CHAPTER VI:

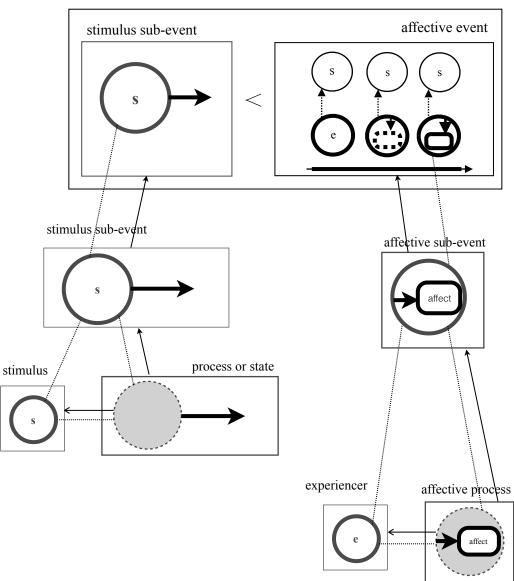
DISCUSSION

6.1 Introduction

This dissertation investigated affective constructions in ASL. Affective constructions were identified based on their denotative meaning: constructions referencing events in which an experiencer underwent an internal change upon perceiving a stimulus. The forms of the utterances that denoted affective events were analyzed, indicating that ASL affective constructions are expressed in a bi-clausal form in which the first clause denotes the state or action of the stimulus, and then the following affective clause denotes the experiencer's response. Before elaborating on the three instantiations of the affective clause constructional schema identified in these data, let us consider the compositional nature of the bi-clausal constructional schema itself.

6.1.1 Affective Constructional Schema

Recall that in the Cognitive Grammar framework there is no categorical distinction between a language's lexicon and its grammar. Rather, the characterization of expressions are gradient, and constructions lie on continua such as those of complexity and schematicity. The data for this project illuminate a complex constructional schema used for encoding affective events in ASL. The constructions are complex in that they are formed of multiple components in both the phonological and semantic poles, and the conventionalized nature of the schema is indicated both by the many expressions that



affective constructional schema

Figure 32. Biclausal affective constructional schema formed from component assemblies.

instantiate this schema produced by all consultants in this study, as well as consultants' comments during the judgment task that single-clause utterances did not include enough information to be acceptable.

The semantic components of the ASL affective constructional schema are illustrated in Figure 32. Starting at the bottom right of the diagram, two components integrate: the process of affective change and the experiencer. The experiencer elaborates the trajector, the primary focal participant, of the affective process. The integration is illustrated by the arrow from the elaboration site of the affective process (identified with gray), to the element that elaborates the role, in this case the trajector role. The integration of these components forms an affective sub-event composite structure.

Because the affective sub-event composite structure is retrospective of a stimulus sub-event, the composite structure serves as a component for a higher level of organization. That is, when an addressee conceives of an experiencer undergoing an affective change, the stimulus of that change is salient in the affective event conceptual base. Because ASL does not elaborate the stimulus in the affective change clause, the clause is retrospective of a stimulus clause, and the two combine to form a complex construction encoding both participants in two clauses.

At the bottom left of Figure 32, the diagram illustrates the stimulus event formed by the stimulus elaborating the trajector of a schematic predicate, which can profile either a process or a state. Then the composite stimulus sub-event and composite affective sub-event integrate to form the more complex composite represented at the top of the diagram. Figure 32 represents at a schematic level how the semantic components of affective constructions integrate to form a complex constructional schema that licenses ASL affective expressions.

The semantic pole represented in Figure 32 is prototypically evoked by two consecutive clauses. In natural dialogue, it seems reasonable that the stimulus could be referenced by the other interlocutor or be salient in the discourse setting without a linguistic encoding. In these data the stimulus was encoded in a stimulus clause preceding the affective clause. Schematically, the symbolic view of this type of construction is presented in (26).

The first clause is also formed by a nominal and predicate. The nominal that encodes the stimulus, which is the trajector of the sub-event, is the subject of the stimulus clause. In the second clause, the experiencer is encoded by a nominal and the affective change is coded by a predicate. The nominal that encodes the experiencer, which is the trajector of the affective process, is the subject of the affective clause. The two clauses integrate at the discourse level, connecting as the affective clause is retrospective of the stimulus clause.

We have seen how the components of the affective constructional schema form its composite and how the retrospective nature of the affective clause evokes a relationship between the two sub-events. The next section discusses the relationship between the clauses and how it is pragmatically understood to imply a causal relationship, though causation is not entailed by the expressions.

6.1.2 Biclausal Constructions and Implicit Causativity

Let us consider how this biclausal construction is understood to indicate the relationship between the stimulus event and affective change event. The stimulus is encoded first in a clause describing the action or state of a stimulus (e.g., *the coin stuck on the ground*). This makes the stimulus highly salient in the discourse, and then the affective clause profiles the experiencer's internal change. Syntactically, the two clauses profile two separate events, however recipients pragmatically infer their connection based on their sequentiality.

One critical aspect of language as analyzed by cognitive linguistics is the role of embodiment. Lakoff and Johnson (1980, inter alia) elucidate how not only our language use, but our very conception of things and events around us are impacted by embodiment. That is, we language users create and understand language based on our experience of the world, in our physical bodies interacting with a physical reality. We often conceive of non-physical concepts through metaphors that represent abstract information through its relationships with concrete information, such as the classic metaphor of UP is MORE (ibid). For example, we consider our profits to have *risen* when there is more money in the ledger. This is an abstract concept which we understand through metaphor based on very concrete experiences, such as seeing the level of a liquid *rise* as we add more fluid to a glass. Language is not an autonomous entity, independent of our other human experiences, but rather the ways languages convey meaning consistently draw on our non-linguistic embodied experiences in the world. The mapping from concrete to less

concrete relationships plays a role in how the relationship between the two clauses in the biclausal affective construction is understood.

One way that language draws from non-linguistic experiences is based on our association with temporal proximity and a relationship of causation. As we see one event follow another over many instances, it is natural to being surmising that the two are related somehow. If there is a change of state, we often infer that the change was not random, but caused by some entity or event. For example, a person on the front porch has no physical contact with the family dog. However, each time the child sees someone through the window, the dog begins to bark, and the child learns to expect when a visitor comes to call, the dog will bark. The cause and effect is surmised by the change (the dog barking) every time after another event (the visitor arriving at the door).

Hundreds of times a day, we associate causation with two events that happen one directly after the other: when we press our remote entry button, our car unlocks; when we let go of something in our hand, it falls to the ground. We develop a schema that understands temporal proximity as the first event causing the second event. This non-linguistic schema can be mapped onto language, using temporal iconicity (Langacker 2008:79), so that two sequential linguistic expressions denoting two events are understood to represent the order of those events as in the same sequence as the language that encoded them. If the second expression references a change of state, the discourse setting is expected to indicate the cause, either linguistically or situationally, and often the addressee can infer the cause even if the linguistic expression is not overtly causal. It is

this conceptual process that is the impetus for the implied causation in ASL affective constructions.

Through life experience we understand that an emotional change often occurs because of a salient stimulus, so when an ASL user produces an intransitive affective construction, the addressee looks to previous clauses or the extra-linguistic setting to identify the stimulus. Langacker (2008) calls linguistic forms that foretell certain expressions as *prospective*, and forms which regularly follow certain expressions as *retrospective*. A stimulus clause is potentially prospective for an affective clause, though other clause types can follow, such as an action clause adding to the events in the narrative. However, an ASL affective clause seems to be strongly retrospective of a stimulus clause.

The retrospective nature of ASL affective clauses was seen in these data, in both consultants' narratives and clip descriptions, as they consistently followed stimulus clauses. Additionally, the judgment task included utterances composed of affective clauses without preceding stimulus clauses, and consultants responded that these constructions were unacceptable because it was unclear why the person was feeling the specified emotion. This reaction indicates that affective clauses are bound at the discourse level to a preceding stimulus clause. So while ASL psych verbs and other affective constructions are predominately intransitive at the sentential level, they are conceptually bound to the stimulus clause at the discourse level. The phonological and semantic adjacency of the clauses metaphorically represents the sub-events' temporal relationship: the action or presence of the stimulus occurred immediately preceding the experiencer's

internal affective change. When the addressee conceives of these two sub-events occurring one after the other and in relation to each other, pragmatic inference leads to an understanding that the affective change was due to the stimulus.

6.1.3 Biclausal Constructional Schema Summary

As we see many examples of one event causing the event that follows it, we develop a schema for temporal proximity being indicative of causation when a change has occurred. Through temporal iconicity, two consecutive clauses that are prospective or retrospective of one another are understood to denote two consecutive events. Thus the two clauses of the bi-clausal affective constructional schema are understood to imply a causal relationship between the stimulus sub-event and affective change sub-event. Having noted the relationship between the clauses, this study focused on the second clause, identifying three instantiations of the affective clause schema that consultants used to reference the experiencer's internal change. The affective clause serves as a component for the biclausal construction, and it is also itself a construction at a lower level of complexity. The following sections discuss the symbols, icons, and indexes used in the three instantiations of the constructional schema found in these data.

6.2 Affective Constructional Schema Instantiations

The second clause of the ASL biclausal affective construction was the focus of this analysis, and three instantiations of the constructional schema denoting affective change were identified in consultants' narratives and clip descriptions: a lexical predicate,

constructed action, and constructed dialogue. All three affective sub-event schema instantiations profile a process: the experiencer undergoing an internal change. The constructions differ with respect to the way each references the affective change.

