

## **UC Merced**

### **Proceedings of the Annual Meeting of the Cognitive Science Society**

#### **Title**

Simple and Complex Speech Acts: What Makes the Difference within a Developmental Perspective

#### **Permalink**

<https://escholarship.org/uc/item/1x044763>

#### **Journal**

Proceedings of the Annual Meeting of the Cognitive Science Society, 21(0)

#### **Author**

Bara, Bruno G.

#### **Publication Date**

1999

Peer reviewed

# Simple and Complex Speech Acts: What Makes the Difference within a Developmental Perspective

Bruno G. Bara (bara@psych.unito.it)  
Francesca M. Bosco (bosco@psych.unito.it)  
Monica Bucciarelli (monica@psych.unito.it)

Centro di Scienza Cognitiva, Università di Torino  
via Lagrange, 3 - 10123 Torino, Italy

## Abstract

In the linguistic psychological literature, there is a classical distinction between direct and indirect speech acts. In particular, some theories claim that the latter are more difficult to produce and comprehend than the former. We propose to abandon such a distinction in favour of a novel one between simple and complex speech acts. This distinction applies to any kind of pragmatic phenomena, from standard speech acts to non standard ones, like irony and deceit. Our proposal is based on the types of mental representations and mental operations involved in speech acts production and comprehension.

## 1. Introduction

In the classical philosophy of language, a well-known distinction is drawn between direct and indirect speech acts. Searle (1975) claims that to comprehend an indirect speech act means to realize that an illocutionary act is (indirectly) being performed *via* the execution of a different, literal illocutionary act. Direct speech acts are instead those where a speaker utters a sentence and means exactly and literally what she is saying, as in:

[1] What time is it?

In indirect speech acts the speaker communicates to the hearer more than she is actually saying, by relying on the background information they mutually share, and on the hearer's general powers of rationality and inference. Examples of indirect speech acts are:

- [2] a. Can you please tell me what time it is?  
b. Do you mind telling me what time it is ?  
c. I wonder if you'd be so kind as to tell me what time it is.  
d. I don't have my watch.

Searle claims that understanding [1] is straightforward, that is, does not require inferences, while understanding [2] relies on some kind of common knowledge. However, the length of the inferential path is not the same for each

utterance in [2]. For example, [2d] requires a greater number of inferences than [2a].

Searle claims that the primary illocutionary force of an indirect speech act is derived from the literal one *via* a series of inferential steps. The hearer's inferential process is triggered by the assumption that the speaker is following the Principle of Cooperation (Grice, 1978), together with the evidence of an inconsistency between the utterance and the context of pronunciation. The hearer tries first to interpret the utterance literally, and only after the failure of this attempt, due to the irrelevance of the literal meaning, looks for a different meaning, which conveys the primary illocutionary force. According to the classical theory, an indirect speech act is intrinsically harder to comprehend than a direct one.

Some authors have criticized this position (cf. Clark, 1979; Recanati, 1995; Sperber & Wilson, 1986). In particular, Gibbs (1994) states that indirect speech acts with a conventionalized meaning are simpler to understand than nonconventional ones; the context specifies the necessity of using a conventional indirect and thus helps the hearer to understand the intended meaning more quickly. Gibbs (1986) claims that a speaker can use an indirect act when she thinks that there might be obstacles against the request she intends to formulate: for example, when the speaker does not know whether the hearer owns the object she desires, she can use a conventional indirect request. Gibbs suggests that the partner infers the meaning of a conventional indirect speech act *via* a habitual shortcut that facilitates its comprehension.

An alternative proposal is the theory of Cognitive Pragmatics by Airenti, Bara and Colombetti (1993a).

## 2. Cognitive Pragmatics Theory

A major assumption of Cognitive Pragmatics is that intentional communication requires behavioral cooperation between two agents; this means that when two agents communicate they are acting on the basis of a plan that is at least partially shared. Airenti, Bara and Colombetti (1984) call this plan a *behavior game*. Each communicative action

performed by the agents realizes the moves of the behavior game they are playing. The meaning of a communicative act (either linguistic or extra-linguistic or a mix of the two) is fully understood only when it is clear what move of what behavior game it realizes.

