formed from a bleached taboo term also uses the handshape of the taboo finger gesture. It is the two-handed sign meaning FUCK-EVERYTHING/EVERYONE (where this is again a rather literal label, but the sense of it is more 'ignore'). The hands start very close together, palms oriented upward, with the middle fingers nearly crossing. Then the wrists rotate outward as the hands move further apart and rise a little, so the final position has the middle fingers pointing upward (palms generally facing forward). The sign is shown in Fig. 7.

This verb can occur with a clause following it:

(18) NIGHT FUCK-EVERYTHING/EVERYONE STUDY ALL-NIGHT-LONG 'Tonight I'm ignoring everything/everyone because I'm going to study all night long.'

Let us first argue that (18) is a single sentence and then discuss its internal structure. Evidence for a single sentence analysis of (18) comes from prosody. As we argued in the beginning of section 4, an intonational phrase boundary is a necessary but not sufficient indication of a sentence boundary. So if there is no intonational phrase boundary between two signs, there can be no sentence boundary there. In two out of three video recordings of (18), no nonmanuals changed between FUCK-EVERYTHING/EVERYONE and STUDY. In the third video recording, mouth position changed, but nothing else (in particular, there was no blink). Given our discussion of intonational phrases at the start of section 4, we conclude that there is a reading of (18) in which no intonational phrase boundary occurs between FUCK-EVERYTHING/EVERYONE and STUDY; they are part of the same sentence.

We conclude that (18) is a complex sentence. The semantics of (18) tells us that studying is the reason why I am ignoring everything. So we have a matrix predicate, FUCK-EVERYTHING/EVERYONE, modified by both a sentence-initial time adverbial (NIGHT) and a following adverbial clause of reason (STUDY ALL-NIGHT-LONG).





Fig. 7. FUCK-EVERYTHING/EVERYONE.

While the existence of adverbial clauses in ASL is generally assumed, few have argued for them, and those that do have looked at adverbial clauses that precede the matrix verb (Fischer and Lillo-Martin, 1990; Liddell, 1980), whereas here the adverbial clause follows the matrix verb. So our discussion of FUCK-EVERYTHING/EVERYONE will hopefully motivate further investigation of adverbial clauses.

4.3. Verb strings

The final type of example we discuss of bleached taboo terms is the sign in which both hands are in the shape of the taboo finger gesture and they jab toward each other in neutral space. We call that sign RECIPROCAL-FUCK-OFF; it is shown in Fig. 8.

RECIPROCAL-FUCK-OFF can be used as the only verb in a sentence, meaning 'don't get along/aren't on speaking terms/always quarrel' or the like. But it can also be used in a sentence with another verb, as in:

(19) THE-TWO-OF-THEM NOT GET-ALONG RECIPROCAL-FUCK-OFF 'The two of them don't get along at all.'

Given the reading of (19), one might think that the sign RECIPROCAL-FUCK-OFF is not a verb at all, but perhaps some kind of emphatic modifier, emphasizing the negated verb GET-ALONG. While we agree that it does have that force, it is syntactically a verb with the sense of each showing a fuck-you or fuck-off attitude toward the other. So, if we change from THE-TWO-OF-THEM to THE-THREE-OF-THEM, the result is ungrammatical:

(20) *THE-THREE-OF-THEM NOT GET-ALONG RECIPROCAL-FUCK-OFF 'The three of them don't get along at all.'

RECIPROCAL-FUCK-OFF can be used only when the subject is precisely two entities. If one signs:

(21) THOSE FAMILIES NOT GET-ALONG RECIPROCAL-FUCK-OFF 'Those families do not get along at all.'

this means that precisely two families do not get along. A closer translation of (19), then, might be 'The two of them don't get along; they say fuck off to each other.'

The syntactic structure of (19) is a puzzle, as we will now show. It appears to be a single sentence, but neither a compound nor a complex one.

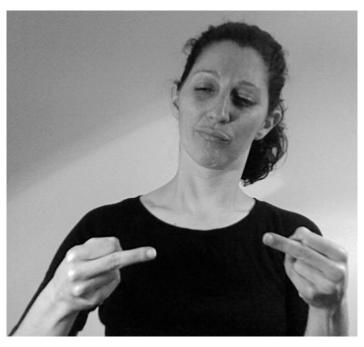


Fig. 8. RECIPROCAL-FUCK-OFF.