6.2.1 Affective Lexical Predicates

Half of the constructions consultants used to reference affective events included an affective lexical predicate such as SHOCKED, FRUSTRATED, or SICK-OF-IT. These signs foreground the experiencer's internal change, explicitly naming the emotion, and it is these types of lexemes that have been studied in several languages under the name psych verbs. Previous investigations into psych verbs have sought to determine how the semantics of these verbs map onto syntax in a way to derive the surface structures seen in each language (Lakoff, 1970; Belletti and Rizzi, 1988; Bouchard, 1995; Winston, 2013; Oomen, 2015; inter alia). In contrast, this analysis considers how distinct forms evoke different construals of affective events. The following section reviews the forms and meanings of affective lexical predicate constructions, and it discusses transitivity because ASL affective constructions are almost exclusively intransitive, which is unlike psych verbs described in other studies.

Subjectless Clauses and Explicitly Named Affect

As we saw above, the semantic pole of affective clauses schematically includes two components: an experiencer, that is one who undergoes an internal change, and the internal process that the experiencer undergoes during an affective event. The data for this dissertation included constructions with affective lexemes with and without subjects. The subject-verb constructions encode the experiencer that elaborates the trajector of the affective predicate by a nominal such as CLOWN, WOMAN, or MAN, or a pronoun referencing a previously established character. Events are conceptually dependent on the participants who engage in the profiled process, so the subjectless clause constructions seen in these data profile both the experiencer and stimulus, but leave the experiencer unspecified in the affective clause. Subjectless affective clauses evoke a construal with focus on the event itself, the affective change, without focus on the participant.

By explicitly naming the affect, the signer declares a specific interpretation of the accompanying affective facial expression. For example, a signer's furrowed brows and raised lips could be interpreted as disgust or irritation, but the lexemes MIND-TWIST and PERPLEXED specify the experiencer's affect as shock and confusion, respectively. Not only does the use of a lexeme explicitly designate which affect is being indicated by the signer's facial expression, but it also evokes a construal in which the affect is significantly foregrounded. The affective lexeme evokes a construal in which the internal change is foregrounded against the conceptual base.

ASL affective predicates overwhelmingly select the experiencer as the trajector, the primary focal participant of the affective change event. While some clauses included a subject and others did not, both of these constructional schemas share the characteristic of intransitivity, encoding the stimulus in a separate clause. This structure contrasts with those described in many other languages, and the distinct construals evoked by intransitive clauses in comparison to transitive affective clauses is worth considering.

Transitivity and Causativity

While previous studies on psych verbs have predominately discussed transitive constructions in a number of languages, this study indicates that ASL users consistently encode the participants of affective events in two consecutive intransitive constructions. Differences in the construals evoked by one transitive clause versus two intransitive clauses is subtle, though not insignificant.

Langacker (2006) explains that transitive constructions often evoke the concept of energy transfer from an initiator as the energy source to a patient as the energy sink. He states the exception of mental interactions such as *see, like, remember,* and *imagine.*However, it is significant that at the phonological pole the constructions denoting physical energy transfer interactions and the constructions denoting mental interactions are schematically parallel. If grammar is indeed symbolic, the similarity of form between transitive clauses which prototypically denote physical energy transfer and the form of transitive clauses which denote mental interactions evokes a construal of at least metaphorical or psychological energy transfer in the case of mental interactions. Thus, transitive experiencer-object psych verbs, such as *amuse,* portray the stimulus as the energy source of the affect and the experiencer as an energy sink, evoking a construal of causation.

Causative-like affective constructions, like those in (27a-c) have been attested in several languages as linguistics have deliberated about the semantics of psych verbs¹.

27a) English (from Fabienne, 2013):

Peter inspired her.

b) Japanese (from Katada, 1995):

Sono koto-ga Taroo-o kurusim-e-ru.

that matter-NOM ACC distress(CT)-PRS

'That matter distresses Taro.'

c) Basque (from Oyharcabal, 2013):

Pellok Maddi enoatu kezkatu da

John.ABS Mary.ABS be.worried AUX:3SG

'John worried Mary.'

The forms of these constructions that denote cognitive events parallel the forms of constructions that denote physical events of causation in that language. As these forms are used repeatedly to denote physical causation, the causative construal would be highly entrenched, and so the schema of causation will be activated even when the form is used to describe non-physical events, such as affective events, evoking a construal of the event in which the stimulus acts upon the experiencer through a transfer of energy.

-

¹ Experiencer-subject transitive psych verbs seem cross-linguistically to refer not to affective events in which an experiencer undergoes an internal change, but to states in which the experiencer holds an atelic feeling toward a stimulus. The current project focuses on telic processes of affective change upon perception of a stimulus. Future research may elucidate the forms of ASL constructions which encode atelic affective relationships between experiencers and stimuli.

In contrast, the biclausal intransitive constructions that ASL uses to encode affective events divide the event into two encoded sub-events: the stimulus event and the affective change. While the two sub-events are understood at the discourse level to be connected, they are discrete at the syntactic level. The stimulus is established in the discourse, and then the affective construction denoting the internal change encodes the experiencer as the subject of an intransitive clause. Taylor (2002:241) notes that "the appearance of a participant in subject position (the position prototypically associated with an Agent) can often attribute agent-like properties to the subject." In the ASL intransitive affective constructions the experiencer is construed as agent-like, the source of the affective energy. That is, rather than the quarter angering the woman, the quarter is stuck to the ground, and the woman angers. This is not to say the experiencer consciously initiated the emotion without reference to the stimulus, but that the energy initiated in the experiencer, not from the stimulus.

The biclausal construction creates a small but distinct separation between the stimulus and the subsequent internal change in the experiencer. By encoding two separate sub-events, these affective predicate lexemes do not explicitly profile causation like many spoken language psych verbs, though they are understood to be related at the discourse level.

The high frequency of affective lexical predicates in these data may reflect the salience of affect in the minds of signers in general, or it may be a product of the elicitation film seeking to make the affective changes very apparent through animated acting. Consultants indicated they were trying carefully to remember the plot accurately.

They may have especially noted and emphasized character's varying responses to the stimuli in trying to give a precise recounting of the film. However, this was far from the only construction type consultants used in describing the affective events in the film. The other half of the data was made up of affective constructed action and constructed dialogue, discussed in the following sections.

6.2.2 Affective Constructed Action

In a quarter of the constructions that consultants used to describe affective events the affect was referenced through a surrogate blend depicting the |experiencer's| behavior in constructed action. While lexical predicates foreground the experiencer's internal change, by explicitly naming the affect, constructed action depicts the external manifestation of that change, foregrounding the experiencer's facial and body movements, and leaving the interpretation of the specific affect to the addressee. The affect is salient, though not labeled, in these constructions that depict the experiencer's external manifestation of the internal change, and this section discusses how constructed action is understood as an affective construction.

Description versus Demonstration

Clark and Gerrig (1990) observe that some concepts are much more efficiently represented through demonstration rather than descriptions. For example it is much easier to demonstrate rather than describe a person's accent or the act of tying one's shoes. The same applies to presenting an experiencer's external reaction to a stimulus. For example,

one may describe a how a person pursed her lips, narrowed her eyes, and clenched her fists. Alternatively, one can demonstrate in a moment these three, and many more, aspects of an experiencer's physical reaction.

Speakers of both spoken and signed languages can demonstrate another person's physical movements, though the impact may differ due to how such demonstrations are incorporated into the discourse. When users of spoken languages demonstrate a person's physical reaction, the communication channel shifts modalities from verbal to visual, which may make the demonstration more marked than the rest of the discourse. In contrast, when users of signed languages demonstrate movements of people's upper body and face, the representation integrates smoothly into the already visual discourse. The unmarked nature of physical representation may account for the prevalence of depiction in visual languages like ASL (Metzger, 1995; Dudis, 2007; Thumann, 2010; Wilcox and Xavier, 2013; inter alia). And the high frequency of depiction in ASL may play a role in the conventionality of using constructed action to denote affective events.

Depictions of experiencers' actions aim to allow recipients to view for themselves the event being denoted in the discourse. Unlike the affective lexical predicates in which the signer declares the affect that the experiencer felt, affective constructed action leaves the interpretation of the affect to the addressee.

Interpreting Affective Constructed Action

Affective constructed action serves as a demonstration of an experiencer's external manifestation of an internal change. As previously mentioned, a significant

strategy we use in creating and understanding language is drawing on our experiences in the world. Humans experience a variety of emotions throughout life, and oftentimes the emotion we feel psychologically is represented physically so that others can infer the non-visible feeling we are experiencing. The external manifestation is as an index to the internal change in the same way smoke is an index to fire, as described in Section 2.6.

When we witness other people creating similar facial expressions or movements to those we have made ourselves, we infer that they are experiencing the same non-visible, psychological phenomenon we have come to associate with our own physical indication of that emotion. In discussing how cognition is embodied, Langacker (2008:536) uses the term *simulation* to describe the human ability to view the world from an imagined vantage point. It is our inference through simulation that leads us to interpret a person's physical movements such as facial expressions and gestures as an index for a non-physical phenomenon, such as anger or joy.

Facial configurations and body movements that we associate with specific emotions are indexes to those emotions. Constructed action depicting a character's face and body movements serves as an icon of the other person's behavior, and icons by their nature represent the form of the thing they referent. Thus, the addressee understands that upon seeing an instance of constructed action, she is viewing a proxy of the experiencer's behavior that indexes the internal change.