Thus, the comprehension of any kind of speech act depends on the comprehension of the behavioral game bid by the actor. Unless a communicative failure occurs, each participant in a dialogue interprets the utterances of the interlocutors on a ground she gives as shared with them. The only distinction that can be drawn concern the chain of inferences required to pass from the utterance to the game it refers to. Direct and conventional indirect speech acts immediately make reference to the game, and thus we shall call them *simple* speech acts. On the contrary, non conventional indirect speech acts can be referred to as *complex* in that they require a chain of inferential steps because the specific behavior game of which they are a move is not immediately identifiable. For example, to understand [1] it is sufficient for the partner to refer to the game [GIVE-INFORMATION]. In order to understand [2d], a more complex inferential process is necessary: the partner, needs to share with the speaker the beliefs that if one has not a watch, she cannot know what time it is, and that when somebody looks at her watch it is because she wants to know the time. Only then, the partner can attribute to the utterance the value of a move of the game [GIVE-INFORMATION]. Thus, if the problem is how to access the game, the distinction between direct and indirect speech acts is inexistent. It is the complexity of the inferential steps necessary to refer the utterance to the game bid by the actor to account for the difficulty of speech acts comprehension.

Airenti, *et al.* (1993a) consider as standard the path of communication where default rules of inference are used to understand each other's mental states. Default rules are always valid unless their consequent is explicitly denied (cf. Reiter, 1980). Thus, according to Cognitive Pragmatics' proposal, the meaning of direct and indirect speech acts can be straightforwardly inferred by referring them to the game bid by the speaker, *via* default rules of inference. Non standard communication, on the contrary, involves comprehension and production of speech acts *via* the block of default rules and the occurrence of more complex inferential processes: an examples are ironic and deceitful speech acts. Cognitive Pragmatics claims that, in order to refer a non standard speech act to the game bid by the speaker, the partner has to draw a chain of inferences which can not be based on default rules.

### 3. Simple and Complex Speech Acts

From an empirical point of view, Searle's indirect speech acts, as well as Gibbs' indirect speech acts without conventional use, and Airenti *et al.*'s complex speech acts, are equivalent. Nonetheless, in our view the latter definition - contrary to those of Searle and Gibbs - applies to any kind of communicative act. Furthermore, in our view the comprehension of conventional speech acts does not rely on shortcuts - as Gibbs suggests -, but on a game that is immediately accessible. In other words, the simple/complex distinction is grounded in the sort of mental representations

and mental processes necessary to refer the act to the game bid by the actor.

In order to try to falsify the mentioned theories it is useful to take developmental pragmatics into account. Indeed, adult performance is almost always correct, and it does not allow to test predictions about difference in difficulty of comprehension. On the contrary, the predicted mistakes of children's performance can be considered as evidence in favour of one of the theories. The developmental perspective in Cognitive Science reminds us that to reach a better comprehension of the mind's functioning we have to consider not only the adult's steady states, but also the development from childhood, through adolescence, to mental maturation (Bara, 1995).

If Searle's theory is correct, then indirect speech acts would always be harder to deal with than direct ones (indirect > direct). If Gibbs is correct, then non-conventional indirect speech acts should be harder than the conventional indirect speech acts, which in turn should be equivalent to direct ones (non conventional indirect > conventional indirect or direct). If Airenti *et al.* are correct, then complex indirect speech acts should be more difficult than simple speech acts, which may indifferently be either direct or indirect acts (complex > simple: indirect = direct).

In support of Searle's proposal, Garvey (1984) finds that children under 3 years have some difficulties in understanding conventional indirect requests made by an adult. The explanation she gives is that such requests are ambiguous in that, as claimed by Searle, they have simultaneously a literal meaning and a directive implicit force. In particular, Garvey reports an interaction between a mother and her 32-month-old child. The mother points at a picture in a book and asks the child, 'You see what this little boy is doing?' As the child fails to volunteer the information about what he sees and limits his response to 'Yeah', Garvey concludes that indirection is difficult for children.

In support of Gibbs' proposal, Shatz (1978) observes children between 1;7 and 2;4 playing with their mothers at home and finding that they understood conventional indirect requests like 'Can you shut the door?' or 'Are there any more suitcases?'. Shatz concludes that very young children are able to map the language they hear on to the familiar non-linguistic world of action and objects.

