

from: J.A. Russell & Jose Miguel Fernandez-Dols (Eds.),  
The psychology of facial expression (1997).  
Cambridge, U.K.: Cambridge University Press.

## 15. Faces in dialogue

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Most of our communication with other people occurs in ordinary conversation – that is, in spontaneous face-to-face dialogue. Whether we are talking at home, at work, or in a public place, the format is most likely to be face-to-face conversation. Many scholars treat conversation as “among the most pervasive forms of human interaction” (Goodwin, 1981, p. 12; see also Clark & Wilkes-Gibbs, 1986, p. 1; Levinson, 1983, p. 284). Because of the ubiquity of conversation, any serious examination of the communicative functions of faces must consider what our faces are doing during dialogue. Yet until very recently, the literature contained almost no empirical or theoretical resources. This chapter is a prospectus for this new area of research: the study of facial action in dialogue. We propose that the facial displays of conversants are *active*, *symbolic* components of *integrated* messages (including words, intonations, and gestures; see Bavelas & Chovil, 1994).<sup>1</sup> After elaborating on these features, we describe the methodological implications of our theoretical framework and some preliminary findings.

### The mobile face

One of the most striking aspects of the face in actual dialogue is the rapidity and precision of movement and change. In contrast to other primates, humans' faces are flexible, with an extraordinary number of highly enervated, independent muscle groups. In one experiment (Bavelas, Black, Lemery, & Mullett, 1986a), we microanalyzed videotapes of our subjects' faces for 3 or 4 sec immediately after they had witnessed an apparent injury, and we found that in those few seconds,

our observers' faces were often kaleidoscopic and typically included a rapid succession of expressions and components of expressions. (p. 324)

In conversation, a speaker<sup>2</sup> can shift quickly from raising a single, quizzical eyebrow over a wry smile, to flashing both brows for emphasis on a particular word or phrase, to furrowing the brows and pursing the lips in disbelief or suspicion. Indeed, an immobile face is unusual; even apparently impassive listeners make subtle changes in their faces as they follow the speaker's narrative. (It would be ideal if, as a supplement to this chapter, the reader could view a segment of videotape in which two people have been filmed, close up, in spontaneous conversation; all of our examples come from these kinds of data.)

We are emphasizing the mobility of the face because the literature on facial expression is full of *still photographs* of people with fixed, unmoving expressions. Obviously, such photographs are currently the only means available for publishing facial displays, but we can speculate whether our field's traditional focus on a limited number of fixed displays may have been shaped, in part, by the fact that publication technology has permitted only the transmission of static, two-dimensional faces. A precise but fleeting expression becomes something very different when frozen in time; for example:

- (1) A woman is explaining that, while she likes a food that the listener dislikes, she doesn't eat it often. As she says the last phrase, she enacts, very quickly, an asymmetrical "disgust" expression (wrinkling one side of her nose with the *caninus* muscle). Remember that she likes the food, so she is not indicating disgust; instead, she is using the metaphor of rejection that is implicit in disgust to indicate abstract negation, "*I don't eat it very often*" (Bavelas, 1992, p. 23)

A still photograph of her face at that moment would freeze it forever as literal disgust.

#### Facial signifiers

We propose that with the exception of adaptors such as licking the lips or reflexive blinking, most facial actions in dialogue are *symbolic acts*. Like words, they depict information that one person is communicating to the other. Like words, there is the classical relationship of signifier to signified – in this case, of the facial configuration to the concept it signifies (de Saussure, 1915/1966).

In more modern terms, Clark and Gerrig (1990, p. 765) explained that people face to face have three basic methods of conveying meaning to others. They can simply *indicate*, or point at the object or event that they wish to draw to the other person's attention. They can *describe* the infor-

mation, usually in words. Or they can *demonstrate* their meaning by performing actions that depict selected aspects of what they want to convey. Clark and Gerrig's goal was to develop the principles of demonstration and to apply them to verbal quotations in particular (e.g., "and he tells her 'no I can't guarantee these ones'"; p. 771). However, they also applied their principles to other, nonverbal actions:

People can demonstrate a cough, the rhythm of part of a Chopin prelude, the sound of a car engine, the sound and action of a jackhammer, the length of a fish, the size and shape of a platter, the speed of a snail, or the appearance of a chimpanzee [or] palace guard. ... The referents of these demonstrations may be events (e.g., the cough), states (the length of the fish), processes (the working of the jackhammer), or objects (the chimp [or] guard ...).

