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Emotional granularity – Vocabulary for mental health?

Original Study

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Abstract: This paper presents a linguistic/semiotic critique of the notion of *emotional granularity* in the context of Lisa Feldman Barrett's *theory of constructed emotion.* (Barrett 2017a) Barrett claims that *emotional granularity*, the usage of refined emotion vocabulary, has positive effects on coping and health.

Barrett's denial of basic emotions like fear or anger and her rejection of ethological perspectives put her theory out of sync with other recent approaches such as Panksepp's *Affective Neuroscience* (e.g. Panksepp 2004) or Adolph's *Neuroscience of Emotions* (Adolphs 2018). Although the idea of constructed emotion seemingly resonates with constructivist points of view, this paper challenges Barrett's assumption that coping strategies depend on specific lexemes (i.e. *emotional granularity*) to construct and describe emotions.

Barrett ignores relevant concepts in linguistics and semiotics and relies on convenient lab experiments and quantifiable results. Barrett's conjectures about more 'refined' emotion vocabulary evoke problematic deficit theories long discredited by linguists (e.g. Labov 1970). Her recommendations for developing *emotional granularity* for the more 'accurate' description of emotions perpetuate assumptions about social background and vocabulary that extend 1960s deficit theories about education to elitist assumptions about class and mental health.

By presenting *emotional granularity* as an antidote to alexithymia, Barrett contributes to an increasingly popular research agenda in psychology. Thure von Uexküll's (1979) early criticism of alexithymia (in the context of psychosomatic medicine) provides the foundational (bio)semiotic concepts (derived from Jakob von Uexküll's *Umwelt* theory) that expose Barrett's problematic research methods (e.g. random images without context eliciting multiple choice vocabulary) and nomenclatural approach to *emotion words*.

Discourse analysis and corpus linguistics offer neutral and unbiased descriptive approaches to how people express their emotions in different registers, styles, contexts, and genres. Meaning is not in the lexeme but exists in the embeddedness of a speaker in their subjective now with their lived past and potential future that are absent from the artificial lab experiments Barrett's *emotional granularity* conjecture is based on.

Keywords: *Emotional granularity* – constructed emotion – affective neuroscience – verbal deficit – discourse analysis – Umwelt – Funktionskreis

1. BARRETT'S THEORY OF *CONSTRUCTED EMOTION* AND THE CONCEPT OF *EMOTIONAL GRANULARITY*

The psychologist and neuroscientist Lisa Feldman Barrett would like to replace the traditional view that there are basic emotions like *fear*, *anger*, or *sadness* with her 'theory of constructed emotion.' (Barrett 2017a) Some of the claims she makes in her popular Ted talk *You aren't at the mercy of your emotions – your brain creates them* (2017b) may sound alluring and seemingly compatible with constructivist views, but a closer look reveals some characteristic gaps that can be attributed to the fact that in psychology "any exercise of knowledge, or research, can be, and will be, used, abused, and ignored." (Anderson 2023, 47)

Barrett's *theory of constructed emotion* has been criticized from the perspective of psychology (e.g. Jurist, Slife 2019), philosophy (e.g. Birch 2024), and neuroscience (e.g. Adolphs 2017). This paper focuses on the concept of *emotional granularity* from a linguistic/semiotic perspective by addressing the theoretical blind spots that are symptomatic for research agendas in psychology dealing with aspects of language while bypassing basic concepts and insights in linguistics and semiotics. The absence of relevant theoretical concepts regarding natural language is most apparent in the design of Barrett's research experiments and her bold conjectures about *words*. Most importantly, this paper concentrates specifically on the conjecture that knowledge of lexemes associated with emotions (i.e. *emotional granularity*) has specific benefits for mental health.

Barrett's constructivism, her research methods, and her writing style (full of confident pronouncements about the brain), are an amalgam of psychology and neuroscience from where she crafted her theory of constructed emotion. (e.g. Barrett 2004, 2017). According to Barrett's (Barrett 2017a, xii) view, emotions are

> […] not universal but vary from culture to culture. They are not triggered, you create them. They emerge as a combination of the physical properties of your body, a flexible brain that wires itself to whatever environment it develops in, and your culture and upbringing, which provide that environment. Emotions are real, but not in the way that molecules and neurons are real.

This entails Barrett's rejection of basic emotions like *anger* or *fear* across cultures (and species). She arrives at this insight based on her research on emotion *vocabulary*, which lead her (Barrett 2017a, 2) to the conclusion that

> […] people often [do] not distinguish between feeling anxious and feeling depressed […] and that instead "everyone tested used the same emotion words like "angry", "sad", and "afraid" to communicate their feelings but not necessarily to mean the same thing.

When her informants use simple adjectives like 'sad' or 'angry' instead of what Barrett considers to be more "refined" vocabulary like 'anxious' or 'depressed', she concludes that only users of more nuanced or more "granular" adjectives "were accurately reading their internal emotional states" (2017a, 3). She refers to this ability to 'accurately' read and represent emotions as *emotional granularity*.

This conjecture is predicated upon a nomenclatural/referential view of the lexicon. From the perspective of linguistics, *words* (or lexemes) are not simply labels for things. From a semiotic perspective, signifying emotion is complex, multimodal, processual, and cannot be reduced to 'words' (or any other types of signs) with a fixed, isomorphic code.

Barrett does not consider natural language and other data concerning how people talk or write about emotions or otherwise express how they feel; nor does she concern herself with approaches to language and emotion in cognitive linguistics (e.g. Schwarz-Friesel 2015).

Instead, Barrett believes that to improve *emotional granularity* (the ability to describe your emotional states more accurately) we simply need more "emotion words".

While the learning aspect sounds reasonable, Barrett's rejection of basic emotions (such as *fear* or *anger*) with distinct physiological patterns, leaves everything to the lexemes (or 'words' or 'concepts' as she writes interchangeably).