Clark and Gerrig (1990) emphasize that with any demonstration, such as ASL depiction, the addressee must first recognize the production to be non-real. Blends in ASL make use of this understanding regularly, using objects in the present space and time,

namely the signer's body, face, and surrounding space, to represent non-present objects and time (Dudis, 2007). Furthermore, emotive facial expressions used for depiction can represent facial expressions that another person actually made, or they may index that person's subjective thoughts about an event being depicted (Dudis, 2010). Fluent signers may feel that recognizing surrogate blends as non-real is a simple task, but it is not trivial. Studies have shown differences in the way that signers and non-signers interact with facial expressions. Differences are found not only with performance on facial expression recognition tasks (Bettger, et al., 1991), but also in the neural processing by deaf ASL signers and hearing non-signers when exposed to various facial expressions (McCullough, Emmorey, and Sereno, 2005). Anecdotally, non-signers indicate they regard ASL users' facial expressions to be indicative of their current emotional state rather than supposing that the expressions are icons representing some other person or time. Often signers are producing surrogate blends that are unrecognizable as non-real by those who do not know the language.

Addressees viewing affective constructed action must first decode the fact that the signer has created a blend, so that the facial expression and gestures are not to be attributed to the signer's current affective behavior. Addressees recognize a blend based on prior discourse, contextual cues, and changes the signer's eye gaze direction, facial expression, and torso placement (Liddell, 2003; Dudis, 2004; Thumann, 2010). Using these clues, when an addressee views a construction like that in Figure 33 repeated here from Figure 18, the addressee decodes the blend, understanding that the signer's furrowed brows and other movements are not her own, but serve as an icon of the

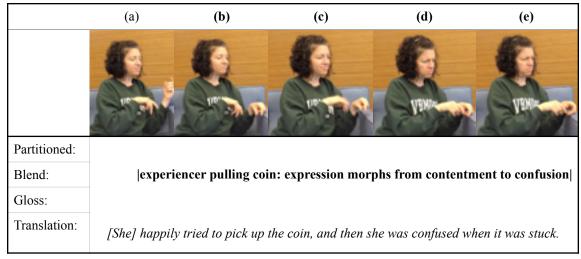


Figure 33. Constructed action as a non-real event.

experiencer's expression. The next step is to interpret the significance of that behavior.

Once the addressee attributes the facial expression to the appropriate person, the experiencer in the narrative, then the significance of the expression must be ascertained. Through simulation of personal experience, the addressee understands the connection between face muscle movements and internal emotions, so the expression is seen as an index of an invisible, internal emotion. For example, the furrowed brow, squinted eyes, subtle frown, and sharp movement of the head backwards seen in Figure 34 often serves as a holistic index to confusion. Just as smoke indexes fire, a surprised, angry, or scared facial expression indexes a corresponding emotion.

Of course just as it is possible to have smoke without fire, humans can configure their faces to exhibit a false expression, taking advantage of the index nature to display an impression of a non-existent emotion. The ability to manipulate expressions as indexes illustrates how nearly automatic the link is in our minds from the external to the internal. And it is this link which is harnessed in ASL affective constructions to denote an

experiencer's internal change by depicting the external manifestation. The signer does not declare which affect the experiencer underwent; rather, the signer produces an icon of the experiencer's behavior and leaves the interpretation of what it indexes to the addressee.

The addressee sees the blend, recognizes it as an icon representing a non-present experiencer, and then interprets the experiencer's behavior as indexical of an internal emotion that he or she associates with that physical expression.

6.2.3 Affective Constructed Dialogue

The remaining quarter of the constructions that consultants used to describe affective events depicted the experiencer's reaction through constructed dialogue representing the experiencer's internal thoughts. These utterances, like the constructed action constructions, do not explicitly name the affect, leaving the addressee to interpret the depiction to identify the affect. However, they are also distinct from utterances with constructed action, because in these constructed dialogue utterances the signer does not present the event as an ostensibly objective demonstration of the experiencer's behavior. In contrast, first the signer infers from the experiencer's behavior the kind of dialogue often associated with the affect indexed. Then the construction presents the assumed internal dialogue as a linguistic index of the experiencer's affective response to the stimulus.

Prosodic Marking on Affective Constructed Dialogue

Affective constructed dialogue is certainly not unique to ASL, though it has not be included in discussions of psych verbs or affective constructions. In spoken languages, speakers denote affective reactions to stimuli through representing the experiencer's thoughts as constructed dialogue (Tannen, 1986), as in (18) repeated here as (28).

In constructed dialogue the degree to which the speaker chooses to embody the speaker varies (Tannen, 2007). For example, in (28a) the speaker imitates the original speaker's voice, whereas in (b) the words are repeated, but with amended prosody, quoting the words that were said, but not the way in which they were originally expressed. In (c) it is unclear whether Casey actually voiced the exclamation in the second clause or if this is the speaker's assumption of Casey's internal dialogue.

- 28a) Casey said, "The snow is annoying. It's like, 'Ugh!"
 - b) Casey said, "The snow is annoying. It's like, 'Ugh."
 - c) Casey said the snow was annoying. She was like, "Ugh."

ASL also makes use of the different kinds of constructed dialogue varying the facial expressions and eye gaze in surrogate blends (see Metzger, 1995 for parallel findings with constructed action). In Figure 19 repeated here as Figure 34, the blend is maintained throughout the affective construction. At the start of the affective clause, the experiencer is encoded as the subject, WOMAN. After the subject, the signer's head depicts the |woman's| head turning to the |clown|, whose location was established in the

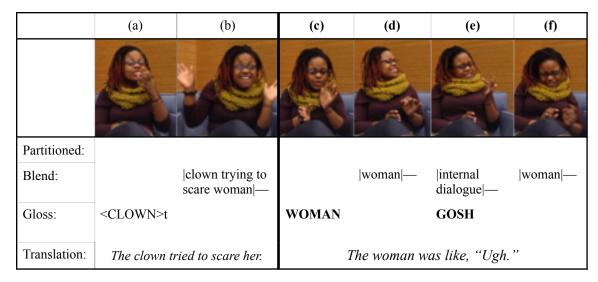


Figure 34. Constructed dialogue as an icon of experiencer's thoughts.

preceding stimulus clause. The |woman| makes a face of derision at the |clown|, and as she turns back to the |coin| on the |ground|, the signer continues the blend and signs, GOSH as the |woman's| inner dialogue. The dialogue is understood here to be representative of inner dialogue as the film did not include any language.

In other instances of constructed dialogue, the signer looks at the addressee, so that the signer's facial expression depicts the |experiencer's expression| while the signer reports the presumed internal dialogue from a narrator's perspective, as in Figure 35. In this construction, the right hand is blended with the |woman's hand| pulling on the |coin|. The left hand raises first to produce an affective lexeme, PERPLEXED. Then between (b) and (c) the signer shifts her eye gaze to the addressee and signs WHY STUCK. Her facial expression indicates confusion, but the emotion, along with the question as to the quarter's fixedness, is not the consultant's affect and query. She has seen the film and knows that the reason the quarter will not budge is because the clown glued it to the

sidewalk. Rather her furrowed brows and question depict the character's confusion and presumed internal dialogue.

Tannen (1989) noted different categories of constructed dialogue, from direct quotes like *Casey said*, "*The snow is annoying*," to indirect quotes like *Casey said the snow was annoying*. In these data, there were also varied forms of ASL constructed dialogue, depicting the dialogue in a blend as if the experiencer actually signed that discourse, or partitioning the body so that signer's facial expression and hands depict the constructed dialogue attributed to the |experiencer|, but with an eye gaze to the addressee typical of a narrator role that does not use a blend. For both construction types, the addressee must decode the depiction and interpret the affect indicated by the constructed dialogue.

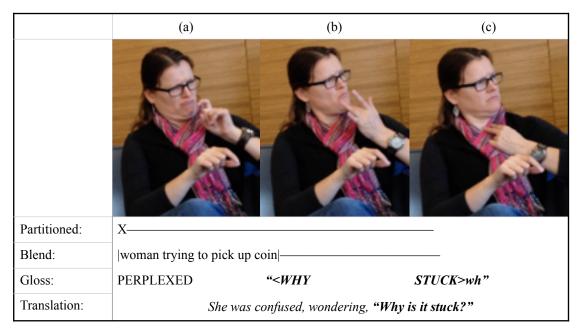


Figure 35. Constructed dialogue with a body-partitioned blend.

Interpreting Affective Constructed Dialogue

The process for understanding constructed dialogue as depicting an affective event is similar to interpreting affective constructed action. As we experience affective events ourselves, we often respond with internal or external language that is indicative of our affect. Similar to facial expressions indicating corresponding emotions, we learn to associate certain phrases with related affects. For example, English phrases like *back off* are very commonly used to index anger. Similarly, ASL lexemes like FSH and SICK-OF-IT are typically indicative of annoyance or frustration.

Tannen (1986) recognized constructed dialogue in English and Greek as serving a discourse function creating involvement for both interlocutors. The speaker's involvement is stimulated as she enacts the character who purportedly spoke or thought the dialogue. The involvement for the addressee "is created by (1) immediacy, portraying action and dialogue as if it were occurring at telling time and (2) forcing the hearer to participate in sensemaking" (324). In the same way, ASL affective constructed dialogue portrays the experiencer's inner thoughts as if they were external and occurring at telling time, and the demand on the addressee to make sense of the dialogue further enhances the involvement in the storytelling.

The sense-making of signs like FSH and SICK-OF-IT is relatively direct, as these signs are characterized by a limited scope of affect types. However, other constructed dialogue may create more involvement by requiring the addressee to attend to other cues to fully interpret the affective construction. Many phrases denote an affective response, but do not specify which affect is being referenced. It is accompanying prosodic marking

that signals which emotion the inner dialogue indexes. For example, the English phrase *really?!* can express a number of emotions depending on the prosody with which it is pronounced, suggesting disappointment, frustration, or excitement. Similarly, the ASL sign glossed GOSH aligns with facial expression icons to indicate a range of emotions, from frustration to amusement.