Note that all of these demonstrations have referents; they are symbolic acts. Here, we illustrate how facial displays in conversation fit Clark and Gerrig's criteria for demonstrations – that is, they are nonliteral, selective depictions of meaning. For example:

- (2) A woman is telling about a close call she had as a child, when she nearly fell off a barn roof. In her story, she is emphasizing the humorous as well as horrifying aspects of the event. At the climax of the story, she says, "[I] just managed to catch the, ah, the beam, the supporting beam, with the tips of my fingers. It was so funny, I was yelling 'Dad! Dad! Dad!' My dad's yelling 'Hang on! Hang on! and comes running over, pulls me up. . . .' She depicts herself mockingly, with a wide-eyed, childlike expression. When depicting her dad, she shows what his face might have looked like at that moment by raising her eyebrows, looking deeply concerned, and moving her head emphatically in time with his words. Throughout, she is also smiling slightly, which conveys the humorous perspective she is now putting on the story

Recall that demonstrations are not literal actions. Our speaker was not literally being childish during her narrative, nor was she claiming to feel as her father had felt at that moment; she is not necessarily even claiming that her father actually looked as she is now portraying him. These are, to use Goffman's (1974) term, *nonserious* or make-believe actions. (*Nonserious* here does not mean playful, although in this particular example, the tone was humorous.) The speaker is not feeling frightened or concerned; she is *depicting* being frightened or concerned. Her face, along with her words and manner, is a signifier of the events as she wants to convey them now. (Note that her use of present tense when describing her father's actions is also nonserious; obviously, his actions are not occurring as she tells them.)

Because demonstrations are not literal, they can be partial and selective; they are intended not as faithful reproductions but as stylized depictions of key, selected features. In the few seconds of her narrative, our speaker necessarily left out most of the actual events and economically portrayed only the fleeting suggestions required to create the scene as she wished to convey it. Some of these features, such as her mockery, are even inaccurate in the sense of being anachronistic; she was obviously not laughing or mocking at the time.

We have demonstrated that not only speakers but also listeners or observers engage in symbolic facial displays (Bavelas et al., 1986a; Bavelas, Black, MacInnis, Lemery, & Mullett, 1986b; Chovil, 1991). Allport (1968) used the term *motor mimicry* to describe actions by an observer that are appropriate to the situation of the person being observed rather than to the observer's own situation (for example, wincing at another's injury). In one study (Bavelas et al., 1986a), we demonstrated that facial mimicry such as showing pain in response to an apparent accident was not a byproduct of vicarious emotion (which would be literal and non-symbolic) but a symbolic representation of the observer's empathy. Motor mimicry is not a literal expression of pain; rather, it conveys "It is as if I am you, feeling your pain." These facial displays are highly stylized and easily decoded; they are selective demonstrations of key features of a pain response, and they are significantly more likely to occur when the victim can see them (Bavelas et al., 1986a; Chovil, 1991; see chapter 14, by Chovil, this volume, for a review of other studies on the importance of a receiver).

In sum, facial displays in dialogue are symbolic acts selected to convey meaning to a recipient. Although they often depict emotional reactions by self or other, they are not emotional expressions; they signify rather than reveal.

### Integrated messages

In the aforementioned close call (Example 2), the speaker's facial actions were precisely timed to coincide with the appropriate words (the reported statements of her father and herself). At the same time as she was depicting their facial and head actions, she also depicted their vocal style, mocking versions of her fear and her dad's encouragement. When she described catching the beam with the tips of her fingers, she gestured the horizontal beam and then curled her fingers to grab this imaginary beam where she had located it. While enacting her dad telling her to

"Hang on!," she also moved her arms slightly, as if in a running motion. Thus, she integrated her words, intonation, facial actions, gestures, and other movements into a unitary depiction of the scene for the other person.

The simultaneous integration of words, face, gestures, and prosody is an important feature of conversational language. Speakers do not say something and then demonstrate it facially; the facial action is timed to occur with precisely those words that it illustrates or supplements. Conversational hand gestures, too, are synchronized with speech (McNeill, 1985). Slama-Cazacu (1976) illustrated how words and gestures can work together to create a sentence, a phenomenon she called *mixed syntax*; we propose that facial action can also be part of this mixed syntax. For example, in the close-call story excerpted earlier, the other person interrupted to ask, "How high up were ya?" and the narrator responded with

- (3) *Umf!* [flashes her eyebrows, then stops smiling, and looks serious for a moment, as if looking for something, then she resumes smiling and says, I'm really not too sure [pauses, then laughs and resumes her narrative]

Her stylized display of trying to remember the exact height not only explains her brief silence (while still holding the speaking turn); it also shows that she is treating his question seriously, even though she does not, in the end, provide an answer. It is as if she had said, in mixed syntax,

*Umf! Let me think about that for a minute; sorry, I'm really not too sure.*

Note that we are treating her facial action as a demonstration or depiction of trying to remember, for the asker's benefit, and not as an involuntary byproduct of her effort to remember. The facial display need not be veridical; that is, she may not have been trying to remember but may have been depicting (nonserious) remembering in order to be polite before resuming her story.

