THE MEANINGS OF SMILE
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Abstract
In this paper we claim that smile can be considered a communicative signal, one endowed with a specific signal and a specific meaning, in the same vein as words in the verbal lexicon are. Although the interpretation of a smile is from time to time enriched by contextual information, yet smile is not an infinitely polysemic signal but it has but two basic meanings: a purely expressive meaning, an expression of pleasure, and a communicative meaning, the goal of showing friendly to other people. In terms of a cognitive model of communication, we show that all other possible meanings of any specific smile can be understood by drawing inferences that combine the basic meaning with contextual information.

1. Smiles as words
Smile is a central topic in the field of NVC, and many authors, with different approaches, have drawn up smile typologies while trying to establish its meanings and functions. Smile may be used in a variety of contexts, and very different types of smile can be distinguished, from joyful, to ironic, sarcastic, miserable smiles and so on (Ekman & Friesen 1982; Fridlund 1991).

We view smile as but one (very basic and important) item in the lexicon of nonverbal behavior. We fulfill our communicative goals through the use of a great number of signals in different modalities. If we view all communicative signals as lexical entries of a lexicon, as words are, each of them (a stare, a frown, a smile, a gesture) may be conceived of as a signal-meaning pair, that is, a relationship between a perceivable stimulus (the signal) and a set of mental images or logical propositions (the meaning) which is always the same and is shared by the users of that lexicon.

2. Signals and context
Many views of language maintain that no word or nonverbal signal has a predetermined meaning of its own, since its ultimate meaning is always determined by the context. We want to demonstrate, instead, that although context does have a very important function (any new item is in fact interpreted against the background of previous and cooccurrent information), nonetheless this does not imply that the meaning of a signal fades away completely and is totally determined by context. A lexical system would not, in our
view, be economic and efficient as a system of communication if the meaning part of entries were
imprecisely stated, and left to unpredictable variation. According to our cognitive view of communica-
tion, in any communicative situation information provided by both signals and context add up to make an overall meaning, that is, a set of new beliefs. But in this complex resulting meaning we think it is possible to single out precisely which beliefs are provided by the signals themselves and which by contextual knowledge. This implies that we can state precisely what is the meaning of any lexical item and what is the knowledge drawn from context.

Now, the idea of meaning indetermination is maintained, in its extreme view, also for the meaning of words, but it is more easily sustained in the realm of quasi-words (like, say, interjections or discourse markers) or, even more, with nonverbal signals. Here, we want to uphold our thesis not for "normal" words (where it is easier to defend) nor for interjections (which we already have defended, Poggi 1981), but for the most frequent and (seemingly) polyfunctional non-verbal signal: smile.

The goal of this work is to show that smile, as any other communicative or expressive signal, does not have an infinite number of different meanings and functions; instead, it bears only a very small set of basic meanings of its own, and that the variety of other meanings we attribute it in different contexts stem, from the different inferences triggered by the basic meanings.

In fact, if we accept that many different inferences may be drawn in different contexts from the same communicative act, then we may, on the one hand, account for seemingly very different interpretations of the same signal, and on the other hand avoid semantic indetermination: we may maintain that a particular signal has a single or just a very small set of meanings, one subject to be enriched by context but which does not completely fade away in it.

3. Method

Our research method is the following: we collected 24 real examples where one or more smiles occurred; then for each, taking into account the whole context in which it was produced - other cooccurring communicative signals like sentences, gaze, posture (be they congruent or not with the smile itself), and participant's shared knowledge - we tried to translate the meaning of that particular smile into words or sentences, or, more generally, to wonder what the smiler might have meant with that smile.

We discovered that the specific meanings of the smiles under analysis are quite different from each other, but that they all may, in the end, stem from only two main meanings: an intrinsically social and communicative meaning, that can be paraphrased as: "I'm your friend", and a more individual and expressive meaning of the kind: "I feel pleasure". But how can it be that very different meanings can all stem from only two general kinds?

