Prom Week

Josh McCoy and Mike Treanor

expressiveintelligencestudio

UC Santa Cruz
3-6-2012
GDC 2012 – AI Summit

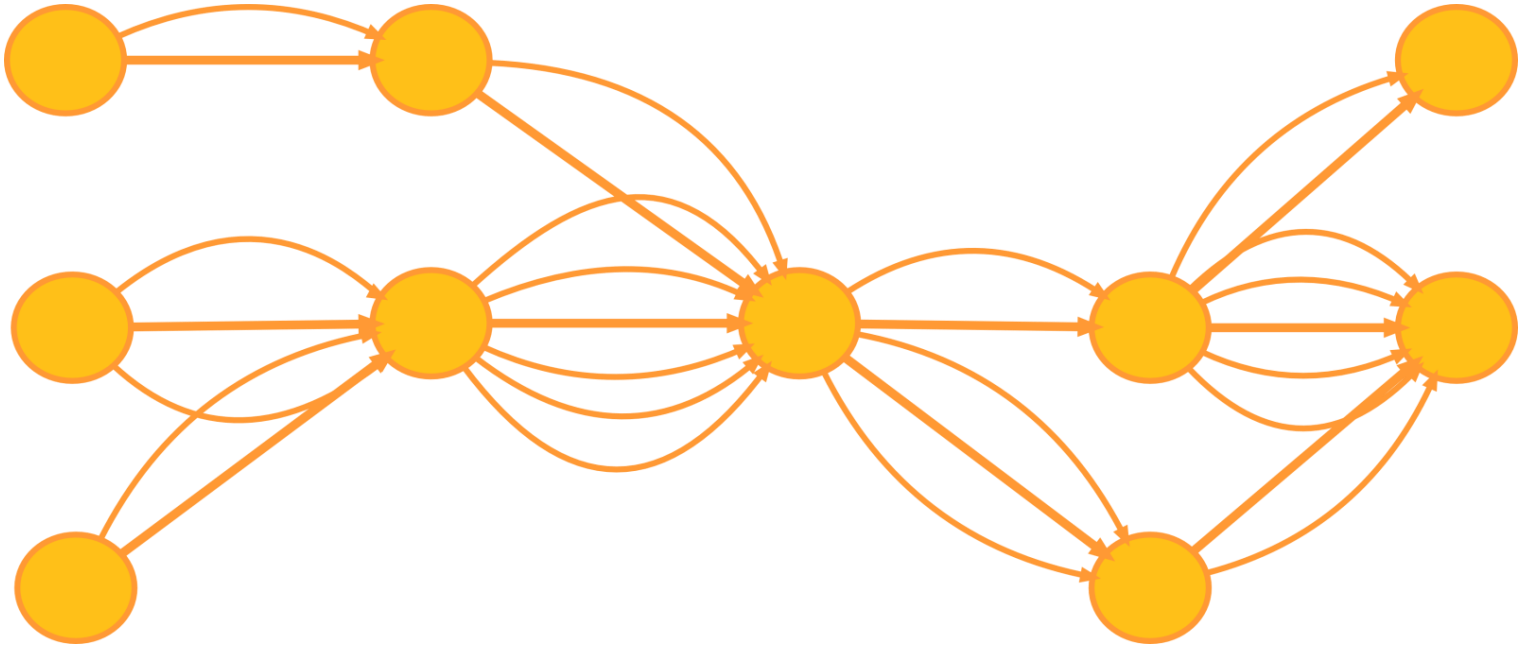
PROM WEEK

INDEPENDENT GAMES FESTIVAL FINALIST

http://www.promweekgame.com

D5-MANTIS: 2
GUILD: 3
4
Mako: What I want to say is: You're awesome, and if you were lost in the same sector, I would definitely give you directions.
Good to know.
I am pretty awesome.
I'd do the same for you.

