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TARGET ARTICLE



## How to Do Things with Emotional Expressions: The Theory of Affective Pragmatics

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### ABSTRACT

It is widely accepted that emotional expressions can be rich communicative devices. We can learn much from the tears of a grieving friend, the smiles of an affable stranger, or the slamming of a door by a disgruntled lover. So far, a systematic analysis of what can be communicated by emotional expressions of different kinds and of exactly how such communication takes place has been missing. The aim of this article is to introduce a new framework for the study of emotional expressions that I call the *theory of affective pragmatics* (TAP). As linguistic pragmatics focuses on what utterances mean in a context, affective pragmatics focuses on what emotional expressions mean in a context. TAP develops and connects two principal insights. The first is the insight that emotional expressions do much more than simply expressing emotions. As proponents of the Behavioral Ecology View of facial movements have long emphasized, bodily displays are sophisticated social tools that can communicate the signaler's intentions and requests. Proponents of the Basic Emotion View of emotional expressions have acknowledged this fact, but they have failed to emphasize its importance, in part because they have been in the grip of a mistaken theory of emotional expressions as involuntary readouts of emotions. The second insight that TAP aims to articulate and apply to emotional expressions is that it is possible to engage in analogs of speech acts without using language at all. I argue that there are important and so far largely unexplored similarities between what we can "do" with words and what we can "do" with emotional expressions. In particular, the core tenet of TAP is that emotional expressions are a means not only of *expressing* what's inside but also of *directing* other people's behavior, of *representing* what the world is like and of *committing* to future courses of action. Because these are some of the main things we can do with language, the take home message of my analysis is that, from a communicative point of view, much of what we can do with language we can also do with non-verbal emotional expressions. I conclude by exploring some reasons why, despite the analogies I have highlighted, emotional expressions are much less powerful communicative tools than speech acts.

### KEYWORDS

Basic emotion theory; behavioral ecology view; emotion; emotional expressions; evolution of language

### Introduction

The aim of this article is to introduce a new framework for the study of emotional expressions I call the *theory of affective pragmatics* (TAP). As linguistic pragmatics focuses on what utterances mean in a context, affective pragmatics focuses on what emotional expressions mean in a context. TAP develops and connects two principal insights. The first is that emotional expressions do much more than simply expressing emotions, an insight basic emotion theorists have long neglected (Russell & Fernández-Dols, 1997; Scherer, 1988; but see Keltner & Cordaro, 2015). As forcefully contended by behavioral ecologists, bodily displays are sophisticated social tools that can communicate the signaler's "intentions" and "requests" (Fridlund, 1994).

The second is the insight that it is possible to engage in analogs of speech acts without using language at all. Searle (1969) briefly considered a few candidate examples in his seminal work on speech acts. For instance, he suggested that we can ask another person to leave a room through a pointing gesture (rather than by saying "Leave the room") and that a dog can express pleasure by wagging its tail (rather than by saying "I am pleased").

Here, I want to ask a key question: What kinds of analogs of speech acts does the expression of emotions make available? The answer will be: a great many. In particular, the core tenet of TAP is that emotional expressions are a means of engaging in a variety of communicative moves such as *expressing* what's inside, *directing* other people's behavior, *representing* what the world is like, and *committing* to future courses of action. Because these are some of the main things we can do with language, the take-home message of this article is that, from a communicative point of view, much of what we can do with language we can also do with nonverbal emotional expressions.

TAP has two principal objectives. First, it aims to foster progress in the experimental study of emotional expressions by providing a new taxonomy of the communicative moves that emotional expressions make available. Second, TAP aims to unveil both similarities and differences between nonverbal and verbal communication, setting the stage for a better understanding of the evolution of language. My main suggestion in this regard is that the critical transition point in the evolution of linguistic communication is the separation of the communicative *force* of an expression from its propositional *content*, an

achievement that nonverbal emotional communication does not allow for.

The article proceeds as follows. I begin by reviewing the current scientific debate on emotional expressions, expanding on the insights of basic emotion theorists and behavioral ecologists while avoiding some of their mistakes. I then introduce speech act theory, explaining in what sense there could be genuine analogs of speech acts performed without language. The core section of the paper contains a general taxonomy of communicative moves made available by expressing emotions. I finally turn to some of the limitations of emotional communication as compared to linguistic communication. The concluding section summarizes what has been achieved.

### Communicating Through Emotional Expressions: Clarifying the Terms

The very existence of emotional expressions is contentious: Some authors consider it obvious that there are emotional expressions (Ekman, 1999a), whereas others vehemently deny it (Fridlund, 1994). The purpose of this section is to bring to the fore the main assumptions that drive the scientific debate on emotional expressions and communication and in the process clarify the terminology I use in TAP.

My primary focus is on Ekman's Basic Emotion View and Fridlund's Behavioral Ecology View, arguably the two most influential accounts of emotional expressions currently available in affective science.<sup>1</sup> These research programs are generally presented as fiercely opposed with one another, and to a significant extent they are, but they also share rarely noted similarities in their understanding of what bodily movements, including facial expressions, communicate. Furthermore, both research programs make assumptions about the nature of emotional expressions that are unwarranted and stand in the way of progress.

#### Darwin's Legacy

Ekman and Fridlund take inspiration from Darwin's (1872) *The Expression of Emotions in Men and Animals*, the book that got the science of emotional expressions started. An element both researchers borrow from Darwin is a focus on *bodily vehicles* of emotional expressions. Darwin's primary examples involve *facial changes* (e.g., "frowns," "wrinkled skin under lower eyelids," "mouth drawn back at corners," "nostrils raised"), *postural changes* (e.g., "head droops," "shoulders raised"), and *vocal changes* ("loud sounds," "screams"), which express emotions through a dynamic, extended, and multimodal sequence of bodily movements (see Keltner & Cordaro, 2015).

Since Darwin's time, facial, postural, and vocal changes—henceforth, *nonverbal bodily changes*—have been the most

commonly studied vehicles of emotional expression, even though there are other ways to express emotions, for instance, through gestures, autonomic changes, and actions (Hursthouse, 1991; Keltner, Tracy, Sauter, Cordaro, & McNeil, 2016).

Ekman and Fridlund agree that a great many nonverbal bodily changes have the *selected function* of communicating, where the selected function of a trait T consists of effects of T that have in the past contributed to the selection of T-bearing organisms (traits can have multiple selected functions).<sup>2</sup> This puts them at odds with Darwin, who held that the *selected function* of emotional expressions is *practical* rather than *communicative*, in the sense that expressions originally benefitted their producers as elements of some useful but non-communicative activity.

Darwin's (1872) core proposal was that a great many emotional expressions were selected as component parts of full-fledged adaptive actions ("principle of serviceable associated habits"). For example, a bodily movement like the baring of one's teeth was first a part of an action like biting out of anger. At this stage, it was not yet an expression but just an element of a broader action that was of practical use and came under positive selection pressure. Then by force of habit the baring of one's teeth was paired with anger without an act of will, thereby becoming an expression proper. Finally it was transformed into a vestigial reflex action, whereby anger is reflexively followed by the baring of teeth, even though such expression is no longer "of the least use", because the action it contributed to—biting—has exited the repertoire of the species.

Once some expressions have been established through this first principle, Darwin added, other signals can be generated through the subsidiary principle of "antithesis," according to which expressions are produced by "the excitement of an opposite frame of mind."<sup>3</sup> Finally, some expressions result from the "direct action of the nervous system," namely, from nervous excitation.

At face value, the claim that expressions are not "of the least use" in the contemporary environment suggests that for Darwin they have no *current function*, where the current function of a trait T consists of advantageous effects T is currently disposed to produce (traits can have multiple current functions). Several remarks by Darwin (1872/2009), however, speak against the interpretation of expressions as purely vestigial. He stated, for instance, that "the movements of expression in the face and body, whatever their origin may have been, are in themselves of much importance for our welfare" (p. 385), which indicates that they produce advantages in the current environment. And when he described "movements associated with various states of the mind or body [as being] now purposeless," a passage often invoked to make the case they have no current function (Fridlund, 1994), Darwin (1872, p. 44)

<sup>2</sup>For example, hearts have the selected function of pumping blood, because pumping blood in the past contributed to the selection of heart-bearing organisms. Helpful overviews of the concepts of function in biology and philosophy include Wouters (2003) and Garson (2016).

<sup>3</sup>The principle of antithesis seems to contradict Darwin's claim that emotional expressions did not evolve in order to communicate, because in this case the selected effect of the expression seems to be selected precisely to communicate an "opposite frame of mind." I disregard this problem in what follows (see Dewey, 1894, for an early proposal on how to eliminate this contradiction).

<sup>1</sup>Appraisal theorists and psychological constructionists have also developed influential theories of emotional expressions (see, e.g., Russell & Fernández-Dols, 1997; Scherer, 2000), but I won't be able to discuss their theories in this article except tangentially. Similarly, I won't be able to consider the rich philosophical literature on the nature and function of emotional expressions (see, e.g., Abell & Smith, 2016; Bar-On, 2013; Glazer, 2016; Green, 2007). Both tasks must be left to other articles due to space constraints.

immediately added that such movements “are still of use under certain circumstances.”

The circumstances in which emotional expressions are of contemporary use are primarily communicative. A mother and an infant, Darwin (1872/2009) pointed out, usefully communicate through facial expressions. We perceive other people’s sympathy toward us “by their expression; our sufferings are thus mitigated and our pleasures increased” (p. 365). To sum up, what Darwin intended to say, give and take a few slips of the pen, is that emotional expressions can have a current communicative function that differs from their selected practical function.

Darwin may have underestimated the extent to which emotional expressions continue to fulfill practical functions in current environments (Shariff & Tracy, 2011). For example, the widening of the eyes in fear increases the scope of the visual field and the speed of eye movements, which heighten visual acuity and can help toward selecting actions that achieve safety (Susskind et al., 2008). The scrunched nose of disgust reduces air intake and consequently helps toward preserving the body from noxious substances (Chapman, Kim, Susskind, & Anderson, 2009).

Most importantly, Darwin was wrong to assume that the ability of emotional expressions to communicate in current environments had no beneficial effects in the ancestral past, as the communicative problems expressions help us solve, for instance, allowing mother and infant to coordinate their behaviors, also existed in the “environment of evolutionary adaptiveness” (Ekman, 1999a, 2003). If so, it seems reasonable to allow for the possibility that emotional expressions may also have evolved in order to communicate. To put it otherwise, one of their selected functions, just like one of their current functions, may be communicative.<sup>4</sup>

I will take for granted from here on that emotional expressions have selected and current functions that are communicative (as well as selected and current functions that are practical) and direct my focus to the analysis of what exactly emotional expressions communicate and how they do it.

### Communication and Natural Information

What does it mean to say that emotional expressions communicate? Because we are focusing on nonverbal bodily changes, the most obvious place to look for a model of communication that can help us with the answer is the theory of animal communication. Although there is much controversy in this literature, “nearly all authors agree that [animal] communication involves the provision of information by a sender to a

receiver” (Bradbury & Vehrencamp, 2011, p. 2). On this view, providing information is *necessary* for communicating, even though more may be required for communication to take place (see next).

The notion of information presupposed here is what philosophers often refer to as *natural information* or *natural meaning* (Grice 1957; Dretske 1981; Scarantino and Piccinini 2010; Scarantino 2015b), a kind of information/meaning the transmission of which requires statistical correlations between information bearers and states of affairs in the world. For instance, smoke carries natural information about fire/naturally means fire because there is a statistical correlation between smoke and fire on the basis of which a recipient can infer fire from smoke.

By the same token, we could say that nonverbal bodily changes communicate about emotions insofar as they carry natural information about them. On this view, in order for an emotional expression like bared teeth to communicate anger, it is necessary that bared teeth and anger are statistically correlated, as this would allow recipients to infer the presence of anger from the presence of bared teeth. Note that this notion of natural information is highly permissive, because a given nonverbal bodily change ends up carrying natural information about *anything* a recipient can infer from it on the basis of statistical correlations.