Barrett constructs this argument by first rejecting the work of researchers who have identified basic emotions across cultures, for instance through facial expressions (e.g. Ekman 1969). Barrett rejects the idea that people can identify an angry or terrified face across cultures.

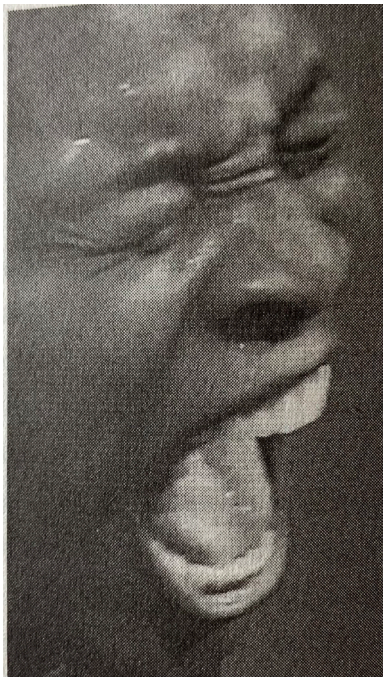

Figure 1. Image used in Barrett 2017a of a woman "in terror"

Her example is an image of a woman supposedly "in terror". (Barrett 2017a, 42)

The woman in the picture turns out to be Serena Williams celebrating her victory over her sister at the 2008 U.S. Open. It's a victory scream. The purpose of Barrett's example is to instruct her readers that what they think they are seeing is incorrect. While this is a paradoxical way of making her key argument, taking images out of context is a typical procedure in her experiments.

The isomorphism that is a necessity for her vocabulary argument is consequently not permitted in the context of any non-verbal expression of emotions. From there she concludes that "variation not uniformity is the norm." (2017a, 15) For Barrett, 'anger' is just a word that refers to a great variety of things that people may feel but has no distinct pattern of bodily symptoms; nor can it be detected in any specific part of the brain. She states (Barrett 2017a, 23) that

> […] an emotion word like anger does not refer to a specific response with a unique physical fingerprint but to a group of highly variable instances that are tied to specific situations. What we colloquially call emotions, such as anger, fear, and happiness, are better thought of as emotion categories, because each is a collection of diverse instances.

It is important to note that Barrett's idea of variation goes far beyond what is commonly explained with theories of categorization or prototype theory. Her particular view is best explained with one of her favorite examples, a personal anecdote of her going on a date with someone when she was a graduate student and mistaking her "face flush" and "stomach flutter" as feeling attracted to the young man on a lunch date, only to find out later that these sensations were actually the first signs of a stomach flu that befell her later that day (Barrett 2017a, 30).

It is difficult to believe that the early symptoms of a stomach flu can be misinterpreted as the flushing and stomach fluttering typically associated with being romantically or physically attracted to someone. This is not the only time Barrett begins her reasoning about emotions with the physical sensations that people then 'construct' as emotions (as if in a vacuum) ignoring the real-life *context* or *situation* they find themselves in.

In her Ted talk (2017b), she tells her audience that a feeling of "wretchedness" may just have harmless physical causes:

> Maybe you're tired? Maybe you didn't sleep enough? Maybe you're hungry? Maybe you're dehydrated? The next time you feel intense distress, ask yourself: Could this have a purely physical cause? Is it possible that you can transform emotional suffering into just mere physical discomfort?

Her answer is, of course, yes! This is the "really empowering and inspiring message" of her theory. (Barrett 2017b)

On the other hand, Barrett believes that people have real emotions while looking at random images in her lab. For instance, in her experiments on *emotional granularity*, subjects are shown images of puppies, a baby, a hospital, a crying boy, skydivers, a gun, a knife, a man on a cliff, and a cemetery (among others) and are then asked to self-report their emotional response to each slide. The purpose of such a study is to compare the emotion words used by informants to their level of *arousal* (the intensity of the emotional response) and *valence* (whether positive or negative), that are also self-reported on a scale. (Barrett 2004, 274)

This contradiction is never resolved or even acknowledged: On the one hand, her experiments are based on the idea that random image slides in the lab will cause people to have real emotions; while in real life situations people can confuse an upset stomach with feeling attracted to someone. She explains:

> An influenza virus in my blood contributed to my fever and flushing, and my brain made meaning from the sensations in the context of a lunch date, constructing a genuine feeling of attraction. […] Emotions are not reactions to the world. (Barrett 2017a, 31)

How disappointing if our attraction, longing, fascination, or love for other people are just a construct of whatever bodily sensations we happen to interpret or *construct* as such? Barrett's work is a classic example of matching the research question with a convenient study design; not to mention the inherent psychologism where the only data are the informant's self reported vocabulary choices selected from a menu.

Barrett's style of writing is assertive, dogmatic, full of casual observations about her own life like the lunch date attraction that turned out to be a stomach flu. All the depth and intensity of human emotion are according to this view, just statistically calculated interpretations of physiochemical mechanisms and happenings that apparently have nothing to do with our lived experience. It's a sort of neo-mechanistic view of consciousness.

With 'emotional granularity', Barrett upends embodied cognition and conceptual metaphor (e.g. Lakoff, Johnson 1980). Conceptual metaphor, according to Lakoff and Johnson, emerges from bodily experience: We say things like 'I'm down' because the feeling of sadness or lack of energy corresponds to the experience of the tired body in repose, the limp reclining associated with exhaustion or illness, the droopy postures and poses of grief and loneliness we recognize across cultures and species. We say we're 'down', because we transpose the outward bodily manifestations of what we experience (the source) into the abstract (the target) domain of emotions. Barrett thereby rejects (or simply ignores) this basic principle of embodied cognition, because in her theory of constructed emotion *sadness* or *anger* do not have any recognizable characteristics or physiological patterns.

