

# A taxonomy for non-verbal elements in CASE

## (as of June 2017)

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 CASE Taxonomy for non-verbal elements. (May 2017). Birkenfeld: Trier University of Applied Sciences. [<http://umwelt-campus.de/case-conventions>]

### Approach:

The CASE annotation scheme tries to refrain, as far as possible, from interpreting during annotation in order to make the transcripts as objective as possible, leaving it to the researchers to draw their own conclusions. The video component of CASE can be used to supplement the transcript for a more exhaustive multimodal interpretation, for example in the context of qualitative analysis.

At this point, there is no separate layer for non-verbal elements (NVEs) in CASE, but selected instances of non-verbal behaviour are included as part of the basic CASE transcription layer (**using curly brackets, e.g. {shrugs}**). Our use of the term **NVE** in the following includes gestures, as well as other elements that may occur, such as salient **head movements and facial expressions, gaze, physical stance shifts, actions and third-party interaction happening in interlocutor's surroundings, and background noise**.

Through a **data-driven approach**, we have classified the salient non-verbal elements transcribed in CASE and developed the taxonomy of NVEs described here.

### General principles:

- Only **salient NVEs** are transcribed, i.e. NVEs contributing to / supporting meaning-making, as well as NVEs that are referred to on a verbal level or that refer to sth that is discussed
- Transcription uses **curly brackets**; as with all elements, brackets can be added outside the curly brackets to indicate unclear NVEs or instances when the transcriber is not sure how to transcribe the NVE correctly ({waves hands in the air and jumps up and down})
- The transcription should be **verb-based** and **concise**, that means if there are verbs that already encompass the NVE they should be used instead of disassembling the NVE into its single components,<sup>1</sup> e.g. {makes peace sign}
- If the NVE consists of separate stages that could be considered part of the same NVE, it should not be disassembled into phases but be **transcribed concisely** (e.g. {imitates breathalyzer by blowing into top end of pen}, not {imitates breathalyzer by lifting pen to mouth and blowing into top end of pen and setting it down}); however, various consecutive NVEs can be transcribed consecutively if no concise transcription exists:

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<sup>1</sup> It is understood that this always will include some level of abstraction/interpretation - we do not aim at a semiotically precise representation

{smiles} {nods} {makes thumbs-up gesture}; if several NVEs co-occur, they are transcribed in one bracket and connected with &: {smiles & nods}

- NVE transcription is **not aligned or marked for duration, for intensity, or speed**
- Transcription should **follow** the intonation unit containing the most salient use (after intonation sign), or, if limited to smaller units (e.g. words), follow those units
- The **verb** should be in the **third person present tense**, not the present participle, i.e. **{nods}**, not {nodding}
- The following modifiers can be added (if co-occurring, in this order):
  - a) **direct object**, if the main verb does not already contain the object sense (e.g. “nods” includes the object “head” and does not need to be repeated), e.g. “lifts arm”, “lifts hand.”<sup>2</sup> If a NVE is already conventionally named, it may be used as object of “make”, e.g. {makes throwaway gesture} {makes peace sign} {makes air quotes}, further explained below
  - b) **temporal adverb** (three times, repeatedly, ...)
  - c) **directional adverb(ial)** (e.g. up, down, behind ear), if necessary. Directions are not separately denoted if the specification does not have an influence on the meaning of a NVE - thus, left and right are usually not distinguished. Directions are always given from the speaker’s perspective (outward, inward, front, back etc.).
  - d) **to ...**, if a target/level needs to be added (to window, chair, to eye, etc.)
  - e) **with ...**, indicating for example the hand(s), body parts or objects used in the NVE (e.g. with left hand, with left index finger), if salient (e.g. a thumbs-up NVE would not need a hand specification, as it is salient with either, while a both-hands thumbs up NVE would be more emphatic and warrant the modification “with both hands”
  - f) **by ...-ing**, if a further modification is needed (e.g. in the case of imitating, e.g. imitates breathalyzer by blowing into top end of pen)
  - g) other additions not covered, e.g. relation between elements or if further specification is needed, separated with semicolon {lifts hands; palms outward} {lifts hand; palm up} > this level of modification should be used sparingly

This sequence can be expanded to include several elements (but see above for the conciseness principle)

- In general, the taxonomy makes use of names of conventionalized Western European NVEs as descriptions to reduce complexity in the annotation; additional explanations are added in the transcription conventions, clarifying NVEs that might be culturally specific
- **NB:** The annotation aims to be as descriptive as possible. In some cases, the terminology used sometimes may imply certain meanings or interpret NVEs to a certain degree to clarify the context. The actual interpretation of the individual functions of a NVE, however, still lies with the researcher, particularly as there are different cultures involved which increases the probability of diverging functions for similar NVEs.