The prosodic evidence is decisively that it is a single sentence. There is no change in non-manuals between GET-ALONG and RECIPROCAL-FUCK-OFF. In fact, the only non-manual change anywhere near that juncture is a blink that occurs immediately before the negative head shake that accompanies NOT, well before GET-ALONG. So the initial noun phrase THE-TWO-OF-THEM forms its own intonational phrase, while the following string forms another.

Additionally, with regard to (19) there are three arguments against both the analysis that RECIPROCAL-FUCK-OFF forms its own sentence and that RECIPROCAL-FUCK-OFF forms a clause conjoined with what precedes it. The first argument is that AND cannot be inserted before RECIPROCAL-FUCK-OFF in (19), although normally AND can occur between separate sentences in a discourse given appropriate pragmatics, and certainly between conjoined clauses (Padden, 1988).

(22) *THE-TWO-OF-THEM NOT GET-ALONG AND RECIPROCAL-FUCK-OFF 'The two of them don't get along and they want nothing to do with each other.'

Next, we cannot have an indexical (indicating the two of them) inserted into (19) before RECIPROCAL-FUCK-OFF, although that's exactly where an indexical subject could appear if we had separate sentences or conjoined clauses within a coordinate sentence. In (23) the IX indicates an indexical (such as pointing) spatially coindexed with THE-TWO-OF-THEM.

(23) *THE-TWO-OF-THEM_i NOT GET-ALONG IX_i RECIPROCAL-FUCK-OFF 'The two of them don't get along; they want nothing to do with each other.'

Note, however, that (23) is good if instead of merely inserting the indexical into (19), we make a clear intonational break after GET-ALONG; that is, we have significant changes in movement dynamics and facial expression. This suggests that the grammaticality of (23) depends on having two sentences, not one.

Finally, normally full sentences and conjoined clauses can be reversed in order without changing the meaning so long as issues of chronology don't enter. However, while we can reverse the order of the verbs in (19), the sense is affected. Consider:

- (24) THE-TWO-OF-THEM RECIPROCAL-FUCK-OFF NOT GET-ALONG. 'The two of them want nothing to do with each other. They don't get along'
- (24) is grammatical with the sense given there. But that is not the sense of (19). In (19) we get the sense that RECIPROCAL-FUCK-OFF is remarking on how strongly they don't get along. So (24) is most probably two sentences (and we suggest putting a period after RECIPRICAL-FUCK-OFF).

All evidence leads to the conclusion that (19) is a single sentence. But what is its structure? Clearly, neither of the predicates in (19) takes a clause as one of its arguments. The very fact that RECIPROCAL-FUCK-OFF requires a subject to consist of precisely two entities shows that it cannot take a sentential subject. Further, its meaning is inconsistent with taking either a sentential subject or a sentential object. Likewise, GET-ALONG cannot take sentential complements. So we do not have two clauses with one embedded inside the other.

We also do not have some sort of compound verb here, since RECIPROCAL-FUCK-OFF can occur independently from GET-ALONG. In (19) other verbs that might be substituted in place of GET-ALONG include KISS and HUG. And, if we remove NOT, additional verbs could be substituted for GET-ALONG, such as ARGUE or GLARE-AT-EACH-OTHER (that is, two V-handshapes facing each other with a glare on the signer's face). So we have two separate verbs in (19).

Since, we've already shown that we don't have conjunction, we conclude we have a two-verb string that may well be part of a single clause. This brings to mind serial verbs in many spoken languages of Africa and Asia (Aikhenvald and Dixon, 2006), which also involve strings of verbs that share the same subject without either being subordinated to the other. An example from Thai (Muansuwan, 2001:229) is:

(25) Malee wîn tron jon khâam saphaan ?ok paj
Malee run go-straight reverse cross bridge exit go
'Malee ran straight back, crossing the bridge, away from the speaker.'

Sign languages also exhibit serial verb constructions (Benedicto et al., 2008). The two verbs are linearly non-separable and they share an argument. These two facts certainly make us suspect that (19) is an example of a serial verb construction.

