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# Keep in Touch: A Comparative Analysis of Visual and ProTactile American Sign Language

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# Keep in Touch

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## A Comparative Analysis of Visual and ProTactile American Sign Language

By  
Alissa McAlpine

An Honors Thesis Submitted in Partial Fulfillment of the  
Requirements for Graduation from the  
Western Oregon University Honors Program

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**Table of Contents**

<b>Acknowledgements</b> .....	<b>3</b>
<b>Introduction</b> .....	<b>4</b>
<b>Literature Review</b> .....	<b>10</b>
Non-Manual Markers.....	10
Deixis .....	11
Phonology .....	15
Handshape.....	16
Location .....	18
Movement .....	20
Palm Orientation .....	22
Pragmatics and Sociolinguistics.....	23
Backchanneling.....	23
ProTactile.....	25
Turn-Taking Protocol.....	28
Language/Dialect Classification .....	30
<b>Results</b> .....	<b>34</b>
Current Trends in Interpreter Preparation .....	35
<b>Discussion</b> .....	<b>36</b>
<b>Conclusion</b> .....	<b>39</b>
<b>References</b> .....	<b>41</b>

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### **Abstract**

Human communication is an immensely complex system that varies widely across geographic regions, age groups, and cultural identities. Tactile signed language systems, which have been widely adopted by many members of the DeafBlind community, have been a relatively new introduction to the linguistic study of signed languages. This research examines the current literature on the unique features of ProTactile American Sign Language (PTASL) in terms of its linguistic structure, turn-taking elements, and methods of back channeling in contrast with the same features of Visual American Sign Language (VASL). These linguistic differences have historically led to the description of PTASL as a dialect of VASL (Collins, 2004). However, since the inception of ProTactile in the early 2000s, progressively more unique structures have been adopted in tactile discourse, which have led to the consideration of PTASL as a language distinct from VASL (Edwards, 2014a). In accordance with these claims, I have examined research conducted on casual use of PTASL among native users in a search for connecting patterns and commonalities. In this paper, I explore the unique characteristics of PTASL in relation to progressive language change with a direct focus on the implications thereof for interpreters working within the DeafBlind community.

### **Introduction**

Language and communication systems have been a topic of intense scrutiny in the academic community for hundreds of years. In general, research has been focused strongly on spoken languages, with American Sign Language making its way into the linguistic spotlight as recently as the 1960's with William Stokoe's research (Armstrong, 2000). In addition to the exploration of visual modalities of language, more recently there has been some discussion of tactile linguistic modalities and the unique structures thereof. One of these tactile languages is ProTactile American Sign Language (PTASL): a linguistic system embraced by many members of the American DeafBlind community.

As a reference for the remainder of this paper, a note on capitalization is necessary. As there is currently no standardized written form of American Sign Language (tactile or visual), specific signs will be notated in all capital letters as the closest English equivalent (this practice, in conjunction with added symbols for mouth morphemes, facial constructions, and grammatical features, is referred to as "glossing" or transcription). Hyphenated gloss indicates one sign that conveys a concept expressed by multiple English words. In addition, the word Deaf with a capital "D" will be used in reference to people who identify culturally as members of the Deaf community, while deaf will be used to refer to the audiological status itself. Similarly, DeafBlind, written with capital letters, will be used as a marker of cultural identity to reference people who identify themselves as members of a specific social, cultural, and linguistic community.

DeafBlind people are highly diverse in a number of ways, and hearing and vision cover a wide range within the community. The connecting characteristic of this group lies in the fact that the majority of DeafBlind people use ASL or PTASL as their primary mode of communication and view being DeafBlind as a key aspect of their identity (DeafBlindInfo.org, 2002). On that thread, while the focus of this research is on PTASL as a linguistic system, numerous other tactile, visual, and auditory communication systems are also used within the DeafBlind community such as spoken English, visual ASL through both visual and tactile modalities, print-on-palm, and a numerous others (American Association of the Deaf-Blind, 2009).

It is important to note that the author of this paper is hearing-sighted, with connections and experience in both the DeafBlind and Deaf communities. As such, the research presented here is from an outsider perspective. However, many of the articles and other resources used for data collection were created by or with DeafBlind people, and all of the analyzed research was based on filmed conversations between DeafBlind people. All efforts have been made to ensure that the information used as a basis for this research is culturally accurate. The author of this paper has been primarily involved in the DeafBlind community in the Pacific Northwest, and as such some bias may be present. ProTactile originated in Seattle, Washington, and the author was educated by aj granda and Jelica Nuccio, the two primary founders of the movement, and so standards or preferences of that specific community may appear in the following analysis.

It is also important to note that PTASL and, indeed, the DeafBlind community is in a period of drastic change (aj. granda, personal communication, July 28, 2016), especially in the

Pacific Northwest. However, this change also seems to be taking place on a global scale. As DeafBlind leadership is taking root in the community, education and outreach efforts are spreading linguistic patterns and social norms, and this interplay between context and community has led to the development of a new linguistic standard (aj. granda, personal communication, February 27, 2017). This rapid change simultaneously emphasizes the significance of research on PTASL and makes reporting findings difficult. In the time since the proposal for this paper was submitted, new strategies, customs, definitions, and labels have been adopted within the DeafBlind community. Every effort has been made to ensure that the findings presented here are as accurate as possible, but the very nature of language and culture is grounded in context, so as the social context shifts it is critical that research continue to keep up with the current standards and usage. For instance, when this paper was proposed, TASL (Tactile American Sign Language) was the standard term in the published literature for the language used by the DeafBlind community. In recent months, that term has shifted to ProTactile ASL, (PTASL) as is used in this paper, delineating the distinction between the language and its modality (aj. granda, personal communication, February 27, 2017). The structural and sociolinguistic aspects of the language are in the process of merging, and shifts, such as this lexical change in the name of the variety, are indicative of that transition.

PTASL is just one component of ProTactile, a larger social movement that is currently gaining ground in the international DeafBlind community (aj. granda, personal communication, February 27, 2017). ProTactile was developed in Seattle and was sparked by an increase in



DeafBlind leadership at the DeafBlind Service Center (Edwards, 2014a). The co-founders of the ProTactile movement, Jelica Nuccio and aj granda, define ProTactile in terms of three component parts: philosophy, attitude, and language, all three of which are centered around touch. (aj. granda, personal communication, July 9, 2016). It is important to note that ProTactile (abbreviated PT) is, first and foremost, a social phenomenon. Rather than strictly advocating for tactile reception of signed languages, it is, on a fundamental level, a mindset that deeply values touch as a means of connection and communication. Anyone can use PT, whether they are DeafBlind, Deaf, hard of hearing, or hearing, whether they communicate in a spoken language, a visual signed language, or a tactile signed language (granda & Nuccio, 2013).

