



The Productive and Counter Productive Use of Gesture Archetypes in Human and Avatar Communication

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Overview

The degree to which individuals relate to, buy-in and benefit from virtual world technology is directly related to how well they relate to and buy-in to the representation of themselves as an avatar. If the avatar looks like its controller and can easily be made to communicate naturally incorporating the controller's full range of expressions and gestures then a critically important connection takes place. When avatar anthropomorphism is achieved a user stops referring to his avatar as "it" and begins to refer to it as "me". Studies have shown that this connection is the major factor in creating the sense-of-self and presence that has been linked to dramatic increases in learning retention, group interaction and the overall adoption and benefit of virtual world technology within organizations.

To this end, a better understanding of human gesturing is needed before we can begin to create avatars that can naturally and seamlessly incorporate these uniquely human traits. Hand and arm gestures are a critically important part of an effective speaker's repertoire. These seemingly innocuous movements can either support or undermine what the speaker is verbally communicating. This paper is not a study of specific gestures which can vary by culture but rather a look at certain classes or general types of gestures and the conscious and subconscious meanings they convey. Specifically, the attitude of the palm, finger position and hand location are considered. The effects of gesturing as it relates to speaker trust and believability is also considered.

This paper is appropriate not only for those who hope to create the next generation of anthropomorphic avatars but also for anyone who aspires to be a more effective communicator and those who evaluate the communications of others.

The Communicative Gesture

The old wise tale states that what one is doing speaks so loudly that we cannot hear what he is saying. Nowhere is this truer than in gesturing. Gestures have a profound influence on communication and can dramatically change how verbal communication is interpreted. Gestures work like an ancient Greek chorus singing behind the speaker expressing his intent, intensity level and visual punctuation. Gestures do much more than help the audience better understand what the speaker is communicating. An audience is not just trying to understand the presenter; it is also consciously or subconsciously asking itself if it believes what the speaker is saying. This is where gestures play a much bigger role than previously thought. Most gestures used extemporaneously by a speaker are done automatically...even subconsciously. Unlike words which are often polished and rehearsed, unscripted gestures may give us the most honest and forthcoming glimpse into what the speaker is thinking or really believes. Some speakers try to repress their gestures and body language so as not to distract from their verbal message but this in itself is a huge distraction. Non-gesturing speakers are not only considered less interesting and poorer communicators, all other factors being equal; audiences are less likely to say that they trust an unanimated presenter. Motionless speakers appear less human, less likeable and less genuine.

So if we must gesture, how should we gesture? Typical speaking gestures are amoral. Audiences do not find these gestures to be a positive or negative factor in determining trust or belief. What is important is that the gestures being used communicate the same message that the speaker is communicating verbally. Any inconsistency between the two forms of

communication is perceived as duplicity and reduces audience trust. Imagine the confusion if a speaker told someone not to move while using a gesture that beckoned the person to come near. Gestures that are not in alignment with spoken words can create the visual equivalent of one speaking out of both sides of their mouth simultaneously.

Inconsistent gestures can be subtle or very obvious. The press recently criticized a politician for being insincere because he verbally answered a telling question with a resounding “yes” while at the same time he was shaking his head from side to side communicating a “no” believe. While this is a blatant example of gesture inconsistency most are rather inconspicuous to the casual observer but no less telling.

Gesture Archetypes

One could spend a lifetime studying the millions of gestures and their variants in use today. The same gesture can mean very different things when used within different cultures. In one culture a thumbs up gesture is understood to be an affirmation or wish for luck. In another culture the thumbs up gesture is widely understood as an insult even a wish to see one perish. The study of individual gestures and how they are perceived by various audiences is tedious work and one from which little practical benefit may follow for the presenter. The study, however, of general or even universally accepted classes or families of gestures can yield very practical and actionable insights. That which is most *personal* is also that which is most *universal* striking a unique human chord with all audiences. We have all experienced the sensation of giving something to another person or cutting through something with a knife. These are cross-cultural images we have had ingrained in our psyche since we were children. Gestures based on these profound images connect to deep familiarities in the subconscious and they can communicate a concept as clearly and loudly as the spoken word. It is these gesture archetypes that must always be in harmony with our spoken words if we hope to communicate unambiguously and be perceived as completely genuine.

Attitude of the Palm

The attitude or position of the palm of the hand is a gesture archetype that meets the criteria being discussed. The basic palm archetypes are:

1. Palm facing up
2. Palm facing down
3. Palm vertical
4. Palm at a 45 degree
5. Palm facing out

Palm facing up

Palm up gestures are from the *requesting* or *pleading* archetype. Gestures that involve the palm facing up will always communicate the lack of something that the speaker needs or is

requesting. In early life children learn that in order to receive something they must extend their hand first to visually request what they want. Palm-up gestures are perceived as an admission of need and the desire to get it. The CEO of a large corporation last quarter spoke passionately to his share holders. He repeated his message that the company had “everything it needed” to be wildly successful in the upcoming year. Interestingly, however, the gestures this CEO used the majority of time when reiterating this statement were all of a palms-up archetype implying “The company needs something it does not have” or perhaps “I need additional information before I can say this with any confidence”.