However, while there are certain ways in which the verb string in a sentence like (19) is similar to serial verb strings, differences also appear. For one, in serial verb constructions in spoken languages, often (typically?) the first verb modifies the following one in a very general way. In sign languages, on the other hand, neither verb seems to emphasize or modify the other, but together they give more comprehensive information about a single action. In sentences like (19), however,

164

the second verb (RECIPROCAL-FUCK-OFF) emphasizes the first verb. So we still have an interaction of semantics between the two predicates – just of a third kind.

For another, in serial verb constructions, whether in spoken languages or sign languages, the first verb belongs to a small semantic set, such as motion verbs or verbs of giving and taking. Generally the first verb is semantically closely tied to the second verb with respect to describing a single overall event. For example, the action of the first verb might lead to the action of the second verb, so that we have a sequence of tightly connected parts forming a whole (Bohnemeyer et al., 2011). In sign languages this relationship is even more constrained; the first verb is a manner of locomotion and the other is a path verb. But with RECIPROCAL-FUCK-OFF the action of the first verb and the action of the second verb are unrelated in type: as we noted, the first verb might range across any appropriate action (or negation of an action). What ties them together is that the first verb should be an action that would be a typical example of people showing disregard for each other. So, again, there is a semantic coherency between the two predicates – but, again, of a different type.

At this point, it looks like (19) is an example of a previously unnoticed type of serial verb construction. However, negation distinguishes (19) from serial verb constructions. In serial verb constructions in spoken language a negative has scope over all verbs. And in serial verb constructions in sign languages negatives simply don't appear. In fact, it is hard to imagine a context for using a negative in them since these constructions generally tell how someone moves along a path, and it would be odd to talk about how they do not move along a path or how they move along a path but not in a particular way. In contrast, in constructions with RECIPROCAL-FUCK-OFF, a negative can easily appear on the first verb, and if it does, it does not have scope over the second verb. So in (19) the NOT has scope over GET-ALONG but not over RECIPROCAL-FUCK-OFF.

In sum, we have in (19) a single clause with two verbs where the second emphasizes the first, but it is not at all clear that this is a serial verb construction. Either our picture of serial verb constructions needs to be enriched in the ways we've indicated here, or we have stumbled across a new syntactic relationship.

5. Conclusion

The bleached taboo-term predicates studied here give evidence for syntactic structures that we expect in ASL but that have not yet been explicitly argued for. Further, some of them exhibit unique grammatical behavior. We've seen conversion of nouns into verbs but always with the +++ marker (BULLSHIT and non-directional B-S), a non-presentational predicate that takes a sentential subject (HARSH-AS-HELL), an agreement verb that takes a sentential object and agrees in an unusual way (FUCK-IT), a verb that takes a modifying clause following it (FUCK-EVERYTHING/EVERYONE), and a verb string that involves neither conjoining nor embedding, but is distinct from serial verb strings in some ways (with RECIPROCAL-FUCK-OFF). This last construction might be something new not just in the analysis of ASL, but in the analysis of language in general.

Our examination of bleached taboo-term predicates, then, has proven to be extraordinarily fertile, bringing to light new, unusual, and underdocumented aspects of sign structure. The question now is whether the fertility is due to the taboo-term history of these terms or to something else.

One might ask whether non-taboo interjections, such as PAH! (an expression of triumph after a success or good news), could become predicates and exhibit the same range of syntactic behavior we've seen with these bleached taboo-term predicates and, perhaps, new syntactic behavior. We note that in English we do find such predicates, but they don't have unusual syntactic behavior (*He wowed me with that presentation*). Right now our preliminary answer is no, but we are pursuing this line of investigation.

On the other hand, we note that taboo terms can do unusual morphological and syntactic things in spoken languages (as in taboo terms used as intensifiers in English, Dutch, Polish, and Italian; Napoli and Hoeksema, 2009). For example, English, which generally does not allow infixing, does allow it with selected taboo-terms or their mild non-taboo counterparts (fanfuckingtastic, fanfreakingtastic, fanblippingtastic, see Zonneveld, 1984; and even guarangoddamntee, see Karr, 1995:203). Further, taboo-terms in English can occur as syntactic direct objects when their function is not as arguments of the predicate but as emphasizers of the predicate (He beat the shit out of her, see Hoeksema and Napoli, 2008). And the behavior of pronouns and anaphors in certain taboo constructions in English is problematic when compared to binding in most constructions (Fuck you! as well as Fuck yourself!; see Dong, 1971). In general, taboo-terms in English can occur in positions within the sentence where they shouldn't be expected either because their morphological category isn't normally accepted there or their denotation doesn't make sense there (Napoli and Hoeksema, 2009).