In line with Airenti *et al.*, Reeder (1980) finds, that children between 2;6-3 comprehend that, in an adequate context, utterances like 'I want you to do that' or 'Would you mind do that' have the same illocutionary force (see also Bernicot & Legros, 1987). Also, Becker (1990) and Ervin-Tripp and Gordon (1986) find evidence that 2,6 year olds already produce different kinds of indirect speech acts. Finally, Bara and Bucciarelli (1998) show that 2,6-3 year old easily comprehend simple directives (conventional indirects) like, 'Would you like to sit down?'. On the contrary, they have difficulties with complex directives (non-conventional indirects) like, to understand that answering 'It's raining' to the proposal 'Let's go out and play' corresponds to a refusal.

Apparently, the experimental literature on indirect speech acts comprehension in children is inconsistent and does not allow to choose between the three proposals. However, the

experimental results of Garvey, which support Searle's theory, deserve some considerations. There is no reason for the child observed to describe something that his mother can perfectly see; furthermore, Garvey herself admits that she does not really know the actual communicative intention of the mother.

To sum up, while we are waiting for clearer experimental data, we would prize the generality of the distinction between simple and complex speech acts as due to a difference in the complexity of the mental representations and of the chain of inferences involved. A critical analysis of the relevant developmental literature is in Bara, Bosco & Bucciarelli (1999).

#### 4. Simple and Complex Speech Acts in Non-Standard Communication

The distinction between simple and complex speech acts holds also for non standard speech acts, like ironies and deceptions. Indeed, as we shall see, there are simple and complex ironies and simple and complex deceptions.

##### 4.1 Simple and Complex Ironies

Grice advances the so-called traditional theory of irony (1978: 1989). He claims that, in order to comprehend an ironic utterance, the hearer assigns to it a meaning opposite to that literally expressed by the speaker. In particular, Grice claims that an ironic intention can be detected when the literal interpretation does not fit with the context. Unfortunately, however, ironic utterances may consist in something different from the expression of a meaning opposite to the intended one. Further, Grice's account leaves unclear why *p* should be interpreted as an ironic *not-p*, and not as a lie (Morgan, 1990).

In a completely different perspective, some theories assume - more or less implicitly - that irony involves the ability to meta-represent and, as a consequence, the necessity to draw more or less complex inferential chains so to relate the utterance to its intended meaning. In particular, Relevance theory claims that an ironic utterance is intended and interpreted as an echo of a past utterance (Sperber & Wilson, 1981). Its interpretation does not require the attribution to the speaker of a precise thought, since it echoes the thought of a person or of people in general. The ironic utterance is an echoic mention where the ironist expresses her attitude toward the proposition she is echoing (see also Jorgensen, Miller & Sperber, 1984).

According to Clark and Gerrig (1984) and Morgan (1990), a listener's understanding of an ironic utterance crucially depends on the common ground he takes as shared by the ironist and the audience, their mutual beliefs, mutual knowledge and mutual presuppositions. In case there is not such a common ground, the authors show that the hearer has no way to recognize the pretense. Thus, the ironist is not using one proposition in order to get across its contradictory: rather, in saying *p*, the ironist is pretending to believe it (Pretense Theory of Irony).

Consistently with this theory, Kumon-Nakamura, Glucksberg and Brown (1995) claim that ironic remarks have their effects by alluding to a failed expectation. According to their proposal (Allusional Pretense Theory of

Irony), ironic utterances have two main features: the speaker expresses a certain attitude, and she is patently insincere. Irony is used to direct the hearer's attention toward a discrepancy between what is and what should have been.

Airenti, Bara and Colombetti (1993b) explain irony on the ground of agent's shared knowledge and the contrasting meaning uttered by the actor. A statement uttered by an actor becomes ironic when compared with the scenario provided by the knowledge she shares with the partner. The partner has to infer a further meaning which contrasts with the background against which the ironic utterance stands out.

