



Data Article

Data representing expert ratings of emotional tone in adjectives used to describe infants and young children



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ABSTRACT

The way caregivers think of their infants and young children may impact caregiving behavior. One way to assess caregivers' thoughts of their young children is to prompt them to describe the child's personality. Popular methods to analyzing valenced language include the use of software approaches, which have limitations in scoring and application. The present investigation offers an alternative scoring system for the emotional tone of words and phrases relevant to descriptions of infants and children. Using a database of personality descriptions provided by pregnant people and parents to describe their child's personality, we asked experts in infant mental health and related disciplines ($N = 51$) to rate the words/phrases with regard to the emotional tone or connotation of the descriptive words provided (e.g., positive, neutral, or negative). Experts (i.e., participants) were individuals with self-reported expertise in infants and young children via their profession. Participants were recruited via email to known infant and early childhood mental health practitioners and researchers and through participant referral.

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A total of 496 unique words or phrases were rated by the experts, and in order to reduce participant burden, experts were randomly assigned approximately half of the words. From these ratings, we computed a continuous measure of average valence score across all raters and a categorical variable representing expert consensus (i.e., if $\geq 80\%$ of experts agreed it was positive or negative it was assigned that category, otherwise it was assigned neutral). As such, the data provided include caregiver adjectives used to describe their young children, expert ratings of the emotional tone of the provided description, average emotional tone for each word, and expert consensus for each word.

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Specifications Table

Subject	Psychiatry and Mental Health
Specific subject area	Infant and early childhood mental health
Type of data	Raw data with descriptive statistics
Data collection	A total of 496 words and phrases provided by caregivers responding to a prompt to describe their child's personality in five words or phrases were obtained in prior studies via administration of the Working Model of the Child Interview[1]. Given the large number of words provided, each expert participant was randomly assigned to rate approximately half of the words. Participants were given the prompt, "Below is a list of words that can be used to describe a child's personality. For each adjective, please indicate if you believe each adjective is positive, neutral, or negative." These ratings were then converted to numeric values (positive = 1, neutral = 0, and negative = -1).
Data source location	Data were collected through Vanderbilt University.
Data accessibility	Repository name: Expert ratings of emotional tone in descriptions of infants and young children Data identification number: 10.17605/OSF.IO/2PDV8 Direct URL to data: https://osf.io/2pdv8/?view_only=2db773ac073c41dd86b05bcbc78f6c07

Value of the Data

- These data provide a quantitative measure of caregiver emotional tone in describing infants and young children according to experts in the field of infant and early childhood mental health.
- These data provide an alternative to popular computer-program-based approaches of analyzing valenced language, which have limitations in the scoring algorithm, neglect scoring words or phrases as neutral in emotional tone, and potential to miss idioms and special phrases.
- These data can be used by researchers to (1) quantify the emotional tone used by caregivers to describe their infants and young children, (2) observe associations between caregiver emotional tone and caregiver or child characteristics, behavior, or outcomes, or (3) observe associations between caregiver emotional tone and caregiver-child relationship characteristics or behaviors.
- These data could potentially be used to identify high-risk populations, predict child outcomes, or indicate need for intervention.

1. Background

The way caregivers think of their infants and young children may impact caregiving behavior [2,3]. One way to assess caregivers' thoughts about their young children is to prompt them to describe the child's personality [1,4]. Popular methods to analyze valenced language include the use of computer software (e.g., LIWC-22) [5], which have several notable limitations. Specifically, current versions of the program (1) cannot interpret input with special symbols (e.g., quotes), which are common for participant free response and research assistant input; (2) the formulas used to calculate the emotional valence use an averaging computation technique based on the number of words inserted in the software (e.g., which result in "stubborn" and "he is stubborn" being scored as different in emotional tone); (3) there is potential to miss idioms, euphemisms, and special phrases, particularly as language use changes across settings; and (4) the linguistic software must be purchased. The present investigation offers an alternative scoring system for the emotional tone of words relevant to infant and early childhood mental health.

