Towards A Well-Defined and Secure Flirtation Protocol

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Introduction

Human interactions are inconsistent, ambiguous, and fraught with danger. Protocols for interaction are so nebulous that there is an entire cottage industry devoted to after-the-fact interpretations of interpersonal interactions[1]. In fact, many people will live their entire lives with their own internal understanding of proper communication protocols, which are mutually incompatable with other such implicitly defined systems.

This is especially true in the communication between sexes, frequently referred to in the vernacular as ”flirtation.” We believe that this is an unsatisfactory state of affairs that can be improved with the application of networking and information theory. Therefore we are proposing a protocol for inter-gender communication.

1 Architecture

Consider social encounters to be a nested stack of ”consent”. We start by defining a stack of consent levels that are traversed during the course of the flirtation session. To keep the definition

Table 1: The consent hierarchy.

Consent Level	Description
-2	Don't even look at me
-1	Don't talk to me
0	You may speak to me briefly if there's a good reason
1	We can talk
2	You can talk to me all you want
3	You can touch my hand
4	Long eye contact might not be creepy
...	How deep this stack goes is outside the scope of this paper.

intuitive and easy to understand, we define consent levels below in a colloquial and intentionally non-rigorous way.

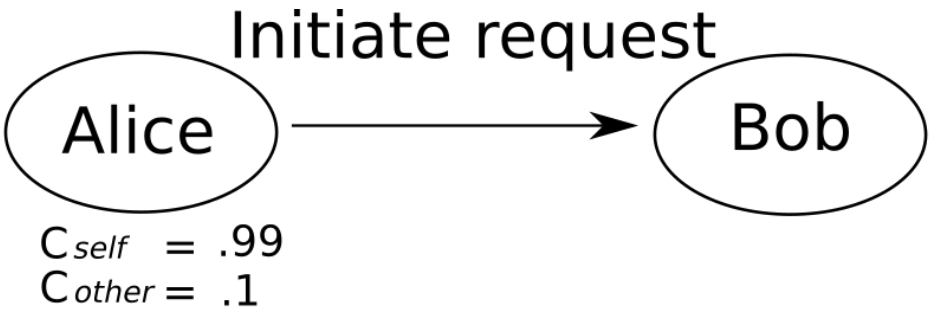
Behind this is the idea of a mutual consent to recurse on that stack to a "deeper" level. You'll need a protocol of mutual agreement to recurse that is also recursive: knowing that the other person knows that you know, and so on. But such a protocol can be implemented as a Two Generals' Problem, which, while technically unsolvable, is still provably simpler than everyday human interactions.

One design decision is whether consent levels should be symmetric, where each participant is cool with what is going on, or asymmetric, where maybe something creepy is going on. While our protocol is able to support both by letting the two parties negotiate this at runtime, we focus on the symmetric use-case here as (we hope) it is more common.

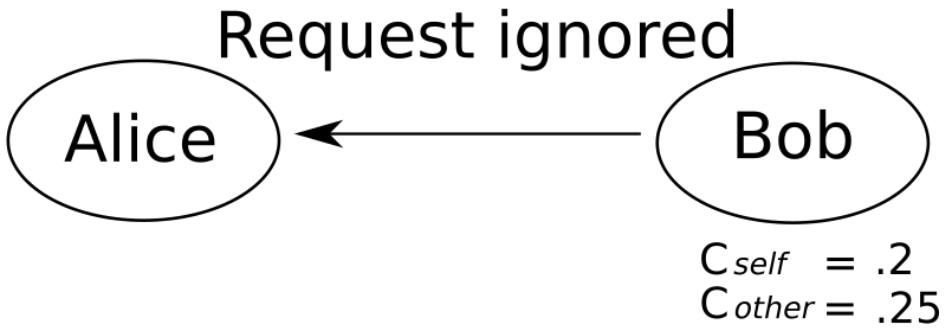
The heart of the protocol is each party's location in the stack, and the messages about accepting or denying access to deeper levels, as well as revoking access to a level that was previously accepted. Revoking access to a consent level is left up to the particular implementer,will depend on localized and internationalized norms. Some examples of revoking access are getting up and walking out, saying "no thanks", and kicking them in the balls.

2 Demonstration

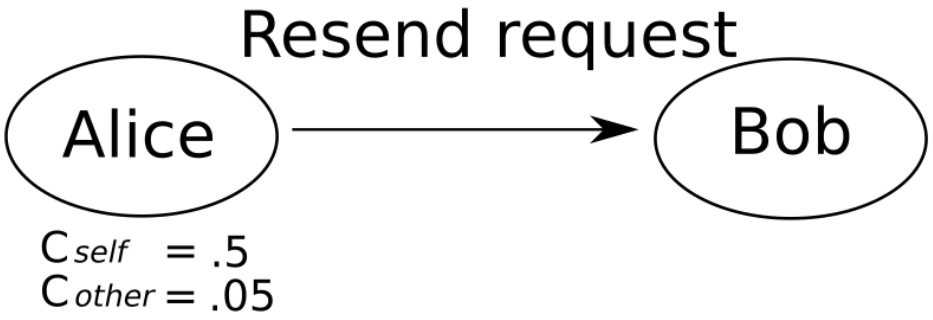
Suppose that Alice wishes to initiate a flirtation request with Bob. That is, she wishes to enter into a negotiated descent down the consent stack. Currently, they are only on speaking terms, but Alice wants more. However, Alice does not wish to be in a more consenty level of the stack than Bob. That would expose Alice to embarrassment should Bob not be aware of Alice's intentions and similarly change positions on the stack. Alice has lead a life of disillusionment and disappointment which has left her with a calloused emotional exterior. And she's too old for pussy-footing around anymore. She's had it with immature young men whose only weapon is flattery. Alice wants a man who can be honest about his flaws, who opens up to you. She want Bob. Therefore, Alice and Bob must engage in a negotiation which proceeds as follows.