Grice's proposal, according to which an ironic utterance expresses the opposite of what is meant by the speaker, is consistent with some results on very young children. For instance, Reddy (1991) found that humour in young infants comes from the violation of the expectation (*not-p*) that the canonical outcome (*p*) of an interactive event such as giving and taking will occur. Dunn (1991) has analyzed children jokes, finding that 2 and 3-year-olds have a remarkable and differentiated understanding of what familiar others will find funny. These results are inconsistent with the assumption that irony requires a metarepresentational ability, because infants of that age lack such ability (Hogrefe, Wimmer & Perner, 1986; Perner, 1991; Wellman & Wooley, 1990).

However, the proposal that irony involves a metarepresentational and a sophisticated inferential ability is consistent with some experiments on children older than those studied by Reddy. A study on the ability of 6- and 8-year-olds to provide ironic endings to unfinished stories has been carried out by Lucariello and Mindolovich (1995). The authors claim that the recognition and the construction of ironic events involves the metarepresentational skill of manipulating the representations of events. These representations are to be transcended, critically viewed, and disassembled in order to create new and different (and ironic) event structures. According to their model, it is possible to make a distinction between simple and complex forms of ironies; their results show that elder children construct more complex ironic derivations from the representational base than younger children do.

Consistently with this idea, Dews *et al.* (1996) claim that an ironic comment can either explicitly state the opposite of what is meant (direct irony), or imply something that is the opposite of what is said (indirect irony). In the former case, the speaker's meaning simply is the opposite of what is meant and there is no echoic mention of a previous statement, while in the latter, it follows from the opposite of what is said. Their results show that adults more often rank indirect ironies as the funniest, while children more often rank direct ironies as the funniest. Dews and colleagues conclude that indirect irony is more subtle.

In conclusion, the apparently divergent data in the literature are not reconcilable, unless a theory is available which allows to cover both simple and complex ironies. Metarepresentational ability might be involved only in the latter.

Our hypothesis is that, the capacity of understanding and producing ironic speech acts develops in two stages. In the first, children start mastering simple irony *à la* Grice: A utters *p* to mean *not-p* (Figure 1). Thus, simple ironies

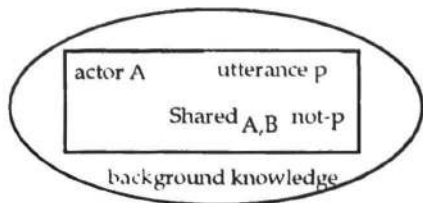


Figure 1. Actor A expresses an ironic utterance  $p$  which overtly contrasts with the belief  $not-p$ , shared between A and B.

immediately contrast with a belief shared between the agents.

In the second stage, children learn to perform more subtle inferences, until they reach the levels of indirect irony (complex irony) revealed by experimental data (see Figure 2). Complex ironies require a series of inferences to detect their contrast with the belief shared by the agents.

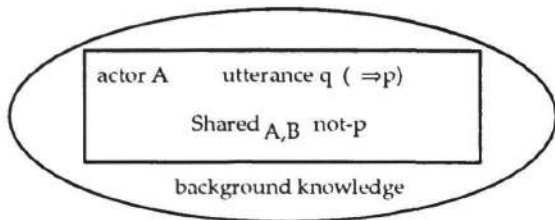


Figure 2. Actor A expresses the ironic utterance  $q$  which implies the belief  $p$ , which contrasts with the belief  $not-p$ , shared between A and B.

#### 4.2 Simple and Complex Deceits

Perner (1991) claims that a deceit is an actor's intentional attempt to manipulate a partner's mental state: the actor's goal is to induce the partner to believe something wrong about reality. He calls instead *pseudo-lies* interactions like the following one.

- [3] Mother: Did you finish the chocolate?  
Child: No, it has been Ben.

In Perner's view, in this case, what the child is really aiming at is not to manipulate the mother's beliefs, but to avoid a disagreeable consequence, i.e., to be rebuked. Bussey (1992) and Lewis, Stanger and Sullivan (1989) found that children start to use lies as a means to escape a disagreeable consequence from 3 years of age on. Leekman (1992) states that the liar aims at the achievement of some goal by saying something that she knows or believes is false. In her view, there are progressive steps in the structure of a lie/deceit. At the first one, the actor's intention is to affect the listener's behavior, and only at the following ones her intention is to affect the listener's beliefs.