In order to produce affective constructed dialogue, the signer uses simulation to ascertain what the experiencer felt and what thoughts the affect may have triggered. The signer produces these thoughts as constructed dialogue in a surrogate blend as the experiencer. The addressee first decodes the blend, recognizing it as an icon and nonreal; that is, that section of discourse is not directed from the signer to the addressee, but rather from the experiencer to herself. The constructed dialogue creates involvement for the addressee, requiring her to make sense of the quote. After all, constructed dialogue is not unique to affective constructions and can serve a variety of purposes (Tannen, 1986). In successful communication, the addressee is able to deduce the function of this construction given the preceding stimulus clause and other context, and if the constructed dialogue is not narrow in the affect it evokes, the addressee draws on the accompanying facial expression to interpret that affect with which the inner dialogue was expressed. The multiple discourse functions served by constructed dialogue may be a motivating factor to account for the high frequency of the combination of affective constructed dialogue with the prospective attending sign, discussed below, to prime an addressee to anticipate an affective construction.

6.3 Prospective Attending Sign

About one third of the affective constructions in the data included the prospective attending sign (PAS) directly preceding the encoded affect. While this sign is often

glossed LOOK-AT (see Figure 36), its meaning is not limited to visual perception, and in addition to its denotative meaning, it also serves a discourse function of anticipating the experiencer's affective response to follow. This section first discusses the denotative meaning of PAS and then examines its prospective function in affective constructions.



Figure 36. PAS aligned with surrogate blend eye gaze, pointing at the |stimulus|.

6.3.1 Denotative Meaning of PAS

The sign glossed here as PAS is often glossed LOOK-AT because it is widely considered to be an iconic sign in which the two extended fingers represent the path of the gaze from each eye toward an entity being looked at by the subject. However, based on these data and discussions with native ASL colleagues, it appears that this sign's profile is a mental perception of and attention to an object, rather than a physical one. Consequently, it includes not only input perceived through vision, but also attention through other senses and cognitive effort.

Typically PAS appears to be a directional sign, with the fingertips of the first two fingers pointed toward the space in a blend that represents the stimulus, aligning with the

direction of the eye gaze, as seen in Figure 36. However, it can also be produced with the tips of the fingers pointing in a seemingly arbitrary direction while the eye gaze depicts the |experiencer| looking at the |stimulus|, as seen in Figure 37.



Figure 37. PAS not aligning with eye gaze.

In affective events in which the stimulus is an idea or other non-concrete entity, the signer has two options. The fingertips may point toward an entity representing the abstract stimulus through a metonymic role, such as the person who presented an idea. Alternatively, the sign can be produced in a neutral space, slightly in front of the signer's chest with the fingertips pointing outward. This is the form used in the constructions illustrated in Figure 37 although these were both produced in constructions describing affective events with physical stimuli. This appears to be the citation form of the sign, and it is used to indicate a person's consideration of either concrete entities or non-concrete entities, such as ideas.

The citation form of the sign can also be used when a signer depicts an affective event in which the stimulus was perceived not through sight, but through other senses,

such as touch. For example, in (29) the signer is describing working at her desk last night when she felt a sudden vibration in her apartment, perhaps indicative of a door slamming down the hall.

29) LAST^NIGHT PRO-1 WORK TYPING-ON-COMPUTER

FEEL SUDDEN-VIBRATION PAS <WHAT'S-UP>wh

Last night I was working at my desk and felt a sudden vibration. I

During the production of PAS in (29), the signer's upper body would blend with the experiencer, looking up from |her work| in consideration of the room and the meaning behind the vibration.

wondered what caused it.

In producing PAS, the hand does not move. If the hand moved the fingertips from side to side, this would profile the physical action of looking around the room rather than the experiencer's cognitive attending for the stimulus of vibration. In contrast, the steady holding of PAS in space refers not to the physical act of moving the eyes to take in visual information, but rather to the mental concentration of the experiencer upon the perceived entity, whether that stimulus is visual or not. It is the sign's emphasis on cognitive attention which contributes to its function of being prospective for an encoding of affective change.

6.3.2 Discourse Function of PAS

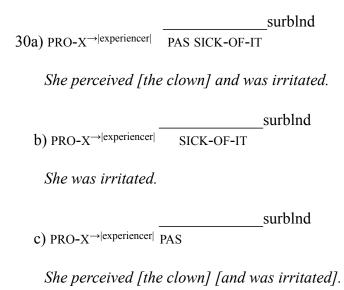
Along with its denotative meaning of a subject attending to some stimulus, PAS also serves a discourse function, possibly as a light verb that primes recipients for an affective construction. Winston (2013) notes that the sign I am glossing PAS satisfies many criteria for light verbs set forth in Butt (2003), such as seeming to be drawn from a closed class, having bleached meaning though it is not meaningless, and structuring events described. Winston suggests that this sign encodes path through its directionality. In the current data it seems that when PAS is inflected, it does align with the fingertips pointed towards the |stimulus|, indicative of the experiencer's attention path, though this is not always the case. Additionally, PAS seems to serve a prospective function, alerting the addressee that the signer will next encode the experiencer's response to the stimulus just brought into attention.

In everyday life we attend to countless entities which do not lead to an affective response, so we know that the perception of an entity does not obligate a reaction. Other ASL lexemes of perception encode our ability to perceive while backgrounding conscious attending, such as signs that profile one's act of looking over a whole scene, perhaps upon entering a room, or seeing many things in succession, perhaps as one tours through a city. However, because the sign PAS references a person's mental attention on a specific entity, the use of this sign begs the question of the person's response to that entity. That is, if the signer did not intend to mention the attender's response, it would be strange to linguistically encode the fact that the person attended to an entity, giving PAS a prospective characterization evoking an anticipation for the experiencer's response.

6.3.3 Future Research on PAS

This sign is clearly conventionalized since it was included in about a third of the constructions in the current project. More research is needed to fully understand the various construals evoked by constructions that do and do not include PAS. In these data PAS was used twice as often in constructions with constructed dialogue than in other affective construction types. It may be that because constructed dialogue can serve many discourse functions along with indexing an affective change, consultants include PAS to prime the addressee to interpret the constructed dialogue as an affective construction.

Future research may clarify how native signers understand constructions with and without PAS differently. For example, the sentences in (30a-c) each include a surrogate blend in which the |experiencer| rolls her eyes in response to the clown. The sentences differ in that (a) combines PAS and constructed dialogue, (b) includes constructed dialogue without PAS, and (c) includes PAS without constructed dialogue.



Having informally interviewed three native signers, it seems that the inclusion of PAS may foreground the experiencer's internal response whereas the same construction produced without PAS may more strongly foregrounds the experiencer's external reaction. Another suggestion is that PAS may highlight the experiencer's active involvement in the affective event (Winston (2013:16):

According to research in Korean, there appear to be some languages in which the Experiencer either does or doesn't take some active role in a given causing subevent (Nam, 2009). Specifically, some Experiencers are more agentive while others behave more like patients...In ASL, there appears to be a light verb (LOOK-AT) which is essentially a volitional act of directed perception, much like the English look at. This verb requires the 'looker' to participate agentively toward the causing event.

Winston (2013:16)

Future studies comparing native signers' intuitions about constructions that differ only in their inclusion and exclusion of PAS both in affective constructions and in other types of constructions will further elucidate the denotative meaning and discourse functions of the sign.

6.4 Discussion Summary

The data for this project indicate that ASL describes affective events using a constructional schema with a semantic pole composed of two sub-events, a stimulus event and an affective change, the symbolic assembly is composed of two clauses, a stimulus clause and an affective clause. This chapter discussed how the biclausal

construction is interpreted through embodied understanding of consecutive events, temporal iconicity, and the retrospective nature of the affective clause. The focus for this project's analysis was the affective clause of the biclausal construction.

In examining the affective sub-event component, three instantiations of the constructional schema were identified in the data and discussed: affective lexical predicates, affective constructed action, and affective constructed dialogue. Constructions with lexical predicates made up half of the data in this project. These constructions foreground the affect, itself, and in using affective predicates, signers declare the specific affect they conclude the experiencer felt. ASL affective lexemes are almost exclusively intransitive and select the experiencer as the trajector. This constructional schema is different from psych verbs attested in several spoken languages, which are predominately transitive and often include many stimulus-subject verbs. This chapter discussed the difference in construals evoked by intransitive versus transitive clauses.

Constructions that reference an experiencer's affective change using constructed action or constructed dialogue made up the other half of the data. Both of these construction types are icons which depict indexes that point to the experiencer's internal change, and both draw on our personal experiences with affective events. In using constructed action, the signer endeavors to give the addressee visual access to what the event looked like, and the addressee interprets the non-visible internal change indexed. Constructed dialogue serves an an involvement strategy by presenting the inner dialogue of the experiencer as if it were external and present at the time of the story telling, and by requiring the addressee to make sense of the constructed dialogue. The addressee first

must recognize the constructed dialogue as distinct from the rest of the discourse and then identify that it is indexing an affective change, attending to the dialogue as well as affective prosody to deduce which affect is being referenced. Constructed dialogue is not always affective, and this may be a reason that it is often preceded by a prospective attending sign, PAS.

The sign PAS denotes an experiencer's act of cognitive attention to a stimulus. It is prospective of an affective response, and it preceded constructed dialogue twice as often as it preceded constructed action or lexical predicates in these data. Future research on PAS will be beneficial for deepening our understanding of both its denotative meaning and functions it serves in discourse both with affective constructions and non-affective constructions.