Like hand gestures, facial actions are an efficient means of illustrating information that may be difficult or time-consuming to put into words. Although one facial depiction may not be worth a thousand words, it may well take the place of at least a full phrase. Moreover, a facial depiction can occur simultaneously with the words so that an entire adverbial or adjectival phrase often occurs at the same time as the verbal component, rather than in linear sequence as would be necessary for words. Finally, facial action is particularly well suited to work with words because it is the only communicative act that can match the speed

of the spoken word. For example, the rapidity of eyebrow movements makes them uniquely useful for stressing individual syllables (e.g., Chovil, 1991/92; Ekman, 1979).

### Methodological implications

In brief, our theory is that faces in dialogue move rapidly to convey meaning in conjunction with other, simultaneous symbolic acts. It should be apparent that this is not a theory that can be investigated by physical descriptions of still photographs or by study of only the isolated video track of a videotape. To us, such methods would be like describing music as amplitude and frequency or studying only the woodwind part of a symphony. We analyze facial displays as they occur in actual social interaction, with the goal of understanding their meaning in context. Like words, facial signifiers only have meaning in context. Just as with words, there are two important contexts to consider: First, we must locate the facial display in the ongoing development of the dialogue, which includes the topic of conversation, preceding utterances and displays, and what is happening at that moment (e.g., presenting new information, repairing an error, confirming understanding, or answering a question). In addition to the cumulative context, there is the simultaneous context of other symbolic acts – that is, the words, gestures, and intonation that accompany the facial action. As emphasized earlier, we assume that symbolic 'acts' are integrated with each other and work together to create meaning.

Our insistence on analyzing behaviors as meaningful wholes rather than as molecular parts is similar to that of Wright and Barker (1950), who pointed out that a person

does not sweat or salivate, nor does he often bend his knees in walking, manipulate his tongue in talking, move his eyeballs in reading, or bend at the waist in sitting down. He walks, talks, reads, or sits down, leaving his glandular and motor apparatus to take care of the sweating, salivating, bending, manipulating and all such molecular units of behavior which, as molecular, are lost to the person in what he actually does (p. 50; italics added)

Many researchers believe that only the molecular level of physical description is objective and reliable, because meaning requires interpretation and is therefore in the domain of the ephemeral and subjective. We disagree:

Objective is merely intersubjective agreement; there are no inherently objective facts, only those on which observers' perceptions (always subjective) are obviously likely to be aligned. The question becomes whether we [can] achieve high levels of independent agreement for our interpretations... (Bavelas, 1994, p. 212)

Our research (e.g., Chovil, 1991/92) has shown that reliability for assessing the meaning of a facial display in context can be as high or higher than systems of physical description.

Besides the importance of context, there are two further principles that guide our analyses: First, we assume that it is natural for people, including our analysts, to approach dialogue at the level of meaning. In our spontaneous interactions with others, we are attending to meaning and not to physical movements or configurations. We see surprise or skepticism, not facial movements, just as we hear the meaning of words and not their physical properties, such as fricatives. So when we analyze videotapes of facial signifiers, we can easily watch and listen at the level of what one person is conveying to another, just as we do in everyday life. Second, it follows that our training is mostly metalinguistic – that is, teaching people to articulate the meaning that they have already understood and to attend to how that meaning was conveyed. The best way to achieve this is a clearly structured protocol that guides the analyst from step to step, requiring him or her to make relatively broad and easy decisions first and then move to more specific or difficult ones. The next section illustrates the first such analysis of faces in dialogue.

### Functions of speakers' and listeners' faces

Apart from Ekman's (1979) description of the conversational functions of eyebrows, there have been almost no studies of faces in dialogue. As far as we know, Chovil's (1989, 1991/92) was the first systematic study of the faces of two people in spontaneous conversation (i.e., not one person alone or with an interviewer or confederate). Chovil studied the faces of 12 conversational dyads (4 female, 4 male, and 4 mixed pairs), who had been given three topics chosen to elicit a broad range of conversation: They told each other about a close call or near miss that each person had had or heard about; they told each other about a minor conflict or argument with another person; and they planned a nutritional meal together out of foods they both disliked.