Palm facing down

Palm down gestures are from the *controlling* archetype. From washing the family pet to folding laundry, when palms are facing down work is usually getting done. This gesture class conveys active involvement and cognitive associations with manipulating, suppressing and controlling the object or objects being discussed. The classic example of the *controlling* archetype is the gesture to quiet down a noisy room. The defendant who argues that he had nothing to do with the crime while gesturing from this archetype, most likely had more to do with those happenings than he is verbally communicating.

Vertical palm

Vertical palm gestures are part of the *precision* archetype. As the ridge hand resembles a knife, these gestures are associated with cutting through something with a precision instrument or exact argument. Vertical palm gestures imply the need for precise measurements, rigidity and meticulous instruction. When referring to objects these gestures communicate a well-structured or pre-configured status especially if the fingers are kept straight. The salesman who argues that his product is easy to assemble while gesturing from this class has a duplicity problem with his audience because he has also subconsciously communicated that the assembly requires precise and meticulous steps that must be completed in a specific fashion. If the salesman, while gesturing from this archetype, had said that the product is easy to assemble if you follow the instructions, then the audience would not have perceived a conflict based on the addition of the verbal condition. If a speaker states that certain circumstances occurred totally by chance while gesturing with a *precision* archetype it is very likely that the speaker really believes that the circumstances were contrived or that he knows more about how those circumstances came about than he is actually saying.

Palm at 45 degrees

Palms turned at or about a 45 degree angle should not be associated with an archetype. The subconscious decision to tilt the hands in this manner is a means by which to turn off or reduce the meaning of the anticipated gesture. For example, a manager who tells a subordinate that he needs that person’s help to complete a task but then gestures using a 45 degree palm rather than using a gesture from the usual palm-facing-up archetype is communicating that he really thinks that he can complete the task without the subordinate’s help even though he says otherwise. The 45 degree palm is also used to turn down or mitigate the anticipated supporting gesture. For example, a speaker who says, “We must all work together to succeed” may use the 45 degree palm to mitigate a more controlling palms down gesture in order to soften the verbal command. This modified archetype gesture combined with the verbal statement would convey a more complete meaning, namely that the speaker is not trying to manipulate or control the audience but rather he is requesting something that will require work to be done so that they

can all control the situation together. This is a perfect and consistent way to use both verbal and gesture communication to achieve a specific desired meaning.

Palms facing out

Gestures that involve the palms facing out convey a desire for the speaker or audience to stop what they are currently doing. Waving is a palms-out gesture that communicates “stop because I want to acknowledge or speak with you”. The firm gesture conveys a stop order associated with “halt”. Moving the hand mitigates the halt command turning it into a request similar to how the 45 degree palm softens or deactivates other archetypes.

Finger Position Modifiers

Finger position can modify, enhance and sometimes betray the meaning of an archetype gesture. It is best to read the archetype palm gesture first and then read the finger position modifier as an “and” or additional meaning.

Fingers curved

Fingers that are curved and spread apart resembling a claw usually communicate grabbing or to take by force. This can also mean to take a firm commitment or to execute on a call to action. Reading curved fingers as an “and” can enhance the meaning of the archetype. For example, a palms down gesture accompanied by curved fingers usually conveys that we will control or manipulate something “and” then we will take the spoils we have won or earned. Finger position can also contradict the archetype gesture. For example a palms-up *requesting* gesture accompanied by curved fingers could be perceived as a valid threat that if the requested thing is not given freely then it might be taken by force.

Fingers together

Holding one’s fingers tightly together does not feel as natural as other gestures. Forcing the fingers to line up in this way takes conscious effort. It is a sign of discipline and forced precision. We see this in a military salute. It adds a formality and authority to the archetype gestures it enhances. It communicates the added connotation that one has the authority or formal right to say or gesture in such a way. For example, a palms-up *requesting* gesture accompanied by fingers rigidly lined together changes the gesture’s meaning from “please give me” to “you owe me”. The connotation is that the record is clear, the matter has been officially decided and now you must pay up. When the vertical palm *precision* archetype is used with rigid fingers-together or *chopping* hand, the connotation is that what is being said is cut and dry, official or absolute.

Fingers apart

Gestures of all archetypes are most often seen with fingers slightly bent and spread slightly apart. This is a natural and comfortable state indicating that the speaker is still open to consider other points of view or information. This finger position could be translated as “consider this”, or “let’s think about”. This is the opposite of the rigid fingers together position. Fingers apart communicates that the final decision or conclusion is still unmade. Fingers apart changes the meaning of the gesture archetype less than other finger positions but it is still a powerful

communication tool. A negotiator who says that he is not open to any more compromises while gesturing from a palms-down archetype with fingers spread apart is most likely bluffing. Fingers-together would have been much more in tune with his verbal statement.