In light of this social focus on the power of touch to unite people, natural systems have developed within the DeafBlind community to communicate the vast array of visual nonverbal behaviors that are crucial to effective communication in auditory or visual languages. The eloquence of a shrug, furrowed eyebrows, an exasperated sigh, or laughter is now demonstrated and received through touch, and it appears that this shift has created a ripple effect that influences the larger pragmatic system of tactile discourse. Natural conversational turn taking and backchanneling norms have arisen within the DeafBlind community and integrated themselves with the use of PTASL in communities where ProTactile has been widely adopted.

In addition to the cultural and pragmatic shifts present in PTASL, there are also a number of phonological and morphological changes that have established themselves as a result of the unique influences of a tactile linguistic modality (Tactile Communications, LLC., n.d.). By

definition, interlocutors using PTASL must be in physical contact with one another. The subsequent postures and means of contact dictate which movements and positions are physically possible for the human body to produce, and as a result some signs have shifted in their production to accommodate for the contact between signers (Collins & Petronio, 1998). Others have changed over time to eliminate ambiguity created by locative minimal pairs or depicting verbs in order to communicate more clearly through touch (Smith, 2002). In addition, it is worth noting that visual ASL relies heavily on non-manual markers (NMM), also called non-manual signs (NMS) to convey information. The position of the eyebrows, shoulders, head, and mouth combined with the speed and tension of the signs convey information regarding amount, size, manner, degree, and emotion, as well as a number of other categories (Valli, Lucas, Mulrooney, & Villanueva, 2011). The highly visual nature of this parameter of ASL does not transfer into PTASL, and so new linguistic forms have developed as a tactile expression of adverbial and adjectival information.

The linguistic forms and features listed above are only a glimpse into the linguistic complexity of PTASL as a system of communication. As such, it becomes clear that just as ASL is not English expressed on the signer's hands, PTASL is not ASL on the receiver's hands. It has developed into its own form that is robust and governed by a specific set of rules that must be followed in order to produce a clear and accurate message. Throughout the rest of this paper, I will explore some of those rules as a contribution to the current body of literature regarding PTASL and the education of interpreters who work with the DeafBlind community.

### **Literature Review**

Any language system is, and must be, rooted in context. Language use is dictated on the macro level by social, political, and historical influences, and on the micro level by morphological and even phonemic rules regarding how words can be structured in a given language (see, for example, Denham & Lobeck, 2010; Wardhaugh & Fuller, 2015). PTASL is no exception, and these influences are shown in all aspects of the language. This section will examine how both the linguistic context and the socioenvironmental context influence PTASL and VASL structures and productions.

#### **Non-Manual Markers**

American Sign Language is, by its nature, a visual language and therefore contains features that are not tactilely discernable. One clear example of this feature is shown in the ASL concepts of non-manual markers (NMM). These are movements of the head, shoulders, eyebrows, and mouth that add distinctive meaning to a sign (Valli et al., 2011). For instance, the sign NEAR accompanied by the mouth movement glossed as EEE (similar to the facial alignment at the start of the English word “even”) indicates that two items are very close to each other. The same sign accompanied by the NMM glossed as MM (lips pressed together, similar to the initial formation of the word “mine”) indicates that the two objects in question are moderately close to each other (Valli et al., 2011).

In PTASL, however, these structures do not clearly convey the intended meaning, as they rely on cues that cannot be felt. In VASL, adverbial information such as rate, intensity, attitude, and degree are conveyed through the addition of visual information that does not always change the physical production of the sign (Collins & Petronio, 1998). In tactile discourse, on the other hand, this information is always coded in some sort of manual way. Collins (2004) delineated six distinctive categories for the methods of conveying adverbial information in PTASL: Prolonged Hold, Specific or Extra Sign, Tenseness of the Hand, Extended Location, Longer and Slower Movement, and Redundancy. These six features were analyzed in relation to their adverbial function in terms of degree/manner, time, duration, frequency, purpose, and place/position/direction. Each of these forms was used in specific situations, with redundancy being the only feature used for each of the six listed functions. In VASL, manner/degree adjectives are typically incorporated with the verb itself. That is, the verb contains not only the information regarding what was done, but also how it was performed. Non-manuals convey whether an action was undertaken studiously, carelessly, slowly, and so on (Collins, 2004). In addition to the non-manual component, many adverbs are also expressed through the speed of the sign's production and the tension of the hand and wrist. This tension can be received tactilely, and as such still appears in tactile discourse (Collins, 2004; Collins & Petronio, 1998). For example, the sign DRIVE produced with relaxed wrists and a fluid motion indicates that the person is driving in a casual, relaxed manner. The same sign produced with high tension can indicate that the person is driving quickly, aggressively, or nervously, depending on the context.

This change in tension and speed transfers through touch, and so the same kind of adverbial formation can be clearly demonstrated in PTASL (Smith, 2001).

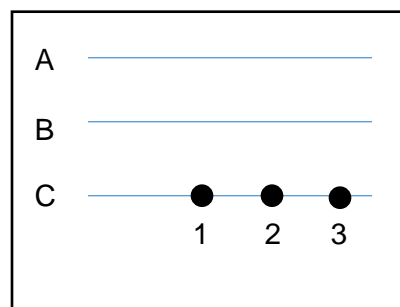
In addition to the adverb types listed above, facial expressions and subtle movements of the head also indicate negation and question formation in VASL, neither of which may be received tactilely. For example, in order to negate a verb, the verb is often accompanied by a shake of the head. This cannot be received tactilely, and so the inclusion of signs such as NOT, NO, and NOT-WHAT-I-MEAN are often used to clarify negated statements (Morgan, n.d.).

Non-manual signals also work to indicate sentence type in VASL, and so it is necessary to examine these components in their tactile form when analyzing language use within the DeafBlind community. Smith (2002) uses the ASL utterance glossed as ICE-CREAM LIKE YOU as an example of the use of non-manuals in VASL communication. This particular utterance could be a statement that the addressee has a noticeably strong liking for ice cream, the speaker could be taken aback that the addressee does not like ice cream, or the speaker could be inquiring whether or not the addressee likes ice cream. While the manual signs are all the same, the position of the head, arrangement of the eyebrows, and emphasis of the signs carries distinctive semantic meaning. In PTASL, these three sentences would all be produced differently. Signs such as WOW, IMPRESSED, SURPRISED, PUZZLED, and QUESTION are all added in the given example to clarify the intended meaning (Smith, 2002).