2. EMOTIONS ARE ONLY HUMAN?

Barrett sees herself in the tradition of Charles Darwin (1872) and William James (1890), merging biology and psychology. However, she bypasses the *percept* in William James's definition of an emotion as "the bodily changes [that] *follow the perception* of an exciting fact" (James 1890 , 499) such as the attractive person across the table at lunch? *Perception* in Barrett's theory is replaced with *interoception*.

Even though she presents her theory as "an evolutionary theory rooted in population thinking" her rejection of basic emotions like *fear* is at odds with the evolutionary necessity of *fear* for survival. (cf. Mobbs et al. 2015) This and other aspects of evolution are addressed by Jaak Panksepp's *affective neuroscience* (e.g. 1998) that assumes human emotions have evolved from (and are consequently similar to) those of other animals. The Panksepp faction of affective neuroscientists (that includes prominent authors like Ralph Adolphs and Mark Solms) consequently disagree with the fundamental aspects of Barrett's theory. While Panksepp's affective neuroscience resonates with theories of emergence and the theoretical tenets of (bio)semiotics, Barrett simply rejects ethological perspectives based on her argument that humans construct emotions with language. Since animals don't have language, they cannot have *anger* or *fear* according to Barrett.

Unlike Barrett's theory of constructed emotion, Panksepp's is a bottom-up approach that explains what we share with other animals. Panksepp deploys this comparative neuroscience to develop, for example, better antidepressants. When Panksepp interprets a rat freezing in a large open space as *fearful*, Barrett accuses him of merely projecting a human concept onto another animal, because "the circuitry that controls freezing is not the circuitry for fear," (Barrett 2017a, 273) which she considers "an egregious scientific misunderstanding." (Ibid.) However, Panksepp is not merely interpreting the rat's behavior as *fear* but he also provides evidence that the brain circuits and neurotransmitters involved are similar to those of humans. Psychopharmaceuticals for humans can only be tested on animals like rats because of the established homologies in brain circuitry and chemistry. Panksepp's famous rat-tickling experiments (Panksepp, Burgdorf 2003) proved the same for positive emotions.

Barrett rejects any ethological perspective on emotions based on her language argument. Besides Panksepp's affective neuroscience, there are of course many other ethological approaches to emotion, for instance in the context of research on primates (e.g. Donovan, Anderson 2006, 190). In a paper on "Ethological Theory and the Expression of Emotion in the Voice", the linguist John Ohala (1996, 1812) explained that

> [ethology] constitutes a valuable resource for data, methods, and theories relevant to the question of how attitude and emotions might be conveyed in speech and its accompanying kinesics. Moreover, ethological accounts have the best chance of providing a unified theory of these behaviors. […] Darwin was one of the first to speculate in a systematic way about the genetic basis of certain behaviors, especially the expression of the emotions in man and animals. […] The comparative study of the expression of emotions has, in fact, reaped a rich harvest. There are remarkable similarities – both macro- and micro-patterns – in the expression of emotions in humans and various non-human species. This is particularly true among species that exploit some of the same signaling modalities as humans, i.e. the vocal-auditory channel and facial expressions. This includes especially the mammalian orders and families of primates and canids but for some patterns extends to other groups within the avian and amphibian classes. (We have the impression, probably quite valid, that we can "understand" the facial and acoustic aspects of dogs' […]; at a rather basic level they are morphologically similar to our own.)

Barrett makes short shrift of any ethological perspective; once again, relying on her own anecdotal experience with a dog named Rowdy (not her dog!) instead of consulting the work of ethologists or experts on dog behavior.

The origin of emotion, according to Barrett, is *human interoception*, which she defines as "your brain's representation of all sensations from your internal organs and tissues, the hormones in your blood, and your immune system." (Barrett 2017a, 56) This interoception then contributes to emotional experiences and perceptions. She explains (Barrett 2017a, 79) that

> [you] might think that in everyday life, the things you see and hear influence what you feel, but it's mostly the other way round: that what you feel alters your sight and hearing. Interoception in the moment is more influential to perception, and how you act, than the outside world is.

Barrett's "body-budget" metaphor of interoception, contributes to the terminological confusion she creates by equating *words* with *concepts*. Without what she calls 'concepts' (e.g. words like 'anger'), you would, she writes, "experience a world of ever-fluctuating noise." (Barrett 2017a, 85) She therefore believes that it is only by learning many concepts or words (like 'anger' or 'fear', or even better 'disgruntlement' or 'apprehension') that we learn to categorize our interoception. She likes to point out that people from Bali "fall asleep when they are afraid" because they don't have a word for fear. (Barrett 2020, 98)

This categorization is, according to Barrett, based on our comparing a new sensation or percept to our past experience. If you are now thinking of the process of *semiosis*, *analogy* or *metaphor*, or even *abduction* here, Barrett is agnostic to these ideas and presents hers as an entirely new approach to how we learn to feel anything at all. "Your brain," she says, "weighs its predictions based on probabilities […] the most probable predictions become your perception." (Ibid., 93) She sums up the

emotion-words-argument like this: "Emotions are not reactions to the world; they are your constructions *of* the world." (Ibid., 104) Barrett concludes that other animals do not have emotions, because "for emotion, you need emotion concepts" (Barrett 2017a, 277) or *emotional granularity*.

3. *EMOTIONAL GRANULARITY* OR BARRETT'S 'SOMMELIER OF EMOTIONS'

This view that specific lexemes are necessary to construct emotions entails the claim that *emotional granularity*, the use of refined emotion vocabulary, is associated with positive effects on coping and health. This "level of specificity that characterizes verbal representations of an affective experience" (Tan et al. 2022) "(especially discriminating among negative emotions) [is] associated with larger repertoires of emotion-regulation strategies" (Barrett et al. 2001). Barrett claims that the vocabulary we use for emotions determines how well we cope with life (e.g. Barrett 2017a). Consequently (cf. Tugade et al. 2004):

> […] knowing the difference between despair or anxiety, for instance, helps you decide how to remedy those feelings: whether to talk to a friend, listen to uplifting music, or watch a funny movie.