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<sup>2</sup> here further modification may be needed, see below

**Examples for CASE Taxonomy** of salient non-verbal elements based on bottom-up analysis of CASE data (with possible additions and explanations; open-ended, can be completed acc. to conventions above as needed)

### **Head gestures, including gaze**

- Looks (e.g. up, down, to side, to upper corner ...)
- Nods (i.e. head moves up and down)
- Shakes head (i.e. head turns left and right)
- Tilts head (repeatedly)
- ...

### **Facial expressions**

- Frowns
- Grimaces (i.e. facial expression that usually implies a negative connotation such as distaste, revulsion, etc.)
- Purses lips (to side)
- Raises eyebrow(s)
- Rolls eyes
- Smiles
- Squints
- Winks
- Yawns
- ...

### **Hands / Body**

- Claps
- Clasps hands (in front of chest if not otherwise specified)
- Drinks from ...
- Drums fingers (i.e. makes rapid alternating downward movements with fingers of one hand - except thumb - similar to playing the piano on solid surface)
- Eats ...
- Folds arms
- Hits/thumps with ... on ...
- Holds ... to ...
- Holds up ... (e.g. two fingers, glass of wine, etc.)
- Imitates ... (e.g. drinking, breathalyzer, braces, shape of ..., size of ..., etc., where necessary specifying with by ...)
- Lifts hand (e.g. to..., or lifts hand; palm up (often with explanations, cf. McNeill 1992))
- Makes ...
  - air quotes (i.e. imitates quotation marks with index and middle fingers of both hands)

- beat gesture (i.e. hand movement, usually up and down, during speech, often highlighting information, e.g. to signal significance (McNeill 1992, Wang & Chu 2013))
- box gesture (cf. Cassell 1998; i.e. raises both hands and/or moves them up/down, palms vertical, usually indicating a concrete object)
- fist pump (i.e. makes fist with one hand, moves fist quickly downwards and back towards body)
- fist(s)
- okay sign (i.e. puts index finger and thumb together with other fingers extended above index finger)
- peace sign (i.e. makes a 'V' with index and middle finger, palm outward)
- swiping gesture (i.e. moves hand sideways quickly)
- throwing-away gesture (cf. Bressemer & Müller 2014; i.e. makes quick downward movement with one hand, palm downwards)
- brushing-away gesture (cf. Bressemer & Müller 2014; i.e. makes quick upward movement with one hand, palm downwards)
- thumbs-up gesture, thumbs-down gesture (i.e. makes fist with thumb extended, pointing up/down)
- Moves hand to ... (e.g. to mouth, to forehead, etc.)
- Moves hands ... (e.g. in circle, outwards, up, etc.)
- Opens hand(s) (i.e. outwards movement, starting with closed hand(s), flipping wrist back, opening palm, ending with palm upwards)
- Points to ... (with ...) (e.g. with index finger/hand, etc.)
- Puts ... on ...
- Rubs ... against ... (e.g. rubs thumb against index and middle fingers; rubs index finger against underside of nose)
- Scratches (head) (if salient, e.g. in combination with hesitation, thinking, etc.)
- Shifts camera to show ...
- Shows ... (i.e. moves object in front of camera/close(r) to screen to focus attention on it)
- Shrugs
- Stands up / sits down
- Touches ... (e.g. head, ear, shoulder, etc.)
- Types
- Walks to ...
- Waves
- ...

### **Physical stance**

- Leans ... (forward, backward, towards ...)
- Sits up (i.e. straighter than before)
- Shifts position
- ...

**Background**

- Movement: Noun + verb in third pers. through screen/towards/in front of screen ... (e.g. roommate walks through screen, roommate moves in front of screen, etc.)
- Noises: Noun + verb in third pers. if origin is clear (e.g. cat meows, baby cries, etc.), description as present participle or noun + sound (e.g. clicking sound, static sound, etc.)