The spoken language uses of taboo terms that are grammatically innovative involve non-literal readings of the taboo terms. That is, we are not talking about the act of intercourse when we say *She got the fuck out of there*, nor are we talking about damnation when we say *What the hell could that mean?* Likewise, the taboo terms that exhibit innovative behavior in ASL are not understood literally; they are bleached (or, in the case of HARSH-AS-HELL, very mild).

At this point, we tentatively but optimistically attribute the innovative character of bleached taboo predicates in ASL to both their origins in taboo and the fact that they've been bleached. When taboo terms start to lose their vulgar sense, they

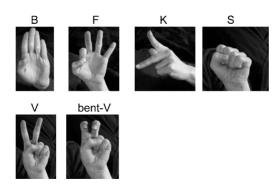
become the new guys on the block, and, furthermore, at least initially, the (mildly) naughty boys on the block. So signers can use them to explore the limits of the grammar, particularly adolescents, who are the innovators in sign (in fact, young Deaf males are the strongest innovators; Battison, 1978; Wardhaugh, 1992) just as much as they are the innovators in spoken language (Eckert, 2000).

More work needs to be done on taboo terms in sign language and, we believe, in spoken language, as well, since this is one area of the grammar where prescriptive and other normative influences can be expected to be minimal, so creative play can be expected to be maximal.

Acknowledgements

We thank Daniel Altshuler, Jack Hoeksema, Jason Kandybowicz, Vera Lee-Schoenfeld, Gaurav Mathur, Carol Padden, and Rachel Sutton-Spence for comments on an earlier draft of this work. We thank Rosanna Kim and Becky Wright for bringing to our attention certain insulting name signs. We thank Paulette, Randy, Dan, and Matthew Fisher, Erin Kearney Fisher, and Alicia McClurkan, for discussing data with us on multiple occasions. We thank the Long Room Hub at Trinity College Dublin for giving a fellowship to one of our authors, enabling part of this work. We thank our anonymous reviewers, who gave us examples and citations, not just criticisms and comments. And we thank the journal editor, Johan Rooryck, for his patience and encouragement.

Appendix A. Handshapes referred to in this paper



References

Aikhenvald, A., Dixon, R. (Eds.), 2006. Serial Verb Constructions: A Cross-linguistic Typology. Oxford University Press, Oxford. Allen, G., Wilbur, R., Schick, B., 1991. Aspects of rhythm in American Sign Language. Sign Language Studies 72, 297–320. Andersson, L., Trudgill, P., 1990. Bad Language. Oxford University Press, Oxford.

Aronoff, M., Meir, I., Sandler, W., 2000. Universal and particular aspects of sign language morphology. University of Maryland Working Papers in Linguistics 10, 1–33.

Aronoff, M., Meir, I., Padden, C., Sandler, W., 2004. Morphological universals and the sign language type. In: Booij, G., van Marle, J. (Eds.), Yearbook of Morphology. Kluwer, The Netherlands, pp. 19–39.

Battison, R., 1978. Lexical Borrowing in American Sign Language. Linstock Press, Silver Spring, MD.

Benedicto, E., Brentari, D., 2004. Where did all the arguments go?: Argument-changing properties of classifiers in ASL. Natural Language & Linguistic Theory 22 (4), 743–810.

Benedicto, E., Cvejanov, C., Quer, J., 2008. The morphosyntax of verbs of motion in serial constructions: a crosslinguistic study in three signed languages. In: Quer, J. (Ed.), Signs of the Time: Selected Papers from TISLR 8. Signum, Hamburg, pp. 111–132.

Bohnemeyer, J., Enfield, N., Essegbey, J., Kita, O., 2011. The macro-event property: the segmentation of causal chains. In: Bohnemeyer, J., Pederson, E. (Eds.), Event Representation in Language and Cognition. Cambridge University Press, Cambridge, pp. 43–67.