### **Deixis**

Deixis is a linguistic system by which speakers reference people, objects, places, or times

in relation to their own experience (Hatch, 2006). Words such as *I*, *you*, *here*, *this*, and *tomorrow* all change in meaning as the speaker's situation changes; these are deictic references. By their very nature, deictics cannot be given one specific definition, as the definition of each of these terms exists only in relation to the referent. All languages contain this kind of referential expression as a necessary tie between the speaker's environment and a specific utterance (Hatch, 2006). Spatial, object, and person deixis are most commonly achieved in VASL through pointing. I, HE, SHE, THIS, THAT, and THERE are all constructed by pointing to the person, place, or thing in question (Valli et al., 2011). In tactile discourse, however, pointing alone is less effective as it does not carry the same contextual information. In some cases, tactile deixis can be achieved through a process called tactile mapping in which the signer touches the recipient's palm to demonstrate where objects are in relation to one another (J. Nuccio, personal communication, August 31, 2016). For instance, if the square below represents the recipient's palm, the signer might show that there are three rows of seats and Bill is sitting two seats to the recipient's right by signing ROOM HERE CHAIR (trace lines A, B, C) YOU (touch point 1) YOU (touch point 2, touch point 3, hold) BILL (touch point 3).

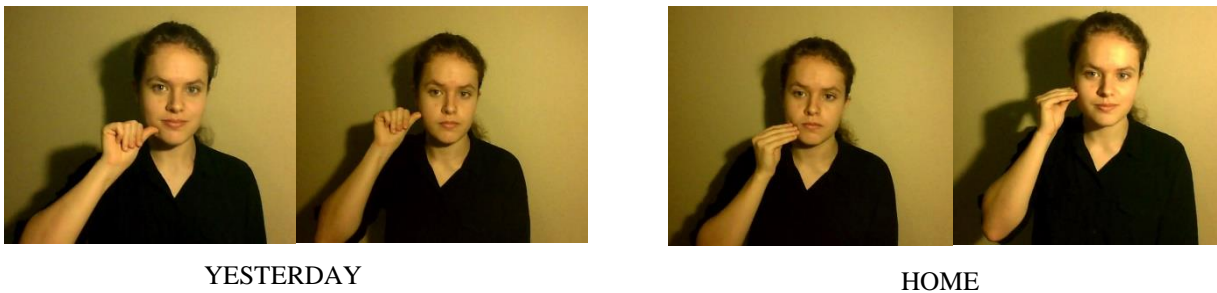


To give more general directions, lines can also be drawn on the hand or back of the recipient to show where things are in relation to one another. For example, to indicate which direction is the front of the room, a signer might trace a line pointing in that direction on the hand of the recipient, then tap the relative location at the end of the line. This type of mapping can also be used on a larger scale to give directions to other rooms or buildings by plotting landmarks and tracing the path between them (aj. granda, personal communication, April 24, 2015).

Discourse deixis in PTASL also differs from that in VASL. Discourse deictics refer to specifics of the current conversation (Hatch, 2006). For instance, when an English speaker says “but that’s another story,” the word “that” is deictic: it refers to the specific utterance that preceded it. One specific variation in discourse deixis between VASL and PTASL is in the process of listing. Listing is used in both visual and tactile ASL discourse as a cohesive marker to indicate main points in a discussion. A VASL signer may say OPTION HAVE THREE (list 3) (index 1) DRIVE (index 2) WALK (index 3) BICYCLE and then go on to elaborate on these three points, using the list on the non-dominant hand to indicate which point is the current topic of conversation. While this grammatical construction is acceptable, in PTASL, the specific practice of referring to an established list on the non-dominant hand can be unclear when perceived tactilely. Instead, PTASL signers will construct the list by touching the fingers on the addressee’s receiving hand, thereby creating a tactile list that clearly differentiates between the listed topics (aj. granda, personal communication, April 24, 2015).

## Phonology

In addition to the morphological and semantic changes listed above, numerous phonological differences have been recorded between VASL and PTASL sign production (Collins & Petronio, 1998; Edwards, 2014b). Phonology is typically referred to as “the study of the sound systems of language; how the particular sounds used for each language form an integrated system for encoding information and how such systems differ from one language to another” (Valli et al., 2011). In signed language linguistics, however, its definition as the study of sound systems does not apply. Rather, it is defined as the study of the construction of signs and their component parts (Valli et al., 2011). In American Sign Language, there are five distinct categories, or parameters, that fall within the branch of phonology: handshape, location, movement, palm orientation, and facial expression (this last also encompasses non-manual markers in general, as mentioned above). These five linguistic parameters can be applied to any sign as a means of differentiating one sign from another (Collins & Petronio, 1998; Valli et al., 2011). A subtle change to one or many of these parameters can indicate a drastic difference in meaning.



(Fig. 1: Parameter Influence)



As these five basic components are the most specific means of altering the meaning of a sign, any widespread change to this system is worthy of attention from a linguistic standpoint. Soon-to-be-published research indicates that PTASL has not five, but seven parameters, indicating a drastic shift in the language on the systemic level (a. granda, personal communication, February 27, 2017). Each parameter has unique characteristics in tactile production, which serve varying purposes such as clarifying potentially ambiguous constructions, avoiding impossible movements of the hand or wrist of one or both interlocutors, or allowing for simultaneous production with both hands for two tactile recipients (Edwards, 2014a; Smith, 2002). This section will discuss only the first four parameters, as facial expression and NMM were covered in the previous section.

### **Handshape.**

Handshape refers to the specific orientation of the palms and fingers in relation to one another. For the most part, handshapes are consistent between Visual and ProTactile ASL (Collins & Petronio, 1998). In general, the handshape itself is not altered, but alternate signs may be used or other parameters may be adjusted to clarify constructions that are ambiguous on the basis of handshape (Collins & Petronio, 1998; Smith, 2002). Because the recipient in PTASL often positions their “listening” hand on the top and back of the signer’s hand, there are some handshapes that are particularly difficult to distinguish. For instance, signs such as 7 and 8, M and N, and B and C (fig. 2) are quite similar when received tactilely. As such, these signs are often produced with a longer hold pattern at the end to allow the recipient more time to gather

the meaning (Smith, 2002). In this way, tactile signers do not necessarily alter the handshape itself, but account for potential ambiguity through a subtle linguistic shift.