Explicitly Defined Interaction Points

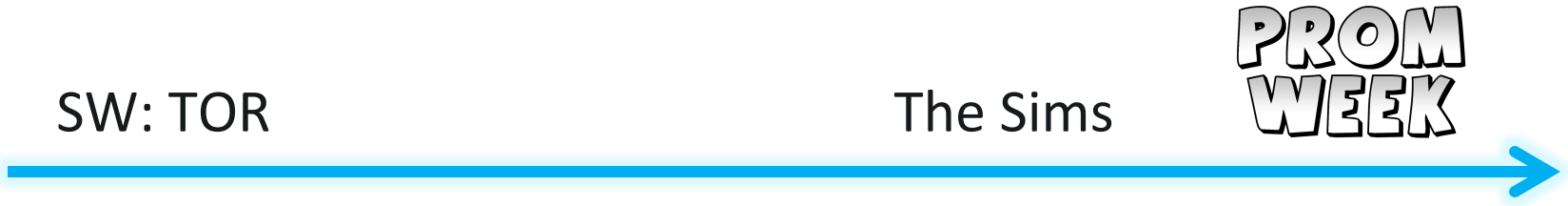


Rich Realization & Deep Social Interaction

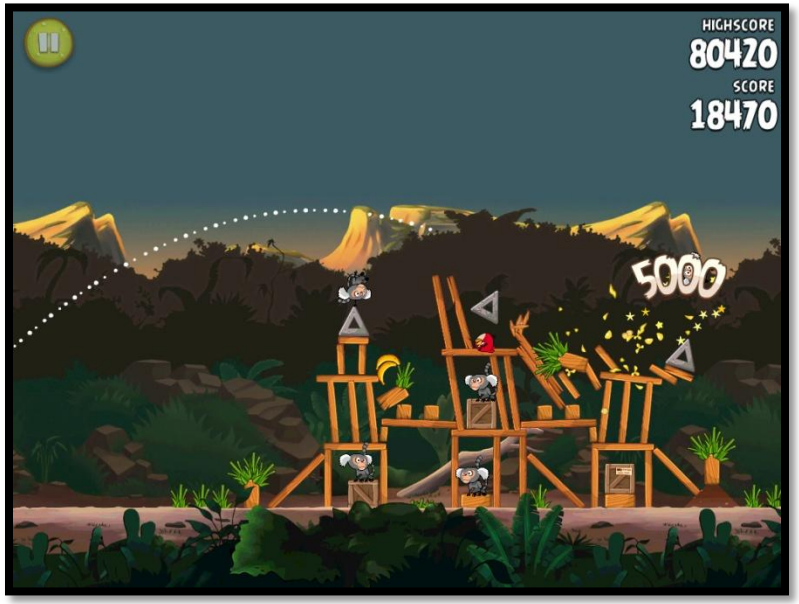
Dynamic Social Interaction

Character Realization

Rich Realization & Deep Social Interaction



“Social Physics”