Boyes Braem, P., Sutton-Spence, R. (Eds.), 2001. The Hands are the Head of the Mouth: The Mouth as Articulator in Sign Language. Signum Press, Hamburg.

Brame, M., 1978. Base Generated Syntax. Noit Amrofer, Seattle, WA.

Branchini, C., Geraci, C., Giudice, S., Mereghetti, E., 2009. Linguistic issues in building a corpus for LIS (Italian Sign Language), paper presented at "Sign language corpora: Linguistic issues" Workshop 2009 in London, British Sign Language Corpus Project. http://www.bslcorpusproject.org/wp-content/uploads/slides-sl-corpora-london.pdf (accessed 28.12.11).

Brentari, D., 1998. A Prosodic Model of Sign Language Phonology. Massachusetts Institute of Technology, Cambridge, MA. BSL corpus project, 2012. http://www.bslcorpusproject.org (accessed 25.07.12).

Cormier, K., 2002. Grammaticization of indexic signs: How American Sign Language expresses numerosity. Doctoral Dissertation, University of Texas, Austin.

Corpus NGT, n.d. http://www.ru.nl/corpusngtuk/introduction/welcome/ (accessed 25.07.12).

- Crasborn, O., Zwitserlood, I., 2008. The Corpus NGT: an online corpus for professionals and laymen. In: Crasborn, O., Hanke, T., Efthimiou, E., Zwitserlood, I., Thoutenhoofd, E. (Eds.), Construction and Exploitation of Sign Language Corpora. 3rd Workshop on the Representation and Processing of Sign Languages. ELDA, Parijs, pp. 44–49.
- Crasborn, O., Zwitserlood, I., Ros, J., 2008. Het Corpus NGT. A digital open access corpus of movies and annotations of Sign Language of the Netherlands. Centre for Language Studies, Radboud Universiteit Nijmegen. URL: http://hdl.handle.net/hdl:1839/00-0000-0000-0004-DF8E-6.
- den Dikken, M., Giannakidou, A., 2002. From *hell* to polarity: "aggressively non-D-linked" wh-phrases as polarity items. Linguistic Inquiry 33, 31–62.
- Dewaele, J.-M., 2010. "Christ fucking shit merde!" Language preferences for swearing among maximally proficient multilinguals Sociolinguistic Studies 4, 595–614.
- DGS Korpus, n.d. http://www.sign-lang.uni-hamburg.de/dgs-korpus/index.php/welcome.html (accessed 28.12.11).
- Dong, Q.-P., 1971. English sentences without overt grammatical subjects. In: Zwicky, A., Salus, P., Binnick, R., Vanek, A. (Eds.), Studies Out in Left Field: Defamatory Essays Presented to James D. McCawley on his 33rd or 34th Birthday. Linguistic Research, Edmonton, Alberta. (accessed 28.12.10)., pp. 3–10. In: http://douglemoine.com/english-sentences-without-overt-grammatical-subjects/
- Drescher, M., 2000. Eh tabarnouche! c'était bon. Pour une approche communicative des jurons en français québecois Cahiers de praxématique 34. 133–160.
- Eckert, P., 2000. Linguistic Variation as Social Practice. Blackwell, Malden, MA.
- Farley, R., 1965. Sequence of tenses: a useful principle? Hispania 48 (3), 549-553.
- Fenlon, J., Denmark, T., Campbell, R., Woll, B., 2007. Seeing sentence boundaries. Sign Language and Linguistics 10 (2), 177–200.
- Fischer, S.D., Lillo-Martin, D., 1990. UNDERSTANDING conjunctions. International Journal of Sign Linguistics 1 (2), 71-80.
- Fortson, B.W., 2003. An approach to semantic change. In: Joseph, B., Janda, R. (Eds.), Handbook of Historical Linguistics. Blackwell Publishing, Malden, MA, pp. 648–666.
- Hoeksema, J., 2001. Rapid change among expletive polarity items. In: Brinton, L. (Ed.), Historical Linguistics 1999. Selected Papers from the 14th International Conference on Historical Linguistics, Vancouver, 9–13 August 1999. John Benjamins, Amsterdam/Philadelphia, pp. 175–186. Hoeksema, J., 2002. Minimaliseerders in het standaard-Nederlands. Tabu 32, 105–174.
- Hoeksema, J., Napoli, D.J., 2008. Just for the hell of it: a comparison to two taboo-term constructions. Journal of Linguistics 44, 347–378.
- Horn, L., 2001. Flaubert triggers, squatitive negation and other quirks of grammar. In: Hoeksema, J., Rullmann, H., Sánchez-Valencia, V., van der Wouden, T. (Eds.), Perspectives on Negation and Polarity Items. John Benjamins, Amsterdam, pp. 173–202.
