

EMOCODES

A STANDARDIZED MOVIE CODING SYSTEM FOR AFFECTIVE NEUROSCIENCE RESEARCH

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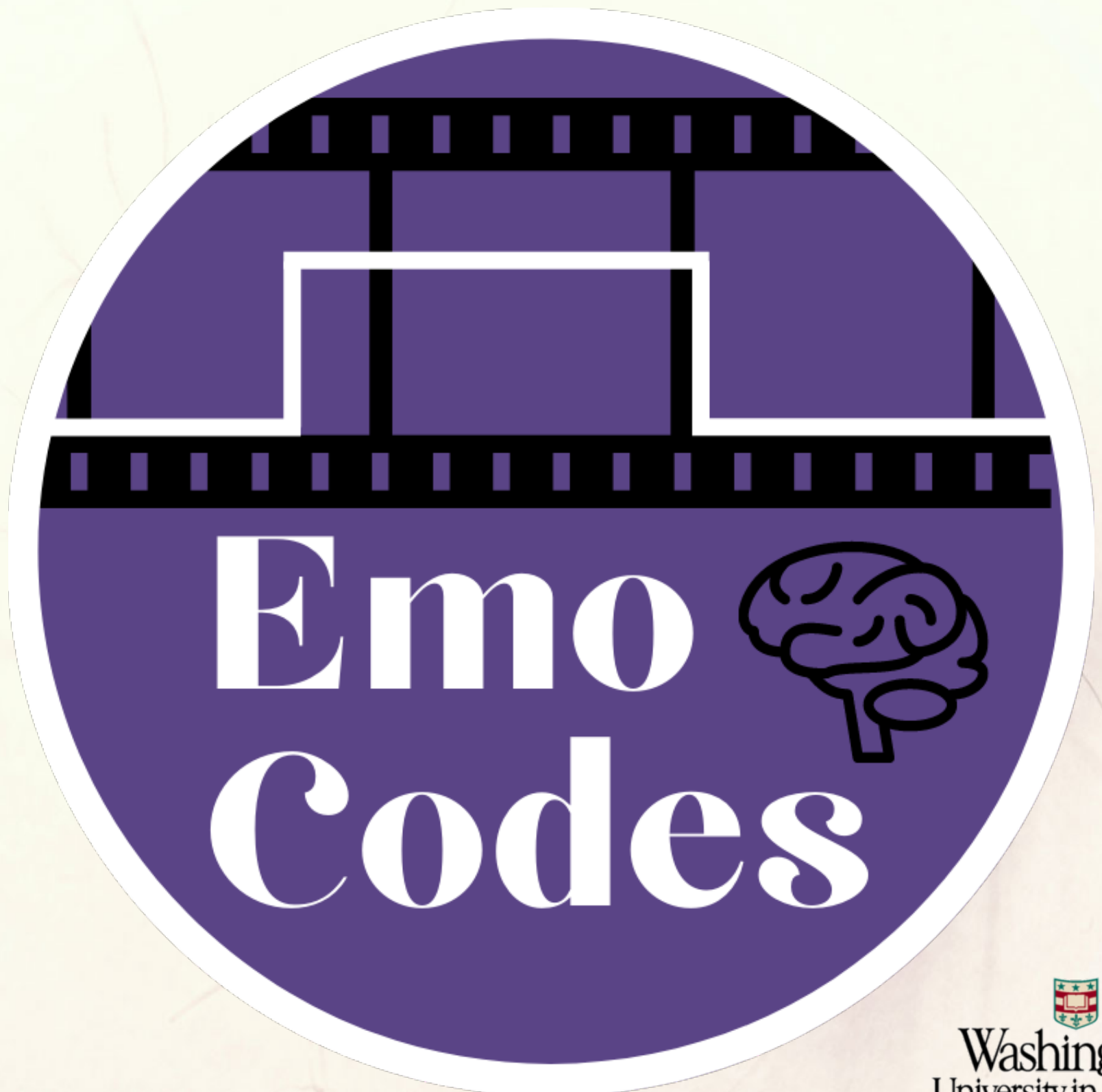


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Overview

I. About EmoCodes

The EmoCodes system is a guide for producing a reproducible set of affective codes to be used in the analysis of complex dynamic video stimuli. Most codes are binary by design, forcing a judgement on the general content.

II. Manual Development

We sought to create codes which: 1) were concise and reproducible, 2) were flexible for researchers of diverse interests, 3) did not overlap, and 4) maximized information value for time spent coding. The specific codes were informed by past neuroscience work on visual and auditory perception as well as by emotion and developmental theory.

In writing the definitions of the emotion-specific codes, we endeavored to preserve the natural intuition of each emotion as much as possible, disambiguating where necessary to further allow for consistent training and coding. For most codes across the system, a binary choice is forced to enhance agreement across raters and utility across research questions. Specifically, binary vectors can be easily combined to pick out specific content of interest (e.g., combining `has_faces` with `closeup` produces a time series of close ups of faces). The full procedures used to refine each of the codes is described in the EmoCodes publication (forthcoming).

III. How to use the EmoCodes manual

How to use this manual: This manual is meant to be used as a reference guide throughout the training and coding process. Importantly, this manual is a living document. To suggest changes or ask questions please visit <https://www.emocodes.org>.

Below are the general steps for coding each video:

1. *Identify characters*
 - a. This step is only done once. Identify which characters contribute affective information and note them in the Character Appendix for that video. Each character is coded separately for affective information as described in step 3.
2. *Conduct objective codes*

Objective codes include aspect of the video scenes that should have minimal room for interpretation between individual raters. These codes should be able to be conducted quickly.
3. *Conduct subjective character codes*

Subjective character codes are don't for each character in the scene as a separate entry.
4. *Run your codes through the validator*

This last step involved running your code through a validation script to ensure that no obvious errors were made. This can be done using the CodeValidator class from the emocodes python library.

How to cite this manual:

Pending the official publication, please cite our first introduction of the EmoCodes system at SAS 2021:

Williams, E.M., Camacho, M.C., & Perlman, S.B. (2021, April). *“EmoCodes”: a standardized movie coding system for affective neuroscience research*. Poster presented at the 8th annual Society for Affective Science Conference, virtual.

Objective Codes

I. Purpose and Goals

Purpose: The codes included in this manual are considered “objective” in that there is less room for interpretation between individuals. These codes largely include visual aspects of the video with no affective interpretation, such as how many characters are present and the framing of the scene.