Angry Birds
http://www.rovio.com/index.php?page=angry-birds

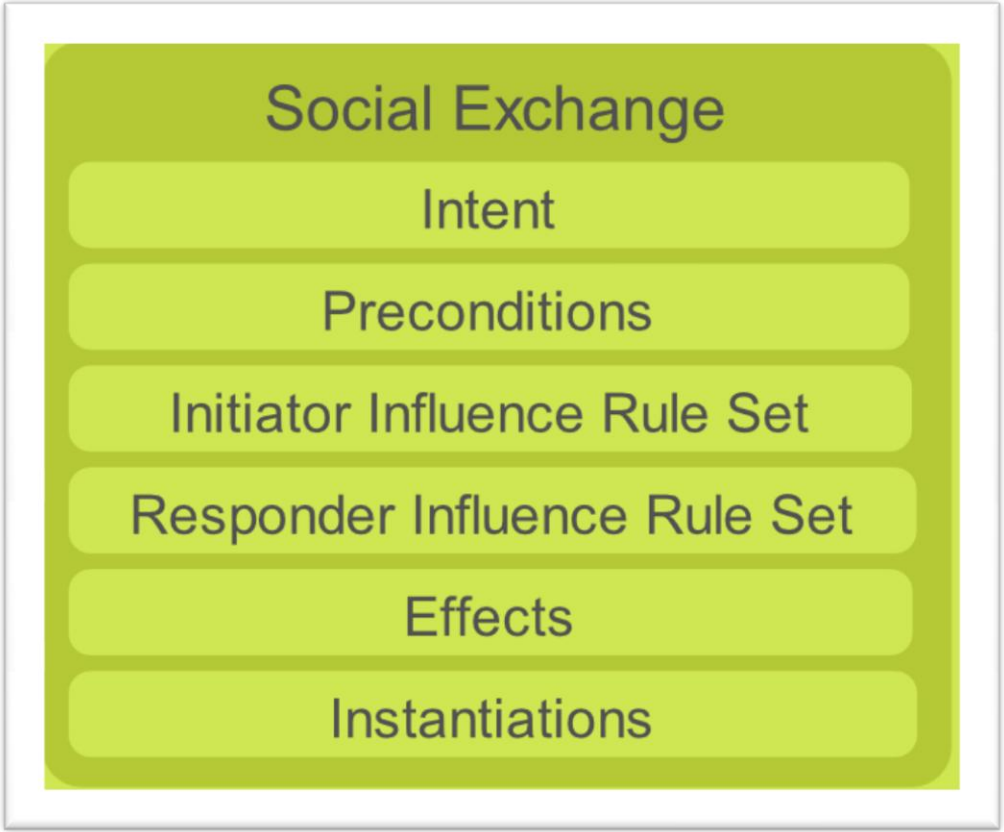
First-Class Interaction Patterns

Façade
http://www.interactivestory.net/

Demo

Make Plans
Bully
Share Interest
Brag
Annoy
More...
Goals
12
Nicholas
Make Plans
Cassandra