Can we distinguish between categories of natural information that are of special interest for communicative purposes? In an insightful article, Ekman (1997) introduced a preliminary taxonomy. Consider a person involuntarily baring her teeth out of anger. For Ekman, this facial expression carries the information that “someone insulted/offended/provoked her” (information about antecedents), that “she is planning to attack that person” and that “she is remembering the last time someone insulted her” (information about the person’s thoughts: plans, expectations, memories), that “she is feeling very tense” (information about the internal physical state), that “she is boiling” (information about metaphors), that “she is about to hit someone” (information about what the expresser is likely to do next), that “she wants the person who provoked her to stop what he/she is doing” (information about what the expresser wants the perceiver to do), that “she is angry” (information about emotion words; pp. 316, 318). The same holds for Ekman with respect to all emotional expressions, which carry natural information in these seven domains.

This is a promising account of the informational content of emotional expressions, and I develop it in a later section. For now, I note that the informational richness of emotional expressions acknowledged by Ekman is not reflected by his own experimental work. As it is well known, basic emotion theorists have focused primarily on collecting evidence on the ability of facial movements (deprived of any context) to carry information about “emotion words” across cultures (Ekman, 1980, 1999a).

Famously, subjects in dozens of different cultures have been presented with snapshots of prototypical facial expressions of emotions and asked to pair the pictures with emotion words like *anger*, *fear*, *disgust*, *happiness*, *sadness*, and *surprise*. Ekman’s long-standing assumption has been that high cross-cultural agreement on which emotion words are paired with each face

<sup>4</sup>Darwin’s opposition to the idea that emotional expressions are adaptations for the purpose of communicating must be understood in its historical context. In Darwin’s time, the dominant theory of expression was Bell’s (1844) theory, according to which “many of our facial muscles are “a special provision” by God for the “sole object” of communicating our emotions (Bell as quoted in Darwin 1872, p. 11). Darwin’s primary concern was to argue that expressions have not been given to men by God but, rather, emerged from evolution. To make this point, Darwin denied Bell’s claim that expressions have the selected function of communicating about inner states, as this was Bell’s rationale for assuming that God had given them to men. Of course, Darwin could have chosen another path, namely, conceding that human emotions are there because of their communicative function but denying the other half of Bell’s thesis and show that evolution, rather than God, had been the granting authority.

shows that the same emotions produce the same expressions in all cultures, bolstering the case for the evolutionary origin of anger, fear, disgust, happiness, sadness and surprise (Ekman & Cordaro, 2011; see also Matsumoto & Hwang, 2016).

Ekman's use of the snapshot method has been criticized for a variety of methodological and conceptual reasons (Fernández-Dols & Ruiz-Belda, 1995; Fridlund, 1994; Russell, 1994), but this is not my concern here. My concern is that the Basic Emotion View has focused the attention of the research community for decades now on only *one* of the many types of information carried by emotional expressions, namely, information about the emotion the subject is undergoing.

The other kinds of information must also be carefully studied, both individually and in cross-cultural context, because they are vital for understanding the nature of the communicative exchange between signalers and recipients, as a number of prominent basic emotion theorists are beginning to acknowledge (Keltner & Cordaro, 2015; Keltner et al., 2016). The point that nonverbal bodily changes are sophisticated social tools was first cogently made by Fridlund (1994) and other proponents of the Behavioral Ecology View, but it was combined with a scorched-earth opposition to the very notion of emotional expression.

I first discuss the core dialectic between the Basic Emotion View and the Behavioral Ecology View, and then I explain why the valuable insights of these two research programs must be combined into a richer hybrid, with a reformed notion of emotional expression taking center stage once again.

### **The Behavioral Ecology Critique of the Basic Emotion View**

A central disagreement between proponents of the Basic Emotion View and proponents of the Behavioral Ecology View concerns the issue of voluntariness of facial changes, the nonverbal bodily changes studied most closely by the two research programs. Ekman (1997) agreed with Darwin that "all facial expressions of emotion are involuntary" (p. 324). Darwin followed the trend of the time and understood emotions as *feelings*, whereas Ekman has a more sophisticated understanding of emotions as *basic affect programs* selected to solve recurrent evolutionary problems like escaping dangers (fear), fighting (anger), responding to losses (sadness), and so on (Ekman, 1999b). The Basic Emotion View holds that such programs provide solutions because they mandatorily cause a cascade of coordinated physiological, expressive, phenomenological, and behavioral responses that allow agents to quickly and effectively deal with life challenges.<sup>5</sup>

Basic emotions may involve feelings (a.k.a. qualia), but feelings are not strictly necessary for a basic emotion to be instantiated. They are just one of the 11 characteristics that identify basic emotions, which include, besides distinctive feelings or subjective experiences, distinctive universal signals, distinctive physiology, automatic appraisals tuned to distinctive universals

in antecedent events, distinctive developmental appearance, presence in other primates, quick onset, brief duration, unbidden occurrence, and distinctive thoughts, memories, and images (Ekman, 1999b). With the possible exception of distinctive universal signals, none of these characteristics is deemed by Ekman to be a *sine qua non* feature of a basic emotion.

Darwin and Ekman both emphasized that, as a result of their involuntary origin, emotional expressions can be trusted. In fact, it is by definition impossible to manufacture an *insincere* emotional expression *sensu* Darwin–Ekman in the absence of the relevant emotion. This is not to say that deception is impossible. We can voluntarily produce facial, postural, and vocal changes that mimic emotional expressions for strategic purposes. And when we do a good job, deception will ensue. Ekman added that the voluntary imitation, labeled the *false expression*, won't be identical to the involuntary original, labeled the *true expression* (Ekman, Roper, & Hager, 1980). His prime example was the Duchenne smile: Ekman suggested that such a smile can only be involuntarily caused by happiness and that it is morphologically different from the voluntary smile of, say, politeness (also labeled the smile of feigned happiness; Ekman & Friesen, 1982).

An important corollary of the Darwin–Ekman framework is the assumption that there is a tight *association* between emotion types and facial expression types. If facial expressions are reflexively produced by emotions, and nothing other than emotions can produce them in morphologically comparable fashion, emotion types and facial expression types will be tied by a *one-to-one mapping*. Ekman (1992) proposed a qualified version of this idea, suggesting that there is a one-to-one mapping between emotion types and types of "facial themes", which admit of variations.

Ekman (1992, p. 172) acknowledged, for instance, that there can be dozens of different faces produced when one is angry. This is in part because culturally specific *display rules* affect facial expressions as soon as they are produced, leading to some cultural variation in what is observed. This is why Ekman's theory is often labeled a *Neurocultural View*. According to it, neurally grounded basic affect programs reflexively produce the same emotional expressions in all cultures, but culturally specific rules operate on the expressions postproduction to adjust them to local rules and customs. In such cases, leakages of the original involuntary expression, also known as microexpressions, will still be present, even though an untrained observer may be unable to detect them (Ekman, Friesen, & O'Sullivan, 1988).

The key point is that Ekman assumed that all faces associated with a given basic emotion constitute family variations on a common theme. For example, "in all members of the anger family the brows are lowered and drawn together, the upper eyelid is raised and the muscle in the lips is tightened" (Ekman, 1992, p. 172). The proposal, then, is that whenever a subject is angry/afraid/disgusted/etcetera, a facial expression is produced that shares the distinctive facial theme of the family, and whenever that facial theme is instantiated, anger/fear/disgust/etcetera is its cause, although expressions "morphologically similar" to the facial theme may have other causes.

Finally, Ekman made it clear that we can engage in a variety of involuntary and voluntary facial movements that are *not*

<sup>5</sup>In Scarantino (in press), I argue that we should replace mandatory causation with probabilistic causation in order to have a plausible version of basic emotion theory. I label the updated version of the theory the "new basic emotion theory," or New BET.

expressions of emotions. For example, some facial movements are *emblems*, namely, “symbolic facial gestures” acquired the way words are learned, such as the wink, the facial shrug, and the tongue protruded to symbolize defiance. Other facial movements are *conversational signals*, namely, movements that “accent, underline, or provide syntax” for linguistic utterances, such as conversation *regulators* (e.g., nodding to signal understanding) and conversation *illustrators* (e.g., raising one’s brow to emphasize the word “Where?” as we keep searching for something our partner keeps telling us is nearby; Ekman & Friesen, 1969). The face, Ekman (1997) concluded, is a “multi-signal system” (p. 329).<sup>6</sup>

At the heart of Fridlund’s critique of the Basic Emotion View is the idea that facial movements could not have evolved to involuntarily inform recipients about the emotions of signalers. “Automatic readouts or spillovers of [inner states]”, Fridlund (1994, p. 109) stated, “would be extinguished early in phylogeny in the service of deception, economy, and privacy.” This is because revealing one’s inner states with no concern for one’s audience may be detrimental from an evolutionary point of view. Suppose for instance that the signaler becomes afraid of an opponent in the course of a confrontation over a contested resource. Any mechanism that involuntarily reveals such fear would be selected against, because it is likely to encourage attack, and is consequently disadvantageous to the signaler.

Fridlund’s position can better be understood in the context of Dawkins and Krebs’s (1978) critique of the notion of animal communication as information transfer, a view they associated with Darwin and classical ethologists like Lorenz and Tinbergen. Dawkins and Krebs argued that the evolutionary point of communicating is getting recipients to do things that are advantageous to the signaler. It follows that nonverbal bodily changes could be selected only for their ability to influence recipients into doing what the signaler needs or wants rather than for their ability to inform them.

This view was soon criticized for neglecting the role played by recipients in signal evolution (Hinde, 1981). Recipients are also objects of selective pressures, and they would not respond to signals unless such signals were informative in ways that are advantageous to recipients themselves. In an updated version of their article, Krebs and Dawkins (1984) seemed receptive to this line of criticism. They acknowledged that, as signalers have an evolutionary interest in influencing recipients to their advantage, recipients have an evolutionary interest in using signals to gain information to their advantage. Recipients are *mind-readers*, where mind-reading is a “catch-word to describe what we are doing when we use statistical laws to predict what an animal will do next” (Krebs & Dawkins, 1984, p. 386).

The bottom line is that the extraction of natural information on the basis of statistical correlations and the attempt to exercise influence are complementary and equally important aspects of nonverbal communication. This insight is now widely shared in fields as diverse as animal communication, physical anthropology, evolutionary psychology, and social neuroscience (Fitch, 2010). Summing up, the currently

dominant notion of nonverbal communication presupposed in these fields is that communication is not merely natural information transfer but natural information transfer designed to influence recipients (Scarantino, 2013).

The notion of communication is sometimes used more restrictively, to entail, for instance, that the vehicles of communication are voluntarily produced (Ekman, 1997). I eschew this assumption and allow communicative signals to be “designed” for information-mediated influence in one of two ways: voluntarily by means of individual intentions or involuntarily by means of selective pressures like natural or even cultural selection (for a general defense of a similar account of emotional expressions, see Green, 2007). On this view, the baring of the teeth upon being suddenly poked in the back and the smile of politeness can both be designed for carrying information, even though the former is involuntary and the latter voluntary.<sup>7</sup>

### *Emotional Expressions or Display Behaviors?*

Fridlund’s (1994) positive proposal is that we replace the concept of *emotional expressions* with that of *display behaviors*, understood as nonverbal bodily changes voluntarily produced when the signaler considers doing so advantageous. Fridlund’s main focus was on *facial displays*, proposed as a replacement for Ekman’s notion of *facial expressions*. And just as Ekman acknowledged the existence of facial movements that are not facial expressions, Fridlund acknowledges the existence of facial movements that are not facial displays. Specifically, Fridlund added to his roster of facial movements *facial reflexes*, namely, involuntary facial changes such as laughter upon being tickled or blinking upon detecting a large looming object, and *facial paralinguistics*, namely, voluntary and involuntary facial changes “accompanying and supplementing speech” (this category includes both Ekman’s emblems and conversational signals; Fridlund, 1994).

The impetus for the replacement of facial expressions with facial displays came for Fridlund from two sources. The first is the realization of the importance of context in determining whether facial movements are produced and what they mean. The second is skepticism about the very notion of emotion. Although the first point is well taken, the second is detrimental to progress and should be squarely rejected.

Behavioral ecologists have documented plenty of cases in which physical and imagined audiences influence whether displays are produced, and what types of displays are produced (for reviews, see Fridlund, 2015, and Fernández-Dols, 2017). For example, when tenpin bowlers make a strike, their smiles are produced only when they turn their faces to their friends, even though they presumably experience happiness as soon as the strike takes place (Kraut & Johnston, 1979). Spanish soccer fans show a similar pattern in their facial responses to goals and produce Duchenne smiles only when facing one another (Ruiz-Belda, Fernández-Dols, Carrera & Barchard, 2003).