2. Data Description

A total of 496 words and phrases provided by caregivers were rated by experts in fields relating to infant and early childhood mental health. Caregiver responses to a prompt to describe their child's personality (e.g., during pregnancy and in the first years of life) in five words or phrases were obtained in prior studies [6–8]. Caregiver identities in these studies ranged in terms race and ethnicity, economic advantage, and age (range: 21–45 years). In the present study, words or phrases were randomized within blocks so that each participant rated approximately half of the total words. Participants were instructed, "Please indicate if you believe each adjective is positive, neutral, or negative." These ratings were then converted to numeric values (positive = 1, neutral = 0, and negative = -1). Each word was rated by an average of 27 experts ($M = 27.72$, $SD = 3.87$, range = 17–42). Raters tended to agree on word valence, such that the average percent agreement across all words was 77.7% (range = 37.5%–100%). The intercorrelation coefficient (ICC) for all words indicated moderate reliability (ICC = .67, 95% CI = .64–.70) considering a random sample of raters for each word based on absolute agreement [9]. Example words rated unanimously positive were *beautiful*, *caring*, and *intelligent*. Example descriptions rated unanimously negative were *cry baby*, *not very bright*, and *selfish*. In contrast, many words such as *boisterous*, *chubby*, *quirky*, and *strong-minded* received ratings across the positive, neutral, and negative categories. Specific rating information is available in the provided dataset, with variables presented according to the Data Dictionary (Table 1) below.

3. Experimental Design, Materials and Methods

3.1. Participants

Fifty-one individuals with self-reported expertise with infants and young children via their profession (experience in the field(s) of infant and early childhood mental health, pediatrics, or a related field) were recruited into the study. In addition to expertise in early childhood, inclusion criteria were fluency in English and being at least 18 years old. Sixty experts initially consented, of whom 9 did not complete ratings for any of the words assigned and were removed from further analysis. Self-reported demographic information is available in Table 2.

3.2. Procedures

All procedures and recruitment methods were approved by the Institutional Review Board at Vanderbilt University. Participants were recruited via emailing known infant and early childhood

Table 1
Data dictionary.

word_phrase	Description of child provided by participants across studies
pos_count	Raw count variable of experts who rated the description as positive
neut_count	Raw count variable of experts who rated the description as neutral
neg_count	Raw count variable of experts who rated the description as negative
total_count	Raw count of how many ratings were provided for the given word in total
valence_avg	Average across expert ratings, when negative rating = -1, neutral rating = 0, and positive rating = 1
valence_sd	Standard deviation of expert ratings
pos_perc	Given a variable number of experts rated each word, this variable represents the number of experts who rated the description as positive while accounting for the total number of experts who provided a rating
neut_perc	Given a variable number of experts rated each word, this variable represents the number of experts who rated the description as neutral while accounting for the total number of experts who provided a rating
neg_perc	Given a variable number of experts rated each word, this variable represents the number of experts who rated the description as negative while accounting for the total number of experts who provided a rating
expert_consensus	Provides positive or negative rating (positive = 1, negative = -1) based on expert agreement. Agreement was reached when at least 80% of experts agreed on description valence. When experts did not reach consensus (agreement), remaining words were given neutral (neutral = 0) ratings.

mental health practitioners and researchers (e.g., obtained via an early childhood research center) as well as through participant referral. All participants provided informed consent prior to participating. All participant data was collected online via Qualtrics. Compensation was a \$50 gift certificate for completing the study.

3.3. Measures

Demographics. Demographic and professional characteristics were collected via self-report, including participant age, sex, race, ethnicity, and educational attainment. We also collected information regarding field of study and years of practice.

