

Title: The communicative functions of emoticons in computer-mediated communication

Running head: Emoticons

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Abstract

The communicative repertoire of human beings has recently been extended with emoticons. It can easily be assumed that emoticons are icons that express emotions of the speaker/sender. The findings of this study show that such a view is too simple. The communicative functions of emoticons in naturally occurring computer-mediated communication are documented here using insights from pragmatics and discourse analysis. The emoticons were analyzed as speech acts, politeness strategies, contextualization cues, and markers of changes in the participant structure. We conclude that emoticons are icons that can function as indexes and that can be used as symbols. They can fulfil many functions that are just as intricately linked as the functions of language. Similar to interjections, they deserve a core position in the human communicative repertoire.

1 Introduction

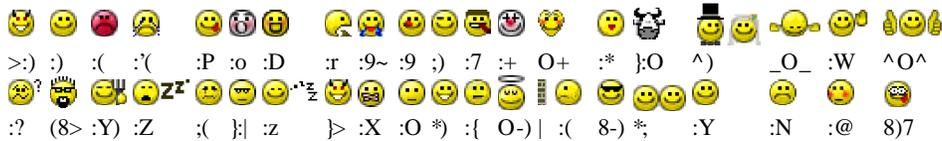
Emoticons were the focus of this study. They are defined as signs – graphic symbols or combinations of keyboard characters - that visualize physical aspects of the communicative situation. Some examples are 😊, 🙄, and – at Halloween - 🎃. Lists of them can be found on the Internet, where they are accompanied by ascribed meanings (see Table 1).

Table 1: Some emoticons and their meanings in the Dutch chat program MSN Messenger 4.5

Emoticon	MSN 4.5
😬	Smiley says Oh really? Surprised smiley
😏	Winkey smiley. Winkey face
😒	Grumpy smiley. Confused smiley

Their genesis is on the Internet around the nineteen nineties. The first forms were produced using non-alphabetical characters on the keyboard, which had to be read sideways, for example, :-) (Sanderson, 1993). With the increasing use of interactive modes of computer-mediated communication, a huge number of graphic icons came into being. Figure 1 shows this.

Figure 1: The emoticons and the keystrokes to produce them on FOK!, a discussion list for Dutch adolescents (<http://www.fok.forum.nl/>).



Use of emoticons is common now. Although not everyone is an active user, they have gained an established position in the communicative repertoire of most people who use computers.

Their common character makes it urgent to pose the question of *what we do* when we use them. Do we express a personal message? Do we carry out a social act such as giving support? We also might use them to prevent misunderstandings or to claim a common understanding. Moreover, in multi-party exchanges, we can use them to create a tête-à-tête, and exclude others. In short, they can fulfil many functions.

Emoticons can be analysed as aspects of nonverbal communication or from a semiotic point of view, but those are not the perspectives taken here. We analysed them as communicative structures with similarities to language forms. On a phenomenological level, emoticons are similar to verbal language in that they have a *syntactic* structure. Consider the example :-). The colon refers to eyes, the hyphen to a nose, and the right-sided bracket to a smiling mouth. Together the keyboard-characters visualize a smiling face. The relationships

between the characters are syntactic in a threefold sense (Robins, 1967). First, the characters are related in position, i.e., changing the order creates an anomaly. Second, they require each other, i.e., they have a co-occurrence relationship. Third, they can be substituted by characters belonging to the same class, for example, when the colon is substituted by a semi-colon, the result is a winking face ;-) and substitution of the right-sided bracket by a left-sided one results in a sad face :-(.

The elaborated graphic icons can also be regarded as syntactic, i.e., as consisting of meaningful elements which are related in position, require each other, and can vary. For example, the sunglasses in Figure 1 are meaningful elements in the eye part of the face; the hands with thumbs up add meaning to the smiling face, and ...Zz expresses the sound and meaning of a sleeping person. The graphic icons differ from the compounds constructed by keyboard characters in that the user has less control over the variable elements. The combination of the variable elements is a kind of “fixed expression” (Jackendoff, 2002) or “prefab” (Wray & Perkins, 2000) that the user can select from a list.

Whether to regard emoticons as lingual elements and as aspects of verbal communication is a matter of choice. Not much is known yet of the complicated functions of these tiny communicative phenomena. They can be analysed in many valuable ways; we aimed to contribute to their investigation from a pragmalinguistic point of view.

The question of *what we do* when we use an emoticon was central in this study. In answering this question, we confined our investigation to facial emoticons. We examined three data collections, interpreted the facial emoticons as communicative structures, and analysed their functions from the following four discourse perspectives:

- Speech act theory
- Politeness theory

- Gumperz's work on contextualization cues
- Theories on participant structures

In accordance with insights that have been developed in pragmatics (Schiffrin, 1994), we were open to the multifunctional and many-layered character of communicative structures. This means that we permitted the answer that an emoticon can do different things simultaneously. In addition, the functional possibilities were not constrained by canonical speech act theory (Searle, 1976), but were located in the broader field of social interactional approaches to language (Brown & Levinson, 1987; Clark, 1996; Clark & Carlson, 1982; Goffman, 1981; Gumperz, 1982).

Below, we present our data collection and describe the analytical frameworks in more detail. First, however, we discuss some previous research on emoticons. We show that this answers many questions, but that it does not provide the answer to the question of *what we do when we use emoticons*.

2 Previous research

As a communicative novelty, emoticons have been the object of various kinds of empirical research:

- 1 Descriptive studies.
- 2 Experimental studies.

1 *Descriptive* studies were either quantitative, aimed at, for example, detecting differences between groups of subjects (e.g., cultural differences; women vs. men; novices vs. advanced subjects), or in-depth and bound to a specific context (e.g., Japan; web logs).

That *cultural* groups can differ with respect to their use of emoticons, has been documented by Van der Loo (2004). She compared emoticon use on two discussion lists, one of adolescents who had a background of migration from

Turkey to the Netherlands and one of Dutch adolescents without such a background. The number of emoticons used was significantly lower on the first than on the second list. Rezabek & Cochenour (1998) compared university sites and individuals with respect to emoticon use. They found much individual variation, while 'site' had only a minor effect.

Gender differences in the use of emoticons have been reported by Witmer & Katzman (1997) and Wolf (2000). In both studies, women surpassed men. Lee's study also took the gender of the addressee into account. Men did not use them frequently when contacting other men, but they did use them when communicating with women. Women did not show a difference based on the gender of the addressee. Furthermore, we found two studies providing evidence contrary to the position that women surpass men. Huffaker & Calvert (2005) found that an equal percentage of women and men used emoticons in web logs. Moreover, the male users used them more frequently than the female users. Walther and D'Addario's (2001) study is not descriptive in nature, but the authors report that participants of both genders were equally experienced in the use of emoticons.