Social Exchange



Ask on a Date

Show Off

Idolize

Share Interest

Open Up

Text Message Break Up

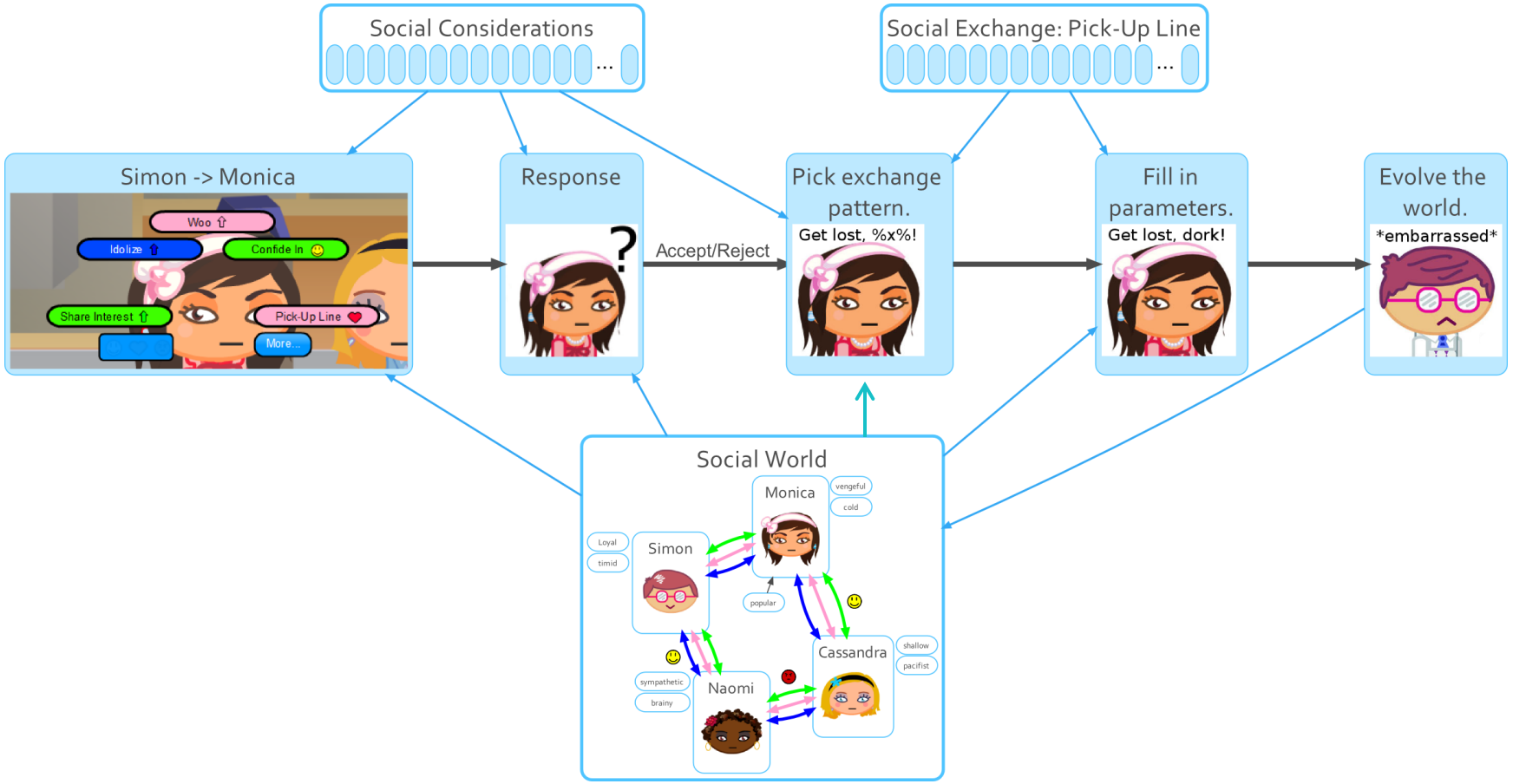
Make Plans

Insult Friend Of

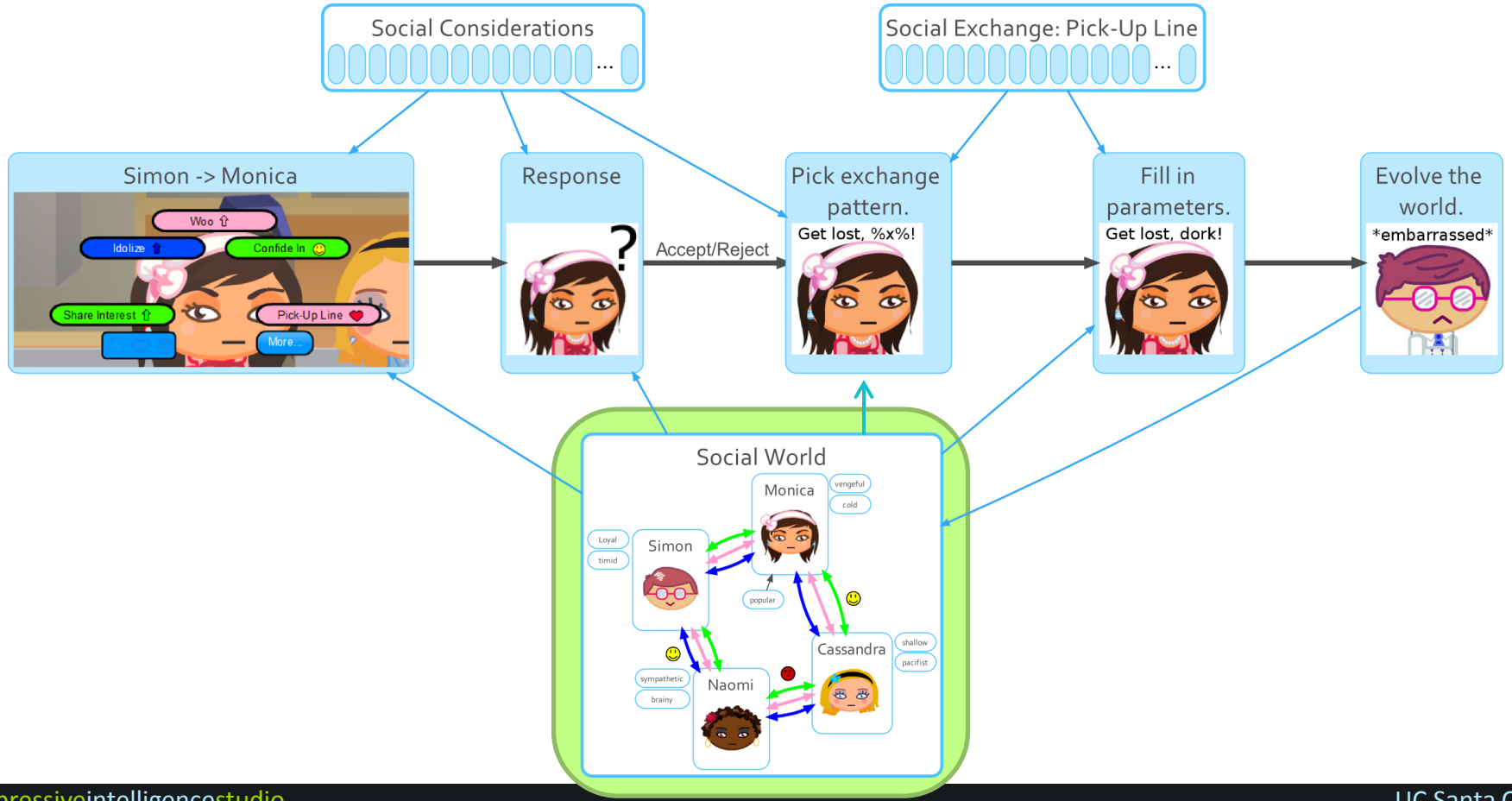
Bully

and more…

Prom Week's Process Flow



The Social World



Relationships, Statuses, Character Desc.