Barret (2017a, 106 [emphasis added]) further claims about emotion experts that

> [in] English, for example, they might have concepts for anger, sadness, fear, happiness, surprise, guilt, wonder, shame, compassion, disgust, awe, excitement, pride, embarrassment, gratitude, contempt, longing, delight, lust, exuberance, and love, to name a few. They'll also have distinct concepts for interrelated words like "aggravation", "irritation", "frustration", "hostility", "rage", and "disgruntlement." This person is an emotion expert. A *sommelier of emotion*.

It is not clear what characterizes "interrelated words" in the above quote, but a linguistic corpus analysis might reveal that they are less frequent and occur only in specific *genres*, or particular types of text.

Before deploying too many concepts at once, consider two simple examples by cognitive linguist Monika Schwarz-Friesel (2015) for how people can express disgust:

(8) I feel utterly and completely disgusted.

(9) Ugh, I am going to puke!

Schwarz-Friesel (2015, 164) explains that

> [the] expression of emotion takes place on all linguistic levels in text and discourse: morphological, lexical, syntactic (e.g. exclamative or optative sentence type), on the level of figurative language patterns (mainly by metaphors) and on the macrostructural information level of text (topic-comment, global coherence), as well.

One could point out that Schwarz-Friesel's examples represent different levels of formality and belong to different *registers*, but most importantly, they express disgust with the same intensity, with or without the lexeme. (Schwarz-Friesel 2015, 164)

Barrett's assumption seems to be that *words* do not warrant a particular theoretical approach and can simply be dealt with in psychology without consulting any linguistic/semiotic concepts at all. The (socio)linguistic concepts *register* (different levels of formality), *discourse*, and *speech style* being the most relevant here, are not

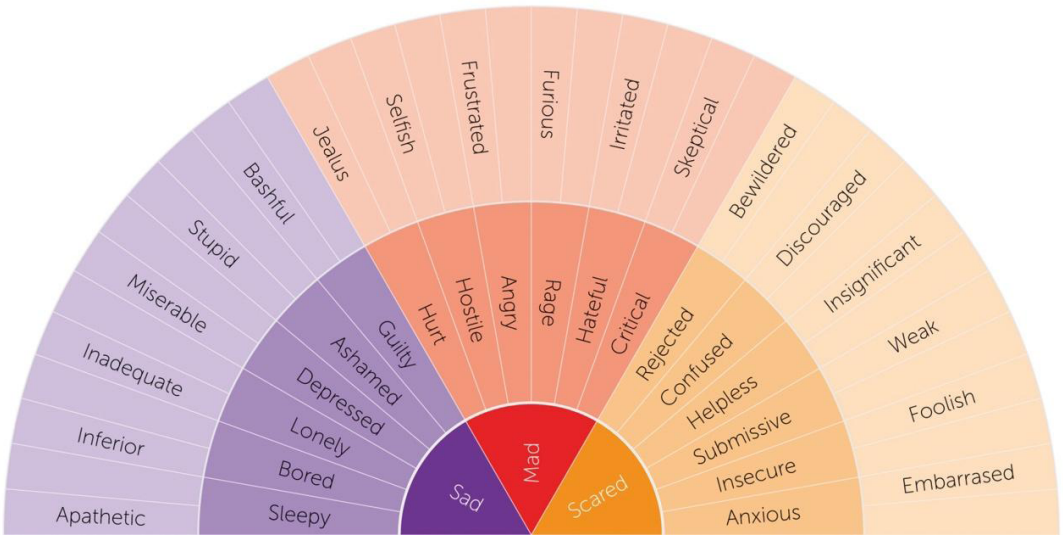

Figure 2. The Feeling Wheel (https://allthefeelz.app/cc/feeling-wheel/)

part of the theoretical armamentarium of research on *emotional granularity*. It remains on a raw nomenclatural view of vocabulary.

Emotional granularity is often illustrated with vocabulary wheels (see Figure 2) with 'coarse' emotion words like *sad*, *mad*, or *angry* in the center, fanning out to allegedly more and more 'granular' vocabulary:.

Republished in 2017, this *Feeling Wheel* often used in the context of *emotional granularity* originated in the 1980s (cf. Wilcox, 2017 [1982]) as a tool to boost emotional awareness. With the basic emotions in the center, more nuanced or more refined ('granular') emotion vocabulary towards the outer circles.

The distribution of lexemes on the *Feeling Wheel* from coarse to fine seems arbitrary, although a corpus analysis may reveal that more lexemes reserved for higher *registers* appear in the outer circles. For Barrett's *emotional granularity* research, the assumption seems to be that the desirable, more 'granular' items are more sophisticated and more 'accurate'. This assumption is confirmed by Barrett's conjecture that not using 'refined' vocabulary for emotions is indicative of a person's "impoverished conceptual system for emotion." (Barrett 2017a, 106)

Ignoring the implications of different speech styles, levels of formality, covert and overt prestige, *emotional granularity* is simply presented as knowledge of vocabulary that some people have, and others need to develop as a necessity for mental health.

Emotional granularity is, according to Barrett, also a matter of 'neural efficiency' for "constructing more precise emotional experiences." Barrett (2017a, 121) writes:

> Imagine if the English language had a more specific word than "happiness" for feeling attachment to a close friend such as the Korean *jeong* […]. Your brain would require less effort to construct with this more precise concept. Even better, if you had a special word for "happiness at feeling close to my Uncle Kevin," your brain could be even more efficient. […] Preciseness leads to efficiency; this is a biological payoff of higher *emotional granularity*.