Goal: To capture objective visual aspects of the video such as the presence of faces or the framing of the scene. These codes can then be used in conjunction with subjective codes to isolate specific sections of a video. For example, closeup (if a scene is a close up or wide shot) can be combined with c_anger_face (if an angry face is visible on the screen) to isolate close up shots of angry faces.

Scoring: We recommend that the codes in the section are completed as **consensus** codes:

1. At least two independent raters complete each code of interest.
2. Run each set of codes through the CodeConsensus class from the emocodes python library.
3. Upon completion, the raters meet and reconcile differences in coding.
4. The final agreed upon codes are used for analysis.

II. Reliability

Below are the reliability scores for each code operationalized as ICCs (with each rating at each second inputted as a separate rating). Reliability was established by at least 3 raters across at least 2 videos. The specific videos and number of raters are noted for each code below.

Code	Videos (Duration)	# Raters	ICCs
Time_of_day	My Little Pony S8E3; All Hail King Julien S1E2	3/5	0.89-0.99
Closeup	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.45-0.53
Num_chars	My Little Pony S8E3; All Hail King Julien S1E2	3/5	0.75-0.89
Collective	My Little Pony S8E3; All Hail King Julien S1E2	3/5	0.87-0.96
Has_faces	My Little Pony S8E3; All Hail King Julien S1E2	3/5	0.71-0.73
Has_body	My Little Pony S8E3; All Hail King Julien S1E2	3/5	0.63-0.64
Has_words	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.47-0.59
Has_symbols	TBD	TBD	TBD

III. Codes

A. Time of Day (**time_of_day**)

Purpose

To capture a broad sense of when the scene takes place. Children's media often places narrative importance on when events occur as children are expected to be sleeping at night and often hold that time in separate regard from daytime.

Coding

- Code 0 for night, and code 1 for day. If there is any daylight at all, then code that as a 1 for day. This code does not capture any finer coding.

Examples/clarifications

- Dusk would be coded as 1 for day since some daylight would be visible
- For scenes that are entirely indoors with no visible windows, time of day should be inferred from either the activities being conducted or the last visible views of the outside.

References

- None

B. Framing of the scene (**closeup**)

Purpose

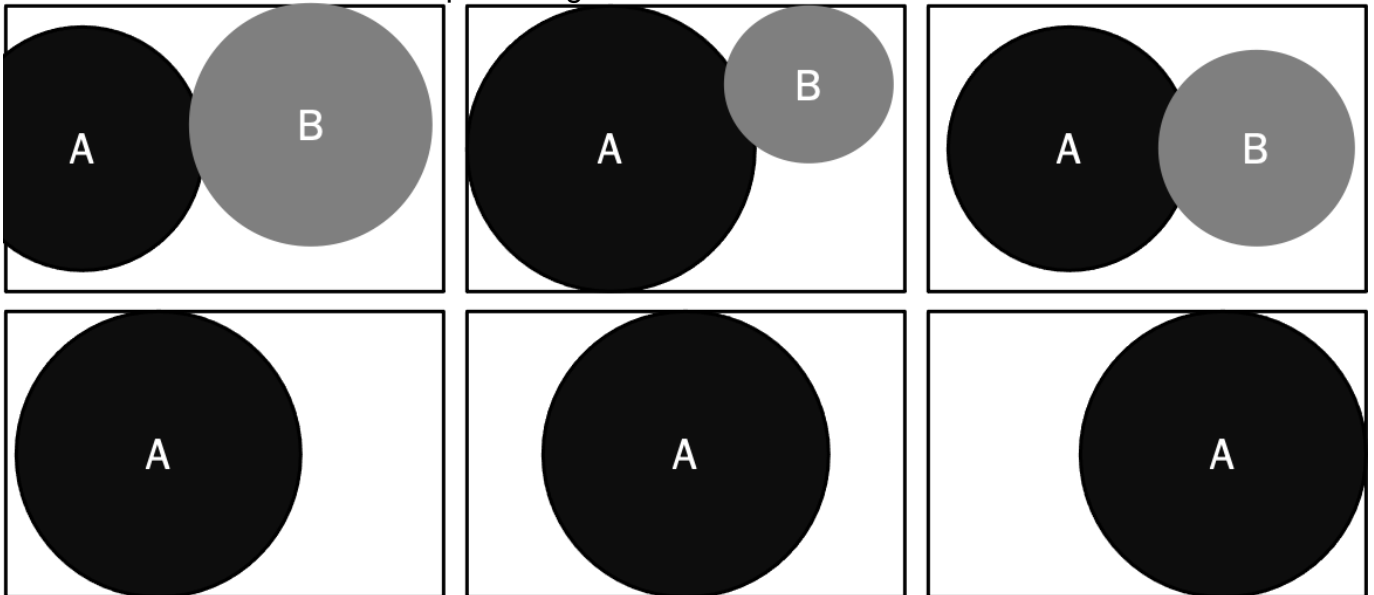
To capture how focused a particular frame is on a specific object/character versus having multiple potential focal points. Close ups force the viewer to attend to one object/character or two physically close things as opposed to having various objects/characters/locations to potentially fixate on.

Coding

- Code 1 if the frame is a close up on a character or object.
- Code 0 if it is a wide shot, has more than 2 identifiable objects/individuals in view, or is of a larger area.

Examples/clarifications

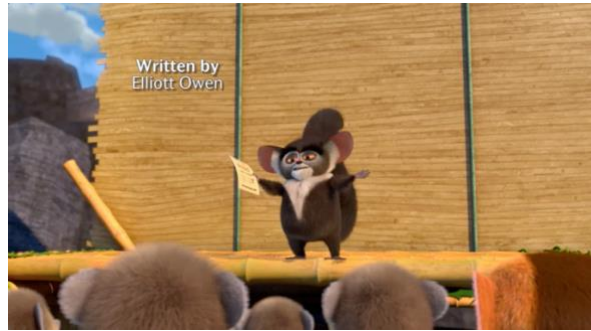
- A scene is considered a close up if one or two individuals/objects take up more than 50% of the screen. Some example configurations are shown below:



- *Examples of closeup=1:*



- *Examples of closeup=0:*



References

- None

C. Total number of characters in the scene (**num_chars**)

Purpose

To get an exact count of how many characters are visible on the screen.

Coding

- Indicate the total number of characters present on the screen at that time.