CHAPTER VII:

CONCLUSION

7.1 Introduction

While there are aspects of the human experience that are universal, the way we talk about those experiences differs depending in part on the language or languages we use. This dissertation adds to the discussion of linguistic constructions that describe events in which someone responds emotionally to a stimulus, called affective events. Previous research on this topic has focused on psych verbs, predominately in spoken languages, deliberating how the semantics of verbs like *admire* and *amuse* map onto syntax (Lakoff, 1970; Postal, 1971; Perlmutter, 1983; Belletti and Rizzi, 1988; Pesetsky, 1995; Ramchand, 2008; Landau, 2010; Winston, 2013; Oomen, 2015).

The current study took a new approach to the same topic, beginning by identifying affective constructions based on the meaning they denote, and then analyzing the distinct forms and construals evoked by the constructions that native ASL users produced to describe affective events. In response to a non-linguistic stimulus, a short film showing people experiencing various affective changes, consultants produced biclausal affective constructions formed by a stimulus clause and a subsequent affective clause. This study focused on the affective clauses, both because it is this clause which identifies the biclausal construction as denoting an affective change, and because it is the affective clause that is the component most comparable to previous studies that discuss psych verbs. Three instantiations of the affective constructional schema were identified

and examined: affective lexical predicates, affective constructed action, and affective constructed dialogue. It was also noted that each of these construction types were produced both with and without a sign that encodes the experiencer's mental attention turned to the stimulus (PAtS). In this chapter, I summarize the findings from these data, suggest directions for future studies based on the findings and limitations of this study, and discuss applications of findings from this line of research.

7.2 Summary of Findings

The data for this study were elicited from nine Deaf native ASL signers. Each consultant watched a short film that included affective events with both animate and inanimate stimuli evoking a variety of emotions. Consultants described the film to a Deaf interviewer, then described six clips from the film that showed individual affective events, and finally judged the acceptability of ASL constructions signed by an ASL model describing those same clips.

In narrating the whole film and while describing the clips, consultants produced a total of 184 affective constructions, that is constructions which denoted events in which a character experienced an emotional reaction upon perceiving a stimulus. As mentioned, the vast majority of ASL affective constructions in these data were composed of two clauses: the first clause denotes the action or state of the stimulus; the second clause denotes the experiencer's internal change in response to the stimulus. This study examined the affective clauses of these biclausal constructions and identified three

instantiations of the affective constructional schema: affective lexical predicates, affective constructed action, and affective constructed dialogue.

7.2.1 Affective Lexical Predicates

Almost half of the constructions (48%) that consultants used to reference affective events included an affective lexical predicate such as CHAGRINED, FRUSTRATED, or MIND-TWIST. These signs foreground the experiencer's internal change, naming the emotion.

ASL affective predicates were found, here and in a prior pilot study, to be almost exclusively intransitive and experiencer-subject. This finding is different from the psych verbs attested in spoken languages. The transitive, experiencer-object psych verbs prevalent in many languages studied to date, such as English (Fabienne, 2013), Japanese (Katada, 1995), and Basque (Oyharcabal, 2013) use causative constructions which denote the stimulus as an energy source acting upon the experiencer. The intransitive, experiencer-subject ASL affective predicates seen in this data set evoke a construal in which two sub-events occur in succession.

Syntactically, the presence or action of the stimulus is expressed in a separate clause from the experiencer, and due to the experiencer being encoded as the subject of the affect clause, the constructions evoke a construal in which the affect seemingly initiates with the experiencer. So, syntactically the affect is encoded in a clause with only one participant, namely the experiencer, while pragmatically addressees interpret the consecutive sub-events to have a relationship of causation through the biclausal constructional schema.

The one exception to the intransitive, experiencer-subject affective predicate that appeared in these data was the predicate FEAR/SCARE. This was by far the most frequent affective lexeme in these data, which was unsurprising because the elicitation film included multiple affective events that could be described using this sign. Most frequently (i.e. in 38 out of 60 instances), FEAR/SCARE appeared in intransitive, experiencer-subject constructions, like the other affective predicates. In seven of the instances where FEAR/SCARE was used, the stimulus was encoded as the subject or the experiencer was encoded as the object, which was a construction unique to this affective predicate in these data. In the past the distinctive uses of this verb have been accounted for by assessing it not as a psych verb, but rather an action verb (Kegl, 1990). However, given the semantic definition of affective events used for the current analysis, instances of the sign FEAR/SCARE were included in this discussion. The uncommon uses of FEAR/ SCARE may be due to language being created and understood in the context of and through our experiences with the world. Fear is a highly salient emotion, and indeed it is essential for survival, alerting humans and animals to the need for action in the face of danger. It may be that FEAR/SCARE appears in constructions that other affective predicates do not because it denotes an affect that stands out conceptually and experientially from other affects.

In addition to denoting affective events, FEAR/SCARE also appeared in construction types denoting imagined fear events, as when the clown desired to scare people, and in relative clauses, used to describe a character who was afraid and then returned later in the film. None of the other affect lexemes occurred as descriptions of

imagined events or in relative clauses. It is likely that FEAR/SCARE appeared in these kinds of constructions that other affective predicates did not simply because the elicitation film did not include other affects in ways that would be denoted by these construction types.

Half of the affective constructions used in these data included affective lexical predicates. The high frequency of the affective lexical predicate construction may have been related to the elicitation process, or it may be that lexemes are preferred as they explicitly designate which affect is being denoted. The other two construction types indexed the internal affective change through constructed action and constructed dialogue.

7.2.2 Affective Constructed Action

In a quarter of the constructions (25%) that consultants used to describe affective events the affect was referenced through a surrogate blend depicting the |experiencer's| behavior in constructed action. While lexical predicates foreground the experiencer's internal change, as described in the previous section, constructed action depicts the external manifestation of that change. Addressees have experienced in their own lives how their face and body changes externally when they experience an internal affective change. Embodied understanding of self and others enables us to infer an internal change in another when we witness an external manifestation of that change. In this way, the natural facial expressions and body movements we produce serve as non-linguistic indexes to invisible internal affective change, in the same way that smoke indexes fire.

Linguistically, constructed action serves as an icon representing the index of an experiencer's external manifestation of an internal affective change. Addressees understand the surrogate blend to be non-real, a demonstration, and conceive the signer's movements as an icon presenting the experiencer's movements, which index the internal change. In denoting an affective change through constructed action, the signer does not interpret the affect for the addressee, as is done with affective lexical predicates. Rather, the signer shows the addressee what happened and leaves the interpretation of the specific affect to the addressee.

7.2.3 Affective Constructed Dialogue

The remaining quarter of the instances (27%) that consultants used to describe affective events depicted the experiencer's reaction through constructed dialogue representing the experiencer's hypothesized internal thoughts. As with constructed action, constructed dialogue does not explicitly name the affect like lexical predicates do, and so the addressee must interpret the depiction in order to identify the affect. Constructed dialogue differs from constructed action in that it does not present the event as an objective demonstration of the experiencer's behavior. In contrast, first the signer infers from the experiencer's behavior the kind of dialogue often associated with the indexed affect. Then the signer constructs the assumed internal dialogue as a linguistic index of the experiencer's affective response to the stimulus.

Constructed dialogue serves as an involvement strategy by presenting the affective event as if it were happening right before the addressee's eyes, and by engaging

addressees with the need to make inferences from the constructed dialogue to understand the meaning of the construction (Liddell, 2003; Tannen, 1986). Some affective constructed dialogue is conventionally associated with specific kinds of affect like COOL, while others, like GOSH indicate a much more schematic affect which is specified by accompanying affective prosodic facial expressions as seen in Figure 38. The manual production of GOSH is similarly produced across all instances, with the palm facing the signer's face and the tip of the middle finger moving quickly toward the forehead with an abrupt stop. Both instances of GOSH illustrated in Figure 38 had a similar manual production, but the signers' facial expressions indicate different affects. In the lefthand picture, the signer's facial expression specifies an affect like disdain with raised eyebrows, lowered lids, pursed lips, and a tilted head (AU2+14+43+M56+58). In contrast, in the righthand picture the signer's facial configuration specifies an affect like amusement with at the mouth open and curved upward in a smile, and the head thrown



Figure 38. Two instances of GOSH with distinct affective expressions.

back (AU12+25+26+43+58). The manual component of the sign denotes a schematic affective response, and the accompanying facial expression specifies the affect.

Constructed dialogue can serve a number of discourse functions. In approximately half (24/49) of the instances in which constructed dialogue was used to index affect, the constructed dialogue was preceded by a prospective attending sign, which perhaps serves to prime the addressee for the fact that this constructed dialogue is specifically indexing an affective change.

7.2.4 Prospective Attending Sign

The prospective attending sign (PAS) was included in 26% of the instances of affective constructions in this data set. This sign, shown in Figure 39, is often glossed LOOK-AT because it is often assumed that the two extended fingers iconically represent the sight-lines from the subject's eyes. However, this study indicates that the denotative meaning of PAS profiles an experiencer's cognitive attention on a stimulus rather than visual perception. The two examples in Figure 39 demonstrate that the direction of the fingertips in PAS do not obligatorily align with the |experiencer's| eye gaze toward the | stimulus| since the meaning evoked by PAS is the cognitive attention rather than physical eye direction. Anecdotally, this sign can also reference an experiencer's attention to a non-visible stimulus, such as an idea presented by a fellow interlocutor.



Figure 39. The prospective attending sign (PAS).