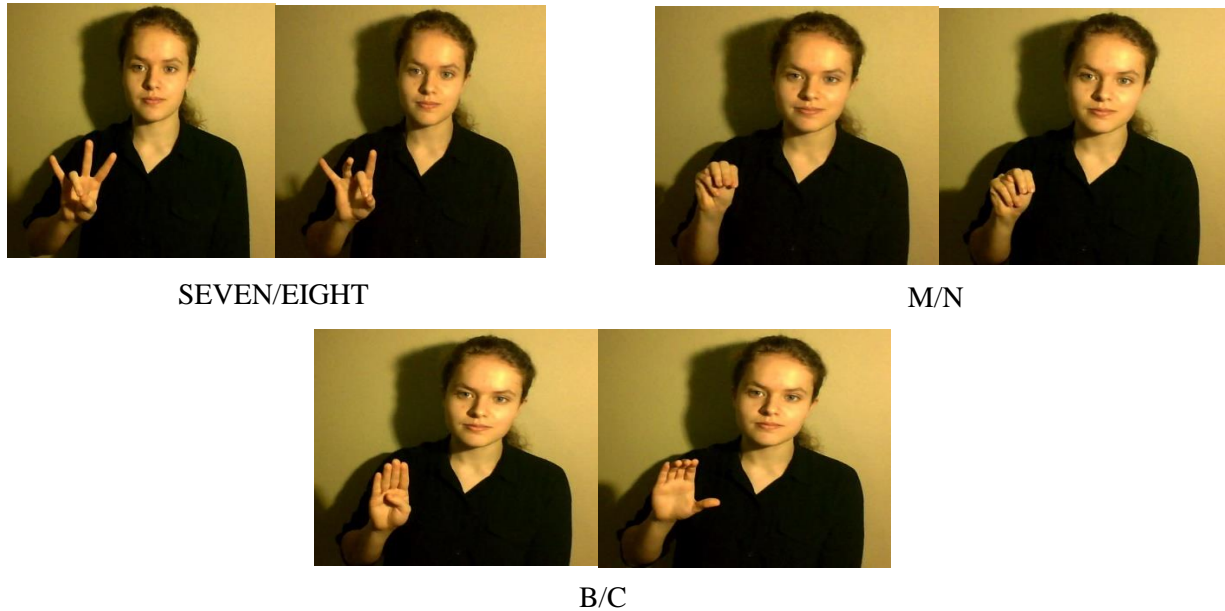


Fig. 2: Tactilely Ambiguous Handshapes

One particular change that is seen within the DeafBlind community is that the 2 in double-digit numbers in the 20s is produced with the handshape “2” as opposed to the traditional VASL handshape using the thumb and index finger. This is more clearly understood tactilely and avoids potential miscommunications (Smith, 2002).



Fig. 3: Comparative Numeral Production

**Location.**

Significant differences were noted in tactile constructions in terms of sign location, particularly as a result of the contact between signers and the physical arrangement of the interlocutors. Because physical contact must be maintained during the conversation, signing space typically becomes smaller in tactile discourse (Collins & Petronio, 1998). Typical signing space in VASL roughly encompasses the circle traced from the top of the head to the waist with the elbows as the horizontal limits, as shown in figure 4 (Valli et al., 2011).

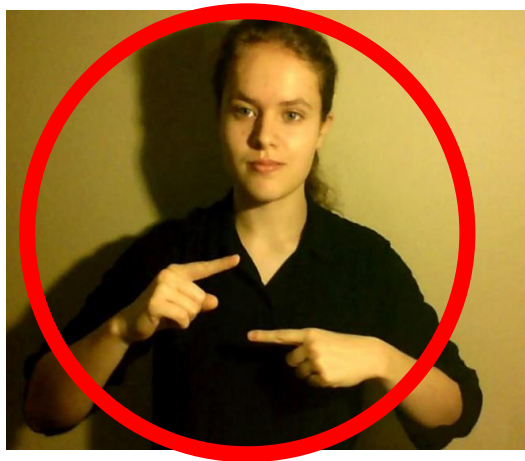
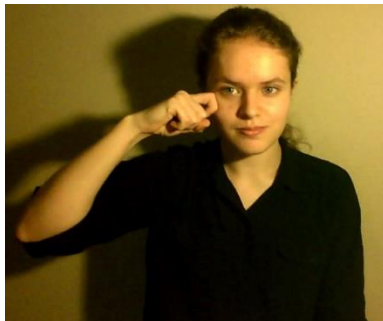


Fig. 4: Typical Signing Space in VASL

In tactile ASL, this space is reduced, particularly on the side away from the receiver in side-by-side conversation, because the edge of the signing space is firmly established by the length of the recipient's reach (Collins, 2004; Collins & Petronio, 1998). In addition, this maintained contact and reach constraint means that signs that are produced at the lower end of the VASL signing space such as SKIRT and NAVY are particularly difficult to receive tactilely. In this case, the location itself is typically not altered but the meaning can be enhanced either through a longer hold pattern or the inclusion of more contextual information (Smith, 2002).

Location itself is also a common motivator behind the changes that are seen in tactile language. Minimal pairs that differ solely on the basis of location are particularly difficult to distinguish tactilely, and so a number of changes can be made to the signs themselves to provide clarity. The word can be fingerspelled, the palm orientation can change, additional context can be added, or an entirely different sign could be used. This kind of ambiguity in regards to location can also be mitigated by adding an additional movement before the sign wherein the signer lightly touches the location on the recipient's body where the sign is produced. For instance, to clarify between that the signer means APPLE, rather than ONION (figure 5), they could sign something along the lines of I STORE GO-TO BUY APPLE (touch recipient's chin) APPLE (CM Hall, personal communication, May 20, 2016).



ONION



APPLE

Fig. 5: Locative Ambiguity in VASL Signs

Observation also indicates that the location of fingerspelling can be purposefully altered in tactile and close-vision signing. Some DeafBlind people use visual input as well as tactile reception, and so in these instances fingerspelling moves from neutral space below the signer's shoulder to be more centralized in front of the signer's body, so as to produce a more solid

background (figure 6). As some DeafBlind people use visual as well as tactile reception, this added contrast can make signs more clear.