Emotional valence of descriptors. Words and phrases provided by caregivers responding to a prompt to describe their child's personality during pregnancy and in the first years of life in five words or phrases were obtained in prior studies [6–8] via versions of the Working Model of the Child Interviews with parents. The Working Model of the Child Interview is a structured interview which elicits caregiver internal representations of their child and their relationship to that child. To measure the emotional valence of these caregiver descriptors, raters were given the prompt, "Below is a list of words that can be used to describe a child's personality. For each adjective, please indicate if you believe each adjective is positive, neutral, or negative." These ratings were then converted to numeric values (positive = 1, neutral = 0, and negative = -1). We then computed two primary measures regarding valence of the word or phrase. First, we computed a continuous measure of valence such that the average valence of each descriptor was calculated; that is, the average score across all expert raters, with possible values -1 to 1. Second, we computed a categorical variable for each word or phrase, representing expert consensus. Specifically, if $\geq 80\%$ of experts agreed the word was positive, it was assigned positive, if $\geq 80\%$ of experts agreed the word was negative, it was assigned negative. All remaining words/phrases were coded as neutral.

Limitations

The value of the dataset is offered with the acknowledgement of the following limitations. First, data reflect the ratings of 51 recruited experts in the infant and early childhood mental

Table 2

Demographic characteristics.

	Mean (SD)	Range
Years of age (<i>N</i> = 50)	41.77 (10.96)	21.15–65.88
Years of experience (<i>N</i> = 51)	15.98 (10.21)	1–40
	Number (%)	
Sex (<i>N</i> = 51)		
Female	50 (98)	
Male	1 (2)	
Race (<i>N</i> = 51)		
American Indian/Alaska Native	1 (2)	
Asian	1 (2)	
Black or African American	10 (19.5)	
White	38 (74.5)	
Multiracial	1 (2)	
Ethnicity (<i>N</i> = 51)		
Hispanic or Latine	1 (2)	
Not Hispanic or Latine	50 (98)	
Education (<i>N</i> = 51)		
Bachelor's degree	12 (23.5)	
Master's degree	26 (51)	
PhD, PsyD, MD	13 (25.5)	
Employment (<i>N</i> = 51)		
Employed part time	1 (2)	
Employed full time	47 (92)	
Self-employed	4 (8)	
Student	1 (2)	
Field of training (<i>N</i> = 51)		
Clinical or counseling psychology	19 (37)	
Social Work	10 (19.5)	
Teacher Education	12 (23.5)	
Psychiatry	2 (4)	
Marriage and Family Therapy	1 (2)	
Pediatrics	1 (2)	
Other	11 (21.5)	
Currently provide clinical services (<i>N</i> = 51)		
Yes	22 (43)	
No	29 (57)	

*Under the employment field, 2 people indicated multiple categories. Under the field of training field, 5 people indicated multiple categories.

Field of training other = Child development; Child and Family studies; Early childhood education; mental health counseling; public health; system's work; home visitation; human services

health field, with each word being rated by approximately half of this sample. Although this sample size provides representation across a range of expert age, education, field of training, and years of experience in the field, it is restricted to experts residing in the United States and generalizability may be limited. Second, although experts provided ratings for nearly 500 words, this is not an exhaustive list of all words/phrases caregivers may use to describe their infants or young children. A limitation to the current dataset is the restriction to the currently coded 496 words provided from previous studies. Third, the current data includes expert ratings on the emotional valence of the words/phrases provided and does not include other linguistic characteristics that may be of interest such as attentional focus or social style. These characteristics, in addition to emotional tone, may be available via computer software technologies, though the meaning of these scales is unclear [10].

Ethics Statement

Informed consent was obtained from all participants prior to study participation. This research was carried out in accordance with the Declaration of Helsinki. The Vanderbilt University Institutional Review Board approved this study (protocol IRB #23038).

Data Availability

[Expert ratings of emotional tone in descriptions of infants and young children \(Original data\)](#) (Open Science Framework).

CRedit Author Statement

Kaylin E. Hill: Data curation, Formal analysis, Writing – original draft; **Katherine L. Guyon-Harris:** Conceptualization, Methodology, Writing – review & editing; **Kathryn L. Humphreys:** Conceptualization, Methodology, Project administration, Funding acquisition, Writing – review & editing, Supervision.

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Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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