Here, Barrett equates efficiency with 'brain effort' or processing speed; but is coping and mental health a question of effort and speed? From a semiotic perspective, the ability to describe and talk about feelings is conducive to reasoning. The Peircean dictum that *my language is the sum total of myself* (CP. 5.314) represents "[this] root theme that I am what I know and what I know I express, along with the wider notion that what is equals what is knowable, or being equals a collection of signs." (Fairbanks 1976, 21) The Peircean phenomenological categories explain *feeling* (firstness) as what is just there in the subjective *now*, and the ability to relate the present to the past (secondness) allows for the anticipation of the *future* (thirdness) in a processual evolution of semiosis. (cf. Peirce 1992[1894]) This continuous organism-environment interaction that underlies all semiosis can be explained with Uexküll's *Funktionskreis* model (e.g. Uexküll, J. von 1920) of *perception* and *action* that connects, physiological, cognitive, social, and cultural levels of life, that is fundamental to any coherent perception of the world necessary for consciousness. Kalevi Kull (2020) called the *Funktionskreis* "the primary mechanism of meaning making" that motivates the constant creation of an organism's subjective reality or *Umwelt*, the concept that also inspired the phenomenology of perception (e.g. Merleau-Ponty 1945), philosophical anthropology (Plessner 1975), and integrative medicine (Uexküll, T. von 1979).

Barrett's idea that emotions are predictions or guesses based on interoception take human bodies out of any context or life world. Like a bio machine fallen out of time, the brain is the control center managing the "body-budget" for an organism that is alive without a life story and uses vocabulary out of context to construct emotional states with *words* based on physicochemical mechanisms, metabolic processes, hormones, etc.

It is undeniable that expressing emotions can and must be developed and practiced. However, meaning making is not an issue of vocabulary. More on that in section 8.

4. FROM ALEXITHYMIA TO *EMOTIONAL GRANULARITY*

The idea that some people are better at describing their feelings than others is not new. In the 1970s, the construct of *alexithymia* (e.g. Nemiah, Sifneos 1970) originated in the context of clinical observations on psychosomatic patients who had difficulty describing their symptoms. While *alexithymia* remains controversial (it has not been included in the DSM), it has become firmly established in psychology as a multifaceted construct that includes (cf. Lee at al. 2022):

- (i) difficulties identifying and describing one's own feelings,
- (ii) difficulty recognising emotional experiences from internal bodily signals, and
- (iii) a thinking style that focuses more on the external and operational aspects of reality, and less on internal self-experiences, notably emotions.

This cluster of personality traits is diagnosed with the Alexithymia Scale TAS-20 (cf. Bagby et al. 1994), "a self-report questionnaire that measures the three core facets of alexithymia, namely difficulties identifying feelings, difficulties describing feelings, and externally oriented thinking." (Lee at al. 2022)

Barrett characterizes people with *alexithymia* as having "an impoverished conceptual system for emotion" (Barrett 2017a, 107). They may "have a stomachache" instead of feeling angry. Since alexithymia sufferers "have a restricted emotion vocabulary", they are for Barrett living proof of her theory of constructed emotion (Ibid.), only that 'impoverished' and 'restricted' are not neutral terms.

One of Barrett's recommendations for developing *emotional granularity* is to consider and learn about emotion words from other languages . Unfortunately, her use of the German word *Schadenfreude* in the context of emotions is more an irritating cliché than an effective example. Nevertheless, Barrett uses it to argue that linguistic relativity confirms that emotions are merely constructed with language.

Like many other psychologists, Barrett believes that *alexithymia* befalls "10 % of the world's population" (2017a, 107). It has become so established as a research agenda in psychology that an epidemiological study on *alexithymia* in Finnish adolescents from 2007 states that "more than a thousand articles have been published on alexithymia, only a few of those have dealt with the epidemiology of alexithymia" (Joukamaa et al. 2007).

According to an epidemiological study conducted in 2001 of then 15 to 16-year-olds, around 10 % of adolescent girls and 7 % of boys in this cohort were identified as *alexithymic* based on the Toronto Scale. Another study (Säkkinen et al. 2007) found even higher prevalence among 12-17-year-olds with 14.6 % among boys and 17.3 % among girls. According to Barrett's calculations, a lot of people would benefit from boosting their *emotional granularity*.

5. *EMOTIONAL GRANULARITY* AS REMEDY FOR VERBAL DEFICIT?

People who do not have the refined vocabulary to describe (or rather 'construct') their emotions, can be helped by simply learning those words, according to Barrett. Her conjectures are, in fact, linguistic *deficit theories*. Calling people with low *emotional granularity* 'impoverished' and 'restricted' (Barrett 2017a, 106) in their emotion vocabulary deploys the arguments of 1960s deficit theories that have long been criticized by linguists (e.g. Labov 1970). Likewise, when psychologists conclude that alexithymia correlates with "low education, living in a rural area, and poor social situations" (Joukamaa et al. 2007), they make the same conjecture that poor education and lower socio-economic background lead to deficits in an individual's ability to express themselves that sociologists promoted in the 1960s (e.g. Bernstein 1966; Bereiter 1966).

The American linguist William Labov (e.g. Labov 1970; cf. Cushing 2022) responded to the work of British sociologist Basil Bernstein (1966), who believed that the 'restricted code' associated with low-income inner-city life correlates with impaired cognitive development and inferior educational outcomes that manifest themselves in limited vocabulary and lack of verbal dexterity. Labov (1970) forcefully refuted this theory in the context of what he then referred to as Black English Vernacular. In his landmark study on The Logic of Nonstandard English, Labov (1970) addressed what he considered popular myths and prejudice about certain speech styles associated with low income or working-class backgrounds. He used the notion of "verbality" to contrast the speech style of "those who participate fully in the vernacular of the street" (1970, 205) with the standard and refers to "middle-class verbal behavior" as characterized by "verbosity". Instead of the *elaborate code* that Bernstein defined as "flexible, detailed, and subtle" (Ibid.), Labov asked whether middle-class speech is not rather just an "elaborated style" pointing out that sometimes working-class speakers can be "more effective narrators, reasoners, and debaters." (Ibid.)