VASL Fingerspelling Space



PTASL Fingerspelling Space

Fig. 6: Comparative Fingerspelling Space

In addition to linguistic differences that enhance the clarity of the message, some changes have been made to sign production in PTASL for the comfort and safety of both participants. Smith (2002) recommends that interpreters in the DeafBlind community sign slightly lower than is typical in VASL conversation, as it decreases the amount of strain on both participants' wrists, arms, shoulders, and backs.

### **Movement.**

The reduced signing space described above also has implications regarding the movement parameter. The fact that the interlocutors must maintain physical contact necessitates the production of shorter movement patterns (Collins, 2004; Collins & Petronio, 1998). In addition, when a PTASL signer produces a sign that contacts the head, both the head and hand often move to meet in the middle rather than raising the arm fully, as this is more comfortable for a tactile recipient and allows contact to be maintained throughout the production of the sign. This

feature was particularly common when signers were physically separated, such as with a table, or when there was a noticeable height difference between them (Collins & Petrono, 1998).

However, this view is not universally acknowledged as a clear approach to the production of these signs. Smith (2002) recognizes the potential for miscommunication in signs that contact the head and face, but reports that ambiguity is avoided in tactile discourse through the use of redundancy, synonyms, or fingerspelling. Given that moving the head to the hands changes the perceived location and palm orientation, it is possible for this double-movement to lead to confusion. In addition, it places additional strain on the body of the signer that can lead to injury if undergone repeatedly (Smith, 2002).

Movement can also be used as a means of clarifying potential ambiguity in PTASL. Liddell and Johnson (1989) as cited in Valli et al. (2011) produced a model for describing ASL signs in terms of their patterns of movement, referred to as the Movement-Hold Model. During movement periods, some aspect of the sign is changing, while during hold patterns all aspects of the sign remain the same. The same type of patterns exist in PTASL, but with some subtle, yet salient, differences. Often, the end of a sign (especially an ambiguous sign) will contain a longer hold pattern in PTASL than is standard in VASL. This longer hold allows the recipient an extra moment to be sure that they are clearly receiving the information being expressed (Collins, 2004). This technique is employed often in the expression of fingerspelling and numbers, where minor changes to handshape can be of the utmost importance to the clarity of the message (Collins, 2004).

### **Palm orientation.**

Palm orientation can generally be clearly and readily received through touch, and as such PTASL signs utilize shifts in palm orientation as a means of clarifying ambiguities in other areas. For example, the ASL signs MOTHER and FATHER differ only in location. In addition, both are formed in contact with the face, which adds a second layer of ambiguity to the sign as they are formed at the edge of the signing space. In response, it is not uncommon for DeafBlind people to sign MOTHER in the typical VASL style, but FATHER with a downward palm orientation as shown in figure 7 (Smith, 2002). This construction is non-standard in VASL, but is accepted and understood in PTASL.



Fig. 7: Palm Orientation in VASL and PTASL

In addition to clarifying potentially confusing signs, adjustments can be made to palm orientation in PTASL as a means of accommodating for the receiver's wrist. In VASL, to convey the concept that a person walked away from the signer's perspective they may use a depicting verb formed with the index and middle fingers as shown in figure 8.



Fig. 8: PERSON WALK-TO in VASL

In PTASL, this sign is nearly impossible to produce, because if the signers are facing one another, then the receiver's wrist will either block the signer's movement or be forced into a highly uncomfortable position. As such, some PTASL users will change the palm orientation of this sign to be parallel with the floor as shown in figure 9, allowing for a more comfortable production of the sign itself (Collins & Petronio, 1998). While this production would not occur in VASL, it can be produced in PTASL with no loss of meaning, assuming that appropriate contextual information is given.

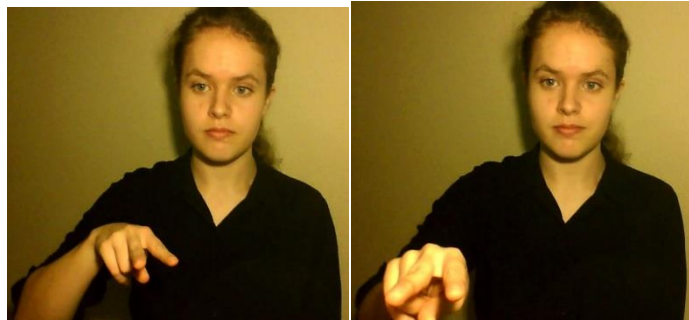


Fig. 9: PERSON WALK-TO in PTASL

## Pragmatics and Sociolinguistics

### **Backchanneling.**

Backchannel feedback is a term used in linguistics to refer to the methods by which a participant provides feedback to others that they understand, are paying attention, and agree or



disagree with what is being said, all without taking the floor (Collins & Petronio, 1998; Hatch, 2006; Smith, 2002). It is crucial for a speaker or signer to know that their message is being received and understood by their audience in order to ensure effective communication. Without this kind of feedback, the person holding the floor would be unable to monitor whether their communicative intent had been achieved. In English, backchanneling includes vocalizations such as “oh, yeah?” or “mm hmm” as well as facial cues and body language. In VASL, this same information is displayed through posture, facial expression, and signs such as “OH-I-SEE,” “REALLY,” “HOLD-ON,” and “RIGHT” (Collins & Petronio, 1998). These signals are all purely visual, and therefore cannot be produced in tactile communication without taking the floor and interrupting the flow of information. Since language production and reception occur in the same channel, thereby reducing the prevalence of overlapping discourse, the form of backchannel feedback must be different so as to allow the speaker to maintain the floor while still tracking the recipient’s response. A number of such methods have arisen over the years and are still implemented today. One constitutes a full stop in the speaker’s production, wherein the recipient slips their hand under that of the signer and gives a full response. This is not used often, as it actively stops the flow of production (Collins & Petronio, 1998).

When examining different methods of backchanneling in tactile discourse, a commonly seen term in the research surrounding tactile communication is “Haptics,” which refers to a set system of touch-based signals that convey social feedback, backchannel signals, and environmental information. Haptics was developed in the 1990’s in Norway and is used by

individuals worldwide (Helen Keller National Center on Deaf-Blindness, 2016). Haptics falls under the broader classification of “Touch Signals” (abbreviated TS) which is a broad term for communicative methods that are comprised of tactile inputs with clearly delineated meanings. These are established codes to convey social and environmental information through touch. While some haptic signals are based in signed languages, the system itself exists independently of language structure (The Danish Association of the Deafblind, 2012).