<sup>6</sup>In some cases, the very same muscles will be involved in emotional expressions and in other facial movements: The raising of the eyebrows can be featured both in the expression of surprise and as a conversational signal.

<sup>7</sup>Furthermore, it is sometimes assumed that in order for communication to take place, the recipient must pick up the information carried by the signal. I do not make this assumption either, allowing a signal to communicate insofar as it is produced in order to influence through information transfer, whether or not the recipient picks up such information and is influenced by it.

These data appear to show that smiles are not involuntary expressions of happiness but rather voluntary displays of the intent to affiliate/celebrate, and they suggest, more broadly, that facial changes are strategic moves in the context of a social transaction (Griffiths & Scarantino, 2009).

Students of facial movements have also realized the importance of context in determining what facial movements carry natural information about or naturally mean (Barrett, Mesquita, & Gendron, 2011; Fridlund, 2015; Hassin, Aviezer, & Bentin, 2013; Russell, 2015). A smile toward a lover means something different than a smile towards an opponent in a parking lot confrontation. The raising of the eyebrows while trying to score a point in basketball means something different from the raising of the eyebrows when receiving unexpected news. The baring of the teeth upon being poked in the back means something different from the baring of the teeth produced while lifting a huge weight at the gym.

The context is not just environmental; it also comprises what else is going on in the body of the agent. For example, the very same facial configuration can transition from meaning that the agent is experiencing a positive emotion to meaning that the agent is experiencing a negative emotion depending on what bodily postures are associated with it (Aviezer, Trope, & Todorov, 2012). It has been further hypothesized that the context should comprise the perceiver's semantic knowledge (Lindquist & Gendron, 2013) and general cultural orientation (Barrett, Lindquist, & Gendron, 2007; Elfenbein & Ambady, 2003) as well.

A key corollary is that, whereas Darwin and Ekman posited a one-to-one mapping between emotion types and facial expression types, Fridlund (1994, 2015) posits a *many-to-many mapping* between emotion types and facial display types. In other words, there are innumerable facial changes voluntarily produced when a subject is angry/afraid/disgusted/etcetera (with no shared facial theme), and each of such displays can be produced by things other than anger/fear/disgust/etcetera, without any morphological marker of the difference.

According to the Behavioral Ecology View, displays are best understood as “declarations that signify our trajectory in a given social interaction, that is, what we will do in the current situation, or what we would like the other to do” (Fridlund, 1994, p. 130). In other words, facial movements are “social tools” that “aid the negotiation of social encounters” and are produced to serve the agent's “social motives” (p. 129). Fridlund offered a tentative list of such “declarations,” contrasting them with the Basic Emotion View (see Table 1).

Just to give a couple of examples, whereas a Duchenne smile is for Ekman a true expression of happiness and the polite smile a false expression of happiness, Fridlund rejects the true–false dichotomy and suggests that the Duchenne smile and the polite smile are produced in service of different social motives. The Duchenne smile declares intent to play or affiliate, whereas the polite smile declares courtesy and appeasement. The same is true for all alleged expressions of emotions, which are for Fridlund declarations of intentions/states of readiness, with the occasional declaration of a request (for succor), plus some other declarations that do not seem to easily fit into either the intention category or the request category (displays of superiority, displays of damage).

**Table 1.** Two contrasting views of facial movements.

Basic Emotion View	Behavioral Ecology View
"Felt" (happy, "Duchenne") smile	Intent to play or affiliate
"False" smile (feigned happiness)	Display of courtesy, appeasement
"Sad" face	Recruitment of succor; display of surrender, damage or vulnerability to damage
"Anger" face	Readiness to attack
"Fear" face	Readiness to submit or escape
"Contentment" face	Readiness to continue current interaction
"Disgust" face	Intent to spew or analogously reject another
"Contempt" face	Display of superiority

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### Finding Common Ground

There is a striking similarity between Ekman's (1997) analysis of the information carried by emotional expressions and Fridlund's (1994) analysis of the declarations associated with displays. For example, as Ekman (1997, p. 318) argued that emotional expressions carry information about “what the expresser is likely to do next” or information about “what the expresser wants the perceiver to do,” (Fridlund, 1994, p. 130) argued that displays declare “readiness to do” various things or declare “requests” that the audience does various things. This is nothing more than a terminological distinction, in the sense that “declaring” and “communicating through the information conveyed” are different labels for the same phenomenon.

Another notable convergence on what expressions communicate can be found in work by Klaus Scherer, who proposed an appraisal-based theory of emotional expressions according to which “individual elements of [emotional] expression are determined by appraisal results and represent the efferent effects of [appraisal results] on motor behavior” (Scherer, Mortillaro & Mehu, 2013, p. 48). The details of the appraisal theory of emotional expressions do not matter here. What matters is Scherer's (1988, p. 80) proposal, inspired by Bühler's Organon model of the functions of language, that emotional expressions are “multifunctional.”

Bühler's model distinguished between signs as *symbols* “representing the object, event or fact it stands for”; signs as *symptoms* “of the state of the sign user”; and signs as *signals*, “trying to elicit a response from the receiver” (Scherer, 1988, p. 80). Scherer applies this framework to emotional expressions (vocal ones in particular), suggesting that they also work as symbols, symptoms, and signals. Roughly, emotional expressions are *symbols* of the “approximate nature of the emotion-eliciting event” (1988, p. 96), they are *symptoms* of the emotional state of the sender, and they are *signals* of what the expresser is trying to get the recipient to do.

The terminology here is infelicitous. A common typology of signs, introduced in semiotics by Peirce (1897), distinguishes between *icons*, *indexes*, and *symbols*. Roughly put, icons are signs standing for their semiotic referents by virtue of a *similarity of physical structure*, indexes are signs standing for their semiotic referents by virtue of a *physical connection* between them, and symbols are signs standing for their semiotic referents by virtue of an *arbitrary convention* among sign users.

An emotional expression like baring one's teeth out of anger is better understood as an index than as a symbol of the anger-eliciting event, because its connection to what it stands for is grounded in a physical connection rather than an arbitrary stipulation. Suppose, for instance, that we take an expression of anger like baring one's teeth to represent slights (more on this in a later section). Surely there is no arbitrary convention that connects baring one's teeth with slights. Contrast this with the case of the word "slight", which stands for slights in a conventional manner, as shown by the fact that it could be easily replaced by another word with the same referent if sign users agreed to it.

The second problem pertains to the notion of a signal, which is restricted to play an "appeal function" in Scherer's taxonomy. This contrasts with the use made of the notion of signal in animal communication theory, where signal is a term of art to designate "characteristics fashioned or maintained by natural selection because they convey information to other organisms" (Otte, 1974, p. 385). There is no presumption in this literature that signals cannot be indexes of external referents nor that they cannot be symptoms of inner states.

So I propose we rephrase Scherer's useful distinction as follows: Emotional expressions *are* signals that represent, that manifest internal states, and that make demands on recipients *qua* signals. For example, an expression of disgust like "Eee!" at finding a black worm in one's oyster is a signal with the "referential function" of representing "an unappealing matter," the "expression function" of manifesting disgust, and the "appeal function" of demanding that others "closely scrutinize what is on their own plates" (Scherer, 1988, p. 83).

The emergent theme of this section is that there is significant overlap between theorists of emotional expressions from different research programs (e.g., Ekman, Fridlund, Scherer) on what nonverbal bodily changes carry information about/mean/declare/signal. We now need a general framework for the study of what emotional expressions "do" from a communicative point of view. The Theory of Affective Pragmatics I introduce and develop in this paper aims to offer precisely such framework.

We need to solve a preliminary problem: Members of different research programs disagree on the basic features of emotional expressions, and even on whether emotional expressions should be included in the scientific analysis of nonverbal communication. This makes the combination of insights across research programs very difficult.

In the remainder of this section I propose two integrative moves aimed at finding common ground, one in conflict with the Basic Emotion View and the other in conflict with the Behavioral Ecology View. The first is to grant that not all emotional expressions, including not all facial expressions, are involuntary, contrary to what basic emotion theorists have long argued. Evolutionary considerations and the evidence on widespread audience-effects undermine the core assumption that all emotional expressions are involuntary (Fridlund, 1994). Behavioral ecologists should be credited for this important insight, but their follow-up moves have not been as helpful.

Instead of proposing that emotional expressions can also be voluntary, they have rejected the idea of emotional expressions *tout court*. Fridlund's underlying assumption is that the very

concept of expression presupposes involuntariness, in the sense that if you express some mental state X, you must do so involuntarily (the same holds for the concepts of "outpouring" and "readout"). Because facial displays are not involuntary on Fridlund's view, he thereby concludes that they are not expressions (nor outpourings nor readouts).

A different path is available, namely, allowing the concept of emotional expression to range on a continuum between voluntariness and involuntariness. On the view I am recommending, a handful of emotional expressions are reflexively caused by the emotions they express, and a great many others are not. For example, baring one's teeth out of anger can be reflexively caused by being suddenly poked in the back, whereas raising one's voice out of anger does not occur without voluntariness, even though they both count as examples of anger expressions.

In addition, I reject Darwin and Ekman's assumption that there is a one-to-one mapping between emotion types and expression types, either at the level of facial changes or at the level of any combination of nonverbal bodily changes. For example, when angry, sad, ashamed, and so on, we can express such emotions with innumerable combinations of context-dependent nonverbal bodily changes, and most—if not all—of such changes can also be produced by things other than anger, sadness, shame, and so on.

These amendments are unlikely to persuade proponents of the Behavioral Ecology View to preserve the notion of emotional expression. The core reason why they oppose such a notion concerns what is supposedly expressed, namely, the emotion itself. As far as I can tell, Fridlund and other critics of the Basic Emotion View (e.g., Russell, 2015) are skeptical about invoking emotions in the study of nonverbal displays for two main reasons. The first is that no consensual scientific definition of emotions is available. The second is that the distinction between emotion-caused and non-emotion-caused displays is allegedly explanatorily irrelevant with respect to what recipients care about, namely, what the signaler will do next. Both reasons are misguided and must be rejected.

Fridlund, Russell, and several other proponents of psychological constructionism have rightly emphasized that there is lack of scientific consensus on what emotions are. But from this it does not follow that affective scientists systematically disagree on what count as instances of emotions. The point is that the ability to recognize instances of a concept, that is, to tell whether a given entity falls under a concept, is different from the ability to define a concept, that is, to tell by virtue of what a given entity falls under a concept.

This is what makes scientific research possible. If the ability to recognize instances of a concept required having a scientific definition of the concept already available, scientific definitions would never get off the ground, because they are generally developed after centuries of investigation on recognizable instances of the yet-to-be-defined concept.

This being said, there is something troublesome about the lack of a consensual scientific definition of emotion and of the categories subordinate to it like anger, fear, shame, and so forth. In previous publications, I have argued that the inference to the best explanation for why, despite centuries of efforts, we have failed to unveil a consensual scientific theory of emotions that accounts for all the empirical data on what we call "emotion,"

“fear,” or “anger” in English while achieving all our other theoretical objectives is that there is not such theory to be found, because such categories are too heterogeneous (Scarantino, 2012).

So I recommended that we embrace a *pluralist* account that aims to replace folk emotion concepts such as emotion, fear, anger, and so on, and so forth, with different and more homogenous scientific concepts, just as we have replaced the folk concept of memory with different and more homogenous scientific concepts like procedural memory, declarative memory, and so on (Scarantino, 2012).

None of this entails that there is no way to scientifically confirm whether an agent is, say, angry or afraid prior to having replaced anger and fear with these “revised concepts.” As long as the episode in question has enough of the prototypical markers of anger or fear, different scientific theories (e.g., basic emotion theory, appraisal theory, psychological constructionism, etc.) will agree that it is an episode of anger or fear, even though they will part ways when it comes to explaining what anger and fear are. This entails that, at least in prototypical cases, scientists and regular folks alike can tell the difference between a nonverbal bodily change that is caused by an emotion and a nonverbal bodily change that is caused by something other than an emotion.