Asteroff (1987) compared *novices and advanced respondents* with respect to their use of emoticons. She found that the former group used more emoticons in more types of mail messages than the latter.

Other descriptive studies of emoticons were *in-depth* and concerned specific contexts of use. Nishimura (2003) and Katsuno & Yano (2002) focused on emoticon use in Japan. Nishimura (2003) did this within the broader framework of a description of linguistic innovations in Japan. The syntactic principles used to form Japanese emoticons are similar to those described in the introduction to this chapter, but the reading direction is different, i.e., they are read horizontally, for example, (^_^) refers to a smiley face. Katsuno & Yano (2002) report that emoticons are used to establish subjectivity online.

Huffaker & Calvert (2005) describe teenage web logs in many respects, among which the frequency of use of five emoticon forms: 'happy', 'sad', 'angry',

'flirty', and 'tired'. They distinguish three emoticon functions: (1) emoticons can emphasize a tone or meaning during message creation and interpretation; (2) they help to establish a current mood or impression of the author; (3) emoticons are a creative and visually salient way to add expression to an otherwise completely textual form.

2 *Experimental* studies were aimed at tracing the effect or impact of emoticons upon readers. Starting with hypotheses drawn from the literature on nonverbal communication, Walther & D'Addario (2001) assessed the relative contributions of verbal (i.e., textual) vs. nonverbal (i.e., graphic) aspects of the message to its interpretation. They presented a message with two valences (positive and negative) in four graphic conditions (☺, ☹, ;-), and no graphics) to subjects, who had to evaluate the message in terms of, for example, 'happiness', 'ambiguity', 'humor', and 'sarcasm'. The results indicated that the emoticons had less effect than the verbal content. When the emoticon was negative, however, it shifted message interpretation substantially in a negative direction.

Thompson & Foulger (1996) examined the effects of emoticons in the context of flaming. They constructed a mail exchange with five levels of escalating hostility and manipulated the presence of emoticons. Subjects had to indicate their perceptions of flaming on a 7-point scale. The results showed – as expected – that the presence of pictographs reduced perceptions of flaming. However, this effect diminished as the intensity of hostility increased.

Other effect studies of emoticons are Constantin et al. (2002a; 2002b), King, Dent, & Miles (1991), Utz (2000), and Walther & Tidwell (1995). In the context of moderated chat rooms, Constantin et al. (2002a; 2002b) found negative effects from use of emoticons: moderators who used them were judged to be less dynamic, less friendly, less valuable, and less talkative. Utz (2000) investigated the effect of emoticons in MUDs. She found that they were predictors of developing relationships. Walther & Tidwell (1995) also found a

positive effect of nonverbal cues in computer-mediated communication on developing social relationships. Although they did not specifically examine emoticons, but graphics, King, Dent, & Miles (1991) found that they heightened the impact of a message.

The findings of these empirical studies – descriptive as well as experimental – show distributions and relationships that point to interesting processes unknown hitherto. Two studies come relatively close to ours: (1) Nishimura's (2003) study has a point of contact in that emoticons were also treated as *linguistic* innovations with a syntactic nature; (2) Huffaker & Calvert's (2005) study is similar in its focus on forms and functions.

Nishimura (2003), however, did not investigate the functions of emoticons, while Huffaker & Calvert (2005) did, but did not apply a conceptual framework.

We conclude that our study has points of contact with previous empirical research, but studies with a similar *aim* and *pragmalinguistic* perspective are lacking.

3 Data

Empirically, this study was based on three collections of facial emoticons, embedded in fragments of naturally occurring interaction:

- 1 One hundred and ninety-four emoticons, produced in chats of overwhelmingly male adolescents and collected by Van de Graaf (2003). He asked young subjects to save their chats and put them at the researcher's disposal. He made a snowball sample (Bryman, 2003), i.e., a non-probability sample in which the researcher makes initial contact with some subjects and

then uses these to establish contact with others. The chats took place in the Dutch chat program MSN Messenger. They are not publicly accessible.

2 Two hundred emoticons, produced by young women in chats, forums, and discussion lists, and collected by Sinke (2004). Sinke (2004) initially applied the same procedure as Van de Graaf (2003) did - with the difference that she asked only young women - but this did not result in enough chat fragments containing emoticons. She completed her data collection using emoticons and chat fragments from publicly accessible forums and discussion lists that were oriented towards young women. The following sites were used as sources:

- www.vrouwenpraat.nl. 'Vrouwenpraat' is Dutch for 'women's chat'.
- www.bnn.nl. This website belongs to the broadcasting company BNN, which is oriented towards young adults and adolescents.
- www.fok.nl. This is the largest forum in the Netherlands. Mainly young people take part in it.
- www.kvswift.nl. This website belongs to a korfbal club. All participants belonged to the age group we were looking for.

3 Van der Loo (2004) collected data on two discussion lists: Lokum (www.lokum.nl) and FOK! (www.fok.forum.nl). Lokum is an open website, oriented towards Turkish adolescents. The medium of communication is Dutch. FOK! is a website oriented towards Dutch adolescents. On both forums, Van der Loo (2004) inspected 110 contributions to the discussion. On Lokum, she found 21 contributions containing one or several emoticons; on FOK!, 65 contributions containing emoticons were found.

These three data collections were not aimed to be representative of general categories. We did not use them to describe gender or cultural differences, nor to describe specific populations. Instead, we used them heuristically as diverse contexts in which a rich variety of communicative functions of emoticons can be found.

4 Analysis

4.1 Meaning

A prerequisite for a pragmalinguistic analysis of emoticons is that it is necessary to interpret them, i.e., it is necessary to make assumptions about their meaning. The meanings they are given in the dictionaries of emoticons on the Internet cannot be relied on, because they differ in structure as well as in aspects that are thought to be relevant. Table 1 shows this.

The *first* smiley is paraphrased in language and interpreted. It is not physically described. The physical appearance of the *second* smiley is paraphrased but it is not given any meaning. The *third* smiley is physically described and interpreted. In short, this attribution of meaning is unsystematic.

The problem of determining the meaning of emoticons is not a simple one to solve; I approached it as if it were comparable to determining the meaning of interjections. Interjections are utterances such as ‘ah’, ‘darned’, ‘hurrah’, ‘cock-a-doodle-doo’ and ‘yuck’. They can be defined as exclamations that (generally) constitute utterances on their own; i.e., they do not function as parts of sentences or phrases, cannot be inflected, and are not used in derivations.

They are *vocal* gestures, while emoticons can be seen as *visual* gestures.

Several pragmalinguistic scholars (Ameka, 1992a, 1992b; Wierzbicka, 1992; Wilkins, 1992) have ‘dissected’ interjections semantically, in order to be able to determine functions, analyse deictic aspects, etcetera. This procedure is called semantic decomposition. It is done using NSM, a Natural Semantic Metalanguage (Wierzbicka, 1996). Following in their footsteps, I semantically decompose the emoticons in the data - i.e., the types, not the tokens - before I focused on their functions.