Backchanneling is also a key component of PTASL. In fact, it appears that backchannel signals are some of the first things that people notice about the differences between PTASL and VASL. PT backchanneling involves reciprocal communication during conversation through touch, conveyed through varied techniques (granda & Nuccio, 2016). While this component is certainly integral to PTASL as a language, ProTactile as a social phenomenon encompasses more than these techniques.

### **ProTactile.**

In order to fully understand the influence of ProTactile, some background information is necessary. In the early 2000’s, DeafBlind leadership began to grow at the DeafBlind Service Center in Seattle, Washington. As a result of that change, aj granda and Jelica Nuccio founded the ProTactile (PT) movement, which is a social movement promoting autonomy, DeafBlind culture, PTASL, and the cultural value of touch within the DeafBlind community. In a series of online videos (vlogs), granda and Nuccio (2016) explain the goals of PT in relation to the larger social context. Rather than being a set system of touch-based signals that convey specific

information, PT is a widespread social movement with salient implications for communication, politics, culture, and empowerment. PT can be used with any communication system, whether that be spoken, visual, or tactile (aj. granda, personal communication, July 8, 2016).

granda and Nuccio list four distinct areas that are included within the ProTactile movement: Attitude, Language, Culture, and Techniques. Attitude specifically relates to culture, and how DeafBlind people see the world. The perception of the DeafBlind community as a linguistic and cultural minority establishes its members as a united group and gives validation to the ongoing efforts that are being made as the linguistic and social values of the community spread around the world. The view of the DeafBlind community as a distinct cultural group is inextricably bound to their discussion of language in that many of the distinctive values of DeafBlind culture are directly related to communication. In their vlog, granda and Nuccio parallel the relationship between PTASL, PT, and DeafBlind culture with the bond between Deaf Culture and ASL acquisition with the statement that “If a hearing person attempts to learn sign language without learning about Deaf culture they will not succeed on a holistic level in the Deaf world...PT includes DeafBlind culture and language, while embracing and dignifying the DeafBlind way of life” (granda & Nuccio, 2016, written translation by Terra Edwards. Originally produced in PTASL). Language includes PTASL, which granda and Nuccio assert is a language in and of itself. Just as ASL has developed over time with influences from a number of linguistic systems such as French Sign Language (LSF), Martha’s Vineyard Sign Language, Native American signed languages, and a host of others, PTASL has developed within the DeafBlind

community with influences from a number of linguistic systems (granda & Nuccio, 2016; Nomeland & Nomeland, 2012). The specific phonological features listed in the previous section in combination with pragmatic and morphological features clearly distinguish PTASL from VASL on both structural and discourse levels. The cultural norms of the DeafBlind community could constitute an area of research in their own right, but in a broad sense, as delineated within the ProTactile movement, DeafBlind culture is a tight-knit community with a deep value for touch.

Techniques refers specifically to the backchanneling techniques embraced by the DeafBlind community. While PT does not designate specific touch-based signals to communicate, a number of natural techniques have developed and are used during conversation (granda & Nuccio, 2016). For instance, when two people are using PT they are, necessarily, in contact with one another. In the case of tactile signing with one-handed reception, the hand not used for reception will often be placed on the arm, shoulder, or knee of the signer. This hand will give backchannel feedback. For instance, a repeated tap can indicate agreement or understanding (this can also be produced with the receiving hand), a hold can indicate surprise or sympathy, and laughter can be shown either through a repeated “scratching” movement of the fingers, or by bringing the signer’s hand under the throat to feel the vibrations (Collins & Petronio, 1998; aj. granda, personal communication, April 24, 2015; Smith, 2002).

It is significant to note that these techniques, while some may appear similar to the Haptic Communication signals for conversation, are an independent system of communication. In a

Facebook conversation regarding the difference between the two, many DeafBlind people asserted that the primary difference lies in the nature and intent of the system. Haptics is described as “an established system of codes for communication,” while PT is “a way of life” and a “language,” with particular emphasis on the fact that PT was developed by DeafBlind people for the purpose of fostering reciprocal interactions through touch (Seabeck DeafBlind Retreat, 2016). A frequent comparison within the DeafBlind community is that of Haptics and Signing Exact English (SEE 2). Both are rule-based systems that were created as a means of making a language or communication system accessible. SEE 2 puts spoken English into a visual code, and Haptics codes visual and environmental information into specific touch-based signals. This parallel is then extended to ASL and PT, as both developed within a specific community of practice as independent language systems that are, by their very nature as social constructions within the community, accessible without modification (granda & Nuccio, 2016).

In short, PT is a dynamic sociolinguistic system of communication that was developed by and within the DeafBlind community. It encompasses all areas of life and human interaction and is in a constant state of flux, reacting to the environment and purpose of the individual users and the larger community.

### **Turn-Taking protocol.**

All languages have a set system of expectations for turn-taking. As native speakers of a language we can tell when someone is coming to the end of an utterance, know how much information to give in a specific turn, and clearly notice when someone violates this structure

(Hatch, 2006). Just as turn-taking systems vary based on situational influences in spoken and visual signed languages, so PTASL has different accepted modes of requesting the floor depending on the environment. In a small, more casual environment, turn-taking is typically undergone through touch. When two or three people are in conversation with one another, the person requesting a turn to sign will tap the other members of the conversation and wait for them to indicate that they are ready for the initiator's message (Smith, 2002). Also, when a signer completes a thought they will often turn their hand to face downward, indicating that it is now the other person's turn and that they are expecting a response. If someone wishes to interrupt a speaker, it is often done by tapping the signer's hand, then slipping their hand underneath to interject. The general rule of thumb is that the closer the touch is to the signer's hand, the more urgent the comment is (Smith, 2002). For example, if someone is walking by and simply wishes to say hello, they will often wait with their hand on the shoulder of the person who is talking, who will finish their idea or conversation, then turn to greet the person waiting. A hand on the elbow is more urgent, but still allows the signer to complete their thought (Smith, 2002).

By contrast, in large groups in a more formal setting, turn-taking is often undergone by means of raised hands. If someone wishes to give input, they will typically either knock on the table or tap those around them, then raise their hand to the level of the forehead (this is more visually accessible to members of the group who use visual input). The person currently holding the floor will give the name of the next person with permission to comment, then point with an

open hand to that participant. Other participants in the conversation may point as well to clarify where the next participant is situated (Smith, 2002).

A significant aspect of tactile turn-taking, regardless of situation, is that in DeafBlind culture one always identifies oneself before speaking. At the beginning of each conversation, a person will give their name sign (or fingerspell their name if not all members of the group are acquainted), then proceed with their comment. Each utterance is not preceded by a name sign in 2-person conversation, but any time a person enters a conversation or speaks in a situation where more than 2 people are participating, they will begin by stating who is signing as a means of clarifying that information (CM Hall, personal communication, January 2015).