PAS also serves a discourse function, being prospective of an affective construction. That is, because PAS explicitly encodes the experiencer's attention to a stimulus, an addressee anticipates that the next information provided will be the experiencer's reaction to that stimulus. In these data, PAS appeared with each type of affective construction, immediately preceding the encoded affective change. PAS was most frequently used with affective constructed dialogue (24/49), and less frequently with affective constructed action (13/46) and affective lexical predicates (13/89). Further research on PAS would be beneficial in identifying the specifically distinct construals evoked by constructions that are similar in all respects except the inclusion or exclusion of this sign.

7.2.5 Summary of Findings

These data indicate that ASL denotes affective events in two clauses, the first denoting the stimulus and the second denoting the experiencer's affective change. The

affective change is referenced through a lexical predicate, constructed action, or constructed dialogue. Each of these instantiations share a conceptual base, but they differ in the construal of that base that they evoke. An additional element of ASL affective constructions that consultants used in these data to evoke distinct construals of affective events was the sign that encodes the experiencer's attention to the stimulus, the prospective attending sign, PAS. Further research is needed to fully understand the use of this sign, as well as some other questions that arose from limitations of this study.

7.3 Limitations of Study

As every research project concludes, the results give birth to more research questions. One way this occurs is through the inevitability that every research project will be limited in multiple respects, and this project was no exception. For example, the film used to elicit affective constructions for this study may have influenced the construction types consultants chose to encode the experiencers' affective changes. That is, a quarter of the affective change clauses in these data denoted characters' responses through constructed action. This may have been due to the actors in the film seeking to portray the affects clearly, but with no language. The pantomime nature of the acting may have especially lent itself to be encoded through depiction, potentially resulting in a higher frequency of affective constructed action than occurs in daily discourse.

Additionally, though the methods for this study were designed to elicit naturalistic language, they also sought to influence consultants toward a focus on the stimuli of affective events. So rather than recording people as they naturally discussed affective

events, the data were elicited in a lab setting with specific stimuli. The artificial setting of a lab could have influenced consultants' language use as they were interviewed on camera and by a stranger. They were also asked to retell the plot of a film without any specific goal in mind. This is in stark contrast to everyday language in which people have at least a subconscious intention behind what they say, which frames the way it is said. However, the same construction types were produced repeatedly by multiple consultants, and by each individual, in both the narratives and clip descriptions, indicating consistency in language use even given an artificial language setting.

Consultants described affective events using constructions composed of two intransitive clauses; the first clause encoded the stimulus and the second encoded the experiencer's affective change. Since this project focused on the affective change, in order to continue the conversation started with investigations of psych verbs, the analysis did not examine the stimulus clauses to determine the schema or schemas for those constructions. It is likely, this study identified multiple instantiations of a constructional schema for the affective clause, that there are also multiple construction types available for encoding the stimulus in ASL. Future work would be beneficial to illuminate the construals evoked by various stimulus clause constructions.

In addition to limitations of a study inspiring future research, findings can also call for application in a number of ways, and a study's periphery findings can become central for future works, as discussed in the following section.

7.4 Future Work and Applications

This study has contributed to the discussion on psych verbs through an investigation into affective constructions in the signing modality, and as with all scientific inquiries, there is still much research left to be done. Future work would be beneficial in a number of directions.

7.4.1 Theoretical Studies

This dissertation differed significantly from previous studies on affective constructions by using a Cognitive Linguistic lens for analysis, basing the investigation on semi-spontaneous naturalistic language data, and examining a signed language. These differences may be beneficial for informing the design of future studies. For example, previous studies on psych verbs have been interested in the processes that account for the mapping of semantics onto syntax for experiencer-subject and experiencer-object psych verbs. With the Cognitive Linguistic framework, the focus is not on derivations of forms, but rather on how each form evokes a different construal of a shared conceptual base. In studies on psych verbs little has been said about the distinct meanings conveyed by the different constructions in which psych verbs appear, and a consideration from this perspective may provide new insights worth examining.

Additionally, identifying affective constructions based on the events they denote rather than on a predetermined form cast a wider net than previous studies focused solely on psych verbs. This enabled the analysis to recognize that in American Sign Language affective events are encoded by other means, namely constructed action and constructed

dialogue. Previous research discussing psych verbs may have overlooked constructions commonly used in their language of study to denote affective events with various construals. In English a frequent construction for denoting an affective event consists of the verb *make*, which makes causation explicit and construes the experiencer as wholly a patient of the affect (e.g., *She makes me mad*). Taking into account constructions like these that native speakers of a language spontaneously produce may offer insight that may be missed with a more restricted scope beginning analysis from a form-based perspective.

The affective constructions identified in this dissertation exemplify features of language that are prevalent in signed languages, such as constructed action and constructed dialogue. Additional research on affective constructions in other signed languages would offer further insight on cross-linguistic comparisons and potential modality effects. Likewise, though spoken languages are also known anecdotally to use strategies like constructed dialogue to denote affective events, more research would be beneficial to elucidate the extent to which and in what ways users of spoken languages integrate surrogate blends into affective constructions. For example, the use of the ASL attending sign, PAS to introduce constructed dialogue in these data seems similar to the word *like* that can introduce constructed dialogue denoting an affective event in English.

This dissertation took a new approach to the discussion of psych verbs, using a Cognitive Linguistic framework, analyzing constructions that denoted affective events through depiction without a lexical psych predicate, and studying a signed language.

These approaches and considerations can be used in future work to further our

understanding of the constructions in different languages used to evoke various construals of affective events.

7.4.2 Psycholinguistic Studies

Contemporary psycholinguistic studies have been considering how the conventionalized constructions used in different languages impact the way native speakers of different languages perceive and conceive the world. In this dissertation I have noted affective constructions attested in several spoken languages and identified three constructions of affective change clauses used in ASL. Cognitive linguists, such as Lakoff and Johnson (1980), Langacker (2008), and Slobin (1996), have suggested that human language evolves from and is directed by our embodied experiences with the world, ideas that are quite compatible with those suggested by Sapir (1921) and Whorf (1956). And psycholinguistic studies are bearing out the hypothesis that our native language, and subsequently learned languages, play non-trivial roles in the ways we perceive objects, events, categories, and other conceptions of the world, not only when we are using language, but also during non-linguistic tasks (Fausey et al., 2010). It follows that the various construals evoked by affective changes in different languages have potential to influence how users of those languages conceive of affective events.

Each of the three affective change schematic construction types identified here took the form of an intransitive clause. This differs from constructions described in other languages that use transitive causal-constructions to describe affective events. Future studies designed for psycholinguistic investigation would shed light on how speakers of

languages that conventionally encode affective events with or without causative-like constructions conceive of the roles of the stimulus and experiencer in affective events.

An interesting psycholinguistic approach to studying the construction types described in this project would be to investigate the manner in which native signers process the various construction types. While constructed action and constructed dialogue are not unique to ASL, nor indeed modality specific, they have not been included in previous discussions of affective constructions in spoken languages. The frequent use of depiction by the consultants in this project to describe affective events calls for further research to consider constructions that native speakers of spoken languages use, such as constructed action and constructed dialogue in the spoken modality, to evoke various constructs of affective events.

7.4.3 Applied Linguistics Studies

I am a linguist, but first I am a language user, and I believe the greatest benefit of linguistic inquiry is the application of findings for the betterment of language users, through individuals and through systems. This project sought understanding of ASL affective constructions as scientific inquiry, but the goal is that the inquiry will not only deepen our understanding of language and the mind, but also that future work will apply these results to a means of life improvement. There are a number of fields that are intimately tied to language that could benefit from a deeper understanding of ASL affective constructions, such as literacy and language education, counseling, and interpreting.

As the majority of deaf children are born to hearing parents who do not know a signed language, many children may begin learning ASL (or their community's signed language) in school. Findings from studies like this dissertation are crucial for informing curriculum development related to the language's grammar, so that curricula will reflect the conventions used by fluent signers of the language. Similarly, when parents discover their child is deaf, they may seek to learn ASL. Curricula for these and others who are studying ASL as a second language must teach not only vocabulary, but also how those lexical items are used in constructions. In this study we see that ASL affective constructions are significantly different from those in English, and explicitly explaining the differences may aid second language learners in gaining competence in ASL.

In a parallel way, deaf children who sign ASL and are learning English as second language can benefit from explicit instruction in the differences between affective constructions in ASL and English. Goldberg and Astley (1986) note that deaf students often make errors such as those in (31).

- 31a) *When the quarter was stuck, the girl was confusing.
 - b) *The quarter was frustrated.

Findings from studies like this dissertation can be useful for explaining the differences between affective constructions to help students make connections between the different forms and the meanings they evoke. Future research is needed to look into how findings from studies like this one can be translated into pedagogy that will aid students in gaining

command of affective construction, both for second language learners of ASL and native ASL users who are learning a second language such as English.

A better understanding of ASL affective constructions may also have impact in fields like counseling, in which Deaf clients are likely to describe affective events they experienced or witnessed. Constructed action and constructed dialogue seem to serve as an involvement strategy, increasing involvement for both the addressee and the signer. Using an affective lexical predicate may serve as a distancing strategy when discussing difficult affective experiences. Future work with psycholinguistic, psychological, and cognitive science studies would contribute to counselors' understanding of the constructions their clients choose to use while discussing various affective events.

Finally, interpreters working between ASL and English must be aware of the affective constructions in both languages and the distinct construals that each evoke in order to make choices to produce the most effective interpretation. Interestingly, in casual observation I have seen interpreters produce ASL affective constructions like those identified in this study when those individuals are not interpreting, but just in conversation. Then when the same interpreters are working from English into ASL, I have seen them produce affective constructions judged as ungrammatical by the consultants here. Future research into interpreters' own judgment of various constructions and their use of affective constructions while signing as their own personal communication as compared to while interpreting has potential to give insight into the interpreting process, and consequently inform interpreter education pedagogy.