I applied these semantic primitives in a global and minimalist manner, to capture a basic layer of meaning. There were two reasons for this:

- 1 The more one aims to capture subtle shades of meaning, the less the probability of achieving a consensus about this meaning.
- 2 The subtle shades of meaning were not required for the subsequent analyses of what emoticons *can do*.

The semantic primitives can be applied to a single object such as a smiling face (which is ‘something good’ in the semantic primitives of NSM), but this is to disregard that emoticons in chats and forum discussions not only refer to an object; but are also exchanged between interaction participants. In case of the facial emoticons, they concern a human being (‘I’, ‘you’, ‘someone’, ‘people’) and say something about this human being. For example, in the case of a smiley, I (or you, someone, people) show a smiling face; or I (or you, someone, people) feel good. They must, therefore, be regarded as utterances.

However, regarding them as utterances – which have a propositional content – yields a problem, since an emoticon consists of a single unit, while a proposition consists minimally of a predicate and an argument. To solve this problem, we followed Weinreich (1980), who proposed the possibility of filling ‘empty’ arguments in the semantic structure – i.e., arguments without a corresponding syntactic surface manifestation – with elements of the context. This can be either the discourse context or the extra-linguistic context. By accepting Weinreich’s (1980) principle of filling arguments in the semantic structure with elements of the context, and by assuming that the default referent of the smiling face is the sender of the message, the following meanings can be attributed to emoticons:

-  I feel good
-  I feel bad
-  I feel very good
-  I feel very bad.

Other emoticons that can be interpreted as ‘I feel good’ are 😊 and 😄. An emoticon that can be interpreted as ‘I feel very good’ is 😁. Some types that are interpretable as ‘I feel bad’ are 😞, 😟, 😠, 😡, and 😤. Examples of emoticons that can be interpreted as ‘I feel very bad’ are 😡 and 😠.

Although meanings in terms of ‘I feel X’ fit in many contexts of use, they do not fit in all, as is apparent in example (1), where S suffers from self-inflicted injuries and does not feel good at all. Nevertheless, she adds a smiley face to her request for reactions and tips.

- (1) (S suffers from self-inflicted injuries)

I'd appreciate feedback from you, or pointers that would help me 😊

Example (2) is similar.

- (2) *Who can give me Angela Verdonk's email address and telephone number?*

You can mail it to ilsekramers@hotmail.com

Thanks 😊

In (2), S requests an email address and telephone number. S might feel good, but this is not the point she communicates. She makes a request and embroiders it with a smiley face as a symbolic gift: if you can fulfill my request, I will be happy and I show you my happy face in return. In such contexts, the empty argument is not assumed to be the mental predicate ‘feel’, but an action or movement in the direction of the addressee, something like ‘give’ or ‘show’, or, in the terminology of NSM ‘move near you’.

We found only one facial emoticon which was too complicated for a description in terms of ‘good’, ‘bad’, ‘feel’, and ‘give’: 😊. The evaluator of the wink is ‘not good, not bad’ or ‘maybe good, maybe bad’, but this meaning

does not fit well in many contexts of use. We assume that the wink claims common ground: 'If you understand what I mean'. It gives something and expects something in return, namely, understanding. This meaning can be expressed in NSM as 'I want you to know like I think'.

Following the method described above, we made a 'dictionary' of the meanings of the emoticon types in the data collection. Using this dictionary, we analyzed the functions of emoticons.

4.2 *Emoticons used as speech acts*

The first perspective that we applied to analyze the functions of emoticons was Searle's (1976) speech act theory. Based on three taxonomic principles – the essential condition, the direction of fit, and the expressed psychological state – Searle distinguished five classes of speech act. Table 2 contains a description of these classes.

Emoticons can function as graphic equivalents of several speech acts. In accordance with the basic meanings 'I feel (very) good/bad', many emoticons appeared to function as expressives. Some examples are the following:

- (3) Chatter 1: so did you get any Economy examples?
Chatter 2: Uhm, well, he really just kinda referred to the literature and derived a few questions from that as examples
Chatter 2: but I didn't take them down very well 😞
- (4) (S described herself as a 'disease magnet')
But I keep laughing despite it all 😊

Table 2: An overview of Searle's (1976) classification of illocutionary acts

Class	Some subclasses	Example	Essential condition	Direction of fit	Expressed psychological state
1 Representatives	Statements Conclusions Suppositions	<i>The door is closed.</i>	Representatives concern reality	The words reflect a state of affairs in the world	S believes that his/her words are true; if not totally, then at least to some extent
2 Directives	Requests Orders Warnings	<i>Close the door.</i>	Directives are attempts to steer the behaviour of the addressee	The words do not reflect the world, but the world needs to be brought into accordance with the words	S commits him/herself to wishing or wanting the behaviour mentioned
3 Commissives	To promise To swear To guarantee	<i>I will close the door in a moment.</i>	With commissives, speakers commit themselves to a future action	The words do not reflect the world, but the world needs to be brought into accordance with the words	S intends to carry out the act mentioned
4 Expressives	To thank To congratulate To regret	<i>Hey, that's good.</i>	Expressives make S's inner state explicit	The words do not change the world, nor do they reflect it, but they suppose a certain state of affairs and express the feelings of the speaker about it	S commits him/herself to the expressed psychological state
5 Declarations	To open a meeting To baptize a person To marry two people	<i>I open the meeting,</i> said the chair.	With a declaration the speaker realizes a state of affairs	The words are used to change the world	Not relevant

(5) Me, I'm a fun, at times somewhat shy, bigmouth 🤪

I often don't know how to behave...

At such times I come across as a bit bitchy and arrogant... nose in the air and tits straight ahead 🤪

But in the meantime I am always practicing how to talk, sounds weird but it's true 😊

What type of person are you and how do you deal with it?

(6) (Chatters 1 and 2 are busy preparing an examination)

Chatter 1: but I better go on reading, reading, reading, reading, reading, reading, reading

Chatter 2: yeah, me too

Chatter 1: 😬

In these examples, the 'literal' interpretation of the emoticon as 'I feel x' leads to an adequate meaning and a reasonable exchange. Note that the three distinctive features of expressives (the essential condition, the direction of fit, and the expressed psychological state; see Table 2) all apply.

Emoticons can also be used to carry out a representative speech act, i.e., they concern reality, the words reflect a state of affairs in the world and S believes that his/her words are true; if not totally, then at least to some extent (see Table 2). This function was not frequent. Some examples can be found in (7):

(7) (The topic of discussion is 'Women are smarter than men')

Smarter 😬?

They simply discovered that they can make more out of it when they exploit their body and charms...

Driving a car, programming a video recorder or starting a pc... 😞

As long as no man is around to help, they are helpless little creatures...