4. A goal and belief model of communication
To account for both the existence of few meanings and for the multiple contextual interpretations, we will illustrate our view of nonverbal communication, one based on a goal and belief model of action and communication (Castelfranchi & Parisi 1980; Poggi & Magno Caldognetto 1997). According to this model, any speech act or communicative act (a sentence, a blink, a gesture, a smile) has a literal goal, explicitely stated by its literal meaning, which is composed by a performative and a propositional content; but beyond its literal goal, it may also have one or more supergoals. A supergoal is a goal that is not explicitely stated by the literal meaning, but is to be drawn by the addressee through inferential work. The supergoal of a communicative act may be either of an idiomatic or of a creative kind. It is idiomatic when the inference to be drawn is always the same, whatever the context at hand (in more or less the same way as Searle's indirect Speech Acts). "Can you pass the salt?" is a typical case of idiomatic supergoal, where only one inference (S is asking to pass the salt) is generally possible. On the contrary, the supergoal of a sentence is of the creative kind when different supergoals are to be reconstructed from context to context, through ever different (therefore "creative") inferences. Suppose a Speaker asks a Listener: "Are you going home right now?". If the context is that S and L are neighbors and S's car is broken, then L will infer that S is asking for a lift; if, instead, S and L work in the same office and share the same computer, then L may infer that S wants to work on the computer now. The same sentence has then two different supergoals to be creatively inferred on the basis of different contextual information.

5. Meaning and inferences regarding smiles

We now show a sample of our analysis. For each example of smile we first provide a paraphrase of the specific meaning which that smile seems to have in that context; then we try to trace back to one of the two postulated basic meanings by specifying the inferences that may lead from the specific meaning to the basic one. Finally, we represent the structure of these examples as an inferential chain where the first step is the literal meaning of smile, a coded meaning in the lexicon of nonverbal signals, the last step is the specific meaning of that smile in that context, and the steps in between are the inferences leading from the first to the last meaning.

(1) The old couple
While seeing an old man and an old woman who cross the street helping each other, A smiles by himself. This smile is not a social smile: A smiles to himself, because he is moved from that scene. Smiling may be paraphrased "I am glad for them", or, "I am glad to see things like these".

We do not have a whole chain of meanings, but just the literal meaning: "I am glad"

(2) Police competition
A has just won a competition to become a policeman, and he is haughtily speaking to a group of other competitors who have lost. He says with a smile what he had to endure to obtain this result. Two hypotheses can be made about this smile. First, it may be a smile of superiority, one paraphrasable as "I am superior to you"; second, it may just mean "I'm satisfied with myself". In both cases, the basic meaning is one of expressing pleasure, not one of communicating friendliness to the other competitors.
Chain of meanings:
Hypothesis n.1: I am glad ---> I am superior to you
Hypothesis n.2: I am glad ---> I am satisfied with myself

(3) Playing with friends
A wants B, her seven-years-old son, to get dressed, but he does not want to because he knows that after doing so his mother will not let him go out to play with his friends. A *smiles* and says: "Come on, John! You know it's too late to go out". A's smile is a way to console B for not allowing him to go out: it can be paraphrased as: "I want to console you". This meaning can be traced back to the "I'm your friend" meaning, not to the "I'm glad" one. We console someone when one of his goals is thwarted, and we do it by remembering him that at least some other goal of his has been reached: in this case, namely, the goal that we are well disposed to him.

Chain of meanings:
I am friendly to you ---> It is a good thing to have someone well disposed ---> A good thing can console you for a bad thing ---> I want to console you

(4) The courtship
A sees B, a beautiful girl, sitting on a park bench, and he decides to court her. He picks a little flower, sits at her side and says: "I couldn't help admiring your beauty and your sweet gaze lost in the infinite". B looks at A and blushes, then she takes the flower, *smiles* and says: "I'm embarrassed: I don't know what to say". B's smile here may be paraphrased as "I am glad" and at the same time it means a positive attitude to the boy, something like saying: "I am friendly to you". Here from a meaning only centered on B and expressing a positive emotion of hers A can infer that B is in a good humor, then a meaning intrinsically implying a positive social relationship with him.

Chain of meanings:
I am glad ---> If I am glad I am not angry at you ---> I am friendly to you

6. Conclusion
We have shown that smile can have meanings different from context to context, but all can be traced back to only two basic meanings, "I am glad" and "I am a friend to you", through inference induced by the different contexts. We may then conclude that all smiles have but two literal goals, one of expressing pleasure and one of showing friendly, but these two goals may have different creative supergoals, to be inferred from the different contexts. Moreover, in some way we could even reduce all the meanings of smile to only one, "I feel pleasure". As case n.4 seems to show, in fact, the social meaning of smile - I am friendly to you - could have been originally an idiomatic supergoal of the affective non-social meaning, from which now it has become completely autonomous.
References