### **Language/Dialect Classification**

The line between language and dialect is blurry at the best of times. Language is a dynamic system that moves and changes within the constraints of its environment. In *An Introduction to Sociolinguistics*, Wardhaugh and Fuller (2015) use the term “language” to refer to either a specific linguistic classification, or to a group of related classifications. “Dialect,” on the other hand, is used in reference to a highly specific form of language. In other words, language is a broad term that can -- but does not necessarily -- encompass many dialects. Typically, a standard form of language is not referred to as a dialect, and so if someone says that they speak a specific dialect, it is implied that the dialect in question is not the standard variety of that language.

A commonly cited principle in regards to the distinction between language and dialect is that of mutual intelligibility: the concept that if speakers of two linguistic varieties can understand one another, then they are using dialects that fall under the same language, and if people are speaking different languages then they must not be able to understand one another. However, languages such as Mandarin and Cantonese complicate this description, as most speakers refer to these two forms as dialects of the larger umbrella language “Chinese,” despite the fact that they are entirely mutually unintelligible. Similarly, speakers of certain German dialects can, in fact, understand some Dutch dialects better than they can understand Standard German, and yet German and Dutch are identified as separate languages (Wardhaugh & Fuller, 2015).

This distinction is further clarified by Xu (2016) with two distinct classifications of the study of languages and dialects. From a general linguistic perspective, the line between language and dialect is drawn on the basis of linguistic structure and mutual intelligibility. The sociolinguistic approach, on the other hand, considers concepts of language use, speaker identity, and social influences on linguistic perceptions in classifying languages and dialects (Xu, 2016). In this regard, it would be possible for two communication systems to be classified as separate languages through the general approach, but sociolinguistically as dialects of a single language, and vice versa.

The discussion of PTASL as a linguistic system has demonstrated this ambiguity, with the added component of a third element: now the question is between language, dialect, and



modality. Modality itself is clear; there is a spoken language modality, a visual signed language modality, and a tactile signed language modality (to say nothing of written and other recorded language systems). The point of contention lies in the identification of the cause of the differences between languages. Collins (2004) argues that PTASL is a dialect of ASL on the grounds that it has distinctive variations at the morphosyntactic, lexical, and phonological levels that are rule-governed and used within a specific linguistic community. This definition of PTASL as a form of language that occurs in the context of a specific group of users identifies with the concept of a speech community as a group of people whose language is shaped by a chosen means of self-identification (Wardhaugh & Fuller, 2015).

On the other hand, it has also been argued that PTASL is, or is becoming, a language independent of VASL. Edwards (2014a) argues that DeafBlind people historically used VASL structures because VASL was the standard variety of signed language, and so to diverge from that norm held negative social repercussions. She compares tactile reception of VASL structure to lipreading in the Deaf community: a means of accessing a language outside of that accepted by the culture at large as a means of accommodating the pressure of the majority. However, with the rise of the ProTactile movement, PTASL began to gain prestige and legitimacy as a linguistic system, and so a radical shift occurred in the everyday language of the DeafBlind community. This shift led to the emergence of a new language through the integration of cultural and linguistic forms within the structure of a tactile signed language. From a historical perspective, granda and Nuccio (2016) argue that PTASL is an emergent independent language by providing

parallels to the recognition of ASL as a language independent of English. It has developed naturally over time within a community of users and is deeply valued by the community and culture in which it is used.

In the discussion of language and dialect, it is also important to recognize the purpose of the classification. Xu (2016) explains that “for non-linguists, what matters is the goal not the means of communication. If the goal is reached, the means becomes less important.”

In many ways, this mindset is applicable to the distinction between PTASL and VASL, and helps to explain the differences in how PTASL is perceived. In everyday conversation, if the overall communicative intent of the interaction is achieved, then people are less likely to consider whether the conversation is taking place in different languages, dialects, and/or modalities. However, in this particular instance there is a practical implication for the knowledge and understanding gained through the study of PTASL’s existence as an independent language. The distinct structural and lexical differences between VASL and PTASL can lead to miscommunications, particularly when interpreters are working in the DeafBlind community without a knowledge of PTASL features (Collins, 2004). By examining where PTASL lies on the language/dialect continuum, researchers can not only determine the specific points on which these two systems differ, but also call for more concrete training and qualification practices for interpreters working into PTASL to ensure that linguistic access is being provided that matches the language use of all consumers involved.

The significance of this distinction appears on the surface as an issue of accuracy in reference to interpreted productions, but there are underlying currents of equity and social justice as well. Language exists in two distinctive respects: as a code and as a social behavior. As a code, it acts as a rule-governed system of expression that enables the communication of abstract concepts. As a social behavior, it demonstrates specific actions and expressions that are delineated through socially constructed values and norms. While these two functions are distinct, they are frequently conflated in common views of language. This leads to instances of linguistic imperialism when a dominant language group confuses code adherence with social capital (Wiley, 2006). Wiley's distinction is particularly significant in discussion of PTASL as a linguistic system. PTASL differs from VASL both in concept coding and social values, and so recognition of these differences as fundamental aspects of the language contributes to not only more exhaustive analysis of linguistic substructures, but also to the assignment of more equitable social capital.

## **Results**

The literature indicates that there are salient differences between VASL and PTASL. Articulation and pragmatic discourse in each system have features that are independent of the other, and each language community has its own cultural norms and values that drive communication. However, as tends to be the case with language, the broader view is not so concrete. Some members of the DeafBlind community also identify as culturally Deaf, establishing DeafBlind culture as something of a minority within a minority. There is a vast

degree of diversity within the DeafBlind community, which influences language use by means of the dynamic nature of linguistic identity.

It is apparent that the common view of language and dialect as a distinct binary is not entirely applicable in the case of PTASL. On a structural level, it is closely related to VASL with a high degree of mutual intelligibility. Its systematic differences from VASL place it more in line with the concept of a dialect in these considerations. Be that as it may, the attitudes of members of the DeafBlind community who use PTASL as their primary form of communication demonstrate a unique sociolinguistic classification. From a sociolinguistic perspective, PTASL is an independent language as demonstrated by community perceptions, rate of change, and speaker identity. As is evident in the classification of Mandarin and Cantonese as dialects (among a host of others), sociolinguistic factors are relevant and, indeed, necessary in determining how to label a variety of language.