- Hoza, J., Neidle, C., MacLaughlin, D., Kegl, J., Bahan, B., 1997. A unified syntactic account of rhetorical questions in American Sign Language. In: Neidle, C., MacLaughlin, D., Lee, R.G. (Eds.), Syntactic Structure and Discourse Function: An Examination of Two Constructions in American Sign Language, Report No. 4, American Sign Language Linguistic Research Project. Boston University, Boston, pp. 1–23.
- Huang, C.-T.J., Ochi, M., 2004. Syntax of *the hell*: two types of dependencies. In: Moulton, K., Wolf, M. (Eds.), Proceedings of NELS 34. Graduate Linguistics Student Association University of Massachusetts, Amherst, MA, pp. 279–293.
- Hughes, G., 1992. Swearing: A Social History of Foul Language. Wiley-Blackwell, London.
- Johnston, T., 2001. Nouns and verbs in Australian Sign Language: an open and shut case? Journal of Deaf Studies and Deaf Education 6 (4), 235–257.
- Johnston, T., 2008. Corpus of grammar and discourse strategies of deaf native users of Auslan (Australian Sign Language), Endangered Languages Archive, SOAS, University of London. http://elar.soas.ac.uk/node/3. Public access from 2012.
- Johnston, T., 2010. From archive to corpus: transcription and annotation in the creation of signed language corpora. International Journal of Corpus Linguistics 15 (1), 106–131.
- Johnston, T., Schembri, A., 2007. Testing language description through language documentation, archiving and corpus creation: the case of indicating verbs in the Auslan Archive Corpus. In: Austin, P., Bond, K., Nathan, O.D. (Eds.), Proceedings of Conference on Language Documentation & Linguistic Theory. 7–8 December 2007. School of Oriental and African Studies, University of London In: http://www.hrelp.org/publications/ldlt/papers/ldlt_17.pdf, (accessed 04.01.12).
- Karr, M., 1995. The Liars' Club. Penguin, New York.
- Klima, E., Bellugi, U., 1979. The Signs of Language. Harvard University Press, Cambridge, MA.
- Liddell, S., 1980. American Sign Language Syntax. Mouton, The Hague.
- Lillo-Martin, D., 1986. Two kinds of null arguments in American Sign Language. Natural Language and Linguistic Theory 4, 415-444.
- Lillo-Martin, D., 1991. Universal Grammar and American Sign Language: Setting the Null Argument Parameters. Kluwer Academic Publishers, Dordrecht.
- Llisterri, J., 1992. Speaking styles in speech research. In: ELSNET/ESCA/SALT Workshop on Integrating Speech and Natural Language. Dublin, Ireland, 15–17 July 1992 In: http://liceu.uab.cat/~joaquim/publicacions/SpeakingStyles_92.pdf, (accessed 29.03.12).
- Mathur, G., Rathmann, C., 2010. Verb agreement in sign language morphology. In: Brentari, D. (Ed.), Sign Languages: A Cambridge Language Survey. Cambridge University Press, Cambridge, pp. 173–196.
- Meir, I., Padden, C., Aronoff, M., Sandler, W., 2007. Body as subject. Journal of Linguistics 43, 531–563.
- Merchant, J., 2002. Swiping in Germanic. In: Zwart, J.-W., Abraham, W. (Eds.), Studies in Comparative Germanic Syntax. John Benjamins, Amsterdam, pp. 295–311.
- Merchant, J., 2006. Sluicing. In: Everaert, M., van Riemsdijk, H. (Eds.), The Syntax Companion. Blackwell, London, pp. 269-289.
- Mindess, A., 2006. Reading Between the Signs: Intercultural Communication for Sign Language Interpreters, 2nd edition. Nicholas Brealey Publishing, London.
- Mirus, G., Rathmann, C., Meier, R., 2001. Proximalization and distalization of sign movement in adult learners. In: Dively, V., Metzger, M., Taub, S., Baer, A.M. (Eds.), Signed Languages: Discoveries from International Research. Gallaudet University Press, Washington, DC, pp. 103–119. Mirus, G., Fisher, J., Napoli, D.J., 2012. Taboo-terms in American Sign Language. Lingua 122, 1004–1020.
- Montagu, A., 1967. The Anatomy of Swearing. Rapp & Whiting, New York.
- Muansuwan, N., 2001. Directional serial verb constructions in Thai. In: Flickinger, D., Kathol, A. (Eds.), Proceedings of the 7th International HPSG Conference, UC Berkeley (22–23 July, 2000). CSLI Publications, Stanford, pp. 229–246.