7.5 Conclusion

This study took a new approach to an on-going question and in doing so, highlights new aspects of affective constructions to be investigated and discussed. Previous studies on affective constructions have centered on explaining how the semantics of psych verbs map onto syntax (Lakoff, 1970; Postal, 1971; Perlmutter, 1983; Belletti and Rizzi, 1988; Pesetsky, 1995; Landau, 2010; Winston, 2013). Linguists have posited numerous theories to explain the distinct syntactic forms of verbs like *admire* and *amuse*, which conceptually seem to be in the same verb class, namely those describing affective events, but which differ with respect to which participant of the affective event is encoded as the subject and object of the verb.

In taking a Cognitive Grammar approach to analysis here, syntax is not conceived of an autonomous feature of language, but rather grammar is considered symbolic. Therefore the distinct forms of expressions used are understood to convey distinct meanings, through evoking different construals of the same conceptual content. So rather than seeking a theory to explain how the consultants' utterances were derived from an underlying structure, this analysis examined the schemas that are represented by different expressions, and discussed how each construction evokes different construals of the shared conceptual base of affective events. In these data three instantiations of a constructional schema for encoding affective change were identified: constructions with an affective lexical predicate, affective constructed action, and affective constructed dialogue. Affective lexical predicates foregrounds the affect itself. Affective constructed action foregrounds the experiencer's external manifestation indexing the internal change.

And affective constructed dialogue presents the supposed internal thoughts of the experiencer as inferred by the signer. Additionally, the ASL affective constructional schema optionally includes a sign that encodes the experiencer's mental attention on the stimulus. The distinct construals evoked by each construction type were discussed, as well as the cognitive processes employed for creating and understanding them.

This dissertation investigated ASL in naturalistic usage events. Examining language in its natural state enabled the analysis to identify the biclausal nature of the complex affective constructional schema. The analysis also made clear the prevalence of constructed action and constructed dialogue in these data, highlighting the benefits of investigation into affective constructions, defined more broadly than psych verbs, which can be applied to research on spoken languages as well.

REFERENCES

- Aarons, D. (1994). Aspects of the syntax of American Sign Language. *Ph.D. Dissertation*. Boston University.
- Aikhenvald, A. & Dixon, R.M.W. (2006). *Serial Verb Constructions: A cross-linguistic typology*. Oxford: Oxford University Press.
- Barrett, L. F., Lindquist, K., & Gendron, M. (2007). Language as a context for emotion perception. *Trends Cognitive Science, (Regul. Ed.)* 11, 327–332.
- Belletti, A. & Luigi R. (1988). Psych-verbs and ø-Theory. *Natural Language and Linguistic Theory* (6). 291-352.
- Bellugi, U., van Hoek, L., Lillo-Martin, D. & O'Grady, L. (1993). The acquisition of syntax and space in young deaf signers. In K. Mogford-Bevan & D. Bishop (eds), Language development in exceptional circumstances. Mahwah, NJ: Erlbaum.
- Bettger, J., Emmorey, K., McCullough, S., & Bellugi, U. (1997). Enhanced facial discrimination: effects of experience with American sign language. *Journal of deaf studies and deaf education*, 2(4), 223-33.
- Bouchard, D. (1995). The semantics of syntax: A minimalist approach to grammar.

 University of Chicago Press.
- Butt, M. (2003). The light verb jungle. In Workshop on Multi-Verb Constructions.
- Chomsky, N. (1981). Lectures on government and binding. Foris, Dordrecht.
- Chung, T. (1998). English Psych verb constructions and –er nominals. *Korean journal of* linguistics, 23-4. 723-741.
- Clark, H. & Gerrig, R. (1990). Quotations as demonstrations. Language, 66(4). 764-805.

- Croft, W. (2012). *Verbs: Aspect and causal structure*. Oxford University Press, New York: NY.
- Dachkovsky, S. (2008). Facial expression as intonation in Israeli Sign Language: The case of neutral and counterfactual conditionals. In: Josep Quer (ed.) *Signs of the time. Selected Papers from TISLR 2004*. Hamburg: Signum Press.
- Dachkovsky, S., Healy, C. & Sandler, W. (2013). Visual Intonation in Two Sign Languages, *Phonology* 30(2): 211-252.
- Deledalle, G. (2001). *Charles S. Peirce's philosophy of signs: essays in comparative semiotics*. Indiana University Press.
- Dudis, P. (2002). Grounded blend maintenance as a discourse strategy. In Lucas, Ceil (ed)

 Turn-taking, fingerspelling, and contact in Signed Languages. Gallaudet

 University Press. Washington, DC. 53-72.
- —. (2004). Body partitioning and real-space blends. *Cognitive Linguistics*. *15*(2), 223-238.
- —. (2007). Types of Depiction in ASL. Manuscript, Gallaudet University.
- —. (2010). Some Observations on Form-Meaning Correspondences in Two Types of Verbs in ASL. *Deaf around the World: The Impact of Language*, 83.
- Ekman, P. & Friesen, W. (1978). *Facial action coding system manual*. Palo Alto, CA:

 Consulting Psychologist Press.
- Evans, V., Bergen, B. K., & Zinken, J. (2007). The cognitive linguistics enterprise: An overview.

- Fabienne, M. (2013). Oriented adverbs and object experiencer psych-verbs. In *Studies in the Composition and Decomposition of Event Predicates* (pp. 71-97). Springer Netherlands.
- Fauconnier, G. (1985). *Mental Spaces: Aspects of meaning construction in natural language*. Cambridge, Mass.:MIT Press, and London: Bradford.
- Fauconnier, G & Turner, M. (1996). Blending as a central process of grammar. In Goldberg, Adele (ed.), *Conceptual Structure, Discourse and Language*. Stanford, CA: CSLI Publications, 113-130.
- Fauconnier, G. (1997). *Mappings in Thought and Language*. Cambridge: Cambridge University Press.
- Fauconnier, G & Turner, M. (1998). Conceptual integration networks. *Cognitive Science*, (22)2, 133-187.
- Fausey, C., Long B., Inamori, A., & Boroditsky L. (2010). Constructing agency: the role of language. *Frontiers in Psychology 1*(162) doi: 10.3389/fpsyg.2010.00162
- Fillmore, C. (1975). An alternative to checklist theories of meaning. Proceedings of the First Annual Meeting of the Berkeley Linguistics Society, pp. 123–131.
- Fischer, S. (1975). Influences on word-order change in American Sign Language. Salk Institute for Biological Studies.
- Goldberg, A. (1995). Constructions. Chicago: The University of Chicago Press.
- Goldberg, J. Philip, & Russell, H. (1986). Revising your writing: A handbook of solutions to common grammar and usage problems for hearing-impaired students.

 Lexington, MA: Ginn Press.

- Goldberg, A. (2003). Constructions: A new theoretical approach to language. Trends in Cognitive Science, 7(5), 219–224.
- Grimshaw, J. (1990). Argument structure. *Linguistic inquiry monographs, 18*. Cambridge: The MIT Press.
- Healy, C. (2012). *Pilot study on ASL affect verbs*. Unpublished Guided Research Project paper. Gallaudet University, DC.
- Hermon, G. (1985). Syntactic Modularity. Foris, Dordrecht.
- Jackendoff, R. (1976). Toward an explanatory semantic representation. *Linguistic inquiry*, 89-150.
- Jakobson, R. (1959). On linguistic aspects of translation. *On translation*, 3, 30-39.
- Jakobson, R. (1966). Quest for the essence of language. Morphology, Critical Concepts in Linguistics, 2004.
- Janzen, T., O'Dea, B., & Shaffer, B. (2001). The construal of events: Passives in American Sign Language. *Sign Language Studies*, (1)3, 281-310.
- Johnson, M. and Lakoff, G. (2002). Why cognitive linguistics requires embodied realism, *Cognitive Linguistics*, 13(3): 245-263.
- Katada, F. (2013). Weak transitivity: another view of psych-predicates. *Anuario del Seminario de Filología Vasca" Julio de Urquijo"*, 81-91.
- Kegl, J. (1990). Predicate argument structure and verb-class organization in the ASL lexicon. In Lucas, Ceil (ed). Sign language research: Theoretical issues.Gallaudet University Press, Washington, DC. 149-175.

- Kegl, J., Neidle, C., MacLaughlin, D., Hoza, J., & Bahan, B. (1996). The case for grammar, order and position in ASL: A reply to Bouchard and Dubuisson. *Sign Language Studies*, *90*(1), 1-23.
- Labov, M. (1972). Language in the inner city: Studies in the Black English Vernacular.

 University of Pennsylvania Press Inc., Philadelphia:PA.
- Lakoff, G. (1970). Irregularity in Syntax. New York: Holt, Reinhart and Winston.
- Lakoff, G. and Johnson, M. (1980). *Metaphors We Live By*. Chicago and London: University of Chicago Press.
- Lakoff, G. (1987). Women, Fire and Dangerous Things: What Categories Reveal About the Mind. Chicago: University of Chicago Press.
- Landau, I. (2010). The locative syntax of experiencers. Vol. 34. Cambridge: MIT press.
- Langacker, R. (1987). Foundations of Cognitive Grammar. Vol. 1, Theoretical Prerequisites. Stanford, CA: Stanford University Press.
- —. (1991). Foundations of cognitive grammar. Vol. 2, Descriptive application. Stanford,CA: Stanford University Press.
- —. (2000). *Grammar and conceptualization*. New York: Mouton de Gruyter.
- —. (2006). Dimensions of defocusing. Voice and grammatical relations, 115-137.
- —. (2008). Cognitive grammar: A basic introduction. Oxford University Press. New York, NY
- —. (2009). *Investigations in Cognitive Grammar*. Mouton Select.
- Levin, B. (1993). English verb classes and alternations: A preliminary investigation. The University of Chicago Press.