From the perspective of linguistics, there is more to be said about vocabulary choice, register, in-group speech styles, and in particular *teen speech*. The most important conclusion, above all, is that the conjecture that lack of *emotional granularity* (i.e. alexithymia) correlates with poor education and low social status is no more than a new version of problematic old ideas.

6. *EMOTIONAL GRANULARITY*, DISCOURSE, AND TEEN SPEECH - DISCOURSE ANALYSIS AS A NEUTRAL APPROACH TO THE LINGUISTIC EXPRESSION OF EMOTION

The alleged prevalence of alexithymia among teenagers (e.g. Joukamaa 2007) invites a closer look at the notion of *discourse* in general, and the characteristics of *teen speech* in particular. Discourse analysis (Coupland, Jaworski 2001, 134) offers the unifying insight

> that important aspects of our lives are constructed in and through language, whether in the moment-to-moment social interchanges of everyday talk or in the beliefs, understandings and principles that structure our lives. Discourse analysis is therefore the attempt to observe, unravel and critique these acts of construction.

Discourse analysis, therefore, should be the perfect paradigm for a theory of *constructed emotion* since the theoretical position it adopts is inherently constructivist. To illustrate the concept of *discourse* in linguistics, Coupland and Jaworski (2001, 135 [adapted from Holmes 1999, 336) present the following example:

Text 1

Two thirteen-year-olds discussing a schoolteacher.

David: He's a real dickhead he just bawls you out without listening at all.

Oliver: Yeah what an asshole (.) I can't stand him, he's always raving raving on.

It is important to know who 'He' is referring to in this situation. It is also important that David and Oliver are two boys in school. The rest of the lexemes are on the surface irrelevant (Coupland, Jaworski 2001, 136):

> So, it is not sufficient for the interpretation of discourse to know the meanings of individual words arranged in a particular way in actual utterances, spoken or written. We need to draw on additional knowledge about

> the world in which these utterances are produced […] and different people may come up with different interpretations of the same stretch of discourse depending on their particular knowledge and experience of the world.

Some people may find this exchange crude (or coarse?) and unpolished, while teenagers may consider it just normal chatting. Some people may consider it poor in grammar and style, but most everyone would agree that David is *angry*, because he was scolded by a teacher who was not listening to him. Oliver then responds by expressing his solidarity and support. He matches David's invective to let him know that he is with him and understands *how he feels*. Instead of exchanging information, the point of the conversation is precisely to *express and manage their emotions*. However, they do not need to explicitly describe what they are feeling with specific vocabulary or jargon for *emotional granularity*.

Discourse analysis allows for descriptive parsing and annotating of spoken and written texts to analyze how people talk or write to construct their identity, establish group-solidarity, negotiate power and, indeed, express and manage their emotions.

Discourse analysis also maintains "that academic research is itself a set of discourses and that we need to examine how research serves particular interests and constructs its meanings and values, reflects its own texts, accordingly." (Coupland, Jaworski 2001, 138) In the context of mental health, the emotion words on the *Feeling wheel* are presented as 'correct' or 'legitimate' language in opposition to the 'incorrect' or 'coarse' speech styles of people with what Barrett calls an "impoverished conceptual system for emotion" (Barrett 2017a, 106), a deficit that can be addressed by practicing the vocabulary of *emotional granularity*.

What Bourdieu (1991) called *linguistic habitus* explains that our vocabulary and speech styles are part of our identity in an intricate system of *symbolic capital* where 'legitimate' and 'acceptable' language is the main currency of power and control. Critical discourse analysis is where these mechanisms of knowledge, power, truth, and ideology are traced across genres and contexts from everyday talk to academic discourse.

David and Oliver (Text 1) express and manage their emotional states accurately and effectively true to their *linguistic habitus* in the way that is necessary to feel understood, validated, and accepted as their true selves, two boys at school, expressing and managing their emotions. They could probably choose lexemes from the *Feeling Wheel* to describe what they are feeling (in the lab), but it would not be more 'accurate' or more 'legitimate' than their exchange in Text 1 for them. William Labov explained this in the 1970s (Labov 1970) in the context of Black American English. One could look to George Orwell's essay on *Politics and the English language* (1946) as a precursor of the very same argument in the context of working-class British people.

Imagine David and Oliver (Text 1) as subjects in Lisa Feldman Barrett's research studies. They would have to translate their speech style into the jargon of the "emotional sommelier" (Barrett 2017a) they can only pretend to become through *emotional granularity*. Not unlike the self report questionnaires designed for the diagnosis of *alexithymia* they would have to rate how 'irritated' or 'frustrated' they are on a Likert scale. We could consider Barrett's many study formats, using electronic devices that remind subjects at regular intervals to choose from a list of words to describe their momentary emotional states and rate the intensity (*arousal*) and whether they experience it as positive of negative (*valence*). But an analysis of Barrett's (2017a) discursive style may be more productive in distinguishing her brand of neuroscience from the methods and approaches of other neuroscientists who concern themselves with emotion.