Even if we could persuade Fridlund of this point, my guess is that he would remain steadfast in his opposition to the notion of emotional expression. This is because on his view the Behavioral Ecology View “neither needs nor benefits from ‘emotion’ as an explanatory construct” (Fridlund, 2015). In other words, even if we could scientifically confirm to Fridlund’s satisfaction that a certain nonverbal bodily change is caused by an emotion, the distinction between emotional and nonemotional display behaviors would still be useless by his lights.

The reason is that social “motives bear no necessary relation to emotional state, and indeed, a range of emotions can co-occur with any social motive” (Fridlund, 1991, p. 39). In other words, knowing that the expresser is, say, angry or afraid would not tell us his social motives, and any social motive an angry and fearful person may have could also be had by someone who is not angry or fearful.

But lack of a necessary relation is different from lack of a probabilistic relation. The question is not whether recognizing that the signaler is having a certain emotion necessitates the agent to have a certain social motive—it clearly doesn’t—but whether it significantly affects the probability of having a certain social motive. Suppose that we recognize that a certain agent is angry, a recognition that once again does not demand scientific consensus on what anger is. Does anger affect the probability that the agent will attack?

The answer is a resounding yes: People who are angry are significantly more likely to behave aggressively in the future than people who are not. Similarly, people who are afraid are significantly more likely to behave in an avoidant way in the future than people who are not. How do we know that? We do because there is an intimate relation between emotions and action tendencies, as most emotion scientists since Aristotle have recognized.

It is admittedly contentious what grounds this relation. Some theorists have argued that emotions simply are action

tendencies, namely, states of readiness for a goal-oriented sequence of bodily movements (Frijda, 1986). A second proposal is that emotions cause action tendencies (Scarantino, 2015a). A third proposal is that emotions contain action tendencies as proper parts (Scherer, 2009). We do not need to arbitrate between these different proposals here. All we need is to acknowledge that on most competing accounts of emotions there is a probabilistic connection between emotions and future acts mediated by the action tendencies that are causally or constitutively associated with emotions.

Conversely, even though a “range of emotions can co-occur with any social motive,” it is far from true that every emotion is equally likely to co-occur with every social motive. For example, aggressive behaviors are much more likely to co-occur with anger than with love, avoidant behaviors are much more likely to co-occur with fear than with joy, and so on. The bottom line is that having a given emotion changes the probability of having various social motives (some social motives become highly probable, and others become highly improbable), and having a social motive changes the probability of having a certain emotion (some emotions become highly probable, and others become highly improbable).

In other words, emotions and social motives are statistically correlated and consequently carry natural information about one another. To ignore such natural information would be evolutionarily detrimental, because it would deprive organisms of a tool that is helpful precisely to figure out what the agent will do next. For example, detecting that a display declaring readiness to attack is backed by anger does not settle whether the signaler will actually attack, but it settles whether the signaler is *more likely* to attack, which is ecologically vital information. Similarly, detecting that a display declaring readiness to flee is backed by fear does not settle whether the signaler will actually flee, but it settles whether the signaler is *more likely* to flee, which is also ecologically vital information.

To paraphrase Fridlund, failure to tell the difference between emotional and nonemotional expressions would be extinguished early in phylogeny in the service of the ability to use statistical correlations between emotions and social motives to predict to one’s advantage what the expresser will do next.

I conclude that neither the absence of a scientific definition of emotions nor the absence of a necessary relation between emotions and social motives are good reasons to eliminate the notion of emotional expression from the scientific study of nonverbal communication. If so, “researchers should not treat emotions and social motives as directly competing accounts of facial movements” but rather “make more precise predictions about exactly what kinds of social and emotional variables might influence facial movements under different circumstances” (Parkinson, 2005, p. 301). I now turn to this task, broadening the scope of my analysis from facial movements to the larger class of nonverbal bodily changes.

### What Can Speech Act Theory Teach Us About Emotional Expressions?

I have argued so far that the notion of emotional expression is both scientifically legitimate and predictively relevant, just as stated by the Basic Emotion View. But I have also argued, in

agreement with the Behavioral Ecology View, that a great many emotional expressions are voluntary and context-dependent tools that serve “social motives” in ways that are essential for understanding their communicative functions.

As pointed out by Parkinson (2005),

[a] central problem for Fridlund’s (1994) approach is that the key concept of social motive is so broadly defined. Taken literally, it seems to include everything that people are inclined to do (or want others to do) and to exclude very little of interpersonal life. (p. 301)

Therefore, a “[f]urther articulation of the range of possible social motives and their relevance to particular [emotional expressions] and particular addressees” is needed, which will finally lead “motive-communication theory [to] become ... genuinely falsifiable” (p. 301).

The core proposal of this article is that speech act theory, developed in the 1960s by Austin (1962) and Searle (1969) among others, can help us provide such further articulation. I first briefly summarize the basics of speech act theory and then explain how the theory can help us shed light on how emotional expressions convey social motives.

### Speech Act Theory Redux

At the beginning of *How to Do Things with Words*, the monograph that got speech act theory and linguistic pragmatics started, Austin (1962) lamented the then common philosophical assumption that “the business of a [sentence] can only be to ‘describe’ some state of affairs ... which it must do either truly or falsely” (p. 1). To explain what other “businesses” sentences may have other than describing, Austin formulated a distinction between three general categories of things we do when we utter a sentence “X”:<sup>8</sup>

1. *Locutionary Act*: The act of uttering X
2. *Illocutionary Act*: What one does *in* uttering X
3. *Perlocutionary Act*: What one does *by* uttering X

Locutionary acts are acts of speaking or writing, performed in conformity with syntactic and semantic rules about the sense and reference of the words employed. Illocutionary acts, on the other hand, are acts done *in* speaking. To distinguish between them, I borrow Searle’s (1979) taxonomy of illocutionary acts, which is widely considered to be an improvement over Austin’s own (see also Green, 2015).

Searle (1979) argued that there are five types of illocutionary acts, namely, five types of things we do when we use language:

We tell people how things are (Assertives), we try to get them to do things (Directives), we commit ourselves to doing things (Commissives), we express our feelings and attitudes (Expressives), and we bring about changes in the world through our utterances (Declarations). (p. viii)

This influential taxonomy is built around three basic features of illocutionary acts: their *illocutionary point*, their *direction of fit*, and their *sincerity condition*. The *illocutionary point* of “a type of illocutionary act is that purpose which is essential to its being an act of that type” (Searle & Vanderveken, 1985, p. 37). The illocutionary point determines the *direction of fit* of an utterance, which is

to say, whether the utterance aims to fit the world (mind-to-world direction of fit) or aims to have the world fit the utterance (world-to-mind direction of fit), or has both aims at the same time (double direction of fit) or has neither aim (null direction of fit). Finally, the *sincerity condition* of an utterance is the psychological state expressed by the utterance: The speech act is sincere just in case the utterer is in the psychological state being expressed.

The five types of illocutionary acts emerge from what Searle takes to be the five primary combinations of illocutionary point, direction of fit and sincerity conditions we find in natural languages (the subscript L stands for the medium used to communicate, viz., Language):

- *Assertives<sub>L</sub>* (e.g., “The cat is on the mat”) have the illocutionary point of intentionally and overtly committing the speaker to the truth of a content, they have a mind-to-world direction of fit because their content aims to fit what the world is like, and they express beliefs.
- *Directives<sub>L</sub>* (e.g., “Pass me the salt!”) have the illocutionary point of intentionally and overtly trying to get the hearer to do something, they have a hearer-based world-to-mind direction of fit because the hearer is responsible for changing the world so as to fit the content, and they express desires.
- *Commissives<sub>L</sub>* (e.g., “I will come to your party”) have the illocutionary point of intentionally and overtly committing the speaker to a future course of action, they have a speaker-based world-to-mind direction of fit because the speaker is responsible for changing the world so as to fit the content, and they express intentions.
- *Expressives<sub>L</sub>* (e.g., “I am sorry”) have the illocutionary point of intentionally and overtly expressing the speaker’s feelings and attitudes, they have no direction of fit, and they can express different attitudes in different circumstances (e.g., regret in the case of “I am sorry”).
- *Proclamatives<sub>L</sub>* (e.g., “You are now husband and wife”) have the illocutionary point of intentionally and overtly changing the world just by saying so, they have a double direction of fit because the speaker makes the world fit the content simply by uttering the sentence, and they express both a desire and a belief (e.g., the desire that two people be husband and wife and the belief that they will be husband and wife if one says so).<sup>9</sup>

Searle emphasized that speech acts are intentional acts. They are intentional not merely in the sense that they are voluntary, but more robustly in the sense that they involve intentions to communicate. As Searle (1969) put it, “In speaking I attempt to

<sup>9</sup>As I quoted earlier, Searle’s term of choice for what I propose to label *Proclamatives* is *Declarations*. The term *Declarations* is confusing on multiple levels. First, assertions generally consist of declarative sentences, so the term *Declarations* wrongly suggests the inclusion of assertions as a paradigmatic member. Second, in animal communication theory, the term *declarative* is commonly used to characterize signals that are descriptive rather than directive in nature. For example, pointing is distinguished into “declarative pointing” and “imperative pointing,” with the former aiming to draw attention to what the world is like and the latter aiming to get something from a recipient (Tomasello, 2008). This is to say that declarative pointing is conceptually closer to what Searle calls an Assertive than what he calls a Declaration, with which it has nothing in common. For these reasons, I put the term *Declarative* (rather than *Declaration*) to a new use in a later section, and use from here on the term *Proclamative* to characterize speech acts that make it so by saying so (“You are now husband and wife”).

<sup>8</sup>The notion of an utterance ranges over both written and spoken tokenings of sentences.

communicate certain things to my hearer by getting him to recognize my intention to communicate just those things” (p. 42). This is what Grice (1957) referred to as a *reflexive intention*, understood as an intention on the part of the speaker to produce an effect in an audience at least in part by virtue of such intention being recognized. This makes reflexive intentions different from garden-variety intentions, say the intention to raise my left hand, which can be fulfilled whether or not anyone else recognizes that I have it.

Not all language researchers agree that reflexive intentions are essential to speech acts. For example, Green (2007) has argued that the intentions relevant for the generation of speech acts are *overt* rather than *reflexive*. Roughly, overt intentions are “intentions that one’s intentional state be manifest, that is, publicly accessible, but not necessarily in fact discerned by anyone” (Green, 2007, p. 65). The debate on this topic is complicated, and I cannot summarize it in this article. From here on, I will say that the production of speech acts is intentional and overt, by which I mean that speech acts are intentional acts that communicate by making what the speaker intends to communicate available for audience recognition and normally—although perhaps not always—intended to be so recognized.

Searle also emphasized the rule-governed nature of speech acts, which commonly rely on conventions. If I say “Pass me the salt!” I rely on conventional rules pertaining to word meaning, word order, punctuation, intonation, mood, and so on, to convey my intention that my hearer passes me the salt. Overt/reflexive intentions are crucial for the generation of what Grice (1957) called *non-natural meaning*, the sort of meaning associated with linguistic utterances.

Non-natural meaning is, for Grice, to be sharply contrasted with natural meaning, the sort of meaning I have relied on in earlier sections to explain what emotional expressions mean. Compare the following two sentences:

Tom’s baring of his teeth means that he is angry.

Tom’s utterance of “The bar will be closed in five minutes” means that the bar will be closed in five minutes.

In the first case, the notion of meaning is used in its natural sense: Tom’s baring of his teeth naturally means anger insofar as it is statistically correlated with anger. In the second case, the notion of meaning is used in its non-natural sense: “The bar will be closed in five minutes” non-naturally means that the bar will be closed in five minutes because, on Grice’s view, Tom uttered it intending the hearer to come to believe that the bar will be closed in five minutes in part because of recognizing Tom’s intention to make him believe that the bar will be closed in five minutes.

The context is crucial for both kinds of meaning. I pointed out in the “Emotional Expressions or Display Behaviors?” section that what nonverbal bodily changes naturally mean depends on the context. For instance, Tom’s baring of his teeth while lifting a huge weight at the gym means that he is making a strenuous effort. On the other hand, Tom’s baring of his teeth in the context of a parking lot confrontation with someone who stole his spot naturally means that he is angry.