Both participants were videotaped, close up, in split screen, on high-quality color video; the goal was to capture their faces as they looked at

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Both participants were videotaped, close up, in split screen, on high-quality color video; the goal was to capture their faces as they looked at

each other during the conversation. These videotapes were later analyzed using a large monitor and an industrial-quality VCR with stable freeze frame and slow motion. It is also useful to have a sound track that will stay on during slow motion; this sound track, however distorted, keeps the audible and visible actions together and makes their intimate synchrony apparent. An on-screen time signal accurate to tenths of seconds is invaluable for locating the individual displays.

Chovil's goal was to look for and understand the function of the conversants' meaningful facial actions. So, first, facial movements that were byproducts of other actions (e.g., blinking, swallowing, or talking) were ignored. Facial adaptors such as biting or licking the lips were identified and set aside. Then, all meaningful facial actions except smiles were located and analyzed. Smiles were omitted for purely economic reasons, because their sheer frequency would have overwhelmed all of the other less obvious displays. As it was, the data yielded 880 meaningful displays, 301 adaptors, and only 3 that could not be analyzed. We focus here on the 880 meaningful displays, which are summarized in Table 15.1.

Instead of imposing an a priori categorization, Chovil's approach was both inductive and functional. She asked: What is this display doing at this point in the conversation? How is it conveying meaning in the context in which it occurs? Three broad linguistic functions emerged, each with many subsets of functions. A second analyst scored a large sample of the 'data independently, with reliabilities of 82% to 97%.

The largest group of meaningful facial actions consisted of *semantic* displays by the speaker – that is, facial actions that conveyed a meaning directly relevant to the speaker's narrative. For example, the speaker raised her eyebrows and one side of her upper lip and then squinted her eyes to illustrate her personal distaste, while saying

- (4) *I hate, I hate desserts with alcohol in them* (p 180).

Speakers also portrayed or reenacted past reactions, both of themselves and of others; for example, the speaker demonstrated someone's odd look at him by reenacting it

- (5) *and the guy just sort of looked [pause] you know, sorta looked down at me* (p 182)

During his brief pause, the speaker tilted his head down, lowered his eyes, and formed a straight mouth. His facial portrayal made specific

Table 15.1. Functions of conversational facial actions

Function	Meaningful Displays by speakers <sup>b</sup>	Frequency <sup>a</sup>
Semantic	720	405
Redundant	243	87
Personal reaction		83
Portrayal		20
Thinking/remembering		17
Facial shrug		15
Yes		21
+ six other functions		162
Nonredundant		73
Personal reaction		43
Thinking/remembering		31
Facial shrug		15
+ five other functions		315
Syntactic		286
Grammatical markers		156
Emphasizer (word)		57
Underliner (phrase)		45
Question marker		28
+ four other functions		27
Organization of story		18
Story continuation		9
+ three other functions		2
Speech corrections		160
Meaningful displays by listeners <sup>b</sup>		84
Back channel		48
Personal reaction		21
Motor mimicry		7
+ three other functions		

<sup>a</sup>Frequencies are nested in the same format as the function names, with successively finer breakdowns as one moves to the right. Thus, each column adds up to the figure that is above it and to its left (e.g., 87 + 83 + 20 + 17 + 15 + 21 = 243).

<sup>b</sup>Except smiles.

Source: Adapted with permission from Chovil (1989).

and vivid exactly how the other person looked down at him, acting as the visual equivalent of an unspoken adverbial phrase.

A surprising 40% of the speakers' semantic displays went well beyond their verbal descriptions and conveyed information that was completely nonredundant with their words – for instance, in Example 3 (earlier) or

- (6) *That was only a couple of days ago but ah [pause]* (p 186)

During the pause, the speaker pushed out his bottom lip and raised his eyebrows, as if to say, "That's about it; the rest doesn't matter." Based on the words alone, we would expect the speaker to continue, but his face conveyed that he was finished.