### **Current Trends in Interpreter Preparation**

It is clear that there are distinctive differences between PTASL and VASL, and those differences have profound effects on the interpreting process. Anecdotal evidence suggests that availability of qualified interpreters for individuals who use PTASL as their primary mode of communication is severely limited. A major component of this scarcity of interpreters could lie in the fact that PTASL is so new as a language system. As it has only been in use for the past decade, there are many interpreters who may have never been exposed to PTASL. In addition, training in PTASL and DeafBlind interpreting in general is somewhat scarce. Of the 44

institutions listed on [classroominterpreting.org](http://classroominterpreting.org) that offer a bachelor's degree in ASL/English interpreting, 23 offer some kind of coursework that discusses interpreting in the DeafBlind community. Of those 23 classes, 12 are specialized "DeafBlind Interpreting" classes, while 11 are more generalized classes in subjects like "Specialized Interpreting Techniques" that list DeafBlind interpreting as one of the topics for class discussion. While there may be discussion of DeafBlind interpreting and even PTASL in the other programs as well, it is not listed in the published course catalogs. This means that at the time of this research, only 23% of BA programs offer specific training for DeafBlind interpreters, and many of those courses are elective classes, so the number of interpreting students receiving that training is likely less than that number may suggest.

### **Discussion**

This research is being conducted in the middle of a time of rapid change and development, both in terms of PTASL as a language system and of the field of ASL interpreting as a whole. As such, terminology and perspectives are transitive at best, but even this mercuriality reflects the significance of the research. The recent rise in DeafBlind leadership, particularly in the DeafBlind community in Seattle, where the ProTactile movement started, has led to rapid sharing of ideas and language within the global DeafBlind community, thereby fueling the current process of linguistic diversion.

The fact that so much has changed in recent years, even months, indicates that there is momentum behind the movement that will likely lead to widespread establishment of norms and

customs. It is in the nature of language to change over time, but the rapidity with which new forms are being created and adopted marks a period of language genesis that has the potential to lead to greater differentiation in years to come. In this way, it seems plausible that PTASL will continue to develop in ways that differ from VASL, and as such the two will become progressively less mutually intelligible. In light of this possibility, it is critical that interpreter training includes education on the current language practices of the DeafBlind community in order to ensure that interpreters who work with members of the community who use PTASL will be fully equipped to produce accurate language. Of course, not all interpreters may be interested in pursuing PTASL as a new language, and may choose to keep their specialization in interpreting between visual ASL and English. While that is certainly a viable decision, interpreters must be aware of the differences between VASL and PTASL in order to make informed decisions regarding the jobs that they take and the qualifications that they want to pursue. Ongoing research by and in partnership with the DeafBlind community will be necessary to keep up with the rapid changes in the language and community and ensure that teaching practices remain culturally and linguistically relevant.

Regardless of prescriptive classification, the strong sociocultural influence of PTASL in conjunction with the unique structural features of the language demonstrated above has drastic implications for the field of interpreter training. Cultural awareness and linguistic competence are two critical components of meaning transfer, and as such these distinct aspects of PTASL call for a distinct skill set in interpreters who work within the DeafBlind community. It is critical to

educate new and practicing interpreters at least on what it takes to be qualified to interpret into PTASL to better equip them to make decisions regarding their own qualifications. In addition to this surface-level awareness, training for interpreters who work or plan to work in the DeafBlind community must include specific linguistic exposure to develop their skills in PTASL as a language system independent of VASL.

In addition to implications for interpreters and interpreter educators, the study of PTASL as a system of language carries distinct social outcomes. One of the primary driving forces behind the ProTactile movement is an emphasis on autonomy, equity, and access for DeafBlind people (aj granda, personal communication, January 21, 2015). This encompasses a multitude of concurrent factors, but direct communication and shared language ties strongly into diverse areas of the overarching goal. As such, progressive study of the divergence and establishment of PTASL as an independent system of communication is socially significant. In terms of discussion of PTASL as a language (as opposed to a dialect), specific classification can carry sociopolitical weight and contribute to the progress of the social movement. Wiley (2006) argues that the word “dialect” generally correlates in the common vernacular with a lower social status. While linguists tend to use it as a more neutral concept as described above, language systems that have been labelled as “dialects” are often associated with groups of lower social power. Not to say that changing the verbiage will necessarily change perceptions, but it is possible that the current shift in the research to discuss PTASL as a language in its own right is indicative of a

social shift in perceptions of power in the DeafBlind community, contributing to the values of autonomy and leadership espoused by the ProTactile movement.

### **Conclusion**

The recent linguistic divergence in the DeafBlind community carries a weight that may not be abundantly clear when superficially watching (or feeling) people communicate. What started as subtle shifts in sign formation in a group with a firm ideological foundation has developed with remarkable speed into a global social and linguistic movement and sparked the genesis of a new language system. In everyday life these changes may or may not be evident, but from a macro-level perspective, the adoption of ProTactile and PTASL is actively changing perspectives of and in the DeafBlind community.

Access to language is a primary value of the DeafBlind community. With the development of more standardized and unique structural and social aspects of language, interpreters and interpreter educators must take the opportunity to become educated on the current standards in order to render accurate and comprehensible output when working with consumers who use PTASL. The extraordinary rate of change in PTASL structure and discourse is simultaneously intriguing and problematic in terms of suggestions for education standards and future research. The fact that the language and community are in a constant state of flux means that there will be ever-expanding avenues for research on both PTASL linguistics and social norms in the DeafBlind community. However, it also means that research must be ongoing and



comprehensive, as new forms and standards must be acknowledged in order to establish an accurate holistic body of research.

In terms of implications for interpreters and interpreter educators, the most critical course of action is continued partnership and communication with the DeafBlind community. In order to produce effective work, interpreters working into or from PTASL must have a rounded understanding of language structure and DeafBlind culture. The only way to fully integrate these aspects into interpreting work is to be actively involved in the DeafBlind community. It follows that as research continues it must be by or in collaboration with DeafBlind people. This is their language and culture, and so cultural accuracy and DeafBlind input are critical.

Conclusively, PTASL structures have been noticeably diverging from VASL for a number of years, but only recently have these changes begun to be standardized and widely communicated by DeafBlind people. As the community continues to develop these unique structural and social uses of language, linguistic analysis will facilitate discussions particularly within the interpreting field. As the language gains more widespread recognition, education and qualification standards for interpreters must expand to reflect the competencies required to work in this dynamic and intersectional community.

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