For instance, Ralph Adolphs' book *The Neuroscience of Emotion* (2018) begins with the question "What don't we know about emotions?" and then methodically goes through a set of "questionable assumptions", foregrounding the theme of asking the right questions. Adolphs is not afraid to refer to the question whether emotions are purely *subjective* experiences as "a deep *mystery* that we are far from solving" (Adolphs 2018, 11[emphasis added]). The humility and caution in Adolphs' discursive style stands in stark contrast with the confident pronouncements in Barrett's bestselling book *How Emotions are Made: The Secret Life of the Brain* (2017). While her style is dogmatic and assertive, Adolphs maintains the more cautious tone of methodical popular science writing, aiming for "a science of emotion that is integrative in the sense of connecting across disciplines. It should be meaningful and useful to the philosopher, psychologist, and neurobiologist alike." (Adolphs 2018, 27) Barrett's writing, in contrast, constructs a cathedral for her own blend of psychology and neuroscience, relying on the accomplishments, studies, and publications of her own lab, elevating her perspective over others, citing and referring to what confirms her conjectures. Like a self-help coach, Barrett (2017a, 181) also tells people exactly what they need to do to boost their mental health with *emotional granularity*:

> The more finely grained your vocabulary, the more precisely your predicting brain can calibrate your budget to your body's needs. […] So, learn as many new words as possible. Read books that are outside of your comfort zone or listen to thought-provoking audio content like National Public Radio. Don't be satisfied with "happy": seek out and use more specific words like "ecstatic", "blissful", and "inspired". Learn the difference between "discouraged" and "dejected" versus generically "sad".

7. BLIND BLENDING WITHOUT LANGUAGE - ON THE IMPORTANCE OF CREATIVITY OVER CONFORMITY

Barrett seems to be unaware of the elitist connotations of the "sommelier of emotion" (Barrett 2017a, 106). Like an expert sommelier must be experienced in the fine art of tasting and be conversant in the jargon of wine and other fine things, *emotional granularity* affords, according to Barrett's research methods, the more 'accurate' description of emotional states. It is through learning the 'granular' vocabulary that, according to Barrett, people construct their emotions. The sommelier analogy conveys an elitist assumption that people must be educated to become literate and conversant in what is considered the refined and required 'legitimate' or 'accurate' way of describing emotions.

The 'emotional sommelier', however, turns out to be even more problematic in the context of constructed emotion, because Barrett's definition of 'interoception' lacks the equivalents to the percepts of taste and aroma upon which the sommelier's expertise relies. Remember that, according to Barrett (2017a, 79)

> […] you might think that in everyday life, the things you see and hear influence what you feel, but it's mostly the other way round: that what you feel alters your sight and hearing. Interoception in the moment is more influential to perception, and how you act, than the outside world is.

The 'sommelier of emotion' is problematic precisely because the percept, the 'exciting fact' in William James's (1890) definition of emotion is missing from her definition, because for her the starting point of an emotion is interoception. For the sommelier, the flavors and appearance of a wine sample and their subjective perception are undeniably the source of the 'exciting facts' that allow them to compare and describe characteristics of taste and aroma through memory, comparison, and analogy.

And there is yet another problem with the sommelier analogy: Even in this context, it is precisely not adhering to a prescribed jargon or vocabulary that is valued by the connoisseurs of wine. Not the standard jargon, but the creative innovation in describing the subjective perception is the craft of the expert sommelier.

Celebrated winemaker Maggie Harrison (Halberstadt 2023), who attributes her ability to blend award-winning wines to her synesthesia and her ability to keep hundreds of samples in her mind without describing them verbally at all has

> […] grapheme-color-synesthesia, a form in which numerals and letters become associated with colors, […]. As she tastes her way around [hundreds of] bottled samples, her brain turns every number into a distinct, vibrant color, until the wines in front of her become a palette of umbers, oranges, and Prussian blues that she combines into a final composition that aspires to what she describes as "emotional transparency" and a "perfect tension between intensity and levity." Her synesthesia allows her to hold this overwhelming amount of sensory data in her mind as a palette of color, "keeping it in the sensory realm," she told me, "without having to translate it into language."

Maggie Harrison not only abandoned the constraints of terroir, traditional notions of taste and aroma, along with conventional vocabulary to create and describe the percepts and sensations of wine. Her synesthesia allows her to catalogue percepts by numbers and colors. Her success is precisely in not translating the percepts into language at all to create the perfect blend.

The distinguished connoisseur or master sommelier cannot rely on standard terminology, but instead, they must recognize and describe the excellence of a particular vintage or new blend beyond the familiar jargon. One sommelier recently described one of Harrison's blends by writing (Halberstadt 2023):

> It reminded me of one of those 1950s wide-screen film spectacles, like "Written on the Wind" or "Rear Window," in which every visual detail bursts forth in a riot of ultra saturated color. It had an intensity and vividness — an almost electric quality — I simply hadn't experienced, but without any heaviness. A friend, tasting it across the table, compared it to a well-designed neon sign.

Rejecting conformity and standard jargon is appreciated in most areas of creativity including winemaking, but *emotional granularity* perpetuates misguided assumptions about 'accurate' vocabulary while at the same time proclaiming the variation of human emotion without any basic categories at all. The 'emotional sommelier' is a metaphor for the elitism inherent in the deficit theory that lurks behind Barrett's *emotional granularity*.

8. WHAT A THEORY OF CONSTRUCTED EMOTION COULD GLEAN FROM LINGUISTICS AND SEMIOTICS

Discourse analysis could inform a theory of constructed emotion that is predicated on the principle that "important aspects of our lives are constructed in and through language"; it can provide theoretical concepts and methods to "unravel and critique these acts of construction." (Coupland, Jaworski 2001, 134) By shifting the focus to finding out how particular linguistic expressions are used in different contexts or genres; corpus analysis of spoken and written text can shed light on many aspects of context and usage. These and other research methods in linguistics could provide a descriptive approach and replace the *deficit theory* that underlies Barrett's *emotional granularity*.

This egalitarian point of view also motivated the physician and semiotic theorist Thure von Uexküll to reject the construct of *alexithymia* as a disorder in the 1970s.