Examples/clarifications

- For crowds (groups of unnamed, indistinct individuals), code as a “collective individual” (so add 1 for a whole crowd).
- *Example of num_chars = 2 (2 named characters, no collective):*



- *Example of num_chars = 2 (1 named character plus 1 collective):*



References

- None

D. Presence of a collective in the scene (**collective**)

Purpose

To note if a character included in the character count code (num_chars) was a crowd or other large group with indistinct characters. A collective is defined as a crowd or group of unnamed or indistinct individuals (2 or more) that behave as a unit, often as a stand in for the general public or the audience. A collective can also be a small group of characters that always act in unison (and therefore do not provide unique information from each other).

Coding

- Code this as 1 if a collective is included in the total number of characters (num_chars) code. Otherwise, code as 0.

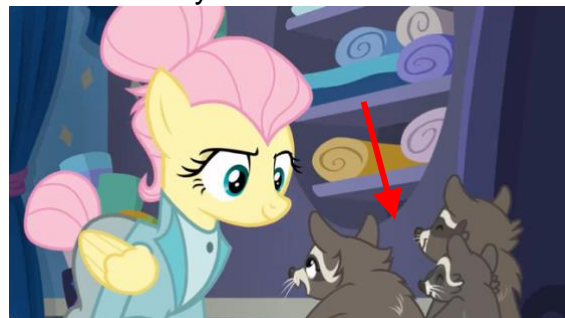
Examples/clarifications

- Examples of collectives (see red arrows):

The crowd of lemurs



The family of raccoons



References

- None

E. Presences of faces or facial features (**has_faces**)

Purpose

To capture any elements that elicit recognition of a face. Faces coded here are not limited to humans or humanoid characters.

Coding

- If there are any facial elements present (at minimum, an eye, or mouth, or nose), code this as a 1.
- If the scene includes the back of a character's face but no facial elements are visible, has_faces should be coded as 0.

Examples/clarifications

- Drawings or object arrangements of faces would count for this coding as well (e.g., a stick figure with a face)
- The presence of a skull may or may not count as a face. If the skull is animate, it would count as a face. If the skull is inanimate but stylized into a facial expression, it would count as a face. An inanimate, realistically drawn skull that is incomplete (e.g., with a detached jaw) would not count as a face.
- Examples of has_faces=1:



- *Examples of has_faces=0:*



References

- None

F. Presence of body parts (**has_body**)

Purpose

The goal of this code is to capture agents of biological motion. Thus, anything recognizable as a body part would be captured in this code.

Coding

- If there is any portion of a body part (e.g., arm, foot, leg, back of head, tail, etc.) present on the screen (moving or not) code this as 1. If no body part is visible, code as 0.

Examples/clarifications

- The back of a character's head would be coded as has_body=1.
- Drawings or arranged objects of body parts would count for this coding (e.g., a stick figure drawing of a person or point-light display of a person)
- Many characters in children's shows may have additional body parts that humans do not have (e.g., a tail). These are still agents of biological motion that could communicate affective information to the audience. Thus, these are still coded as a 1 for has_body.
- *Examples of has_body=1:*



- *Examples of has_body=0:*



References

- None

G. If there are written words (**has_words**)

Purpose

To capture visible language (letters or numbers).

Coding

- If there are written words present (i.e., anything that resembles letters, numbers, or punctuations) code this as a 1. Otherwise, code as 0.

Examples/clarifications

- Squiggles that are clearly NOT language in any way but stand in for language (e.g., squiggles in a cartoon book) would not be included in this code.
- Code 1 for standard punctuation such as ? ! @ # \$ % ^ & * () _ + - = [] { } < > , . /
- Code 0 for any non-punctuation symbols.
- On-screen credits would count as a 1 because written words are visible (the relevance to the story doesn't matter for this code).
- *Examples of has_words=1:*



- *Examples of has_words=0:*



References

- None

H. Non-word and non-number symbols (**has_symbols**)

This code is optional since not all videos have non-word symbolic content that is of research interest.

Purpose

To capture symbols that may have meaning in specific contexts but not universally.

Coding

- Code a 0 if there are no symbols on the screen.
- Code a 1 if there are symbols on the screen.

Examples/clarifications

- For example, in My Little Pony, they often use the horseshoe shape as a symbol in their writing along with other non-standard shapes and characters.



References

- None

Subjective Character Codes

I. Purpose and Goals

This is the third volume of the EmoCodes Manual and the final set of codes to complete when doing a full code.

Purpose: The codes within this manual are considered “subjective” in that there is room for interpretation that may differ from person to person. The codes are designed to mitigate that to some extent by forcing a Boolean decision (present or not present) for each emotion coded here. As with all of the manual, the codes within this manual can be completed in isolation or as part of a larger coding of the video as it fits the goals of the particular project.

Goal: To capture the emotional content being expressed by each individual character at a given time during the video. See the character appendix for the full list of character names to be coded for a given episode.

How to use this section: This manual is intended to be used alongside coding and after watching the training videos for Subjective Character Coding. The codes in this manual include a wide range of emotional contexts—not all of them will be appropriate or informative for every video. It is recommended that a subset is selected a priori for coding. Importantly, this manual is a living document.

Sections IV and V of this manual is designed to characterize the specific emotions expressed in the video and what modalities are contributing to their expression. Code each emotion using a 3-step process:

1. Is the character on screen? If yes, move on to the next question.
2. Is the character expressing the emotion in question? If yes, move on to the next question. If no, code 0 for all three modalities.
3. For each modality, ask: is the character’s [face/body language/voice] contributing to the emotional expression? Code 1 for each modality that you say “yes” to. Code 0 for the others.

The character’s name should be the same for an entire Datavyu scoring file and be included in the filename without spaces.

Example filename: MLPS8E4_subjective_character_codes_PinkiePie_cc.opf

Scoring: Due to the subjective nature of these codes, we recommend using averaged codes for analysis:

1. At least 2 independent raters complete the codes
2. Check consistency between raters using the CheckReliability class in the emocodes library
3. If reliability is at least 60%, average the codes using the get_average method in the CheckReliability class.
4. Use the averaged code set for analysis.

II: Reliability of Each Code

Below are the reliability scores for each code operationalized as ICCs (with each rating at each second inputted as a separate rating). Reliability was established by at least 3 raters across at least 2 videos. The specific videos and number of raters are noted for each code below.