Napoli, D.J., Hoeksema, J., 2009. The grammatical versatility of taboo terms. Studies in Linguistics 33 (3), 612-643.

Napoli, D.J., Wu, J., 2003. Morpheme structure constraints on two-handed signs in American Sign Language: notions of symmetry. Sign Language and Linguistics 6 (2), 123–205.

Neidle, C., Kegl, J., MacLaughlin, D., Bahan, B., Lee, R., 2000. The Syntax of American Sign Language: Functional Categories and Hierarchical Structure. MIT Press, Cambridge, MA.

Nespor, M., Sandler, W., 1999. Prosody in Israeli Sign Language. Language and Speech 42 (2-3), 143-176.

Nicodemus, B., 2009. Prosodic Markers and Utterance Boundaries in American Sign Language Interpretation. Gallaudet University Press, Washington, DC.

Ogihara, T., 1995. The semantics of tense in embedded clauses. Linguistic Inquiry 24 (4), 663-679.

Ormel, E., Crasborn, O., 2012. Prosodic correlates of sentences in signed languages. Sign Language Studies 12 (2), 109-145.

Padden, C., 1988. Interaction of Morphology and Syntax in American Sign Language. Garland Press, New York.

Padden, C., Perlmutter, D., 1987. American Sign Language and the architecture of phonological theory. Natural Language and Linguistic Theory 5, 335–375.

Pesetsky, D., 1987. Wh-in-situ: movement and unselective binding. In: Reuland, E., ter Meulen, A. (Eds.), The Representation of (In)definiteness. MIT Press, Cambridge, MA, pp. 98–129.

Pfau, R., Steinbach, M., 2006. Pluralization in sign and in speech: a cross-modal typological study. Linguistic Typology 10, 135-182.

Pizzuto, E., Corazza, S., 1996. Noun morphology in Italian Sign Language (LIS). Lingua 98 (1-3), 169-196.

Postal, P., 2004. The structure of one type of American English vulgar minimizer. In: Postal, P. (Ed.), Skeptical Linguistic Essays. Oxford University Press, New York. Downloadable at, pp. 159–172. In: http://www.nyu.edu/gsas/dept/lingu/people/faculty/postal/papers/skeptical/.

Postma, G., 1995. Zero semantics – a study of the syntactic conception of quantificational meaning. Doctoral Dissertation, University of Leiden.

Postma, G., 2001. Negative polarity and the syntax of taboo. In: Hoeksema, J., Rullmann, H., Sánchez-Valencia, V., van der Wouden, T. (Eds.), Perspectives on Negation and Polarity Items. John Benjamins, Amsterdam, pp. 283–330.

Prillwitz, S., 1985. Skizzen zu einer Grammatik der deutschen Gebärdensprache. Forsch, Hamburg.

Rayson, P., Leech, G., Hodges, M., 1997. Social differentiation in the use of English vocabulary: some analyses of the conversational component of the British National Corpus. International Journal of Corpus Linguistics 2, 133–152.

Sandler, W., 1999. Prosody in two natural language modalities. Language and Speech 42 (2-3), 127-142.

Sandler, W., 2010. Prosody and syntax in sign language. Transactions of the Philological Society 108 (3), 298-328.

Sandler, W., Lillo-Martin, D., 2001. Natural sign languages. In: Aronoff, M., Rees-Miller, J. (Eds.), Blackwell Handbook of Linguistics. Blackwell, Oxford, Oxford, pp. 533–562.