In (7), the first emoticon expresses not only the feelings, but also the opinion of the chatter: 'I do not believe it'. The second emoticon is used to make a statement: 'I feel bad' functions as 'They are not able to'.

Emoticons can also function as directive speech acts, i.e., they are attempts to steer the behaviour of the addressee; the utterance does not reflect the world, but the world needs to be brought into accord with the utterance and S commits him/herself to wishing or wanting the behaviour mentioned (see Table 2). Fragment 8 shows this.

(8) (Chatter 2 is awaiting a firmly desired phone call from his girl friend in Canada. He is extra troubled because their relationship has become stressful. Chatter 1 tries to cheer him up)

Chatter 1: Oh dear... so you need a broad shoulder?

Chatter 2: No

Chatter 1: Hold on...she will call...take my advice

Chatter 2: Only lames cry.

Chatter 1: 😊 😊 😊

In (8), Chatter 1 is not expressing that he feels good, i.e., the third distinctive feature of expressives does not apply. The basic meaning of these emoticons is 'I give a smiling face', to be paraphrased as 'Keep smiling'.

Many emoticons in the data collections were not used independently as speech acts, but to embroider, mitigate, or aggravate a speech act that was verbally expressed. Politeness theory provides an overarching framework for these strategic functions. The next section deals with this.

4.3 *Emoticons used as politeness strategies*

Politeness theory considers human interaction to be intrinsically face threatening. The interactants often wish to minimize threat. They can do this in many different ways, called politeness strategies.

Brown & Levinson (1987) developed a subtle classification of politeness strategies, with 40 sub-strategies ordered in 3 main groups:

- 1 People can be basically direct, but add 'embellishment' to their message aimed at 'approaching' the addressee, showing sympathy and seeking solidarity. For example, a person can use a term of endearment as in *Close the door, my dear*. Brown & Levinson (1987) distinguish 15 solidarity strategies. They are listed in Table 3.

- 2 People can also be direct and add ‘embellishment’ of the ‘avoidance’ type to their speech act, i.e., they show respect and keep a distance. For example, a person may pay attention to the addressee’s need not to be intruded upon with *Would you mind closing the door?* Brown & Levinson (1987) distinguish 10 respectful strategies, also listed in Table 3.
- 3 People can present their message in an indirect way. They are indirect when they use formulations which have more than one meaning and when they cannot be pinned down – on the basis of their formulation – to one meaning. Indirect utterances leave the addressee options for interpretation. For example, *There is a draft here.* Brown & Levinson (1987) distinguish 15 forms of indirectness. See Table 3.

Table 3: An overview of Brown & Levinson’s (1987) politeness strategies

Solidarity strategies	S1	Notice, attend to addressee A (his interests, wants, needs, goods)
	S2	Exaggerate (interest, approval, sympathy with A)
	S3	Intensify interest to A
	S4	Use in-group identity markers
	S5	Seek agreement
	S6	Avoid disagreement
	S7	Presuppose/raise/assert common ground
	S8	Joke
	S9	Assert or presuppose S’s knowledge of and concern for A’s wants
	S10	Offer, promise
	S11	Be optimistic
	S12	Include both S and A in the activity
	S13	Give (or ask for) reasons
	S14	Assume or assert reciprocity
	S15	Give gifts to A (goods, sympathy, understanding, cooperation)
Respect strategies	R1	Be conventionally indirect
	R2	Question, hedge
	R3	Be pessimistic
	R4	Minimize the imposition
	R5	Give deference

	R6	Apologize
	R7	Impersonalize S and A: Avoid the pronouns 'I' and 'you'
	R8	State the face-threatening act as a general rule
	R9	Nominalize
	R10	Go on record as incurring a debt, or as not indebting A

Indirect strategies	I1	Give hints (motives and/or conditions for doing the act)
	I2	Give association clues
	I3	Presuppose
	I4	Understate
	I5	Overstate
	I6	Use tautologies
	I7	Use contradictions
	I8	Be ironic
	I9	Use metaphors
	I10	Use rhetorical questions
	I11	Be ambiguous
	I12	Be vague
	I13	Over-generalize
	I14	Displace A
	I15	Be incomplete, use ellipsis

As an extension of the meaning 'I give something good/bad, etcetera', emoticons can be used to add a symbolic gift to a request, i.e., as solidarity strategy number 15. Examples were given in fragments (1) and (2). Similarly, emoticons can be used to add support or to show sympathy and understanding. See (9) and (10).

(9) have only read what Khaslan said and support her for the time being 😊

(10) Chatter 1: Does anyone have some good pointers on how to get a firmer butt?

Chatter 2: Sit on your hands and knees, and then keep your leg at a 90 degrees angle, and move it upward and sideways, just

like a dog peeing against a tree. Repeat this 50 times, for both legs 😊

Emoticons can be used to suppose, raise, or claim common ground, i.e., as solidarity strategy number 7. The following is an example:

(11) Chatter 1: How do you deal with the fact that you earn more than your partner?

Chatter 2: I was mindful of him when buying things, and if it was the case again that he didn't have any money, we used to do things that don't cost anything, which can also be really fun. 😊

An emoticon can be added to a message as a joke, i.e., as solidarity strategy number 8. This happens in fragment (12).

(12) When does the training resume after the summer break, so I know for how long I can go on holiday 😊🇩🇪

Most emoticons are in the final position of a message. They are added to a complete sentence. Some, however, are inserted in a syntactic pattern and fulfil a function in this pattern, i.e., the sentence is incomplete without this emoticon. An example of an emoticon performing a syntactic function is the following:

(13) That makes me 😞

This insertion can be interpreted as a code switch: it is necessary to know the code in order to understand the message. This kind of code switching – similar to switching between languages, using dialect or using jargon – is an instance of 'Use in-group identity markers', i.e., of solidarity strategy number 4.

In the following example, the emoticon mitigates a point of criticism. S presents his message and apologizes for it immediately, i.e., applies respect strategy number 6.

(14) Is he so busy that he can't even spare a little 'hi' after all this time 😊

Finally, emoticons can strategically be used to invoke vagueness, i.e., as instances of indirectness, as in strategy number 12. Here follows an example.

(15) (A friend of the chatters is going to take a trip around the world)

Chatter 1: His mom didn't know it yet, I bet she'll stress out

Chatter 2: Of course, they all do

Chatter 1: Yeah, but HE and HIS mom... 😊

In (15), S is not explicit and leaves options to A for interpreting the message.

4.3 *Emoticons used as contextualization cues*

Basic to Gumperz' work (1982) on contextualization cues is the observation that every utterance can be understood in many ways. When interpreting utterances, people decide on one of these interpretations based on their definition of what is happening at that moment in the interaction. They interpret utterances in relation to the extralingual context and within the framework of certain activities. Utterances often contain cues that are helpful in this process. These cues are called 'contextualization cues'.