Code	Videos (Duration)	# Raters	ICCs
<i>General Codes</i>			
on_screen	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.87-0.88
char_intensity	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.79-0.82
char_valence_negative	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.69-0.72
char_valence_positive	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.61-0.82
<i>Primary, Basic, or Universal Emotions</i>			
c_anger_body	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.52-0.77
c_anger_face	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.54-0.78
c_anger_verbal	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.58-0.75
c_excite_body	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.62-0.65
c_excite_face	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.54-0.63
c_excite_verbal	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.58-0.68
c_fear_body	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.56-0.72
c_fear_face	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.66-0.80
c_fear_verbal	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.48-0.61
c_happy_body	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.56-0.78
c_happy_face	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.60-0.77
c_happy_verbal	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.50-0.76
c_sad_body	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.73-0.90
c_sad_face	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.67-0.88
c_sad_verbal	My Little Pony S8E3; All Hail King Julien S1E2	3/3	0.76-0.77
c_disgust_body	in progress		
c_disgust_face	in progress		
c_disgust_verbal	in progress		
c_surprise_body	in progress		
c_surprise_face	in progress		
c_surprise_verbal	in progress		
c_shame_body	in progress		
c_shame_face	in progress		
c_shame_verbal	in progress		
<i>Other Emotions</i>			
in progress	in progress		

III: General Codes

A. Is the named character on screen? (**on_screen**)

Purpose

To capture which frames include the character being coded. This includes both visually and aurally.

Coding

- Code 1 when the character being coded is on screen or audible.
- Code 0 if the character is not on screen or audible.

Examples/clarifications

- None

References

- None

B. Intensity of the character (**char_intensity**)

Purpose

To capture the overall arousal level or intensity level of the character. This is similar to the intensity scores in the subjective non-character codes. The key difference is that in this coding, you will code the intensity overall for each character separately, using both visual and audio clues to make the ratings.

Coding

- Code 0 if that character is not present (visually or aurally) in the scene.
- Code 1 if the if the character is neutral or low intensity.
- Code 2 if the character is moderately intense.
- Code 3 if the character is highly aroused or intense.

Examples/clarifications

- Characters may vary in terms of the anchor points for this rating. For example, King Julien is a highly expressive character, so his low intensity ratings may be similar to the moderate intensity ratings of another character like Clover (who is more low-key). Titrate the anchors accordingly for each character in order to capture shifts in intensity.
- An example of a 1 code may be sitting quietly while listening to another character speak.
- An example of a 2 code may be engaging in a typical conversation with another character discussing something.
- An example of a 3 code may be a character is running around excitedly, crying loudly, or yelling angrily, all of those are high intensity behaviors.

References

- None

C. Positivity of the character (**char_valence_positive**)

Purpose

To capture the overall positive valence of the character, taking both visual and aural cues into account.

Coding

- Code 0 if the character is not positive in that moment.
- Code 1 if the character is positive in that moment.

Examples/clarifications

- As with the subjective noncharacter codes, negative and positive ratings are not mutually exclusive. Characters can be positive, negative, both, or neither.

References

- None

D. Negativity of the character (**char_valence_negative**)

Purpose

To capture the overall negative valence of the character, taking both visual and aural cues into account.

Coding

- Code 0 if the character is not negative in that moment.
- Code 1 if the character is negative in that moment.

Examples/clarifications

- As with the subjective noncharacter codes, negative and positive ratings are not mutually exclusive. Characters can be positive, negative, both, or neither.

References

- None

IV: Primary/Basic/Universal Emotions

The rest of this manual is designed to characterize the specific emotions expressed in the video and what modalities are contributing to their expression. Code each emotion using a 3-step process:

4. Is the character on screen? If yes, move on to the next question.
5. Is the character expressing the emotion in question? If yes, move on to the next question. If no, code 0 for all three modalities.
6. For each modality, ask is the character's [face/body language/voice] contributing to the emotional expression? Code 1 for each modality that you say "yes" to. Code 0 for the others.

A. Anger (**c_anger_***)

Anger: a strong feeling of annoyance, hostility, or displeasure. Anger can be provoked or unprovoked and is typically high intensity and high negative valence.

Purpose

To capture instances of expressed anger across channels of communication from the character being coding.

Coding

Is the character's face expressing anger? (**c_anger_face**)

- Code 0 if the character's face did not express anger.
- Code 1 if the character's face expressed anger.

Is the character's body language expressing anger? (**c_anger_body**)

- Code 0 if the character's body language or movement did not express anger.
- Code 1 if the character's body language or movement expressed anger.

Is the character's voice, tone, or words expressing anger? (**c_anger_verbal**)

- Code 0 if character's spoken words or sounds did not express anger.
- Code 1 if the character's spoken words or sounds expressed anger.

Examples/clarifications

- *Example of c_anger_* = 1:*



Smoulder's mother in the scene is expressing anger towards Chancellor Neighsay at his suggestion that non-pony persons should not be allowed into the Academy. Her hands are in fists, teeth are showing, jaw clenched, and eyes narrowed.

References

- None

B. Fear (**c_fear_***)

Fear: A negative emotion brought about by a threat to one's physical or psychological safety. Fear can come about due to actual or perceived threats and is typically characterized by high arousal as well as a flight, fight, or freezing response.

Purpose

To capture instances of expressed fear across channels of communication from the character being coding.

Coding

Is the character's face expressing fear? (**c_fear_face**)

- Code 0 if the character's face did not express fear.

- Code 1 if the character's face expressed fear.

Is the character's body language expressing fear? ([c_fear_body](#))

- Code 0 if the character's body language or movement did not express fear.
- Code 1 if the character's body language or movement expressed fear.

Is the character's voice, tone, or words expressing fear? ([c_fear_verbal](#))

- Code 0 if character's spoken words or sounds did not express fear.
- Code 1 if the character's spoken words or sounds expressed fear.

Examples/clarifications

- The difference between Surprise and Fear presented as shock (e.g., after a character scares another) is in the behavior after the initial startle response. If the behavior after the startle is positive, the behavior would be coded as Surprise. If the behavior following the startle is negative, it would be coded as Fear.
- *Example of $c_fear_* = 1$:*



In this scene, Maurice is terrified at the thought of the mega gecko eating him one day. His body is stiff, eyes are wide, and his behavior demonstrates heightened arousal.

References

- None

C. Happy ([c_happy_*](#))

Happy: A feeling of pleasure or contentment. To distinguish happiness from excitement, happiness in this coding scheme is a moderate to low arousal positive emotion.

Purpose

To capture instances of expressed happiness across channels of communication from the character being coding.

Coding

Is the character's face expressing happiness? ([c_happy_face](#))

- Code 0 if the character's face did not express happiness.
- Code 1 if the character's face expressed happiness.

Is the character's body language expressing happiness? ([c_happy_body](#))

- Code 0 if the character's body language or movement did not express happiness.
- Code 1 if the character's body language or movement expressed happiness.

Is the character's voice, tone, or words expressing happiness? ([c_happy_verbal](#))

- Code 0 if character's spoken words or sounds did not express happiness.
- Code 1 if the character's spoken words or sounds expressed happiness.