Sandler, W., Lillo-Martin, D., 2006. Sign Language and Linguistic Universals. Cambridge University Press, Cambridge.

Schwager, W., Zeshan, U., 2008. Word classes in sign languages. Studies in Language 32 (3), 509-545.

Shaffer, B., 2004. Information ordering and speaker subjectivity: modality in ASL. Cognitive Linguistics 15 (2), 175-195.

Sprouse, J., 2005. The accent projection principle: why the hell not? In: Eilam, A., Scheffler, T., Tauberer, J. (Eds.), Penn Working Papers in Linguistics 12. University of Pennsylvania, Philadelphia, PA, pp. 349–359.

Stenstrom, A.B., 1995. Taboos in teenage talk. In: Melchers, G., Warren, B. (Eds.), Studies in Anglistics. Almqvist and Wiksell International, Stockholm, pp. 71–79.

Stone, C., 2009. Toward a Deaf Translation Norm. Gallaudet University Press, Washington, DC.

Supalla, T., Newport, E., 1978. How many seats in a chair? The derivation of nouns and verbs in American Sign Language. In: Siple, P. (Ed.), Understanding Language Through Sign Language Research. Academic Press, New York, pp. 91–132.

Sutton-Spence, R., Boyes Braem, P., 2012. Comparing the products and the processes of creating sign language poetry and pantomimic improvisations. Unpublished ms., Swarthmore College, University of Bristol, and University of Basel.

Tang, G., Brentari, D., González, C., Sze, F., 2010. Crosslinguistic variation in the use of prosodic cues: the case of blinks. In: Brentari, D. (Ed.), Sign Languages. Cambridge University Press, Cambridge, pp. 519–542.

The SLX Corpus of Sociolinguistic Interviews, n.d., http://projects.ldc.upenn.edu/DASL/SLX/ (accessed 29.03.12).

van Someren, M.W., Barnard, Y.F., Sandberg, J.A.C., 1994. The Think Aloud Method: A Practical Guide to Modeling Cognitive Processes. Academic Press, London.

Voghel, A., 2005. Phonologically identical noun-verb pairs in Quebec Sign Language (LSQ): form and context. Toronto Working Papers in Linguistics 25, 68–75.

Wardhaugh, R., 1992. An Introduction to Sociolinguistics. Basil Blackwell, Cambridge, MA.

Wilbur, R., 1994. Arguments for sentential subjects in ASL. In: Ahlgren, I., Bergman, B., Brennan, M. (Eds.), Perspectives on Sign Language Structure: Papers from the Fifth International Symposium on Sign Language Research. International Sign Language Linguistics Association, Durham, pp. 215–235.

Wilbur, R., 1996. Evidence for the function and structure of Wh-clefts in American Sign Language. International Review of Sign Linguistics 22, 209–256.

Wilbur, R., 2005. A reanalysis of reduplication in American Sign Language. In: Hurch, B. (Ed.), Studies in Reduplication. Mouton de Gruyter, Berlin & New York, pp. 593–620.

Wilbur, R., 2009. Effects of varying rate of signing on ASL manual signs and nonmanual markers. Language and Speech 52, 245-285.

Wilbur, R., Martínez, A., 2002. Physical correlates of prosodic structure in American Sign Language. Chicago Linguistics Society (CLS) 38 (1), 693–704.

Wilbur, R., Patschke, C., 1999. Syntactic correlates of brow raise in ASL. Sign Language and Linguistics 2, 3-41.

Wood, S.K., 1999. Semantic and syntactic aspects of negation in ASL. MA Thesis, Purdue University, West Lafayette, IN.

Zeshan, U., 2000. Sign Language in Indo-Pakistan: A Description of a Sign Language. John Benjamins, Amsterdam.

Zonneveld, W., 1984. The game of the name: expletive insertion in English. Linguistic Analysis 13 (1), 55-60.

Zwicky, A., Salus, P., Binnick, R., Vanek, A. (Eds.), 1971. Studies Out in Left Field: Defamatory Essays Presented to James D. McCawley on his 33rd or 34th Birthday. Linguistic Research, Edmonton, Alberta.