In his monumental textbook on psychosomatic medicine (Uexküll, T. von 1986[1979]) he wrote:

> They invented the concept of alexithymia […] for the inability of patients to feel and articulate their feelings, […] most of this is still controversial. […] The phenomenon is undeniable. It is also obvious, that communication must be learned and practiced. […] There is a danger that during their training, medical students actually unlearn [*verlernen*] their natural abilities of empathetic communicating and relating to other people. […] The result is a health care system, in which we are not dealing so much with alexithymic patients, but emotionally illiterate physicians.

Thure von Uexküll (1908–2004) recognized the irony in diagnosing a patient as alexithymic in a medical environment where physicians do not talk to patients very much. It is no coincidence that the leading figure of psychosomatic medicine was the son of Jakob von Uexküll (1864–1944), whose *Funktionskreis* model (e.g. Uexküll, J. von 1909, 1920) provided the theoretical foundation for the integrated medicine movement in Germany. (cf. Augustyn 2023) The whole movement of psychosomatic medicine and later integrated medicine has been characterized as *biographical* medicine, because its central premise was the constructing of the patient's life story around the crisis through conversation.

This constructivist orientation is evident in what must be one of the earliest interpretations of Jakob von Uexküll's Funktionskreis model in the context of human health, Karl Jaspers *Psychopathology* (Jaspers 1940[1913], 10f), where he wrote:

> All life unfolds as a reciprocal relationship of Inwelt [sic] and Umwelt (v. Uexküll). A fundamental phenomenon [*Urphänomen*] of life is: living in our own world [*in seiner Welt leben*]. Somatic being [*das somatische Dasein*] cannot be understood by examining the anatomical body with its physiological functions in an unspecified space, but instead must be understood as living in a subjective Umwelt, into which it is adapted and in which it is actualized in a *Merkwelt* and *Wirkwelt*. This original wholistic life as being [*Dasein*] with and in this subjective world is present in our humanity [*Menschsein*] but is augmented by human beings through our specific conscious ordering and editing of our world [*wissendes Gliedern und Bearbeiten seiner Welt*], and then through our knowledge of it being our subjective world [*Weltsein überhaupt*].

This 'conscious ordering and editing' is accomplished by articulating how or what we feel through language. This is the basic idea of integrated medicine: The patient must be guided in articulating their life story around the crisis in free-flow conversation with the physician, who guides the patient on the path to health.

It was Thure von Uexküll who pioneered research on situational hypertension (e.g. Uexküll, T. von 1964) by measuring fluctuations in blood pressure among students while taking exams. With these experiments, Thure von Uexküll proved for the first time that the subjective perception of an internal reality (for instance the experience of stress and affect) can lead to measurable physiological changes in a situation. (cf. Roelcke 2019, 297; Roelcke 2021) Lisa Feldman Barrett uses very similar techniques in some of her experiments (measuring ERP and skin conductance) while showing subjects image slides and asking them to self report their emotions. Whereas Thure von Uexküll monitored the blood pressure of students who were taking real exams, Barrett shows informants random pictures in her lab out of context.

While Thure von Uexküll's biographical medicine was predicated upon "the creation of individual reality through the percepts of our body and our sense organs according to programs that the individual acquired in the course of his or her own biography." (Uexküll, J von 1986, 128), always seeing the patient in their *Lebenswelt*, Barrett's experiments are conveniently artificial. Instead of investigating how people express or describe their emotions through language, Barrett is interested in efficient study formats and quantifiable results. The idea that mental health is measurable based on how many emotion words people know is problematic not only because it perpetuates elitist deficit theories, but because her study subjects are always in the artificial vacuum of the lab, self-reporting their emotional responses to random stimuli with no context.

The concept of *emotional granularity* is presented as an alluringly simple way to boost mental health by simply learning vocabulary. It is undeniable that people who (can) talk about their feelings are better at coping and that such skills can be developed and practiced. However, meaning making is not an issue of specific lexemes, because complex emotions can be described without any emotion vocabulary at all. If a wine can taste "like a well-designed neon sign" (Halberstadt 2023), it is not conformity and prescribed vocabulary, but cognitive creativity on all levels of linguistic expression that allows us to define emotional states with finesse and nuance.

Consider another example:

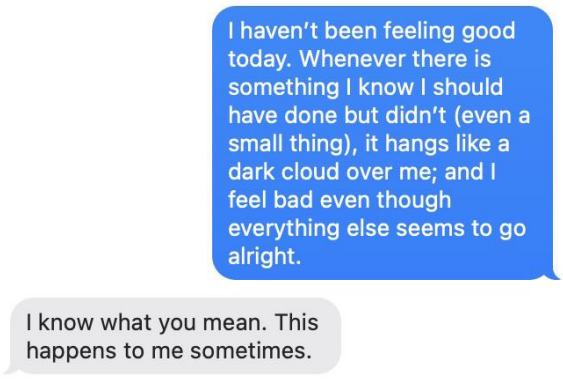

Figure 3. Example of a Text Message.

Meaning is not in the words or lexemes, but it is made with whatever linguistic (and other semiotic) devices are at our disposal or preference, depending on the context in the speaker's subjective Now. It's not the vocabulary for emotions that makes people better at coping, it is the ability to talk about emotions in discourse with others who care in whatever way is true to our linguistic habitus and suits the sociopragmatic parameters of the context and situation.

To explain why a glass of wine can taste *like a 1950s wide-screen film* or why procrastination can feel like a *dark cloud*, Floyd Merrell (2011, 92) summed up Hilary Putnam (1975, 1981, 1983)

> […] who argues at length with respect to the becoming of signs' meanings, that […] a word is not the carrier of information as if it were endowed with some magical or spiritual force exercising an overpowering influence on anybody and everybody. – Meaning is not in the sign. […] it's in the entire mind-numbingly complex, processually becoming context, which includes sign emitter and sign receiver, past experiences, present experiences, and anticipation of future experiences. Meaning is always becoming, emerging, from the range of possibilities between the eithers and the ors and the neithers and the nors, from the included middle of something fresh and new, of some alternative to old ways and means.

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