Contextualization cues are cues that steer the interpretation of an utterance as a part of an activity or as a part of what is taking place. They are cues that supply context. They can signal that the speaker or sender S is only joking instead of being serious, or that S is playing instead of offending. They can also indicate

that S is requesting information instead of giving directives, or that S is kind instead of arrogant.

Contextualization cues can be found in many aspects of the exchange: syntax, lexical choices, intonation, conversational openings and closings, and the sequential structure of the interaction. Auer (1992) takes Gumperz' work one step further and argues that contextualization cues can also be given nonverbally. Following this reasoning, we found that emoticons can do the same. Some examples underpin this finding.

- (16) Chatter 1: Did you know that I had been out on a date with a girl...?
Chatter 2: Who, you? Finally! But that's great for you. Who, what, where?
Chatter 1: Karin
Chatter 2: How was it?
Chatter 1: Oh, quite fun, but that was all
Chatter 2: Wouldn't expect anything different, a light like you 😊

The emoticon in (16) indicates that chatter 2 is making fun. Without the emoticon, the exchange could have been offensive to chatter 1.

- (17) Chatter 1: My step-dad has his birthday today.
Chatter 2: Congrats! MY step-dad had his operation today, for his groin problem.
Chatter 1: Is that because of his marriage?
Chatter 2: Yeah, my mom's kinda wild. 😊

In (17), the emoticon also signals that S is not serious. In (18), the emoticon changes the activity from directing into joking:

- (18) (Princess Máxima – who is married to the Dutch crown prince Willem-Alexander – will give birth soon)

I read on the Internet this afternoon that the little one's coat of arms is done, the cannons have been tested, and the barriers are in place.

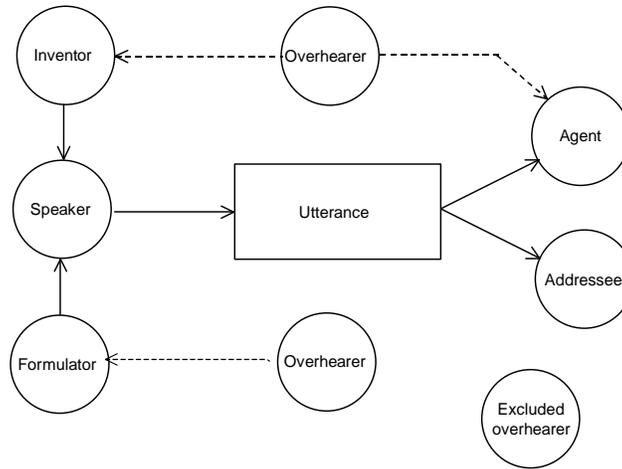
Come on, Maxima, push!!! 😊

4.4 Emoticons used as markers of changes in the participant structure

A fourth perspective from which emoticons can be investigated is that of the theory on participant structures (Clark, 1996; Clark & Carlson, 1982; Goffman, 1981). Emoticons can be used as signals of a change in this structure (Huls & Backus, 2004). In a basic model of an exchange, it is possible to distinguish a speaker/sender, an utterance/message, and a hearer/receiver (Shannon & Weaver, 1949). With respect to speaker/sender, and with respect to hearer/receiver, many subtle distinctions can be made. Goffman (1981) distinguishes three speaker-roles, which often collapse into one person, but which can also be spread over different participants: the inventor (the auctor intellectualis of the message), the formulator (the one who puts the message into words), and the speaker (the one who performs the locutionary act). Furthermore, different kinds of 'hearers/receivers' can be distinguished: the ones who are directly addressed by the message and who will have to react (the addressees) and the ones who do not have to react or to continue the conversation, but who simply listen and look (the audience or the overhearers). Within the category 'addressee', two roles can be distinguished: a direct addressee (the recipient of the message to whom the message is overtly directed) and an indirect addressee (an overhearer who has to take notice of the content, has to carry out the requested act or who is the target of an offence). Within the category 'overhearer', different positions can also be distinguished: an overhearer can simply be overhearing, but s/he can also fulfil the role of the

inventor or the formulator, or s/he can be excluded from the exchange. Figure 2 visualizes this model of the participant structure in face-to-face exchanges.

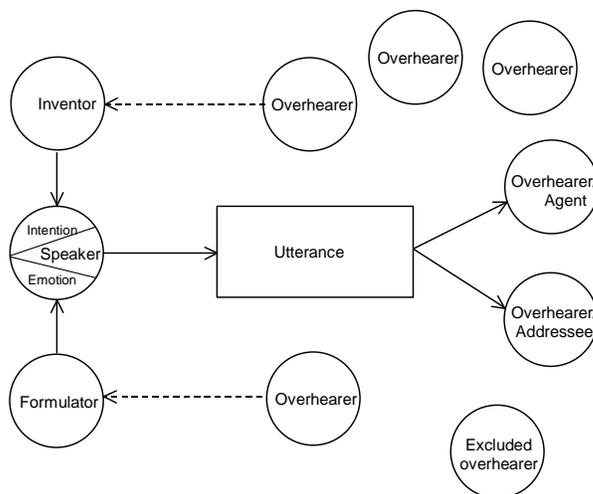
Figure 2: Participant structure in face-to-face exchanges



This model needs some modifications in order to fit discussion lists. Default on these lists is that a speaker/sender addresses a number of overhearers. Just as in face-to-face interaction, the speaker/sender can cast participants, overhearers, and outsiders in the inventor or formulator role. Moreover, the speaker/sender can structure the audience, create subgroups, address a person indirectly, and select specific persons as addressee, while casting other members of the audience in the role of overhearer. Finally, speakers/senders can manipulate parts of themselves,¹ for example, when they split themselves into a part that says something and a part that intends something. This happens when they are making jokes or teasing. They can also detach their emotions from the utterance, such as in sarcasm or irony. Figure 3 shows a model of the participant structure that fits on discussion lists.

¹ This is also possible in face-to-face interaction, although it seems to be less frequent there.

Figure 3: Participant structure in discussion lists



When a participant in a discussion list changes the default value of the participant structure (i.e., an undifferentiated speaker addressing an undifferentiated audience), s/he often uses a code switch. S/he can change the language, but s/he can also highlight that something interesting is happening in the framework of speakers/hearers by switching from a lingual to a picture code, i.e., by inserting an emoticon.

The following example illustrates this.