Examples/clarifications

- To distinguish happiness from excitement in our coding, happiness is mid to low arousal. High arousal positive emotion would be classified as excitement.
- *Example of $c_happy_* = 1$:*



In this scene, Maurice is smiling in contentment demonstrating low-medium arousal positive emotion.

References

- None

D. Sadness (**c_sad_***)

Sadness: A negative emotion typically brought about by unfavorable events or thoughts. Sadness can be high or low arousal.

Purpose

To capture instances of expressed sadness across channels of communication from the character being coding.

Coding

Is the character's face expressing sadness? (**c_sad_face**)

- Code 0 if the character's face did not express sadness.
- Code 1 if the character's face expressed sadness.

Is the character's body language expressing sadness? (**c_sad_body**)

- Code 0 if the character's body language or movement did not express sadness.
- Code 1 if the character's body language or movement expressed sadness.

Is the character's voice, tone, or words expressing sadness? (**c_sad_verbal**)

- Code 0 if character's spoken words or sounds did not express sadness.
- Code 1 if the character's spoken words or sounds expressed sadness.

Examples/clarifications

- Example of **c_sad_*** = 1:



In this scene, Twilight Sparkle is dealing with the aftermath from her school losing its accreditation. She is crying, unkempt, with her eyebrows pursed, and her mouth frowning.

References

- None

E. Shame, guilt, or remorse (**c_shame_***)

Shame is a feeling as a result of a loss of respect, honor, or dignity as a result of something. Guilt or remorse are feelings of regret over one's actions or someone else's actions and are closely tied to shame. All three of these emotions are in the negative domain and could be low or high arousal.

Purpose

To capture instances of expressed shame, guilt, or remorse across channels of communication from the character being coding.

Code

Is the character's face expressing shame, guilt, or remorse? ([c_shame_face](#))

- Code 0 if the character's face did not express shame, guilt, or remorse.
- Code 1 if the character's face expressed shame, guilt, or remorse.

Is the character's body language expressing shame, guilt, or remorse? ([c_shame_body](#))

- Code 0 if the character's body language or movement did not express shame, guilt, or remorse.
- Code 1 if the character's body language or movement expressed shame, guilt, or remorse.

Is the character's voice, tone, or words expressing shame, guilt, or remorse? ([c_shame_verbal](#))

- Code 0 if character's spoken words or sounds did not express shame, guilt, or remorse.
- Code 1 if the character's spoken words or sounds expressed shame, guilt, or remorse.

Examples/clarifications

- *Example of c_shame_* = 1:*



In this scene, Fluttershy expresses regret over her behavior, her head is angled downward, and she is making her body smaller, shrinking herself in space.

References

- None

F. Disgust ([c_disgust_*](#))

Disgust: A feeling of revulsion or strong disapproval aroused by something unpleasant or offensive. Disgust can be in response to something physical (like an unpleasant smell) or in response to a situation.

Purpose

To capture instances of expressed disgust across channels of communication from the character being coding.

Code

Is the character's face expressing disgust? ([c_disgust_face](#))

- Code 0 if the character's face did not express disgust.
- Code 1 if the character's face expressed disgust.

Is the character's body language expressing disgust? ([c_disgust_body](#))

- Code 0 if the character's body language or movement did not express disgust.
- Code 1 if the character's body language or movement expressed disgust.

Is the character's voice, tone, or words expressing disgust? ([c_disgust_verbal](#))

- Code 0 if character's spoken words or sounds did not express disgust.
- Code 1 if the character's spoken words or sounds expressed disgust.

Examples/clarifications

- *Example of c_disgust_* = 1:*



In this scene, King Julien is disgusted with the situation that he has created and now has to deal with. His hand motions, face, and vocalizations all communicate a feeling of ickiness.

References

- None

G. Surprise ([c_surprise_*](#))

Surprise: A response to an unexpected event or outcome. Surprise can be positive or neutral but does not cross to negative affect (which would be fear or shock instead).

Purpose

To capture instances of expressed surprise across channels of communication from the character being coding.

Code

Is the character's face expressing surprise? ([c_surprise_face](#))

- Code 0 if the character's face did not express surprise.
- Code 1 if the character's face expressed surprise.

Is the character's body language expressing surprise? ([c_surprise_body](#))

- Code 0 if the character's body language or movement did not express surprise.
- Code 1 if the character's body language or movement expressed surprise.

Is the character's voice, tone, or words expressing surprise? ([c_surprise_verbal](#))

- Code 0 if character's spoken words or sounds did not express surprise.
- Code 1 if the character's spoken words or sounds expressed surprise.

Examples/clarifications

- The difference between surprise and fear presented as shock (e.g., after one character scares another character) is in the behavior after the initial startle response. If the behavior after the startle is positive, the behavior would be coded as Surprise. If the behavior following the startle is negative, it would be coded as Fear.
- *Example of [c_surprise_*](#) = 1:*



In this scene, Maurice is caught off guard by King Julien's behavior. His behavior immediately following this frame indicates a positive, low intensity response.

References

- None

H. Excitement ([c_excite_*](#))

Excitement: great enthusiasm or eagerness, typically in anticipation of a desired event. Excitement is high arousal and positive.

Purpose

To capture instances of expressed excitement across channels of communication from the character being coding.

Code

Is the character's face expressing excitement? ([c_excite_face](#))

- Code 0 if the character's face did not express excitement.
- Code 1 if the character's face expressed excitement.

Is the character's body language expressing excitement? ([c_excite_body](#))

- Code 0 if the character's body language or movement did not express excitement.
- Code 1 if the character's body language or movement expressed excitement.

Is the character's voice, tone, or words expressing excitement? ([c_excite_verbal](#))

- Code 0 if character's spoken words or sounds did not express excitement.
- Code 1 if the character's spoken words or sounds expressed excitement.

Examples/clarifications

- To distinguish happiness from excitement in our coding, happiness is mid to low arousal. All high arousal positive states are coded as excitement.
- The difference between excitement and hopefulness is arousal—excitement is high arousal while hopefulness is low arousal.
- *Example of c_excite_*=1:*



In this scene, Pinkie Pie demonstrated high energy, high positivity at the thought of expanding the throne room in the future.

References

- None

V: Other Emotions

A. Hopefulness (c_hope_*)

Hopefulness: a feeling of positive expectation for a specific outcome or event. Hopefulness is typically positive and relatively low arousal.

Purpose

To capture instances of expressed hopefulness across channels of communication from the character being coding.