Another major function of the speakers' facial displays was to act as *syntactic* markers; these were usually eyebrow actions. Most served as grammatical markers, especially to emphasize a particular word or to underline a whole phrase. In Example 3, the speaker stressed her "*Um*" prosodically and also marked it with an eyebrow flash. When a longer grammatical unit was being emphasized, the brows remained up over the entire phrase; in Example 2, she marked her Dad's yelling "*Hang on! Hang on!*" by raising her eyebrows precisely over that phrase. Another common grammatical function was to mark a question; for example,

(7) *We were up, uh, nailing on boards, for the roof?*

She said the last three words in a "Do you know what I mean?" tone of voice and also raised her brows and held them up until the listener nodded and said "*Mhm*." Both her intonation contour and her brows marked this as a question rather than the declarative sentence that it would appear to be verbally.

Altogether, the speaker of the moment accounted for over 80% of the meaningful facial displays in Chovil's data. Listeners, though, were not impulsive. The third major group of facial displays, *listener responses*, consisted primarily of back-channel responses, which are indications that he or she is listening and following the narrative. These were often minuscule in scale, mere components of other displays – for example, turning the corners of the lips down in appreciation of something serious, pressing the lips together in concern or suspense, closing the eyes briefly ("I don't want to see this"), and raising the brows in alarm or disbelief. Other listener displays went beyond simple back channels and portrayed a more pronounced or exaggerated reaction to what the speaker was saying; for example:

(8) The speaker is telling about a conflict with her father, whose reaction to her getting a grade of 92% on a test was to say, "Why didn't you get a hundred?" The listener portrayed surprise and disbelief at the father's statement by dropping his jaw, widening his eyes, and raising his brows (P 188)

Another listener response that particularly interested us was motor mimicry, in which the listener portrayed a reaction appropriate to the speaker-

er's situation (e.g., fear or pain during a close-call story). Our previous research (Bavelas et al., 1986a; Bavelas, Black, Chovil, Lemery, & Mullett, 1988) had established that this is not a vicarious emotional reaction but a communicative act. In those studies, however, we had limited the data to a fixed eliciting stimulus and response. In spontaneous conversational data (Chovil, 1991, 1991/92), we found the true home of mimetic displays: They are a significant part of the listener's conversational repertoire, a brief and eloquent way for the listener to participate briefly in the speaker's narrative. With motor mimicry, the listener not only indicates appreciation of the speaker's point but becomes a co-narrator for a moment, illustrating the speaker's point with his or her own face. Our recent research (Bavelas, Coates, & Johnson, 1995) has shown that mimetic responses by the listener are a distinct and important part of dialogue.

The reader may have noticed that each of the semantic response categories (speaker-redundant, speaker-nonredundant, and listener responses) had a group of *personal reaction* displays (e.g., Table 15.1 and Examples 4 and 8). In our view, the conversational display of a personal reaction is entirely different from a classic emotional display. There is no doubt that these facial actions often draw on the familiar code of emotion displays (e.g., enacting disgust), but they are not evidence of an emotional reaction in the individual making the display, for several reasons: First, these facial actions are partial and selective (i.e., symbolic, nonserious). Second, they are extremely rapid – often 1 sec or less, which is too rapid to assume that a corresponding emotion has come and gone during the display. Third, they are precisely timed to the accompanying words, so that they are shaped by linguistic rather than affective forces. Our interpretation of the frequency of these displays is that they take advantage of the unique ability of the face to encode people's internal reactions vividly, which words can do only abstractly. This is supported by the frequent use of facial action to encode *other people's* reactions as well – for example, the speaker's semantic portrayals and the listener's motor mimicry. We postulate that there is a division of labor among words, gestures, and facial actions so that material is encoded in the most suitable form – for example, personal reactions in faces, shapes and movements in gestures, and abstract categories and syntax in words.

We hope that this chapter has engaged the interest of researchers who have previously not looked closely at faces in dialogue. Our goal is to free the face from its historically exclusive relationship with emotion so that we can begin to see other functions of faces in everyday social life.

**Acknowledgments**

We would like to acknowledge the financial support of the Social Sciences and Humanities Research Council of Canada, in the form of standard research grants to J.B. and pre- and postdoctoral fellowships to N.C.

**Notes**

- 1 Our theoretical position is very similar to colleagues such as Adam Kendon, David McNeill, and Jurgen Streeck, especially their analyses of hand gestures (see, for example, their articles in Kendon, 1994).
- 2 We use the traditional terms *speaker* and *listener* for convenience, even though they tend to obscure our thesis that the speaker's meaning is visual as well as auditory and that the listener is also a viewer.
- 3 Hereafter, examples with page numbers indicated are from Chovil (1991/92); all others are from previously unpublished data.

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