Peskin (1996) claims that, in order to plan or understand a deceit, it is necessary that the speaker takes as shared something she does not really believe, and that the hearer comes thus to hold a false belief. He concludes that while 3-year-olds understand the former, only 4 years old understand the latter, i.e. the deceptive purpose of the actor.

Airenti *et al.* (1993b) define a deceit as a premeditated rupture of the rules governing sincerity in the behavior game at play. Deceiving requires the actor to break the rule of sincerity and to construct a suitable strategy to successfully modify the partner's knowledge. For example, the actor, while privately believing that  $p$  is false, tries to convince the partner that  $p$  is true. If this attempt succeeds, the partner will believe  $p$  to be shared with the actor.

In our view any kind of deceit, lies included, are attempts to modify a partner's mental state. Their difficulty of comprehension, and production, can vary according to the complexity of the agent's mental states involved into the representation of the deceit. Some deceitful speech acts are simple because they consist in an utterance ( $p$ ) which denies something ( $not-p$ ), that would allow the partner to immediately refer to the game that the actor wishes to conceal from the partner (Figure 3).

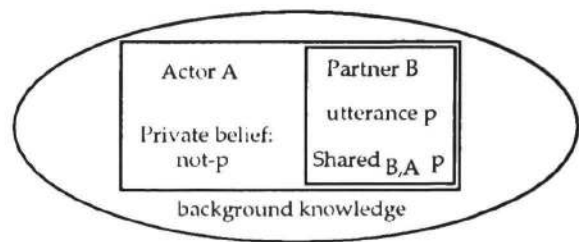


Figure 3. Actor A plans to deceive the partner B. While believing  $not-p$ , A tries to induce B to consider  $p$  as shared with her.

A complex deceitful speech act consists instead in a communicative act ( $q$ ) which implies a belief ( $p$ ), that leads the partner to a different game from the one he would reach, if he had access to the actor's private belief ( $not-p$ ), (Figure 4). Thus, all deceits do not have the same complexity; their difficulty, both in production and in comprehension, depends on the number of inferences necessary to refer the utterance to the game bid by the actor. Indeed, in order to perform or to discover a complex deceit, the partner has to consider further elements besides the truthfulness of the utterance. Although there is no theoretical limit to the complexity of a deceitful situation, people's working memory can handling only a limited number of boxings.

What makes ironies different from deceits? Why should the utterance that  $not p$  be considered either ironic or

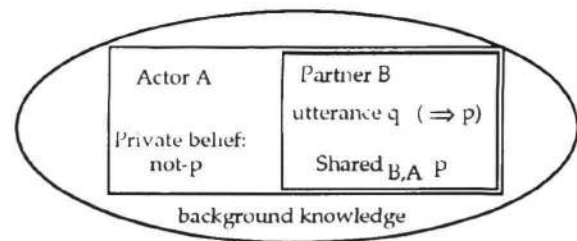


Figure 4. Actor A plans to deceive the partner B. While believing  $not-p$ , A tries to induce B to believe  $q$ , which implies  $p$ . The goal is to induce the partner to consider  $p$  as shared with A.

deceitful, given the actor's belief that *p*? Irony differs from deceit because the actor takes as shared with the partner a belief that contrasts with the ironic utterance (see also Sullivan, Winner & Hopfield, 1995), while in the deceit the actor does not share with the partner her private belief. Thus, the same utterance can be considered at the same time an irony or a deceit: it depends on what the actor is sharing with the partner.

According to our proposal lies are simple deceptions; they are intentional messages aimed at deceiving (see also Bok, 1978). Thus, we agree with Sodian (1991) when, in his terminology, he considers lies as easier than deceptions by definition. However, lies are easier than deceit for a different reason than that hypothesized by Leekman (1992) or Perner (1991). We assume a single category of deceit, within which there are lies, whose goal is the modification of the partner's mental state as well. The crucial point is that not all deceptions have the same complexity: lies are the simplest ones.