Code

Is the character's face expressing hopefulness? (c_hope_face)

- Code 0 if the character's face did not express hopefulness.
- Code 1 if the character's face expressed hopefulness.

Is the character's body language expressing hopefulness? (c_hope_body)

- Code 0 if the character's body language or movement did not express hopefulness.
- Code 1 if the character's body language or movement expressed hopefulness.

Is the character's voice, tone, or words expressing hopefulness? (c_hope_verbal)

- Code 0 if character's spoken words or sounds did not express hopefulness.
- Code 1 if the character's spoken words or sounds expressed hopefulness.

Examples/clarifications

- The difference between excitement and hopefulness is arousal—excitement is high arousal while hopefulness is low arousal.

References

- None

B. Pity, empathy, or compassion (c_comp_*)

Pity, compassion, and empathy all share that they require an understanding of another person's situation or feelings. Pity includes feeling bad for someone else's misfortunes, while empathy includes sharing in an emotional state. Compassion can include facets of both pity and empathy and typically includes specific actions in response to these feelings (e.g., giving a sad character a hug).

Purpose

To capture instances of expressed pity, compassion, or empathy across channels of communication from the character being coding.

Code

Is the character's face expressing pity, empathy, or compassion? ([c_comp_face](#))

- Code 0 if the character's face did not express pity, empathy, or compassion.
- Code 1 if the character's face expressed pity, empathy, or compassion.

Is the character's body language expressing pity, empathy, or compassion? ([c_comp_body](#))

- Code 0 if the character's body language or movement did not express pity, empathy, or compassion.
- Code 1 if the character's body language or movement expressed pity, empathy, or compassion.

Is the character's voice, tone, or words expressing pity, empathy, or compassion? ([c_comp_verbal](#))

- Code 0 if character's spoken words or sounds did not express pity, empathy, or compassion.
- Code 1 if the character's spoken words or sounds expressed pity, empathy, or compassion.

Examples/clarifications

- For a character to experience pity, empathy, or compassion, the target of that emotion must be able to experience feelings themselves (i.e., must be able to experience an emotional state to empathize with). Therefore, a character cannot express compassion for an inanimate, non-anthropomorphized object.

References

- None

C. Relational love ([c_love_relat_*](#))

Love (relational): a deep affection, interest, or pleasure for someone such as a family member, friend, pet, or partner. Love can be high or low arousal and is often portrayed in an exaggerated way in children's shows (e.g., blushing, a character suddenly developing heart eyes, etc.).

Purpose

To capture instances of expressed love for another person/being across channels of communication from the character being coding.

Code

Is the character's face expressing love or affection for another being? ([c_love_relat_face](#))

- Code 0 if the character's face did not express love or affection for another being.
- Code 1 if the character's face expressed love or affection for another being.

Is the character's body language expressing love or affection for another being? ([c_love_relat_body](#))

- Code 0 if the character's body language or movement did not express love or affection for another being.
- Code 1 if the character's body language or movement expressed love or affection for another being.

Is the character's voice, tone, or words expressing love or affection for another being?

([c_love_relat_verbal](#))

- Code 0 if character's spoken words or sounds did not express love or affection for another being.
- Code 1 if the character's spoken words or sounds expressed love or affection for another being.

Examples/clarifications

- None

References

- None

D. Material love ([c_love_obj_*](#))

Love (material): a deep affection, interest, or pleasure for something material or abstract such as a favorite food or a concept. Love can be high or low arousal and is often portrayed in an exaggerated way in children's shows (e.g., being "in love" with cake, blushing, a character suddenly developing heart eyes, etc.).

Purpose

To capture instances of expressed love for an object or idea across channels of communication from the character being coding.

Code

Is the character's face expressing love or affection for an object or idea? ([c_love_obj_face](#))

- Code 0 if the character's face did not express love or affection for an object or idea.
- Code 1 if the character's face expressed love or affection for an object or idea.

Is the character's body language expressing love or affection for an object or idea?

([c_love_obj_body](#))

- Code 0 if the character's body language or movement did not express love or affection for an object or idea.
- Code 1 if the character's body language or movement expressed love or affection for an object or idea.

Is the character's voice, tone, or words expressing love or affection for an object or idea?

([c_love_obj_verbal](#))

- Code 0 if character's spoken words or sounds did not express love or affection for an object or idea.
- Code 1 if the character's spoken words or sounds expressed love or affection for an object or idea.

Examples/clarifications

- None

References

- None

E. Admiration ([c_admire_*](#))

Admiration: a feeling of respect, approval, or pleasure in contemplating a person, situation, or thing. This is typically a low arousal positive emotion, however admiration can be high arousal as well (if mixed with excitement, for example).

Purpose

To capture instances of expressed admiration across channels of communication from the character being coding.

Code

Is the character's face expressing admiration? ([c_admire_face](#))

- Code 0 if the character's face did not express admiration.
- Code 1 if the character's face expressed admiration.

Is the character's body language expressing admiration? ([c_admire_body](#))

- Code 0 if the character's body language or movement did not express admiration.
- Code 1 if the character's body language or movement expressed admiration.

Is the character's voice, tone, or words expressing admiration? ([c_admire_verbal](#))

- Code 0 if character's spoken words or sounds did not express admiration.
- Code 1 if the character's spoken words or sounds expressed admiration.

Examples/clarifications

- None

References

- None

F. Contempt ([c_contempt_*](#))

Contempt: the feeling that a person or thing less worthy or is deserving of scorn or disapproval. In children's shows, this may be intertwined with issues of fairness (e.g., if a character feels that another character is receiving better treatment unduly).

Purpose

To capture instances of expressed contempt across channels of communication from the character being coding.

Code

Is the character's face expressing contempt? ([c_contempt_face](#))

- Code 0 if the character's face did not express contempt.
- Code 1 if the character's face expressed contempt.

Is the character's body language expressing contempt? ([c_contempt_body](#))

- Code 0 if the character's body language or movement did not express contempt.
- Code 1 if the character's body language or movement expressed contempt.

Is the character's voice, tone, or words expressing contempt? ([c_contempt_verbal](#))

- Code 0 if character's spoken words or sounds did not express contempt.
- Code 1 if the character's spoken words or sounds expressed contempt.

Examples/clarifications

- Contempt differs from resentment in that contempt is usually outwardly and explicitly expressed at individuals with perceived equal or lower status. Resentment is usually more implicitly or passive and expressed towards individuals with perceived higher status.