- (19) (The medium of communication on this discussion list is Dutch. The topic of discussion is ‘Women are smarter than men’. A translation follows below between square brackets.)
- aferin “respect”!! Helal olsun sana, ne iyi yazdin. Lafi agzimdan aldin. Men. God! Like they are better because they invented some machine or something. Halbuki bir bilseler what’s more important in this life. iste o seyleri, like patience, love, bakim and so on... erkekler anlamiyoru.. Geri kafalilar ne olacak 😊

Greetz,
Bilge

[well done, “respect”!! I am impressed, you described it very well.
You took the words out of my mouth. Men. God! Like they are better
because they invented some machine or something. If they just knew
what’s more important in this life. things like, like patience, love, care
and so on...I don’t get men.. Neanderthals is what they are. 😊

Greetz,
Bilge]

In (19) we see that Bilge – a Dutch girl with a background of migration from Turkey - selects a specific addressee, with the nickname “respect”, to make a dyadic interaction of ‘us, women’, excluding ‘them, men, Neanderthals’. The switch to Turkish divides the audience into an addressee and overhearers; the switch to the emoticon marks a split in the speaker/sender: Bilge uses a hyperbole and is not fully committed to what she says.

Another example is the following:

(20) (Topic of discussion is the social career of women)

It’s a pity that they have been bucked in business. I also follow an academic education and the proportion w/m is about equal, if not an advantage for the ladies. However, it has also been proven (generally speaking of course...) that girls (what they are then still) mature faster and hence take their study more serious. That’s why they have a ‘head start’ soon which is difficult to catch up with for us men. (but we do our best 😊)

The emoticon is used expressively in (20), but it also creates an in-group of men against women.

In example (21), chatter 2 signals that she is not serious using an emoticon. Moreover, she uses it to claim common ground and to modify the default structure of the discussion list.

(21) Chatter 1: What do you [plural] drink all together per day and how much of this is alcoholic?

Chatter 2: nono noseey Nelly! 😊

In any case I drink 2 liters of water, apart from that some other drinks such as tea and light soft drinks. And alcohol? Yeah, I am not really crazy about it.

In the first part of her utterance, chatter 2 reproaches chatter 1 specifically. In the second part, she addresses herself to the general audience.

5 Relationships between the functions of emoticons

We have shown that emoticons can fulfil different functions in computer-mediated communication:

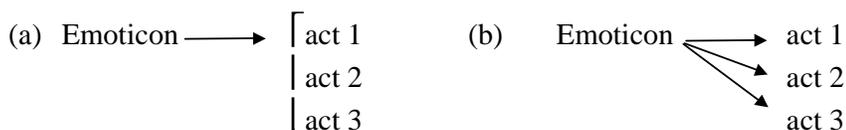
- 1 They can function independently as speech acts (Searle, 1976), such as expressives, representatives, and directives.
- 2 They can be added to verbally expressed speech acts as forms of politeness (Brown & Levinson, 1987). Specifically, they can be added to a request as a symbolic gift and to a message as a kind of support or to show sympathy and understanding. They also can suppose, raise, or claim common ground. Moreover, they can be added as a joke, they can be used as an in-group identity marker, they can be added to mitigate the message or to apologize for it, and they can invoke vagueness.

- 3 They can function as contextualization cues (Gumperz, 1982), i.e., as a cue to what is going on in the interaction or as a comment on the activity that takes place.
- 4 They can function as markers of a change in the participant structure, i.e., interaction participants can change the speaker-position or the hearer configuration, or both, and use an emoticon to indicate this change.

With respect to whether these functions exclude each other and include all possibilities, the answer is no. They do not form an observation schedule (Bryman, 2003), in which the forms taken by any category must be both mutually exclusive (i.e., not overlap) and inclusive (i.e., cover all data).

Functions 1 and 2 can be defined in such a way that a category system results. However, functions 3 and 4 can go together with each other and with function 1 or function 2. They highlight communicative possibilities of emoticons that are only slightly touched upon in speech act and politeness theory.

Emoticons form a perfect demonstration of the multifunctional and many-layered character of human communication (Schiffrin, 1994). Emoticons are *multifunctional* in that they can carry out more than one speech act simultaneously, while the acts are being performed by way of each other, as exemplified in (a). In other words, they have multiple identities which are related in terms of underlying speech act conditions (Searle, 1976). An example can be found in (7). They are *many-layered* in the sense that they can fulfil different, not definitely theoretically related functions (Labov & Fanshel, 1977), as in (b). An example is (21)



In conclusion, we can state that emoticons are tiny communicative phenomena with many functions that can be linked just as intricately as the functions of lingual communication.

6 Discussion

Finally, I discuss the position of emoticons in the communicative repertoire of human beings. Are they *linguistic* phenomena? Are they *pictures* used to enliven a text-only message? Are they *signs* in the coordination of speaker and addressee? Are they – as their name suggests – *icons*, i.e., parts of a non-linguistic semiotic system?

6.1 Emoticons as signs

Emoticons certainly are pictures to enliven a text-only message, but they do more than only this. Their function is not primarily referential. Although they can be relevant to the speaker, they obtain their communicative quality by their relevance to the addressee. They may be related to emotions, but are used communicatively. Many are a kind of meta-communicative comment that regulates the interpretation of the addressee. An analysis that regards them as only lively pictures disregards their communicative power in the relationship between speaker, addressee, context, and interpretation.

Regarding them as signs is more adequate. For a better understanding of emoticons as signs, we turn to Peirce (1931-1958) and Clark (1996). Signs stand for something, they name their object. Signs are part of a relation among an object, a sign, and an interpretant, i.e., the idea that the sign creates in the mind of the addressee. Peirce distinguishes three types:

- 1 An *icon* resembles its object perceptually. An example is a portrait.
- 2 An *index* is a sign that has a dynamical connection with its object as well as with the cognition of the addressee. This connection may be spatial (as in the case of a weathercock indicating the wind direction) or causal (as

in the case of calluses on a man's thumb indicating that he is a shoemaker), or both.

- 3 A *symbol* is a sign that is associated with its object by a rule or a convention. All words, sentences, books, and other conventional signs are symbols.

A single sign may have iconic, indexical, and symbolic properties, while signals – built on signs – are often mixtures of icons, indices, and symbols. Emoticons are icons in the sense that they resemble their object perceptually, but not in the sense that their use always results in the corresponding idea in the mind of the addressee. In terms of Peirce (1931-1958), their image is not always part of the interpretant. This happens especially when they are used as contextualization cues and as markers of a change in the participant structure. In these cases, it is more adequate to regard them as indexes than as icons. Their function can resemble the function of pointers and attention-getters. Emoticons can also be used as symbols. When they are inserted in sentences and occupy a position in its structure, they are similar to lingual phenomena such as noun phrases and verbs. Moreover, the use of emoticons is symbolic in the sense that users have to possess a minimal knowledge of the code. In conclusion, emoticons are icons that can be used as indexes and as symbols. They are remarkably similar in their forms, meanings, and functions to a notably embarrassing category for linguistics since classical antiquity (Ehlich, 1986): interjections. A short digression into the study of interjections shows interesting parallels between emoticons, which many scholars regard as visual gestures, and interjections, which are regarded as vocal gestures.