Thus, if the increasing capacity to construct and manipulate complex representations is involved in the emergence of complex deceptions, we would predict that a deceptive task can be made easier by reducing the number of characters, episodes, and scenes and by including a context of deception. Actually, Sullivan, Zaitchik and Tager-Flusberg (1994) carry out an experiment on preschoolers and kindergartens and confirm this prediction. Moreover, Russell, Jarrold and Potel (1995) find that executive requirements play a major role in making complex deception hard for children as young as 3 years: when the opponent is removed from a test of complex deception the divergence between the performance of 3-year-olds and 4-year-olds remains essentially unaffected. The authors claim that 3-year-olds' difficulty with complex deception is not caused by an inability to conceive of implanting false beliefs into another person's mind: the reason for the poor performance should be the cognitive load required by complex deceptions.

Also, as the ability to conceive of complex representations does increase with the age, we would also expect that children become better mendacious as they grow up. This prediction is confirmed by Leekman (1992) and Peskin (1996); they find that only 7 years olds are good mendacious.

## 5. Conclusions

We have suggested that the classical distinction made in literature between direct and indirect speech acts should be abandoned in favour of the more general distinction between simple and complex speech acts. The latter distinction applies not only to standard communicative acts, but also to non standard acts such as ironies and deceptions. The experimental evidence in the psychological literature is in favour of the existence of simple and complex speech acts within different pragmatic phenomena.

## Acknowledgments

We would like to thank our colleague Maurizio Tirassa who read and criticized earlier versions of this paper. This research was supported by the Ministero Italiano dell'Università e della Ricerca Scientifica (MURST, ex-40% for the year 1999).

The names of the authors are in alphabetic order.

## References

- Airenti, G., Bara, B.G. & Colombetti, M. 1984. Planning and understanding speech acts by interpersonal games. In: *Computational models of natural language processing*, eds. B.G. Bara & G. Guida. Amsterdam: North-Holland.
- Airenti, G., Bara, B. G. & Colombetti, M. 1993a. Conversation and behavior games in the pragmatics of dialogue. *Cognitive Science*, 17, 197-256.
- Airenti, G., Bara, B. G. & Colombetti, M. 1993b. Failures, exploitations and deceptions in communication. *Journal of Pragmatics*, 20, 303-326.
- Bara, B. G. 1995. *Cognitive Science: A developmental approach to the simulation of the mind*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Bara, B. G., Bosco F. M. & Bucciarelli, M. 1999. *Developmental Pragmatics in normal and abnormal children*. Brain and Language, in press.
- Bara, B. G. & Bucciarelli, M. 1998. Language in context: The emergence of pragmatic competence. In Quelhas, A. C. & Pereira, F. (Eds.), *Cognition and Context*, 317-345. Instituto Superior de Psicologia Aplicada, Lisbon.
- Becker, J. A. 1990. Processes in the acquisition of pragmatic competence. In Conti-Ramsden, G. & Snow, C. E. (Ed.). *Children's language*, Vol. 7, Hillsdale, NJ.
- Bernicot J. & Legros S. 1987. Direct and Indirect Directives: What Do Young Children Understand? *Journal of Experimental Child Psychology*, 43, 346-358.
- Bok, S. 1978. *Lying: Moral choices in public and private life*. New York: Pantheon.
- Bussey, K. 1992. Lying and truthfulness: Children's definitions, standards, and evaluation reactions. *Child Development*, 63, 129-137.
- Clark, H. H. 1979. Responding to indirect speech acts. *Cognitive Psychology*, 11, 430-477.
- Clark, H. H. & Gerrig, R. J. 1984. On the pretense theory of irony. *Journal of Experimental Psychology: General*, 113, 121-126.
- Dews, S., Winner, E., Kaplan, J., Rosenblatt, E., Hunt, M., Lim, K., McGovern, A., Qaulter, A. & Smarsh, B. 1996. Children's understanding of the meaning and functions of verbal irony. *Child Development*, 67, 3071-3085.
- Dunn, J. 1991. Young children's understanding of other people: Evidence from observations within the family. In Frye, D. & Moore, C. (ed.), *Children's theories of mind: mental states and social understanding*, 97-114. Hillsdale, New Jersey.
- Ervin-Tripp S. & Gordon, D. 1986. The development of requests. In *Language competence*, ed. R. L. Schiefelbusch (San Diego: College Hill).
- Garvey, C. 1984. *Children's talk*. New York, Fontana.