References

- None

G. Disappointment ([c_disappoint_*](#))

Disappointment: sadness or displeasure associated with something or someone not meeting a preconceived expectation. Disappointment is typically low arousal negative, however it can be high arousal (if mixed with anger, for example).

Purpose

To capture instances of expressed disappointment across channels of communication from the character being coding.

Code

Is the character's face expressing disappointment? ([c_disappoint_face](#))

- Code 0 if the character's face did not express disappointment.
- Code 1 if the character's face expressed disappointment.

Is the character's body language expressing disappointment? ([c_disappoint_body](#))

- Code 0 if the character's body language or movement did not express disappointment.
- Code 1 if the character's body language or movement expressed disappointment.

Is the character's voice, tone, or words expressing disappointment? ([c_disappoint_verbal](#))

- Code 0 if character's spoken words or sounds did not express disappointment.
- Code 1 if the character's spoken words or sounds expressed disappointment.

Examples/clarifications

- None

References

- None

H. Gloating ([c_gloat_*](#))

Gloating: bragging or dwelling on one's accomplishments or positive fortunes typically with a goal of self-promotion over others.

Purpose

To capture instances of expressed gloating across channels of communication from the character being coding.

Code

Is the character's face expressing gloating? ([c_gloat_face](#))

- Code 0 if the character's face did not express gloating.
- Code 1 if the character's face expressed gloating.

Is the character's body language expressing gloating? ([c_gloat_body](#))

- Code 0 if the character's body language or movement did not express gloating.
- Code 1 if the character's body language or movement expressed gloating.

Is the character's voice, tone, or words expressing gloating? ([c_gloat_verbal](#))

- Code 0 if character's spoken words or sounds did not express gloating.
- Code 1 if the character's spoken words or sounds expressed gloating.

Examples/clarifications

- Gloating typically has an intent to make others feel lesser, thus requires an audience. Pride, on the other hand, does not necessarily have a negative intention nor does it have to be directed at others.

References

- None

I. Gratitude ([c_gratitude_*](#))

Gratitude: thankfulness or readiness to show appreciation for events or for the actions of another person. Gratitude is typically positive and can be low or high arousal.

Purpose

To capture instances of expressed gratitude across channels of communication from the character being coding.

Code

Is the character's face expressing gratitude? ([c_gratitude_face](#))

- Code 0 if the character's face did not express gratitude.
- Code 1 if the character's face expressed gratitude.

Is the character's body language expressing gratitude? ([c_gratitude_body](#))

- Code 0 if the character's body language or movement did not express gratitude.
- Code 1 if the character's body language or movement expressed gratitude.

Is the character's voice, tone, or words expressing gratitude? ([c_gratitude_verbal](#))

- Code 0 if character's spoken words or sounds did not express gratitude.
- Code 1 if the character's spoken words or sounds expressed gratitude.

Examples/clarifications

- None

References

- None

J. Pride ([c_pride_*](#))

Pride: feeling of deep pleasure or satisfaction derived from confidence, consciousness of one's accomplishments, self-esteem, or possessing qualities or possessions that are widely admired. Pride is typically low arousal positive but can be high arousal in some cases (when mixed with excitement, for example) or negative (when mixed with gloating or when used to inflict suffering on others, for example).

Purpose

To capture instances of expressed pride across channels of communication from the character being coding.

Code

Is the character's face expressing pride? ([c_pride_face](#))

- Code 0 if the character's face did not express pride.
- Code 1 if the character's face expressed pride.

Is the character's body language expressing pride? ([c_pride_body](#))

- Code 0 if the character's body language or movement did not express pride.
- Code 1 if the character's body language or movement expressed pride.

Is the character's voice, tone, or words expressing pride? ([c_pride_verbal](#))

- Code 0 if character's spoken words or sounds did not express pride.
- Code 1 if the character's spoken words or sounds expressed pride.

Examples/clarifications

- Gloating typically has an intent to make others feel lesser, thus requires an audience. Pride, on the other hand, does not necessarily have a negative intention nor does it have to be directed at others.

References

- None

K. Relief ([c_relief_*](#))

Relief: a feeling of reassurance or relaxation following release from anxiety or stress. Relief is typically the transition from high arousal to low arousal states.

Purpose

To capture instances of expressed relief across channels of communication from the character being coding.

Code

Is the character's face expressing relief? ([c_relief_face](#))

- Code 0 if the character's face did not express relief.
- Code 1 if the character's face expressed relief.

Is the character's body language expressing relief? ([c_relief_body](#))

- Code 0 if the character's body language or movement did not express relief.
- Code 1 if the character's body language or movement expressed relief.

Is the character's voice, tone, or words expressing relief? ([c_relief_verbal](#))

- Code 0 if character's spoken words or sounds did not express relief.
- Code 1 if the character's spoken words or sounds expressed relief.

Examples/clarifications

- None

References

- None

L. Resentment ([c_resent_*](#))

Resentment: a negative emotion typified by displeasure or bitterness towards someone because of unfair treatment. Resentment is often co-occurring with contempt, though is typically lower arousal and therefore more subdued than contempt.

Purpose

To capture instances of expressed resentment across channels of communication from the character being coding.

Code

Is the character's face expressing resentment? ([c_resent_face](#))

- Code 0 if the character's face did not express resentment.
- Code 1 if the character's face expressed resentment.

Is the character's body language expressing resentment? ([c_resent_body](#))

- Code 0 if the character's body language or movement did not express resentment.
- Code 1 if the character's body language or movement expressed resentment.

Is the character's voice, tone, or words expressing resentment? ([c_resent_verbal](#))

- Code 0 if character's spoken words or sounds did not express resentment.
- Code 1 if the character's spoken words or sounds expressed resentment.

Examples/clarifications

- Contempt differs from resentment in that contempt is usually outwardly and explicitly expressed at individuals with perceived equal or lower status. Resentment is usually more implicitly or passive and expressed towards individuals with perceived higher status.

References

- None

M. Satisfaction (c_satisfaction_*)

Satisfaction: the pleasure derived from one's needs, expectations, or goals being met. Satisfaction is typically lower arousal and differs from contentment in that satisfaction typically follows an event. Contentment is not necessarily precipitated.

Purpose

To capture instances of expressed satisfaction across channels of communication from the character being coding.

Code

Is the character's face expressing satisfaction? (c_satisfaction_face)

- Code 0 if the character's face did not express satisfaction.
- Code 1 if the character's face expressed satisfaction.

Is the character's body language expressing satisfaction? (c_satisfaction_body)

- Code 0 if the character's body language or movement did not express satisfaction.
- Code 1 if the character's body language or movement expressed satisfaction.