6.2 *Interjections and emoticons*

Interjections are utterances such as *Ooops!*, *Wow*, *Ha ha*, *Ah*, and *Oh*. See section 4.1 for their definition.

Until quite recently, interjections were considered phenomena somewhere in the periphery of language. The renowned Dutch linguist De Vooys (1959) described them as primitive emotional expressions, related to animal sounds. Similar views have been articulated worldwide. For example, Leech (1981) states that interjections are used to communicate feelings and attitudes without any semantic mediation; Quirk (1972) regards interjections as phonetically deviant and purely emotive words without a referential content; Bühler (1934) suggests that they should be distinguished from ‘real’ words and put in a single category with animal sounds. These linguists have in common that they explicitly deny interjections a grammatical status.

In an alternative linguistic view, interjections are regarded as a word class (Droste, 1961; Haeseryn, 1997; Van den Toorn, 1960). Unlike animal sounds, the sound characteristics of interjections are super individual, i.e., they are produced based on knowledge of the language and its sound pattern. They bear meaning. For example, ‘ouch’ occurs in the context of pain and ‘hey’ in the context of a call. Interjections are physic-semantic-intonational units.

While grammarians finally gave interjections a position in the periphery of the language, semantic-pragmatic researchers (Ehlich, 1986; Wilkins, 1992) argue that they deserve a core position. The 1992 special issue of *Journal of Pragmatics* has set a milestone in this respect. Some of the important points made in this issue are the following:

- 1 Interjections have a meaning, which can be described in terms of a controlled semantic metalanguage (Wierzbicka, 1992).
- 2 Interjections can fulfil more functions than the one that grammarians consider to be predominant – the expression of emotions (Ameka, 1992a). They can also function as *conative* (when they are directed to an addressee) and *phatic* (when they are used in the establishment and maintenance of communicative contact). *Expressive* interjections fall into two groups: (1) *emotive* interjections, which express the speaker’s state with respect to his/her

emotions; and (2) *cognitive* interjections, which pertain to the state of knowledge and thoughts at the time of utterance.

3 Interjections are deictics: they encode ‘I’, ‘you’, ‘now’, ‘here’, ‘this’, etcetera (Wilkins, 1992). They are the most reduced form an utterance can take. They convey propositions containing referential arguments provided by context. They are indexes, rather than symbols or icons.

In sum, the semantic-pragmatic studies have shown that interjections are meaningful, hearer-oriented, context-bound communicative phenomena, which can be used to perform a broad range of acts. An injustice is done to the communicative richness of this word class when they are focused on as purely expressive of emotions.

The following table shows a comparison of aspects of emoticons and interjections that are relevant to the discussion about their position in the communicative repertoire of human beings.

Table 4: Language criteria applied to emoticons and interjections

	Interjection	Emoticon
1 Conventional form	yes	yes, but with restrictions
2 Syntax	(typically) no	yes, in certain respects
3 Used independently as exclamations	yes	yes
4 Inflection and derivation	no	no
5 Repetition	yes	yes
6 Use as speech act	yes	yes
7 Form of deixis	yes	yes
8 Contextual richness	yes	yes
9 Addressee-orientedness	yes	yes
10 Crosslinguistic similarity	yes	yes

Interjections are conventional forms. Emoticons are not included in the dictionary. They are not conventional in that sense, but lists of them can be found on the Internet, where they are accompanied by ascribed meanings.

Furthermore, they are conventional in the sense that their meanings are super-individual. Another conventional aspect is that it is necessary to know the code to a certain degree (e.g., that the forms produced using non-alphabetical characters on the keyboard have to be read sideways in some cultures and upright in others).

It is characteristic of interjections that they generally do not form relationships in sentences and consist of only one morpheme. Emoticons are different. They can be inserted in sentences as if they were words (nouns, verbs, adjectives, or 'fixed expressions'). They have a syntactic structure, as argued in the introduction. Some are formed as if they were sentences (e.g., the subject-verb relationship in 😊👉👈).

Interjections and emoticons are similar in that they are used independently as exclamations. They can be repeated, but not declined. Interjections and emoticons can be used to perform speech acts such as giving directives or apologizing; they are also similar in their deictic character and contextual richness. Both were regarded initially as speaker-oriented, but empirical analyses have shown that their addressee-orientedness is basic. Another similarity is that both are formed analogously in widely divergent languages. It may be concluded from Table 4 that emoticons show many points of resemblance with interjections. Their conventional aspect is less strong, but may increase; their syntactic aspect is stronger. If it is justified to consider interjections as core phenomena of the language, than it is equally or even more justified to do so with emoticons.

6.3 Conclusion

The ultimate proof for the linguistic vs. non-linguistic character of a form, according to Wilkins (1992), is its appropriateness within the frame “‘_’, **she said.**’ *Wow!*, *Aha!*, and *Ouch!* are perfectly acceptable in this frame, while

Shh!, *Psst!*, and *Tsk-tsk* are not fully accepted. These last forms fit better in the frame ‘**she went “_”.**’

What is the result when this ‘litmus test’ is applied to emoticons? Emoticons are neither said nor done. Their use is best reported in frames such as ‘**she inserted/added “_”.**’ Or ‘**she showed/gave “_”.**’ When this test is accepted, they are non-linguistic.

Linguistic or non-linguistic, it strikes us as important that the adolescents we investigated used the emoticons linguistically, i.e., as if they were language.

Language is no longer only a noun, but also a verb, in the sense that people *language* using all kinds of signs (Jørgensen, 2003). This *linguaging* was a prominent phenomenon in our data, where youngsters used different signs, languages, codes, and varieties in an intricate, but basically lingual, manner. A glance at emoticons might suggest that they are merely simple expressions of emotions, but a more profound look reveals that they serve many purposes. They are a great enrichment of the *communicative* repertoire of human beings.

References

- Ameka, F. (1992a). Interjections: The universal yet neglected part of speech. *Journal of Pragmatics*, 18, 101-118.
- Ameka, F. (1992b). The meaning of phatic and conative interjections. *Journal of Pragmatics*, 18, 245-271.
- Asteroff, J. F. (1987). *Paralanguage in electronic mail: A case study*. Unpublished doctoral dissertation, Columbia University, New York.
- Auer, P. (1992). Introduction: John Gumperz' approach to contextualization. In A. d. Luzio (Ed.), *The contextualization of language* (pp. 1-37). Amsterdam: Benjamins.
- Brown, P., & Levinson, S. (1987). *Politeness: Some universals in language usage*. Cambridge: Cambridge University Press.
- Bryman, A. (2003). *Social Research Methods*. Oxford: Oxford University Press.
- Bühler, K. (1934). *Sprachtheorie: die Darstellungsfunktion der Sprache*. Jena: Fischer.
- Clark, H. H. (1996). *Using language*. Cambridge: Cambridge University Press.