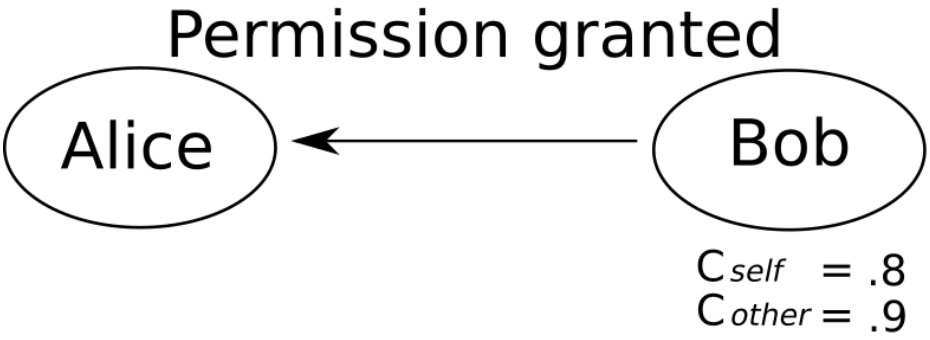
We define two variables, C_{self} and C_{other}, to indicate the degree of confidence that Alice in herself has that she wants to intimate a more flirtatious atmosphere with Bob (C_{self}) and the degree of confidence that Alice has in Bob that he wishes for the same.



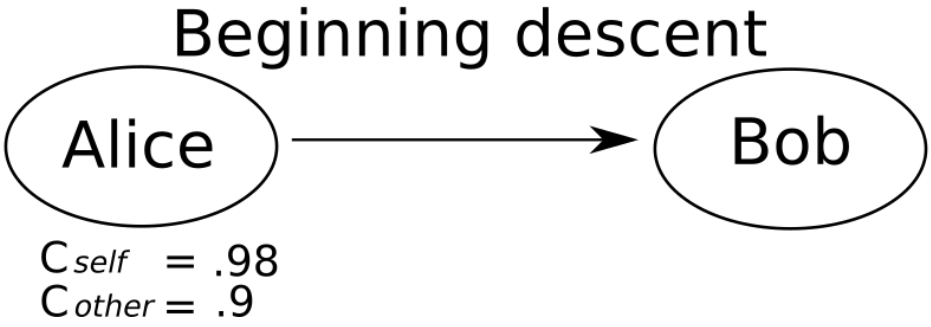
Here we see Bob's internal variables set at near their default levels. Because he has been oblivious to Alice's advances, he has no idea what her true intentions are and thus his internal model is quite inaccurate. The social engagement blunders onward, however, driven by Alice's determination.



We see that Alice has updated likelihood estimators to reflect a decrease in confidence that Bob wishes to engage in a flirtation excecrsize with her. However, Alice decides to try again by calculating that although the chances of payoff are estimated to be low, the penalty for failure is also low.



In this case, Bob makes the decision to initiate the simultaneous stack traversal immediately. This may not always be the case, as sometimes a delay is a safer option.



Alice takes the potentially risky decision to initiate a descent without receiving a response from Bob. Unfortunately, Bob interprets this as desperation and revokes permission to proceed at the last minute. Alice must bury her feelings deep inside her and only indirectly express them, such as in passive-aggressive post-it notes or clinical dissections of human behaviour in academic journals.

During this exchange, suppose Eve wishes to intercept Alice's flirtation message as if it were intended for her. Alice did not intend that Eve receive her obfuscated message to Bob. Alice desires only Bob, and considers Eve to be an obstreperous harlot. Alice's only wish is to hold Bob close, to feel his caresses.

Unfortunately, unlike in computing where each machine is assigned a convenient protocol address (e.g., 127.0.0.1), humans have no such unambiguous addressing. Furthermore, in a social setting where one is broadcasting flirtatious messages, simply claiming to be the recipient of those messages may lead to a self-fulfilling prophecy. Therefore, at least until such a time as this promising academic direction can lead to more concrete results, we recommend three potential solutions to this problem:

1. Distance method: always be the closest to the person for whom your flirtatious message is intended,

2. Focus method: make eye contact with that person continuously through the course of the social event,

3. Name method: use their name in every sentence.

For redundancy, using more than one of these methods will increase the likelihood of success.

3 Issues With Adoption

An important aspect to consider for any protocol is how difficult it will be to get a substantial percentage of the population to adopt it. While it is true that the protocol is not useful unless both parties have adopted it, in this case, we believe the advantages to the protocol are obvious and the rollout will be smooth. Furthermore, due to network effects, adoption will follow an exponential growth curve.

4 Future Work

We plan to expand the protocol to include flirtation sessions involving more than two participants, and are recruiting graduate and undergraduate research assistants.

References and Notes

1. Psychology. Wikipedia: the free encyclopedia