Is the character's voice, tone, or words expressing satisfaction? (c_satisfaction_verbal)

- Code 0 if character's spoken words or sounds did not express satisfaction.
- Code 1 if the character's spoken words or sounds expressed satisfaction.

Examples/clarifications

- None

References

- None

N. Sarcasm (c_sarcasm_*)

Sarcasm: The use of verbal or nonverbal language to say one thing but mean the opposite with the goal of mocking or communicating negative emotion.

Purpose

To capture instances of expressed sarcasm across channels of communication from the character being coding.

Code

Is the character's face expressing satisfaction? (c_satisfaction_face)

- Code 0 if the character's face did not express satisfaction.
- Code 1 if the character's face expressed satisfaction.

Is the character's body language expressing satisfaction? (c_satisfaction_body)

- Code 0 if the character's body language or movement did not express satisfaction.
- Code 1 if the character's body language or movement expressed satisfaction.

Is the character's voice, tone, or words expressing satisfaction? (c_satisfaction_verbal)

- Code 0 if character's spoken words or sounds did not express satisfaction.
- Code 1 if the character's spoken words or sounds expressed satisfaction.

Examples/clarifications

- The difference between sarcasm and feigned positivity is the goal—sarcasm has a negative goal (e.g., to embarrass or pick on someone) while feigned positivity is meant to mask the communicator's negative emotions and make the recipient feel good (e.g., when someone receives a gift that they do not like but doesn't want to offend the gift-giver).

References

- “Sarcasm”. Oxford English Dictionary, Online, accessed February 27, 2021

O. Feigned Positivity (c_feignpos_*)

Feigned positivity: The use of verbal and nonverbal language to communicate positive emotion even though the individual does not feel positive (i.e., masking their true nonpositive feelings).

Purpose

To capture instances of feigned positivity across channels of communication from the character being coding.

Code

Is the character’s face expressing feigned positivity? (c_feignpos_face)

- Code 0 if the character’s face did not express feigned positivity.
- Code 1 if the character’s face expressed feigned positivity.

Is the character’s body language expressing feigned positivity? (c_feignpos_body)

- Code 0 if the character’s body language or movement did not express feigned positivity.
- Code 1 if the character’s body language or movement expressed feigned positivity.

Is the character’s voice, tone, or words expressing feigned positivity? (c_feignpos_verbal)

- Code 0 if character’s spoken words or sounds did not express feigned positivity.
- Code 1 if the character’s spoken words or sounds expressed feigned positivity.

Examples/clarifications

- The difference between sarcasm and feigned positivity is the goal—sarcasm has a negative goal (e.g., to embarrass or pick on someone) while feigned positivity is meant to mask the communicator’s negative emotions and make the recipient feel good (e.g., when someone receives a gift that they do not like but doesn’t want to offend the gift-giver).

References

- None

P. Physical pain caused by an individual (c_physpain_intent_*)

Physical pain: Physical suffering or discomfort caused by illness or injury.

Purpose

To capture instances in which one character intentionally inflicted physical pain in another character. Since children’s media often uses pain as both humor as well as to convey malice, pain is not inherently negative and require context in order to derive intention.

Coding

Is the character’s face expressing physical pain caused by an individual? (c_physpain_oth_face)

- Code 0 if the character’s face did not express physical pain caused by an individual.
- Code 1 if the character’s face expressed physical pain caused by an individual.

Is the character’s body language expressing physical pain caused by an individual?

(c_physpain_oth_body)

- Code 0 if the character’s body language or movement did not express physical pain caused by an individual.
- Code 1 if the character’s body language or movement expressed physical pain caused by an individual.

Is the character’s voice, tone, or words expressing physical pain caused by an individual?

(c_physpain_oth_verbal)

- Code 0 if character’s spoken words or sounds did not express physical pain caused by an individual.
- Code 1 if the character’s spoken words or sounds expressed physical pain caused by an individual.

Examples/clarifications

- If a character accidentally initiates an event that caused pain to another character (e.g., absentmindedly throwing something that lands on another person's head), this would not be counted here (instead, count under physpain_object).

References

- "Pain". Oxford English Dictionary, Online, accessed April 9, 2021

Q. Physical pain caused by an object (c_physpain_unintent_*)

Physical pain: Physical suffering or discomfort caused by illness or injury.

Purpose

To capture expression of pain that was not induced by another character. This includes accidents (such as a pinecone falling from a tree and bonking a character on the head) as well as pain unintentionally caused by another character (such as a character absentmindedly throwing something behind them that hits another character).

Coding

Is the character's face expressing physical pain not intentionally caused by an individual?

(c_physpain_unintent_face)

- Code 0 if the character's face did not express physical pain not intentionally caused by an individual.
- Code 1 if the character's face expressed physical pain not intentionally caused by an individual.

Is the character's body language expressing physical pain not intentionally caused by an individual?

(c_physpain_unintent_body)

- Code 0 if the character's body language or movement did not express physical pain not intentionally caused by an individual.
- Code 1 if the character's body language or movement expressed physical pain not intentionally caused by an individual.

Is the character's voice, tone, or words expressing physical pain not intentionally caused by an individual? (c_physpain_unintent_verbal)

- Code 0 if character's spoken words or sounds did not express physical pain not intentionally caused by an individual.
- Code 1 if the character's spoken words or sounds expressed physical pain not intentionally caused by an individual.

Examples/clarifications

- If a character accidentally initiates an event that caused pain to another character (e.g., absentmindedly throwing something that lands on another person's head), code as 1 for physpain_unintent.

References

- "Pain". Oxford English Dictionary, Online, accessed April 9, 2021

R. Physical pain caused by an individual (c_emopain_*)

Emotional pain: distress, anguish, or mental suffering that is usually as a result of an emotionally intense situation such as receiving bad news or having to make a high stakes decision.

Purpose

To capture instances in which a character expresses emotional pain or anguish.

Coding

Is the character's face expressing emotional pain? (c_emopain_face)

- Code 0 if the character's face did not express emotional pain.
- Code 1 if the character's face expressed emotional pain.

Is the character's body language expressing emotional pain? (c_emopain_body)

- Code 0 if the character's body language or movement did not express emotional pain.
- Code 1 if the character's body language or movement expressed emotional pain.

Is the character's voice, tone, or words expressing physical pain? ([c_emopain_verbal](#))

- Code 0 if character's spoken words or sounds did not express emotional pain.
- Code 1 if the character's spoken words or sounds expressed emotional pain.

Examples/clarifications

- None

References

- "Anguish". Oxford English Dictionary, Online, accessed April 9, 2021