- Clark, H. H., & Carlson, T. B. (1982). Hearers and speech acts. *Language*, 58, 332-373.
- Constantin, C., Kalyanaraman, S., Stavrositu, C., & Wagoner, N. (2002a). *Impression formation effects in moderated chatrooms: An experimental study of gender differences*. Paper presented at the 88th annual meeting of the National Communication Association, New Orleans, LA.
- Constantin, C., Kalyanaraman, S., Stavrositu, C., & Wagoner, N. (2002b, August). *To be or not to be emotional: Impression formation effects of emoticons in moderated chatrooms*. Paper presented at the Communication Technology and Policy Division at the 85th annual convention of the Association for Education in Journalism and Mass Communication (AEJMC), Miami, FL.
- Droste, F. G. (1961). Het stiefkind onder de woordsoorten: de interjectie (The stepchild within the word classes: The interjection). *Levende Talen*, 1, 495-511.
- Ehlich, K. (1986). *Interjektionen*. Tübingen: Niemeyer.
- Goffman, E. (1981). *Forms of talk*. Oxford: Blackwell.
- Graaf, S. v. d. (2003). *Hoe functioneren emoticons in chats? (How do emoticons function in chats?)*. Unpublished MA thesis, Tilburg University, Tilburg - The Netherlands.
- Gumperz, J. R. (1982). *Discourse strategies*. Cambridge: Cambridge University Press.
- Haeseryn, W., Romijn, Kirsten, Geerts, Guido, Rooij, Jaap de, Toorn, Maarten van den. (1997). *Algemene Nederlandse Spraakkunst (General Dutch Grammar)* (Second fully revised edition ed.). Groningen: Martinus Nijhoff.
- Huffaker, D. A., & Calvert, S. L. (2005). Gender, Identity, and Language Use in Teenage Blogs. *Journal of Computer-mediated Communication*, 10(2), 26 p.
- Huls, E., & Backus, A. (2004). Adolescents involved in the formation of identity in multicultural settings. In J. N. Jørgensen (Ed.), *Languaging and language practices; Copenhagen Studies in Bilingualism 36: 24-47* (pp. 24-47). Copenhagen: University of Copenhagen, Faculty of Humanities.
- Jackendoff, R. (2002). *Foundations of language; Brain, meaning, grammar, evolution*. Oxford: Oxford University Press.
- Jørgensen, J. N. (2003). Languaging among fifth graders: Code-switching in conversation 501 of the Køge project. *Journal of Multilingual & Multicultural Development*, 24(1&2), 126-148.
- Katsuno, H., & Yano, C. R. (2002). Face to face: On-line subjectivity in contemporary Japan. *Asian Studies Review*, 26, 202-232.
- King, W. C., Dent, M. M., & Miles, E. W. (1991). The persuasive effect of graphics in computer-mediated communication. *Computers in human behavior*, 7, 269-279.

- Labov, W., & Fanshel, D. (1977). *Therapeutic discourse*. New York: Academic Press.
- Leech, G. (1981). *Semantics: The Study of Meaning* (second edition ed.). Middlesex: Pelican Books.
- Loo, J. v. d. (2004). "Sen Türk degilmisin?" *Een onderzoek naar het gebruik van identiteitsmarkeerders op digitale forums door Turkse versus Nederlandse adolescenten ("Sen Türk degilmisin?" A study of the use of identity markers on digital forums by Turkish versus Dutch adolescents)*. Unpublished MA thesis, Tilburg University, Tilburg - The Netherlands.
- Nishimura, Y. (2003). Linguistic innovations and interactional features of casual online communication in Japanese. *Journal of Computer-mediated Communication*, 9(1).
- Peirce, C. S. (1931-1958). *The collected papers of Charles Sanders Peirce* (Vol. I-VIII). Cambridge, Mass.: Harvard University Press.
- Quirk, R., Greenbaum, S., Leech, G., & Svartvik, J. (1972). *A grammar of contemporary English*. London: Longman.
- Rezabek, L. L., & Cochenour, J. J. (1998). Visual cues in computer-mediated communication: Supplementing text with emoticons. *Journal of Visual Literacy*, 18, 201-215.
- Robins, R. H. (1967). *General linguistics*. London: Longmans.
- Sanderson, D. (1993). *Smileys*. Sebastopol, CA: O'Reilly.
- Schiffrin, D. (1994). *Approaches to discourse*. Malden USA/Oxford UK/Carlton Australia: Blackwell.
- Searle, J. R. (1976). A classification of illocutionary acts. *Language in society*, 5, 1-23.
- Shannon, C. E., & Weaver, W. (1949). *The Mathematical Theory of Communication*. Urbana, Ill.: University of Illinois Press.
- Sinke, G. (2004). *Emoticons: een pragmatolinguistische analyse van de communicatieve functies (Emoticons: A pragmatolinguistic analysis of the communicative functions)*. Unpublished MA thesis, Tilburg University, Tilburg - The Netherlands.
- Thompson, P. A., & Foulger, D. A. (1996). Effects of pictographs and quoting on flaming in electronic mail. *Computers in Human Behavior*, 12(2), 225-243.
- Toorn, M. C. v. d. (1960). De interjectie als woordsoort. *Nieuwe Taalgids*, 53, 260-264.
- Utz, S. (2000). Social information processing in MUDs: The development of friendships in virtual worlds. *Journal of Online Behavior*, 1(1).
- Vooy, C. G. N. d. (1959). *Nederlandse Spraakkunst (Dutch Grammar)* (fourth revised edition ed.). Groningen: Wolters-Noordhoff.
- Walther, J. B., & D'Addario, K. P. (2001). The impacts of emoticons in message interpretation in computer-mediated communication. *Social Science Computer Review*, 19(3), 324-347.

- Walther, J. B., & Tidwell, L. C. (1995). Nonverbal cues in computer-mediated communication, and the effect of chronemics on relational communication. *Journal of Organizational Computing, 5*, 355-378.
- Weinreich, U. (1980). On the semantic structure of language. In B. S. Weinreich (Ed.), *On semantics* (pp. 37-99). Philadelphia, PA: University of Pennsylvania Press.
- Wierzbicka, A. (1992). The semantics of interjections. *Journal of Pragmatics, 18*, 159-192.
- Wierzbicka, A. (1996). *Semantics: Primes and universals*. Oxford: Oxford University Press.
- Wilkins, D. P. (1992). Interjections as deictics. *Journal of Pragmatics, 18*, 119-158.
- Witmer, D. F., & Katzman, S. L. (1997). On-line smiles: Does gender make a difference in the use of graphic accents? *Journal of Computer-mediated Communication, 2*(4).
- Wolf, A. (2000). Emotional expression online: Gender differences in emoticon use. *Cyber Psychology & Behavior, 3*, 827-833.
- Wray, A., & Perkins, M. R. (2000). The functions of formulaic language: An integrated model. *Language & Communication, 20*, 1-28.