Fingers in fist

For many observers the fist is the only finger position that they read consciously. All gestures accompanied by a fist modifier can add “with power”, “firm commitment” or “by force” to the archetype’s core meaning. Fingers-in-a-fist can also serve to communicate a warning that force or unwavering fortitude may be necessary to achieve whatever the gesture archetype suggests. It can also be interpreted as “and it will not be easy” or “stiff resistance is expected”. The captain who tells his soldiers that they have been assigned to a rather easy patrol but gestures subconsciously with a closed hand probably expects the patrol to be much more difficult than his words express. The soldiers observing the captain’s communications may consciously or subconsciously process contradictory messages which cause them to feel unsure about their assignment or their captain’s forthrightness.

Inside vs. Outside Gestures

Gestures that are contained within the frame of the body or shoulder width are considered *inside* gestures. Those that defy the borders of the body and go outside of the shoulder line are considered *outside* gestures. The size or length of the gesture is another important modifier when reading gesture archetypes. Think of inside and outside gesture placement as a volume switch or superlative state defining the scope of the gesture archetype’s meaning. For example, a palms-up curved-fingers gesture performed *outside* the body’s borders communicates more than just taking. It communicates “taking from multiple places” or “taking it all”. A palms-down *controlling* gesture archetype might be used to communicate a desire to have a person quiet down but when performed *outside* the body’s borders this meaning is enhanced to say “everyone needs to quiet down” or “you need to quiet down a significant amount”. A person who gestures from the palms-up class while saying “all I want is this one thing” but then extends the gesture outside his body border probably wants more than just the one thing being discussed.

There are many other factors that act as modifiers on gesture archetypes such as speed, repetition, jerkiness, etc. but these subtleties are beyond the scope of this paper.

Example: Use of Gesture Modifiers

	Archetype	Modifier One	Modifier Two
Gesture	Requesting Class Palms Up	Fingers curved into claw	Extended outside of body boarder
Meaning	“I need something from you”	“...and I may take it”	“...all of it/from everyone”

Gesturing and Believability

Trust or belief is a critically important factor in effective communications. If an audience does not trust the presenter or at least think that the speaker believes what he is saying then it will be almost impossible for that speaker to accomplish the goals for his communication. Trust is established through consistency. If a speaker's gestures are not in full agreement with the spoken words then duplicity will be consciously or subconsciously perceived by the audience. It is always interesting to hear the reactions from attendees after listening to the same presenter but who come away with very different interpretations and feelings about that speaker. "That's not what I heard him saying at all" one attendee might say.

All attendees form impressions about the speaker that help determine how they will interpret what the speaker is saying. "I think he has ulterior motives". "He seems so patronizing". Most of the time listeners are not cognizant of how they came to these judgments. When asked, they cannot give a single example to explain why they feel the way they do.

Conclusion

Everyone reads gestures and most people are much better at interpreting gestures than they may think. Most of these interpretations happen at a subconscious or emotional level. Either our gestures are supporting what we are saying, enhancing the meaning of our words or betraying our real beliefs and intentions. Gestures truly are the speaker's Greek chorus constantly singing visual vocals. If the speaker says, "It will be easy" and his chorus chants "It will be hard" then the audience is conflicted. But if the speaker says "I have a plan" and the chorus sings, "It is a detailed and precision plan" then the audience hears a clear and consistent message without duplicity. Whether a speaker is being truthful is not the issue here. The speaker might be totally forthright but if his gestures do not support his words then the effectiveness of his communications will be negatively impacted.

About Venuegen

The Venue Network, Inc. (TVN) is the creator of Venuegen, the first on-demand enterprise web 3D conferencing solution that can be integrated into any web-based offering. The company deploys as a SaaS based web service to consumers and business customers that currently serve the multi-billion dollar distance learning, social networking, web conferencing, content publishing and live event markets. Founded in 2007, the Company offers the first practical application of web 3D technology that can be seamlessly integrated into its customers' web offerings integrating their 2D content and delivered as an on-demand service. Venuegen is optimized to equip virtual presenters with powerful and intuitive communication capabilities that radically lower event costs and extend market reach.

Venuegen.com enables consumers to virtually and realistically share their knowledge, interests and passions together unhindered by distance, time and impractical costs. The Venuegen platform empowers an online community of intellectually curious individuals to create immersive and interactive learning, collaborative, social and entertaining experiences. The TVN team is committed to the single purpose of continuously pushing the limits of available technology to create the most immersive and engaging virtual events and meetings possible. We are excited to be at the forefront of creating technologies that will have a game-changing effect on how we all work, socialize and share experiences together. However, this is not our only goal. In an age that many are calling the "death of distance" it is our sincerest hope that our efforts will help to preserve that which is most unique and personal about all of our gatherings.

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