

Codes

Communicative codes are general procedures that both senders (speakers or signers) and receivers have to signal the communication of intentions (and to somehow interpret these intentions) by means of multimodal resources such as linguistic and paralinguistic signals, prosody, gaze, gestures, kinesics, and posturing. For the concerted production of meanings, senders' signaling alone is not enough; receivers then inferentially map perceived signals against communicative expectations and previous communicative experiences. In this sense, both senders and receivers are active and productive. Strictly speaking, receivers cannot replicate intentions, since these are abstract properties of the senders' minds; rather, receivers apply their own communicative codes to generate interpretations. These interpretations then affect the receivers' own cognitive states, and a certain sense of "understanding" ensues. Thus communicative codes, applied both to signal intentions and to construct interpretations from signals, are forms of an individual's competence that are alternately (or simultaneously) activated in interaction.

The notion of "code" in linguistics derives from information theory. In information theory, a code is a mechanism to pair two sets of signals in non-ambiguous, reversible, and context-free ways. For instance, in morse code the letter "s" is always rendered as three dots, regardless of particular circumstances (context independence); "s" can only be rendered as three dots (non-ambiguity); and three dots are always to be understood as "s" (reversibility). Morse code is not the inventory of dot-and-line combinations equivalent to letters, but the abstract rule or cypher that relates letters to those combinations.

This "code" notion was systematically applied to speech first by information theorists (Fano) and, then, fundamentally, by Roman Jakobson. Jakobson reframed Saussure's *langue/parole* dichotomy in terms of *code/message*. In this model, the speech signals would match "meanings" in the linguistic "code," equivalent here to "grammar." However, Jakobson's

model is not exempt from ambiguities, loose ends, and perhaps contradictions. For instance, many pragmatic meanings, such as most conversational implicatures, cannot be accounted for by linguistic structures per se. Second, the interplay between linguistic and other systems in interaction (e.g., between grammar, prosody, and gestures to convey irony) produces apparent incongruences between literal and unstated contents that the linguistic-code model cannot account for either. Third, in much of face-to-face interaction, the various signaling values of oral or visual languages cannot be detached from non-linguistic body signals, as language use and other practices are mutually intertwined (see, e.g., Charles Goodwin's work on conversational organization).

These problems in the strict application of the "code" notion to human interaction have been widely pointed out. Philosophers, anthropologists, and linguists such as Paul Grice, John Searle, John Gumperz, Charles Goodwin, Alessandro Duranti, and Dan Sperber and Deirdre Wilson highlight the context-bound nature of most interpretation, the ambiguity of unstated meanings, and the variable interplay of understanding and misunderstanding. Inferential views of communication propose that most understanding depends on the particulars of the relationship between literal contents and contexts. Notions such as "background/mutual/shared/common knowledge," "common/shared assumptions," "mutual cognitive environment," or, simply, "cultural values" are thus construed as crucial variable contexts for interpretation.

This has led to a disabling of the applicability of the "code model" to human communication. However, a loose notion of codes still can and should be applied to communicative processes. Some reasons for this perspective are the following:

First, even for proponents of an inferential view of communication, it is beyond contention that at least some contents (e.g. literal or "sentence" meanings) that also enter interaction can safely be said to be "coded" (an explicit point in, for example, Sperber and Wilson's work). If I say "It's hot in here," I am in principle also predicating about the room temperature regardless of any possible additional interpretations (e.g., "Let's go to the park" or "Bad day to attend a lecture").

Second, and most important, the work on inference and contextualization also emphasizes the *regularities* in peoples' interpretations of signals or "contextualization cues," as interaction is by definition a social and cultural fact, not a purely individual one in which each person reinvents meaning anew in each encounter. In this sense, ethnomethodologists maintain that human sense-making is based on the inherently "overwhelming order" of conversational "normative practices." Likewise, interactional sociolinguists and anthropologists emphasize the build-up of assumptions through common "interactional histories," which helps explain highly regulated interpretations of others' utterances and acts. Unstated, inferred meanings also derive from systematic associations between signals (utterances, gaze, etc.), their literal interpretations, and contexts (social, interactional, discursive, cognitive).

In sum, although important properties of codes in information theory (non-ambiguity, reversibility, and context-independence) are problematic for

human interaction, understanding is still governed by strongly patterned associations between material signals of various types and cognitive contents. A code model of interaction is applicable, then, if we conceive of coding procedures as inherently loose, intentional, and interpretive, and not as closed formal operations that preclude any meaning negotiation.

Communicative codes are therefore those general principles that first link intentions with sets of signals—regardless of their form—and then link these sets of signals with interpretations. The physical signaling resources that codes organize are multiple. Evidence that human interaction is inherently multimodal calls for a model that accounts for the integrated ways in which signals are deployed. In signaling intentions, codes mobilize whatever communicative resources humans have at their disposal. Just as morse code is not the inventory of dot-line combinations, communicative codes are not the signals (verbal or otherwise) themselves, but abstract associative procedures that relate them to contents.

Contents that are signaled through codes include referential-propositional contents, propositional dispositions, assumptions, beliefs, values, affect, knowledge, and, crucially, intentions about the signaling of these contents as well. For instance, a given participant in an interaction may intend to simultaneously signal beliefs about the world, the "definition of the situation," representations of locally relevant identities, overall interactional goals, the activity at hand, the turn-construction value of a given action (verbal or otherwise), the illocutionary force of an utterance, and the intentions to signal all those contents. However, communicative codes do not manifest meanings in non-ambiguous ways. In the dynamic feedback process of interaction, signals both point to contents in senders' minds and are the raw materials for others (or for the senders themselves) to produce meanings. This dual location of signals can help explain both the understandings and the misunderstandings that make up the fabric of daily interaction.

An implication of this view of communicative codes as essentially loose, intentional/interpretive procedures is that, by definition, intention-signaling and signal-interpretation differ substantially. Senders creatively apply intention-encoding principles, while receivers creatively apply signal-encoding principles that select meaning values and operate changes in their own mental states. We may thus speak separately of two one-way-only codes: "intentional communicative codes" and "interpretive communicative codes," which both senders and receivers possess as competence. Intentional and interpretive codes thus have different properties and roles, although their common basis must be broad enough to guarantee that the process of semantic mimesis deceive each interlocutor into a sense of sufficient understanding.

Another implication is that the "switching of codes" consists, precisely, of a recontextualization of interaction by which participants "indicate otherness," as sociolinguist Peter Auer asserts, to call attention to previously non-relevant contents by means of multimodal clusters of contextualization cues. Since the respective indexical values of linguistic varieties alone cannot be preassumed, switching of codes has thus less to do with the so-called

code-switching, which merely juxtaposes speech varieties, than with the various, contrasting ways (including, but not exclusively, language alternations) by which humans selectively expose intentions.

(See also *functions, genre, identity, ideology, intentionality, literacy, power, switching, syncretism, translation, variation*)

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