The same holds true for non-natural meaning. Most contemporary language scientists endorse what is often called the *ostensive-inferential* model of communication (Sperber & Wilson, 1986), according to which speakers provide evidence of

what they non-naturally mean through linguistic utterances, and hearers make *inferences* about such non-natural meanings on the basis of the evidence provided.<sup>10</sup> On this view, what is said is just part of the total evidence the hearer uses to draw inferences, the remaining evidence coming from the context.

For example, “The bar will be closed in five minutes” can non-naturally mean not only that the bar will be closed in five minutes but also that Tom wants you to buy one last drink, for example, if Tom is a bartender and you are a customer with an empty glass (Bach & Harnish, 1979). This is because Tom’s utterance in this context provides evidence for the fact that he intends to make you buy a last drink in part by recognizing that what underlies his utterance is precisely that communicative intention.

This example shows something important, namely, that the very same locutionary act can perform a multiplicity of illocutionary acts, some directly and some indirectly. For example, my utterance of “The bar will be closed in five minutes” directly asserts that the bar will be closed in five minutes, and it indirectly urges you to buy one last drink.

The third category introduced by Austin is that of *perlocutionary acts*, understood as acts done *by* uttering sentences. These are acts consisting of the “effects upon the feelings, thoughts, or actions of the audience, or of the speaker, or of other persons” (Austin, 1962, p. 101). For example, uttering “The cat is on the mat” may have the effect of convincing a hearer that the cat is on the mat, uttering “Pass me the salt!” may have the effect of getting someone to pass you the salt, uttering “I will come to your birthday party” may have the effect of getting someone to expect that you will go to their birthday party, uttering “I am sorry” may have the effect of getting someone to forgive you, and “You are now husband and wife” may have the effect of uniting two people in a legally binding marriage.

Are there nonlinguistic analogs of speech acts? If so, could speech act theory help us articulate the range of possible social motives associated with emotional expressions?

### **Can Speech Act Analogs Be Performed Without Language?**

The beginning of an answer to this question can be found in Searle’s own discussion of some exceptions to the rule that the communication of non-natural meaning relies on linguistic conventions. The key point here is that if what matters for non-natural meaning is providing evidence about one’s overt intentions to communicate, we can non-naturally mean things without using language at all. For instance, we could rely on conventions that are not linguistic, as we do when we raise one’s middle finger or pull an imaginary toilet cord while closing one’s nostrils to provide evidence about what we intend to

<sup>10</sup> An alternative is the so-called *code model* of linguistic communication (Sperber & Wilson, 1986). According to it, the speaker encodes a certain non-natural meaning into a linguistic utterance, and the hearer decodes such meaning using the same code, where a code is a conventional mapping between words and what the words non-naturally mean. Despite its historical importance and fruitful applications to engineering problems of communication (Shannon, 1948), the code model is now widely considered inadequate for understanding the nature of linguistic communication, because much of what is communicated linguistically goes beyond what is conventionally encoded in the words being uttered.

communicate (e.g. that someone is an ass#%@\$ or that a certain meal is disgusting).

Searle also considers the possibility that a speech act may be performed without relying on conventions, linguistic or otherwise. As he put it, “Some very simple sorts of illocutionary acts can indeed be performed apart from any use of any conventional devices at all, simply by getting the audience to recognize certain of one’s intentions in behaving in a certain way” (Searle, 1969, p. 37). For example, “one can in certain special circumstances ‘request’ someone to leave the room without employing any conventions” (p. 37). This could be done by pointing to the door as a way to provide evidence of my intention that the person exits the room in part through the recognition of my intention that he or she does.<sup>11</sup> But this is not yet the *analog* of a speech act: It is an actual speech act performed without relying on conventions. The point here is that speech acts are not necessarily acts of speech or conventional acts of other kinds; rather, they are acts of intentional provision of evidence about one’s intentions to communicate.<sup>12</sup>

A genuine speech act analog is described by Searle (1969) as he introduces the case of a dog that “can perform certain simple illocutionary acts. He can express pleasure and he can ask (request) that he be let out” (p. 38). For example, the dog could express pleasure by wagging his tail and he could request to be let out by waiting next to the exit door (for a general discussion of how to ascribe content to animal minds, see Bekoff & Allen, 1997). In this case, Searle suggested that we should speak of speech acts only metaphorically. My view is that we should not even do so metaphorically, because dogs are unlikely to have the cognitive equipment necessary to have overt intentions in the first place and therefore produce non-natural meaning (Grice, 1986; but see Moore, 2017). Here we have something rather different and more exciting, namely, an example of the fact that what is naturally meant could be analogous to what is non-naturally meant.

I define a *Speech Act Analog* (SAA) as any behavior that naturally means roughly what a speech act non-naturally means. For example, the wagging of the tail is a SAA of the Expressive<sub>L</sub> speech act of uttering “I am pleased.” The speech act non-naturally means that the utterer is pleased by offering evidence of his intention to communicate just that. But the wagging of the tail also naturally means that the dog is pleased, because tail wagging and pleasure are statistically correlated in dogs.

What about the case of the dog “requesting” to be let out? This is a SAA of the Directive<sub>L</sub> speech act of uttering “let me out.” The speech act non-naturally means that the speaker is trying to get the hearer to let him or her out, thereby expressing a desire to be let out. By waiting by the door, the dog is also conveying natural information about being in a mental state that would be satisfied by being let out, namely, natural information about desiring to be let out. This is because positioning oneself by the door and desiring to be let out are statistically correlated in dogs.

The core idea here is that nonlinguistic creatures can provide natural information about mental states that are relevantly similar to the mental states expressed by speech acts (pleasure for the Expressive<sub>L</sub> “I am pleased”, desire for the Directive<sub>L</sub> “Let me out”). Searle’s analysis of nonconventional speech acts is promising, but it needs further development. First, it does not fully account for the differences between expressing or requesting through, respectively, non-natural and natural meaning. Is the dog *really* expressing pleasure, and is the dog *really* requesting to be let out? Second, it only scratches the surface of what SAAs can be performed through nonverbal means. It is not clear, for instance, why a dog could not engage in analogs of Assertives<sub>L</sub> and Commissives<sub>L</sub>. Third, Searle’s analysis does not distinguish between different nonverbal means through which SAAs may be performed, lumping together nonverbal bodily changes like tail wagging and spatial positioning like waiting by a door.

The path forward is to consider all nonverbal modalities of communication—emotional expressions, gestures, spatial positioning, orientation, direction of gaze, bodily contact, and so on—and offer an analysis of what SAAs they each can perform. TAP gets the ball rolling on this project by focusing on the SAAs made available by emotional expressions.<sup>13</sup> I am convinced that it also offers a general framework that can be exported to the study of the pragmatic communicative dimensions of other nonverbal modalities, grounding the search for a comprehensive account of what we can do from a communicative point of view without relying on non-natural meaning.

## The Basics of Affective Pragmatics

TAP has two main parts. The first is a distinction between three things we do when we express emotions that replicates, *mutatis mutandis*, Austin’s (1962) distinction between locutionary, illocutionary, and perlocutionary acts:

1. *Emotional Expression*: The nonverbal behavior of expressing emotion E.
2. *Communicative Moves*: What one does *in* expressing emotion E.
3. *Communicative Effects*: What one does *by* expressing emotion E.

The second part of Affective Pragmatics is an analysis of these three dimensions of emotional communication, namely, an analysis of the nature and function of emotional expressions, the nature and function of communicative moves, and the nature and function of communicative effects. So far, the

<sup>11</sup>Searle (1969) added that there are limitations to what can be requested without relying on language. For example, he suggested that “one cannot request of someone that he, e.g., undertake a research project on the problem of diagnosing and treating mononucleosis in undergraduates in American universities” unless language is available (p. 38). Tomasello (2008) has rejected Searle’s claim, emphasizing that if there is a preliminary discussion on who will undertake a research project on the problem of diagnosing and treating mononucleosis in undergraduates in American universities, and the teacher wraps things up by pointing to a particular student, the teacher has thereby nonlinguistically requested that the student undertake such a project. This is true, but Searle’s general point still stands. Unless linguistic conventions are available *prior* to gesturing, gesturing alone cannot generate a request to undertake a research project on the problem of diagnosing and treating mononucleosis in undergraduates in American universities.

<sup>12</sup>The converse is also true: Acts of speech are not necessarily speech acts. As Green (2007, p. 70) noted, I can utter a sentence in a microphone to test it without performing any speech act.

<sup>13</sup>For an influential attempt to explore the communicative dimensions of gestures and their roles in the evolution of language, see Tomasello (2008).

scientific literature on emotional expressions has primarily focused on the first dimension of analysis and gravely neglected the second and third dimensions (but things are starting to change; see Fischer & Manstead, 2016; Keltner et al. 2016; Van Kleef, 2016). Just like linguistic pragmatics urged students of language in the 1960s to pay attention to what sentences do in their context of utterance beyond just describing what the world is like, TAP urges students of emotional expressions to pay attention to what emotional expressions do in their context of production beyond just expressing emotions.

My integrative views on emotional expressions have been sketched in the 'Finding Common Ground' section. To sum up, I understand emotional expressions as voluntary or involuntary behaviors that carry natural information about emotions, are designed to help signalers influence the behavior of recipients, and allow recipients to predict the behavior of signalers. Note that once we allow voluntary bodily changes to express emotions, there is no clear line to be drawn between facial, postural, and vocal bodily changes and full-fledged actions, which are nothing other than combinations of bodily changes. So an involuntary frown, a voluntary frown, and the action of slamming a door can all in principle express anger.

It follows that we could in principle also count verbal behaviors as emotional expressions, a possibility I have rejected by stipulating that, for the purposes of Affective Pragmatics, an emotional expression must be nonverbal. Allowing verbal behaviors within the category of emotional expressions proper introduces a major source of heterogeneity, because some emotional expressions would end up expressing emotions through natural meaning and others through non-natural meaning. I prefer to keep the category of emotional expressions homogeneous by only allowing "natural" expressions within it. This is of course nothing more than a terminological stipulation, which will have to earn its keep by delivering theoretical payoffs.

The central proposal of TAP is that, just like uttering sentences is a means for engaging in a variety of illocutionary acts, expressing emotions is a means for engaging in a variety of *communicative moves*, namely, things one does *in* expressing emotions. The reader will recall that in Searle's taxonomy each type of illocutionary act was characterized by an illocutionary point, a direction of fit and a sincerity condition that was different for each type of illocutionary act (e.g., Assertives<sub>L</sub> express beliefs, Commissive<sub>L</sub> express intentions, etc.). The sincerity condition loses its taxonomic role in TAP because the sincerity condition is the same for all communicative moves associated with a given emotional expression, and it is the emotion the expression carries natural information about. For example, an angry frown that performs analogs of, say, Assertive<sub>L</sub> and Commissive<sub>L</sub> speech acts will express anger rather than beliefs and intentions. It follows that these SAAs cannot differ from one another in terms of their sincerity conditions, as they are both sincere just in case the agent is angry.

The notions of communicative (rather than illocutionary) point and direction of fit continue to be helpful for taxonomic purposes, where the communicative point of a type of communicative move is that purpose which is essential to its being a communicative move of that type, and the direction of fit of a communicative move is the responsibility for fitting determined by the communicative point.

I argue that emotional expressions make four types of communicative moves possible, defined by their communicative points and directions of fit (the subscript EE stands for "emotional expression"):

- *Expressives<sub>EE</sub>* have the communicative point of expressing the signaler's emotions by means of natural information transfer, and they have no direction of fit.
- *Imperatives<sub>EE</sub>* have the communicative point of trying to get the recipient to do something by means of natural information transfer, and they have a recipient-based world-to-mind direction of fit because the recipient is responsible for changing the world so as to fit the content.
- *Declaratives<sub>EE</sub>* have the communicative point of representing how things are in the world by means of natural information transfer, and they have a mind-to-world direction of fit because their content aims to fit what the world is like.
- *Commissives<sub>EE</sub>* have the communicative point of committing the sender to a future course of action by means of natural information transfer, and they have a signaler-based world-to-mind direction of fit because the signaler is responsible for changing the world so as to fit the content.

