

FOUNDATION FOR INTELLIGENT PHYSICAL AGENTS

FIPA Disconfirm Communicative Act Specification

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37 specifications and upcoming meetings may be found at <http://www.fipa.org/>.

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1 Scope

This document specifies the Disconfirm communicative act that is compliant to [FIPA00037] requirements.

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2 Disconfirm

Summary	The sender informs the receiver that a given proposition is false, where the receiver is known to believe, or believe it likely that, the proposition is true.
Content	A proposition.
Description	<p>The disconfirm act is used when the agent wishes to alter the known mental attitude of another agent.</p> <p>The sending agent:</p> <p>believes that some proposition is false,</p> <p>intends that the receiving agent also comes to believe that the proposition is false, and,</p> <p>believes that the receiver either believes the proposition, or is <i>uncertain</i> of the proposition.</p> <p>The first two properties defined above are straightforward: the sending agent is sincere, and has (somehow) generated the intention that the receiver should know the proposition (perhaps it has been asked). The last pre-condition determines when the agent should use <i>confirm</i> (see [FIPA00043]), <i>inform</i> (see [FIPA00046]) or <i>disconfirm</i>: <i>disconfirm</i> is used precisely when the other agent is already known to believe the proposition or to be uncertain about it.</p> <p>From the receiver's viewpoint, receiving a <i>disconfirm</i> message entitles it to believe that:</p> <p>the sender believes that the proposition that is the content of the message is false, and,</p> <p>the sender wishes the receiver to believe the negated proposition also.</p> <p>Whether or not the receiver does, indeed, change its mental attitude to one of disbelief in the proposition will be a function of the receiver's trust in the sincerity and reliability of the sender.</p>
Formal Model	<pre><i, disconfirm(j,)> FP: B_i B_i(U_j B_j) RE: B_j</pre>
Example	<p>Agent i, believing that agent j thinks that a shark is a mammal, attempts to change j's belief.</p> <pre>(disconfirm :sender i :receiver j :content (mammal shark))</pre>

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48 **3 References**

- 49 [FIPA00037] FIPA Communicative Act Library Specification. Foundation for Intelligent Physical Agents, 2000.
50 <http://www.fipa.org/specs/fipa00037/>
- 51 [FIPA00043] FIPA Confirm Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000.
52 <http://www.fipa.org/specs/fipa00043/>
- 53 [FIPA00046] FIPA Inform Communicative Act Specification. Foundation for Intelligent Physical Agents, 2000.
54 <http://www.fipa.org/specs/fipa00046/>