- Gibbs, R. 1986. What makes some indirect speech acts conventional? *Journal of Memory and Language*, 25, 181-196.
- Gibbs, R. 1994. *The poetics of mind*. Cambridge University Press, Cambridge.
- Grice, H. P. 1978. Further notes on logic and conversation. In P. Cole (Ed.), *Syntax and semantics: Vol. 9. Pragmatics*. New York: Academic.
- Grice, H. P. 1989. *Studies in the way of words*. Cambridge, MA, & London: Harvard University Press.
- Hogrefe, G.J., Wimmer, H. & Perner, J. 1986. Ignorance versus false belief: A developmental lag in attribution of epistemic states. *Child Development*, 57, 567-582.
- Jorgensen, J., Miller, G. A. & Sperber, D. 1984. Test of the mention theory of irony. *Journal of Experimental Psychology: General*, 113, 112-120.
- Kumon-Nakamura, S., Glucksberg, S. & Brown, M. 1995. How about another piece of pie: The allusional pretense theory of discourse irony. *Journal of Experimental Psychology: General*, Vol. 124, 1, 3-21.
- Lewis, M., Stanger, C. & Sullivan, M. 1989. Deception in 3-year old. *Developmental Psychology*, 25, 439-443.
- Leekman, S. R. 1992. Believing and Deceiving: Step to becoming a good liar. In *Cognitive and Social Factor in Early Deception*. S.J., Ceci, M., DeSimone Leichtman & M. Putnick (Eds.). Hillsdale, NJ: Erlbaum.
- Lucariello, J. & Mindolovich, C. 1995. The development of complex meta-representational reasoning: The case of situational irony. *Cognitive Development*, 10, 551-576.
- Morgan, J. 1990. Comments on Jones and on Perrault. In: P. R. Cohen, J. Morgan and M. E. Pollack, eds., *Intentions in communication*, 187-193. Cambridge, MA: MIT press.
- Perner, J. 1991. *Understanding the representational mind*. MIT press, Cambridge, MA.
- Peskin, J. 1996. Guise and Guile: Children's understanding of narratives in which the purpose of pretense is deception. *Child Development*, 67, 1735-1751.
- Recanati, F. 1995. The alleged priority of literal interpretation. *Cognitive Science*, 19, 207-232.
- Reddy, V. 1991. Playing with others' expectations: Teasing and sucking about in the first year. In A. Whitten (ed.), *Natural Theories of Mind: Evolution, Development and Simulation of Everyday Mindreading*. Blackwell.
- Reeder K. 1980. The emergence of illocutionary skills. *Journal of Child Language*, 7, 13-28.
- Reiter, R. 1980. A logic for default reasoning. *Artificial Intelligence*, 13, 81-132.
- Russel J., Jarrold C. & Potel D. 1995. What makes strategic deception difficult for children: the deception or the strategy. *British Journal of Developmental Psychology*, 12, 301-314.
- Searle, J.R. 1975. Indirect speech acts. In: *Syntax and semantics*, vol. 3: *Speech acts*, eds. P. Cole & J.L. Morgan. New York: Academic Press.
- Shatz, M. 1978. Children's comprehension of their mothers' question-directives. *Journal of Child Language*, 5, 39-46.
- Sodian, B. 1991. The development of deception in children. *British Journal of Developmental Psychology*, 9, 173-188.
- Sperber, D. & Wilson, D. 1981. Irony and the use-mention distinction. In Cole, P. (Ed.), *Radical pragmatics*. Academic Press, New York, 295-318.
- Sperber, D. & Wilson, D. 1986. *Relevance*. Cambridge, MA: Harvard University Press.
- Sullivan, K., Winner, E. & Hopfield, N. 1995. How children tell a lie from a joke: The role of second-order mental state attributions. *British Journal of Developmental Psychology*, 13, 191-204.
- Sullivan, K., Zaitchik, D. & Tager-Flusberg, H. 1994. Preschoolers can attribute second-order beliefs. *Developmental Psychology*, 30 (3), 395-402.
- Wellman, H.M. & Wooley, J. D. 1990. From simple desire to ordinary belief: The early development of everyday psychology. *Cognition*, 35, 245-275.