To sum up, there are four primary things emotional expressions can do from a communicative point of view: express emotions, try to get others to do things, represent how things are, and commit the expresser to doing things.<sup>14</sup> These communicative achievements are SAAs of, respectively, Expressives<sub>L</sub>, Directives<sub>L</sub>, Assertives<sub>L</sub>, and Commissive<sub>L</sub>. But unlike speech acts, they rely on the transfer of natural information designed to influence recipients rather than on non-natural meaning. Several other authors have anticipated this idea (e.g. Ekman, 1997, Fridlund, 1994, Scherer, 1988), but they have not systematically developed it nor made it clear that most emotional expressions make all communicative moves at the same time.

Whereas in the case of linguistic utterances there is one speech act performed directly and other speech acts (possibly) performed indirectly, it is my contention that emotional expressions by default perform Expressive<sub>EE</sub>, Imperative<sub>EE</sub>, Declarative<sub>EE</sub>, and Commissive<sub>EE</sub> communicative moves jointly, with no distinction between direct and indirect performances.

The four classes of communicative moves I have distinguished provide the principled criterion of classification of social motives that has so far been lacking in the study of emotional expressions: Although there indeed are innumerable social motives served by expressing emotions, they belong to four general categories.<sup>15</sup>

<sup>14</sup>I am not sure about the existence of analogs of linguistic Proclamations like uniting in matrimony, baptizing, firing, sentencing, and so on. These speech acts appear to depend on conventional linguistic rules in a more radical way than other types of speech acts, and so it is far from clear that they can survive in a world that contains only natural meaning. This is not to say that it is impossible to conceive of non-linguistic conventions that would allow *showings to make it so* the way they allow *sayings to make it so*. For example, there could be a culture that allows couples to get married by non-verbally expressing happiness in the right circumstances just the way it allows them to get married by saying "I do" in the right circumstances. This is a topic worthy of further investigation, but for now I bracket the issue and assume that we can do with emotional expressions at least four of the five things we can do with language.

<sup>15</sup>If Proclamatives<sub>EE</sub> turn out to exist, there will be more than four categories of social motives conveyed by emotional expressions.

Finally, just as locutionary acts can have perlocutionary effects, the expression of emotions can have *communicative effects*, which are the consequences brought by expressing emotions. Van Kleef (2009, 2010, 2016) has suggested that communicative effects in recipients are mediated by two main processes: *affective reactions* and *inferential processes* (see also Keltner & Kring, 1998). For example, by expressing anger I can elicit in you a fear response (affective reaction) and the expectation that I will behave aggressively toward you (inferential process), which can lead you to give up on a contested resource. Or, by expressing sadness about my predicament I can elicit in you compassion (an affective reaction) and the belief that I have suffered a grave loss (an inferential process), which can lead you to help me out.

I will not focus on these communicative effects in what follows, because our first order of business is to get clear on the communicative moves performed *in* expressing emotions, as a preliminary step toward understanding the effects brought about *by* expressing emotions.

### Emotional Expressions as Expressives<sub>EE</sub>

Expressives<sub>EE</sub> have the communicative point of expressing the sender's internal emotional state by means of natural information transfer. The content of an Expressive<sub>EE</sub> (i.e. what is expressed) is a description of the emotion the expression provides natural information about. Because different emotional expressions can express different emotions, there is no unique content for emotional expressions under an expressive communicative point. For example, in the appropriate context bared teeth express that the agent is angry, trembling expresses that the agent is afraid, jumping up and down expresses that the agent is happy, crying expresses that the agent is sad, and so on.

Ekman characterized emotional expressions as carrying “information about emotion words,” a circuitous way to say that they carry information about what emotion the agent is having. Scherer has spoken of the “expressive function” of emotional expressions, which consists of their being a “symptom” of the underlying emotion. In addition, Ekman suggested that emotional expressions carry information about the person's “internal physical states” and about “metaphors.” For instance, bared teeth and clenched fists carry information about the fact that the person is “feeling very tense” (internal state) and that she is “boiling” (metaphor; Ekman, 1997).

There is no good reason to single out these two categories for special consideration. By expressing emotions, nonverbal bodily changes carry natural information about what emotion the agent is having, plus anything else that correlates with being in a certain emotional state. Internal feelings and metaphors correlate with emotions, and so do innumerable other things. Since I am looking for the basic types of communicative moves that expressing emotions makes available, I will disregard Ekman's internal states and metaphors in what follows, although it is true that anything that expresses anger will also express that one is tense, that one is boiling, that one is in a negatively valenced state, that one is aroused, and so on.

The notion of “expression” presupposed by Expressives<sub>EE</sub> is importantly different from the notion of “expression”

presupposed by Expressives<sub>L</sub>. To express an emotion in the speech act sense requires non-natural meaning and overt intentions, whereas to express an emotion through a communicative move requires only the deliverance of natural information about what emotion one is having. It follows that there are two ways of expressing emotions that differ in kind: by means of emotional expressions (stipulatively defined as nonverbal) and by means of speech acts.

Recall also that a speech act can be performed without using words or other conventions, from which it follows that nonverbal bodily movements are not necessarily members of the class of Expressives<sub>EE</sub> just because they express emotions: they could be doing so through speech acts, and consequently belong to the class of Expressives<sub>L</sub>. For example, I could voluntarily make the prototypical anger face with the intention that the recipient forms the belief that I am angry at him in part by virtue of recognizing my intention that he forms such belief. In such a case, I would have non-naturally meant that I am angry, that is, I would have engaged in an Expressive<sub>L</sub> speech act, even though I did not use words to convey what I non-naturally meant.

Expressives<sub>EE</sub> are only Speech Act Analogs: They naturally mean roughly what Expressive<sub>L</sub> speech acts non-naturally mean, namely, that the agent is undergoing a certain emotion. They do so by virtue of statistical correlations that exist between emotion types and expression types. Correlations of this sort are of course imperfect, which raises the question of what to say about tokens of the type which do not co-occur.

For example, suppose Tom is baring his teeth and clenching his fists while accurately *pretending* that he is angry: Has he expressed anger in the communicative move sense? My answer is affirmative, because I understand natural information as a probabilistic difference maker: Insofar as bared teeth and clenched fists make anger more probable, they naturally mean anger and consequently express it, whether or not anger is actually instantiated (Scarantino, 2015b).<sup>16</sup>

Expressives<sub>EE</sub> and Expressives<sub>L</sub> have something significant in common: They make emotions manifest to others and they have no direction of fit, in the sense that their aim is neither to fit the world nor to have the world fit them. For example, if I express my anger about your blocking my driveway—either through an emotional expression or through a speech act—I am expressing my anger about the fact that you are blocking my driveway, but I am not representing the fact that you are blocking my driveway, nor trying to have you block my driveway.

The existence of Expressives<sub>EE</sub> alongside Expressives<sub>L</sub> raises an interesting question, namely, how these two ways of expressing emotions combine and compete. In some cases, speech acts and nonverbal communicative moves go hand in hand and strengthen the expressive message. For example, uttering “I am angry” while manifesting facial, vocal, and postural expressions of anger is bound to provide stronger evidence that one is angry than calmly stating that one is angry.

<sup>16</sup>Grice's (1957) view was that natural meaning is *factive*, namely, that some X can naturally mean some Y just in case Y is instantiated. I have argued against this way of understanding natural meaning. On my view, X can naturally mean Y even if Y is not the case (see Scarantino, 2015b).

In other cases, Expressives<sub>EE</sub> and Expressives<sub>L</sub> will tell conflicting stories, in the sense that what is shown is at odds with what is said. For example, if I utter “I am not angry!” while manifesting all facial, vocal, and postural expressions characteristic of prototypical anger, I am expressing not being angry in the speech act sense and I am expressing being angry in the communicative move sense. The cumulative effect of my verbal and nonverbal behaviors would probably count as evidence that I am angry, which suggests that what is expressed nonverbally may trump what is expressed verbally. A systematic analysis of the interactions between Expressives<sub>L</sub> and Expressives<sub>EE</sub> is one of the items on TAP’s agenda.

As we have seen throughout this article, several researchers share the insight that nonverbal bodily changes do not *just* belong to the class of Expressives<sub>EE</sub> (the Behavioral Ecology View makes the stronger claim that such class is empty) but also engage in other communicative moves. The question is: When a nonverbal bodily change carries natural information about an emotion, what else does it carry natural information about that could produce a Speech Act Analog?

### Emotional Expressions as Imperatives<sub>EE</sub>

Imperatives<sub>EE</sub> have the communicative point of trying to get a recipient to do something by means of natural information transfer. The content of an Imperative<sub>EE</sub> (i.e., what is demanded) is an account of the conditions of satisfaction for the emotional expression under a recipient-based world-to-mind direction of fit, in the sense that the recipient is responsible for changing the world so as to fit the content. This is what Imperatives<sub>EE</sub> have in common with Directives<sub>L</sub>, namely, that their contents describe how the world must be changed by the recipient.

Ekman characterized emotional expressions as carrying “information about what the expresser wants the perceiver to do,” Fridlund has spoken of displays as “requests,” and Scherer referred to emotional expressions as “appeals.” I use the term *demand* from here on to characterize what emotional expressions convey under an imperative communicative point.

It is important to emphasize that making a “demand” through an emotional expression is different from making a “request” through a speech act. To make a request in the speech act sense, I need to intentionally and overtly provide you with evidence, generally of a linguistic sort, about my intention to communicate to you how to act in the future, which results in expressing my desire that you act a certain way. To make a demand through a communicative move only presupposes that I voluntarily or involuntarily provide you through my emotional expression with natural information about my being in an emotional state that would be satisfied by a certain kind of behavior on your part.

But why should we assume that emotional expressions are “demands” to recipients, or that making my emotions manifest amounts to trying to get something from my audience? The reason is that signaling, the genus of which emotional expressions are a species, is widely acknowledged to have the primary function of influencing a recipient to the advantage of the signaler (Maynard-Smith & Harper, 2003).

As Krebs and Dawkins (1984) first noted, there can be no evolutionary premium on expressing internal states unless such

expression leads signal recipients to behave in ways that are beneficial to the signal producer. As we have seen, recipients also need to get something out of the communicative exchange, and that is the information they gain from the emotional expression. The point is that such natural information would stop being delivered if it did not allow signalers to influence the behavior of recipients to the signalers’ advantage (at least on average).

So what exactly do various emotional expressions “demand”? This is one of the least studied research topics in the science of emotional expressions, and one ripe for further investigation. In the absence of a general framework, a problematic assumption has seeped through this literature, namely that emotional expressions either make requests or convey states of action readiness, but not both.

Consider, for instance, Table 1 in the ‘Emotional Expressions or Display Behaviors?’ section, where Fridlund provides a list of the “social motives” associated with various emotional expressions. A natural interpretation of the table’s contents is that most emotional expressions convey states of readiness, whereas a tiny handful conveys demands (e.g., sadness expressions try to recruit succor).

This is a mistake, because expressions of happiness, anger, fear, disgust, and so on, make demands just as much as expressions of sadness do. If they were not effective means to get recipients to do things that are advantageous to senders, at least on average, they would not have been selected for as communicative devices (they could still have been selected for other reasons). It is much harder to settle on a description of the contents of emotional expressions as Imperatives<sub>EE</sub>, namely, as SAAs of Directives<sub>L</sub>.

Here, we need to ask a preliminary question: What sorts of things do recipients of expressions of emotion E do that may benefit signalers? Fridlund’s hypothesis seems correct about sadness: Expressing sadness often leads recipients to provide succor, and so recruiting succor is a plausible description of what sadness expressions demand, on the assumption that sadness expressions would not have been selected if they did not get recipients to act in ways that benefit signalers.

If we apply the same principle to other emotional expressions in Fridlund’s Table 1, the following also appear to be plausible descriptors of the contents of emotional expressions under an imperative communicative point: To express anger is to demand that the recipient stops what he or she is doing and takes the signaler more seriously, to express fear is to demand that the recipient helps and protects the signaler, to express happiness is to demand that the recipient celebrates a success with the signaler, to express disgust is to demand that others stay away from a poisonous substance, and so on (Parkinson, 1995, 2005). Whether these tentative descriptions turn out to be correct will depend in part on empirical data on what recipients actually do upon detecting emotional expressions (see Griffiths & Scarantino, 2009; Keltner et al., 2016; Parkinson, Fischer, & Manstead, 2005) and in part on a better understanding of the mechanisms of selection for emotional expression.