- Liddell, S. (1978). Non-manual signals and relative clauses in American Sign Language.

 In Siple, P. (Ed.), *Understanding Language through Sign Language Research*.

 New York: Academic Press.
- —. (1980). American Sign Language syntax. The Hague: New York, Mouton.
- —. (2003). *Grammar, gesture, and meaning in American Sign Language*. Cambridge: Cambridge University Press.
- Lucas, C. & Valli, C. (1992). Language contact in the American Deaf Community. San Diego: Academic Press.
- McCullough, S., Emmorey, K., & Sereno, M. (2005). Neural organization for recognition of grammatical and emotional facial expressions in deaf ASL signers and hearing nonsigners. *Cognitive Brain Research*, 22(2), 193-203.
- Meir, I. (2010). Iconicity and metaphor: Constraints on metaphorical extension of iconic forms. *Language*, 86(4). 865-896.
- Meir, I., Padden, C., Aronoff, M., & Sandler, W. (2006). Re-thinking sign language verb classes: the body as subject. In *Sign Languages: Spinning and Unraveling the Past, Present and Future. 9th Theoretical Issues in Sign Language Research Conference*. Florianopolis, Brazil (Vol. 382).
- Metzger, M. (1995). Constructed dialogue and constructed action in American Sign Language. *Sociolinguistics in Deaf communities*, 255-271.
- Oomen, M. (2015). Psych-Verbs in Sign Language of the Netherlands: How humans' emotional experiences leave their traces in the grammar of languages in the manual modality. Masters Thesis. University of Amsterdam.

- Oyharçabal, B. (2013). Lexical causatives and causative alternation in Basque. *Anuario del Seminario de Filología Vasca" Julio de Urquijo"*, 223-253.
- Quer, J. (2009). Agreement and argument structure in SLs: A case study in LSC psychological predications. Paper presented at *The 21st European Summer School in Logic*, Language and Information. Bordeaux, July 2009.
- Quer, J., & Frigola, S. (2006). Cross-linguistic research and particular grammars: A case study on auxiliary predicates in Catalan Sign Language (LSC). Paper presented at Workshop on Cross-linguistic Sign Language Research. Max Planck Institute for Psycholinguistics, Nijmegen, January 2006.
- Padden, C. (1988). 13 Grammatical theory and signed languages. Linguistics: The

 Cambridge Survey: Volume 2, Linguistic Theory: Extensions and Implications, 2,

 250.
- Pesetsky, D. (1987). Binding problems with experiencer verbs. *Linguistic Inquiry*, 126-140.
- Peirce, C. S. (1932). The icon, index, and symbol. *Collected Papers of Charles Sanders*Peirce, 2, 156-173.
- Pichler, D. C., Hochgesang, J. A., Lillo-Martin, D., & de Quadros, R. M. (2010).Conventions for sign and speech transcription of child bimodal bilingual corpora in ELAN. *LIA*, *I*(1), 11.
- Perlmutter, D. (1983). Personal vs. Impersonal Constructions. Natural Language and Linguistic Theory 1:1, 141-200.

- Pesetsky, D. (1987). Binding Problems with Experiencer Verbs. Linguistic Inquiry 18, 126-140.
- Pesetsky, D. (1995). *Zero syntax: Experiencers and cascades*. Cambridge: The MIT Press.
- Petronio, K., & Lillo-Martin, D. (1997). WH-movement and the position of Spec-CP: Evidence from American Sign Language. *Language*, 18-57.
- Postal, P. (1971). Crossover Phenomena. New York: Holt, Reinhart and Winston.
- Ramchand, G. (2002). First phase syntax. *Giornale italiano di nefrologia organ oufficiale* della Societa italiana di nefrologia, 27(6). 1-75.
- Ramchand, G. (2008). *Verb meaning and the lexicon: A first-phase syntax*. Cambridge: Cambridge University Press.
- Sanders, T., & Spooren, W. (2007). Discourse and text structure. In: Geeraerts, Dirk and Hubert Cuyckens (eds.) *The Oxford handbook of Cognitive Linguistics*. Oxford University Press Inc, New York, NY.
- Sapir, E. (1921). Language: An Introduction to the Study of Speech. Harcourt:Brace.
- Sapountzaki, G. (2005). Free functional elements of tense, aspect, modality and agreement as possible auxiliaries in Greek Sign Language. Doctoral dissertation, University of Bristol.
- Sapountzaki, G. (2012). Agreement auxiliaries. In: R. Pfau, M. Steinbach & B. Woll (eds.), Sign Language. An International Handbook. Berlin: De Gruyter Mouton, 204-227.

- Shibatani, M. (1976). Causativization. In Shibatani, M. (ed.). *Syntax and Semantics Japanese Generative Grammar*. Academic Press, New York.
- Slobin, D. (1996). From "thought and language" to "thinking for speaking". *Rethinking linguistic relativity*, 17, 70-96.
- Stowell, T. (1986). Psych-Movement in the Mapping Between DStructure and LF. Paper presented at *GLOW* 9.
- Supalla, T. (1990). Manually coded English: The modality question in signed language development. In P. Siple & S. Fischer (eds.), *Theoretical issues in sign language research, Vol. 2: Acquisition.* Chicago: University of Chicago Press.
- Talmy, L. (2000). *Toward a cognitive semantics: Concept structuring system, Volume 1*.

 Massachusetts Institute of Technology: Cambridge, MA.
- Talmy, L. (2003). Toward a cognitive semantics: Typology and process in concept structuring (Language, speech, and communication) Volume 2. Massachusetts Institute of Technology: Cambridge, MA.
- Tannen, D. (1986). Introducing constructed dialogue in Greek and American conversational and literacy narratives. In Coulombs, F. (ed.) *Reported speech across languages*. The Hague: Mouton. 311-332.
- Tannen, D. (2007). *Talking voices: Repetition, dialogue, and imagery in conversational discourse*. Cambridge University Press.
- Taub, S. (2001). Language from the Body: Iconicity and metaphor in American Sign Language. Cambridge University Press.
- Taylor, J. (2002). Cognitive Grammar. Oxford University Press Inc. New York.

- Temme, A., & Verhoeven, E. Where do Experiencer-First Effects come from? An Empirical Study on the Effects of Animacy and Case. Chicago.
- Thumann, M. (2010). *Identifying depiction in American Sign Language presentation*.

 Dissertation. Gallaudet University.
- Valli, C., Lucas, C., Mulrooney, K., & Villanueva, M. (2011). *Linguistics of American Sign Language: an introduction*. Gallaudet University Press. Washington, DC.
- Villanueva, M. (2010). Non-agent focused constructions in American Sign Language: A cognitive linguistic analysis. Doctoral dissertation, Gallaudet University.
- Whorf, B., & Chase, S. (1956.) Language, Thought and Reality, Selected Writings of

 Benjamin Lee Whorf. Edited. by John B. Carroll. Foreword by Stuart Chase. J. B.

 Carroll (Ed.). Mass..
- Wilbur, R. (1994). Foregrounding structures in American Sign Language. *Journal of Pragmatics*, 22. 647-672.
- Wilcox, S. (2004). Cognitive iconicity: Conceptual spaces, meaning, and gesture in signed languages. *Cognitive Linguistics*. 15:2, 119-147.
- Wilcox, S., & Xavier, A. (2013). A framework for unifying spoken language, signed language, and gesture. *Todas as Letras-Revista de Língua e Literatura*, 15(1).
- Winston, C. (2013). *Psychological verb constructions in American sign language*.

 Masters thesis. Purdue University.
- Zubizarreta, M. (1987). Levels of representation in the Lexicon and in the Syntax. Faris, Dordrecht.

APPENDIX A

Demographic Survey

									Participant # _
When and h	now did	you lea	rn ASL	?					
On a scale o			-		sider yo	our ASL	now?		
0 1 I don't know ASL in ASL	2	3	4	5	6	7	8	9	10 I am natively fluent in ASL
When and h	now did	you lea	rn Engl	ish?					
On a scale o			-	-	r Englis	sh now?			
0 1 I don't know English	2	3	4	5	6	7	8	9	10 I am natively fluent in English

Do you know any other languages? When and how did you learn them? At what level of fluency for each?					
What schools did you atte	nd growing up?				
In what city do you currer	ntly live?				
Age:	Gender:	Race:			

APPENDIX B

Affective Lexemes in Data

Affective Lexical Predicate	Gloss	Affective Lexical Predicate	Gloss
E V	ABASHED		FEAR/SCARE
WE WE	BLOW-TOP		FEAR-#OF
ÓÓ	CHAGRINED		FED-UP
22	CHAGRINED -DOWN (two handed)		FRUSTRATED
	CURIOUS	E IE	FRUSTRATED (two handed)
Co Co	DEPRESSED		GOSH
E	DROOL		GROW-ANGER
	ENJOY		IGNORE
	EXCITED	W. W.	MIND-TWIST

Affective Lexical Predicate	Gloss	Affective Expressives	Gloss
Predicate	OVER-IT	Expressives	#DODO
	PERPLEXED		#ОН
Par 3	SHOCKED		#OK
S. S.	SICK-OF-IT		#UH-OH
	SUBDUED		PHEWY2h
S. A. S. S.	THINK^NOT HING		COOL
	THRILLED		DARN
da	WONDER	\$ - K	PERFECT
		S.S.	PSHAW
		Sa Sa	WHATEVER
			WHAT'S-UP
			WOW