Note that manifesting emotions through Expressive<sub>L</sub> speech acts can also amount to indirectly engaging in Directive<sub>L</sub> illocutionary acts analogous to Imperatives<sub>EE</sub>. For example, if I

express my guilt by uttering “I feel guilty,” I am directly engaging in an Expressive<sub>L</sub> speech act, but I may also be indirectly engaging in a Directive<sub>L</sub> speech act, the content of which is that I request that you forgive me, provided that this is what I intended you to do partly on the basis of recognizing my intention.

### Emotional Expressions as Declaratives<sub>EE</sub>

Declaratives<sub>EE</sub> have the communicative point of representing how things are in the world by means of natural information transfer. The content of a Declarative<sub>EE</sub> (i.e. what is represented) is an account of the conditions of satisfaction for the emotional expression under a mind-to-world direction of fit, in the sense that its content aims to fit what the world is like. This is what Declaratives<sub>EE</sub> share with Assertives<sub>L</sub>, namely, that their point is to describe the world as it is.

Ekman (1997, p. 318) characterized emotional expressions as carrying “information about antecedents,”<sup>17</sup> and (Scherer, 1988, p. 96) referred to emotional expressions as “symbols” of the “emotion-eliciting event”. Fridlund did not explicitly include a “referential function” for displays in Table 1, but a handful of his proposals seem to fit into this category.

For example, Fridlund told us that a “sad face” is a display of “damage” and that a “contempt face” is a display of “superiority.” In both cases, the emotional expression is neither a request as such nor a manifestation of a state of readiness as such, but rather a representation of what the world is like. Roughly, a sadness expression represents the expresser as having suffered a damage (or a loss), and a contempt expression represents the expresser as being superior to the recipient.

I use the term *representation* from here on to characterize what emotional expressions convey under a declarative communicative point. It is once again important to make it clear that producing a representation through an emotional expression is different from engaging in an Assertive<sub>L</sub> speech act. To assert that something is the case, I need to intentionally and overtly provide you with evidence, generally of a linguistic sort, about my intention to communicate to you what the world is like, which will result in my expressing my belief about what the world is like.

To produce a representation through a communicative move only presupposes that I voluntarily or involuntarily provide you through my emotional expression with natural information about my being in an emotional state that represents the world as being a certain way. I should note that emotional expressions do not express beliefs despite the fact that they represent states of affairs. If I assert that the picture of a snake is dangerous, I have expressed my belief that it is. But if I respond to the picture of a snake with a fear expression, I have not

expressed my belief that it is dangerous. In fact, it may well be the case that I do not believe that it is dangerous, giving rise to the well-known phenomenon of emotional recalcitrance (D’Arms & Jacobson, 2003).

But why should we think that emotional expressions are representations in the first place? The default reason is that they carry natural information about emotions, which are widely considered to have intentionality or the capacity to represent (Scarantino, 2016). In this sense, emotional expressions inherit their representational qualities from the emotions they make manifest, showing us how the expresser has appraised or constructed or evaluated the world as being.<sup>18</sup>

On the other hand, there is no consensus on what makes emotions representational in the first place. The proposal I find most promising is that emotions have the capacity to represent because they have the function of being elicited by specific antecedent circumstances, just like the fly detection mechanism in frogs represents flies because it has the function of being elicited by flies. This “teleosemantic” proposal needs significant development, faces various obstacles, and is just one of the many options on the table (Dretske, 1988; Prinz, 2004).

One of the challenges for TAP will be to explain in more detail how and what emotional expressions represent, and settle on a viable description of the contents of emotional expressions as Declaratives<sub>EE</sub>, namely, as SAAs of Assertives<sub>L</sub>. For now, I rely on the standard practice of treating Lazarus’s (1991) “core relational themes” as proxy descriptors of what emotions represent. On this view, to express sadness is to represent an irrevocable loss, to express anger is to represent a slight against me or mine, to express shame is to represent a failure to live up to an ego ideal, to express fear is to represent danger, and so on.

Note that manifesting emotions through Expressive<sub>L</sub> speech acts can also amount to indirectly engaging in Assertive<sub>L</sub> illocutionary acts analogous to Declaratives<sub>EE</sub>. For example, if I express my guilt by uttering “I feel guilty,” I am directly engaging in an Expressive<sub>L</sub> speech act, but I may also be indirectly engaging in an Assertive<sub>L</sub> speech act the content of which is that I engaged in a moral violation, provided that this is what I intended you to believe partly on the basis of recognizing my intention.

### Emotional Expressions as Commissives<sub>EE</sub>

Commissives<sub>EE</sub> have the communicative point of committing the sender to a future course of action by means of natural information transfer. The content of a Commissive<sub>EE</sub> (i.e. what the expresser is committing to) is an account of the conditions

<sup>17</sup>Ekman (1997, p. 318) also said that emotional expressions carry information about “the person’s thoughts: plans, expectations and memories.” I cover the notion of “plans” in my discussion of emotional expressions as commitments to action. The other two categories of “expectations” and “memories” are unclear, so I disregard them in what follows. Ekman’s specific examples of memories also seem unconvincing (e.g., he argued that an anger expression carries the information that the agent is remembering earlier cases in which he or she was offended, which may happen on occasion but appears false as a general rule).

<sup>18</sup>Another possibility I do not explore in this article is that the expressions themselves may have representational qualities independent of the emotions about which they carry natural information. For instance, emotional expressions could be functionally referential in the same sense in which vervet monkey alarm calls are functionally referential, namely, by being taken to stand for particular external referents in the world. For example, a vervet monkey snake alarm call represents the world as dangerous by virtue of correlating with the fear of signalers; it also represents the world as containing a snake by virtue of correlating with snakes and being taken to stand for them by signal recipients (Scarantino & Clay, 2014).

of satisfaction for the emotional expression under a signaler-based world-to-mind direction of fit, in the sense that the signaler is responsible for changing the world so as to fit the content. This is what Commissives<sub>EE</sub> have in common with Commissives<sub>L</sub>, namely, that their contents describe how the world is to be changed by the signaler.

Ekman characterized nonverbal bodily changes as carrying “information about the person’s plans” and “information about what the expresser is likely to do next” (it is not clear what the difference between the two is supposed to be). Fridlund characterized nonverbal bodily changes as declaring various “states of readiness” to act, with inspiration from Heinroth’s (1911) research on “intention movements,” understood as “fragmentary movements (e.g., beak-snapping) that statistically predicted complete acts (e.g., attack)” (Fridlund, 1994, p. 27).

I use the term *commitment* from here on to characterize what emotional expressions convey under a commissive communicative point. It is once again important to make it clear that producing a commitment through an emotional expression is different from engaging in a Commissive<sub>L</sub> speech act.

To commit to doing something in the speech act sense, I need to intentionally and overtly provide you with evidence, generally of a linguistic sort, about my intention to communicate to you how I will act in the future, which results in expressing my intention to act a particular way. To commit to doing something through a communicative move only presupposes that I voluntarily or involuntarily provide you through my emotional expression with natural information about my being in an emotional state that would be satisfied by a certain kind of behavior on my part, especially in circumstances in which I may be tempted to pursue alternative behaviors. This is why it is often argued that “to commit is to relinquish some options, eliminate some choices, surrender some control over one’s future behavior” (Schelling, 2001, p. 48).

But why do emotional expressions convey commitments to action? They do because they make it public that the expresser is predisposed/ready/prepared for certain behavioral options rather than others. Crucially, the action tendencies associated with emotions have the property of *control precedence* (Frjida, 1986). This is to say that they take priority over alternative action plans by interrupting competing processes, by preempting access—in memory, inference, perception, and so on—to information not related to the emotion’s goal and by preparing the body for action.

It is the presence of control precedence that justifies the claim that emotions lead to commitments to actions: by prioritizing the pursuit of one goal at the expense of others, emotions narrow the scope of what one might do next, leading one to, in Schelling’s (2001, p. 48) terms, “surrender some control over one’s future behavior” (the more intense the emotion, the more control is surrendered, and the stronger the commitment).

One of the challenges for TAP will be to settle on viable descriptions of the contents of emotional expressions as Commissives<sub>EE</sub>, namely, as SAAs of Commissives<sub>L</sub>. A good starting point is provided by Fridlund’s own analysis of nonverbal bodily changes as “declarations of intent.” As we have seen, on Fridlund’s proposal what basic emotions theorists would describe as a happy Duchenne smile is a declaration of “readiness to affiliate,” what they would described as a smile of

feigned happiness is a declaration of “readiness to appease,” what they would describe as an anger face is a declaration of the “readiness to attack,” what they would describe as a fear face is a declaration of the “readiness to escape or submit,” and so on and so forth.

These are good first stabs at capturing the commitments conveyed by nonverbal bodily changes, but they are marred by a false assumption, namely, that nonverbal bodily changes convey states of readiness without expressing emotions. I rejected Fridlund’s opposition to emotional expressions in an earlier section, arguing that the notion of emotional expression, if allowed to range on a voluntary-to-involuntary continuum, is both scientifically legitimate and explanatorily useful.

I now wish to emphasize that failure to appreciate that nonverbal bodily changes convey states of readiness and express emotions at the same time leads to failure to understand the sense in which nonverbal bodily changes communicate commitments to action. I pointed out that there is no commitment to action in the absence of a mechanism to surrender control (at least to some extent) over one’s future behavior.

Emotions provide such mechanism because they have control precedence. Conveying a state of readiness to act without any internal mechanism to secure that it is carried out limits the credibility of the message. If the message itself is not credible, there is no viable mechanism through which it could evolve, because recipients would simply stop paying attention to it. So it is hard to understand how on Fridlund’s (1994) view nonverbal bodily changes could be credible signals of commitment.

Fridlund is likely to reject the premise of my critique and suggest that nonverbal bodily changes do not convey commitments to action. In his view, “declarations of intent” indicate that “one is inclined but not committed to a specific course of action” (Fridlund, 1994, p. 77). This is another false dichotomy, because commitments come in degrees having to do precisely with the extent to which one is inclined by internal and external circumstances to perform a certain future action. Commitments are rarely if ever carried out no matter what, and they come about only if there is some system that generates constraints on action, which result in stronger or weaker inclinations to future action.

On the other hand, it is true that emotional expressions do not express full-fledged intentions despite the fact that they convey commitments to action. If I commit to coming to your party by producing a Commissive<sub>L</sub> speech act such as “I will come to your party,” I am expressing my intention to come to your party. Intentions have *settledness*: To intend to do something is to have removed uncertainty about what to do (Mele, 2003). This is not to say that intentions are always carried out. A settled plan is not an irrevocable plan. New information may emerge as the time of executing the intention approaches, or the agent may experience weakness of the will and fail to do what he intends to do. But the formation of an intention marks a transition between a time in which the agent deliberates on what to do and a time in which an action plan is made.

On the contrary, if I respond to your insult with an anger expression, I have not expressed my intention to attack you. I take this to be the point Fridlund wanted to emphasize by describing states of readiness as making one inclined but not committed to a course of action. The way I would put it is

different, namely, that emotions commit you but without the settledness of full-fledged intentions. This is because the expresser may continue to deliberate about what to do once the commitment has been conveyed to the recipient, in ways that are affected by the recipient's own reactions. In this sense, making one's commitments to action public can work as a probe.

For example, once I express my anger at your insult, my decision on whether I escalate my aggressive behavior depends in part on your reactions to my expression. At the same time, it is crucial to the dynamics of our communicative exchange that you become aware that I have surrendered some of my control over my future behavior. Detecting that I am in fact not angry will make my signal of readiness to attack distinctly less threatening. This is not to say that detecting my anger informs you that I will attack you, but that it informs you that I am in the grip of a motivational mechanism—anger—that activates options for aggression and relinquishes options for peaceful interaction.

In addition, the expression of emotions often activates external mechanisms that further strengthen the commitment by making it socially costly to express a certain emotion without carrying out the action to which one has emotionally committed (Frank, 1988). Reputational costs are the most significant social costs of this kind. For example, expressing anger in a public confrontation but backing out when challenged has high reputational costs, which explain why a great many acts of

violence come from public confrontations in which individuals do not want to lose face (Deibert & Miethem, 2003).

Note that manifesting emotions through Expressive<sub>L</sub> speech acts can also amount to indirectly engaging in Commissive<sub>L</sub> illocutionary acts that are analogous to Commissives<sub>EE</sub>. For example, if I express my guilt by uttering “I feel guilty,” I am directly engaging in an Expressive<sub>L</sub> speech act, but I may also be indirectly engaging in a Commissive<sub>L</sub> speech act the content of which is that I will not engage again in the conduct for which I am expressing guilt, provided that this is what I intended you to expect partly on the basis of recognizing my intention.

I conclude with Table 2, which summarizes the basic ideas of TAP.

### Some Limitations of Emotional Communication

Darwin (1871) suggested that “natural” emotional expressions may have played an important role in explaining the evolution of language. As he put it, “language owes its origin to the imitation and modification, aided by signs and gestures, of various natural sounds, the voices of other animals, and man's own instinctive cries” (p. 56).

The idea that emotional expressions could have provided our ancestors with a cognitive-motivational infrastructure for the emergence of language has recently been pursued by a

**Table 2.** The Theory of Affective Pragmatics.

Some Predecessor Ideas	Four Kinds of Communicative Moves and Communicative Effects of Emotional Expressions	Examples
Ekman: emotional expressions carry information about emotions (their names, their distinctive feelings, the metaphors used in association with them etc.) Scherer: emotional expressions are “symptoms” of emotions/have an “expressive function”	<i>Expressives<sub>EE</sub></i> have the communicative point of expressing the signaler's internal state by means of natural information transfer and they have no direction of fit. The communicative effects of <i>Expressives<sub>EE</sub></i> may include the recipient's formation of the belief that the signaler is in a certain emotional state	Bared teeth and clenched fists (in the right context) express anger Crying (in the right context) expresses sadness Upper eyelids raised and jaw dropped open (in the right context) express fear
Ekman: emotional expressions carry information about what the expresser wants the perceiver to do Fridlund: displays are declarations of “requests” Scherer: emotional expressions are “signals” to others to do things/have an “appeal function”	<i>Imperatives<sub>EE</sub></i> have the communicative point of trying to get the recipient to do something by means of natural information transfer, and they have a recipient-based world-to-mind direction of fit because the recipient is responsible for changing the world so as to fit the content. The communicative effects of <i>Imperatives<sub>EE</sub></i> may include that the recipient does what the signaler demands	Bared teeth and clenched fists (in the right context) convey the signaler's demand that the recipient stops his or her behavior Crying (in the right context) conveys the signaler's demand that the recipient provides aid and support Upper eyelids raised and jaw dropped open (in the right context) convey the signaler's demand that the recipient protects him or her
Ekman: emotional expressions carry information about antecedents Scherer: emotional expressions are “symbols” of the emotion-eliciting event/have a “referential function”	<i>Declaratives<sub>EE</sub></i> have the communicative point of representing how things are in the world by means of natural information transfer, and they have a mind-to-world direction of fit because their content aims to fit what the world is like. The communicative effects of <i>Declaratives<sub>EE</sub></i> may include the recipient's formation of the belief that the world is as the signaler represents it to be	Bared teeth and clenched fists (in the right context) convey the signaler's representation that a slight has been committed Crying (in the right context) conveys the signaler's representation that a loss has been suffered Upper eyelids raised and jaw dropped open (in the right context) convey the signaler's representation that a danger is at hand
Ekman: emotional expressions carry information about what the expresser is likely to do next/the expresser's plans Fridlund: displays are declarations of “readiness to act”	<i>Commissives<sub>EE</sub></i> have the communicative point of committing the sender to a future course of action by means of natural information transfer, and they have a signaler-based world-to-mind direction of fit because the signaler is responsible for changing the world so as to fit the content. The communicative effects of <i>Commissives<sub>EE</sub></i> may include that the recipient comes to expect the behavior the signaler commits to	Bared teeth and clenched fists (in the right context) convey the signaler's commitment to aggressive action Crying (in the right context) conveys the signaler's commitment to disengage with the world Upper eyelids raised and jaw dropped open (in the right context) convey the signaler's commitment to submit or escape

variety of authors (Bar-On, 2013; Green, 2007; McAninch, Goodrich, & Allen, 2009). For example, Bar-On (2013) has argued that “expressive communication can be seen as endowed with the texture and complexity required for prefiguring linguistic communication without the help of Gricean communicative intentions” (p. 32).

The theory I developed in this article has singled out an especially promising dimension of communicative foreshadowing. If I am right, what one can communicate via speech acts (according to the ostensive-inferential model of linguistic communication) closely resembles in terms of forces what one can communicate via emotional expressions (according to the animal model of communication). The implication here is that our ability to express, represent, direct, and commit by means of intentional and overt provision of linguistic evidence about one’s own intentions to communicate may have had its evolutionary roots in our ability to express, represent, direct and commit by means of natural information transferred by emotional expressions.

This is an evolutionary hypothesis worth pursuing, but I do not want to oversell what TAP can deliver even on a best-case scenario. The fact that we can engage through emotional expressions in Speech Act Analogs of genuine speech acts does not mean that there is no major divide between linguistic and non-linguistic creatures left to bridge. The analogy between what a speech act can non-naturally mean and what an emotional expression can naturally mean should not blind us to the fact that the “contents” which can be, respectively, non-naturally and naturally meant are importantly different.

A key difference is that each type of illocutionary act can be performed with respect to practically any propositional content, whereas each type of communicative move can be performed only with respect a handful of highly restricted propositional contents. Searle described Assertives<sub>L</sub>, Expressives<sub>L</sub>, and Proclamatives<sub>L</sub> as having “empty” *propositional content conditions*, namely, no restrictions at all on the propositional contents they can take. For example, one can in principle assert any proposition, even though, of course, there may be no good reason to assert most propositions. When restrictions are present, they have very limited scope. For example, Searle (1979) stated that the propositional contents of Commissives<sub>L</sub> and Directives<sub>L</sub> must represent a future action of, respectively, speaker and hearer, but any future action whatsoever can be requested or committed to.

As a result, speech acts have *force-content independence*: Setting the value of the force of an illocutionary act does not set the value of its content and vice versa. This property allowed Searle to represent illocutionary acts as  $F(p)$ , where  $F$  designates an illocutionary force and  $p$  designates a propositional content, and an open range of propositions can be plugged in to be expressed, asserted, directed to, committed to, and proclaimed.

Things are different when it comes to communicative moves performed through the expression of emotions, because such communicative moves lack force-content independence. For instance, the content I can represent in expressing anger is that you have slighted me. On the other hand, I cannot represent that  $2 + 2 = 4$  or that Johnny is short just by virtue of expressing anger (without additional linguistic stipulations). Similarly, in expressing anger I can commit to attacking you, but I cannot

commit to bringing you lunch at school or to refrain from smoking (without additional linguistic stipulations). And I can demand that you to stop what you are doing, but I cannot demand that you continue what you are doing or that you come back tomorrow at 3 p.m. sharp (without additional linguistic stipulations).

In other words, emotional expressions unaided by language can express very few things, can get others to do very few things, can represent very few things, and can commit to very few things. To emphasize this limitation, I symbolize the communicative moves made possible by emotional expressions as  $F_E(p_E)$ , where  $F_E$  designates a force associated with an emotional expression that carries natural information about emotion  $E$ , and  $p_E$  designates a specific proposition—rather than a variable  $p$  ranging over propositions—that can be communicated by that emotional expression under that force (e.g., under a commissive force, an angry frown can only commit the agent to an *aggressive* future action; under a declarative force, fearful trembling can only represent a stimulus as *dangerous*, and so on).

Relatedly, we cannot ascribe propositional contents to communicative moves in what philosophers call a “de dicto” sense. To ascribe propositional contents in a de dicto (or “in those words”) sense entails that the sentence employed to capture such content reflects the way the agent himself or herself represents the situation. For example, if I claim that John’s speech act non-naturally meant *that the cat is on the mat*, I am committed to John representing the world in terms of the subject-predicate sentential structure I used, which entails among other things that John has the concept of cat, the concept of mat, and so on, and so forth. If this were not his subjective perspective on what the world is like, John could not possibly intend to make that very perspective available to an audience by virtue of recognizing his intention to do so.

But when I ascribe to a dog the communicative move of representing *that the snake is dangerous* simply on the basis of an expression of fear toward it, I am not committed to the dog representing the world in terms of the very sentential structure I used. For instance, I would hesitate to conclude that the dog possesses the concepts of snake and danger. On the other hand, I am committed to the propositional content I used being a good description of the conditions under which the dog’s representation would be correct. In other words, what I am saying when I ascribe to the dog such “de re” (“of the thing”) propositional content is that if the snake is indeed dangerous, the dog’s fear expression will have represented the world as it is.

By the same token, when I ascribe to John the communicative move of representing *that Janet committed a slight* simply on the basis of his expression of anger, I am not committed to John representing the world in terms of that very sentential structure. What I am committed to is just the fact that John’s angry expression would be correct if Janet had committed a slight (assuming that slights are what anger represents).

Even with the proviso that the contents of communicative moves are propositional only in a “de re” sense, the specific contents I have listed in this article should be understood as preliminary and tentative. They are first stabs at shedding light on what emotional expressions express, demand, represent, and commit to. What is more important for my purposes is to

have made the case that the ability to express, demand, represent, and commit to *some* contents is available merely by virtue of expressing emotions and may have provided important building blocks for the evolution of language.

## Conclusion

The first part of my article is an attempt to reconcile insights from two of the main research programs on emotional expressions: Ekman's Basic Emotion View and Fridlund's Behavioral Ecology View. On Ekman's view, emotion-specific facial expressions are reflexively caused by basic affect programs—for example, anger, fear, sadness, happiness, disgust, and surprise—driven by dedicated neural circuits. Ekman's experimental work has focused primarily on collecting evidence that experimental subjects in a variety of different cultures largely agree on what emotions are expressed by a set of snapshots of prototypical facial expressions. Evidence of agreement has been taken to show that facial expressions are universal, although susceptible to cultural influences once elicited.

This experimental paradigm suggests that involuntarily expressing emotions is the primary communicative point of facial displays and that context does not affect what a given facial expression means. Fridlund (1994) and other proponents of the Behavioral Ecology View have rejected both assumptions, replacing involuntary facial expressions with voluntary and context-dependent facial displays understood as “messages” produced for influencing others' behavior. For instance, it has been proposed that the facial displays commonly thought to express happiness convey intent to affiliate, that the facial displays commonly thought to express sadness are attempts to recruit succor, and that the facial displays commonly thought to express anger convey readiness to attack.

I have argued that this way of framing the debate is flawed, because it relies on a false dichotomy between expressing emotions and communicating messages. On the contrary, my central proposal is that, just as we engage in a variety of illocutionary acts when we utter sentences, we engage in a variety of communicative moves when we produce emotional expressions. This turns the attack of the Behavioral Ecology View on its head: Facial displays are messages that successfully influence others' behavior precisely because they are expressions of emotions, under a suitably reformed notion of emotional expression.

The second part of my article develops TAP, exploring what speech act theory, developed in the 1960s by Austin and Searle, can teach us about what emotional expressions mean, despite the fact that there are key differences between the non-natural meaning of linguistic utterances and the natural meaning of emotional expressions. As it turns out, speech act theory allows us to develop the Behavioral Ecology View in new directions.

First, the framework I have offered is applicable not only to facial displays, but to all emotional expressions, which range from involuntary facial behaviors to intentional actions of various kinds. Second, TAP improves upon the vague notion of a “social motive” employed by behavioral ecologists by distinguishing between various categories of things we “do” with emotional expressions. The punch line of this article is that

emotional expressions can perform at least four of the five kinds of communicative moves that language makes available: expressing, representing, directing and committing.

TAP will need to be extended to other forms of non-linguistic communication (e.g. gesture, spatial positioning, orientation, etc.) to get a full inventory of the communicative moves available for language bootstrapping. But I have suggested that, in keeping with Darwin's prediction, emotional expressions may have provided our ancestors with some of the cognitive and motivational building blocks for the emergence of language.

On the view I have proposed, the ability to make communicative moves is shared by linguistic and non-linguistic creatures and it represents the “cake” of communication: The “icing,” although a very substantive one that fundamentally transforms the flavor of the underling cake itself, is the ability to make such moves with respect to unbound propositional contents. I have suggested that the ability to separate form and content is what puts the icing on the cake, and that it likely evolved through the progressive conventionalization of a roster of basic SAAs.

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