Character Description

- Traits (compassionate, arrogant)
- Character-specific locutions (“noob”, “word”)

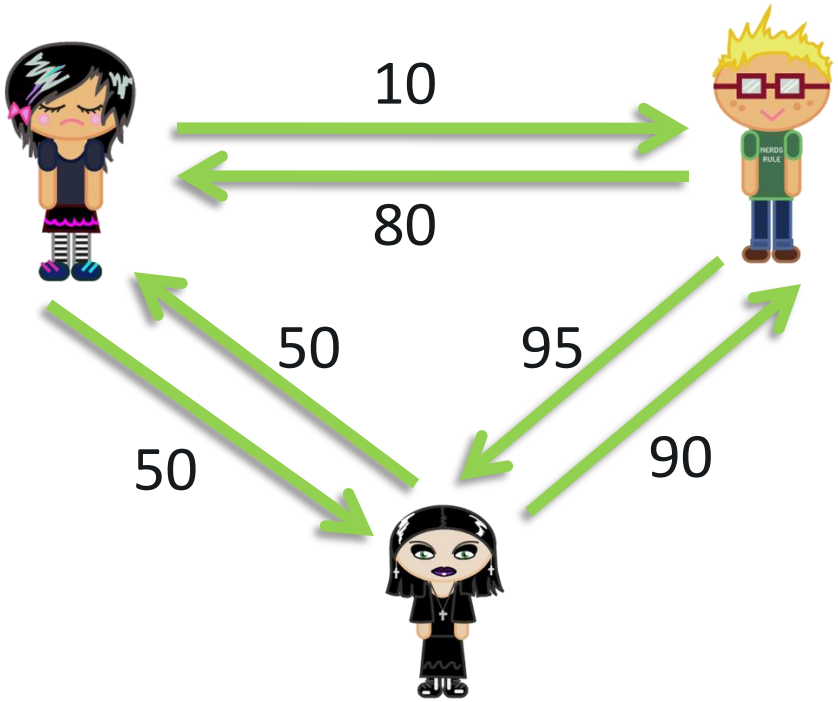
Relationships

- Friends
- Dating
- Enemies

Temporary Statuses

- Heartbroken
- Cheerful
- Popular
- …

Subjective Opinions



Buddy

Romance

Cool

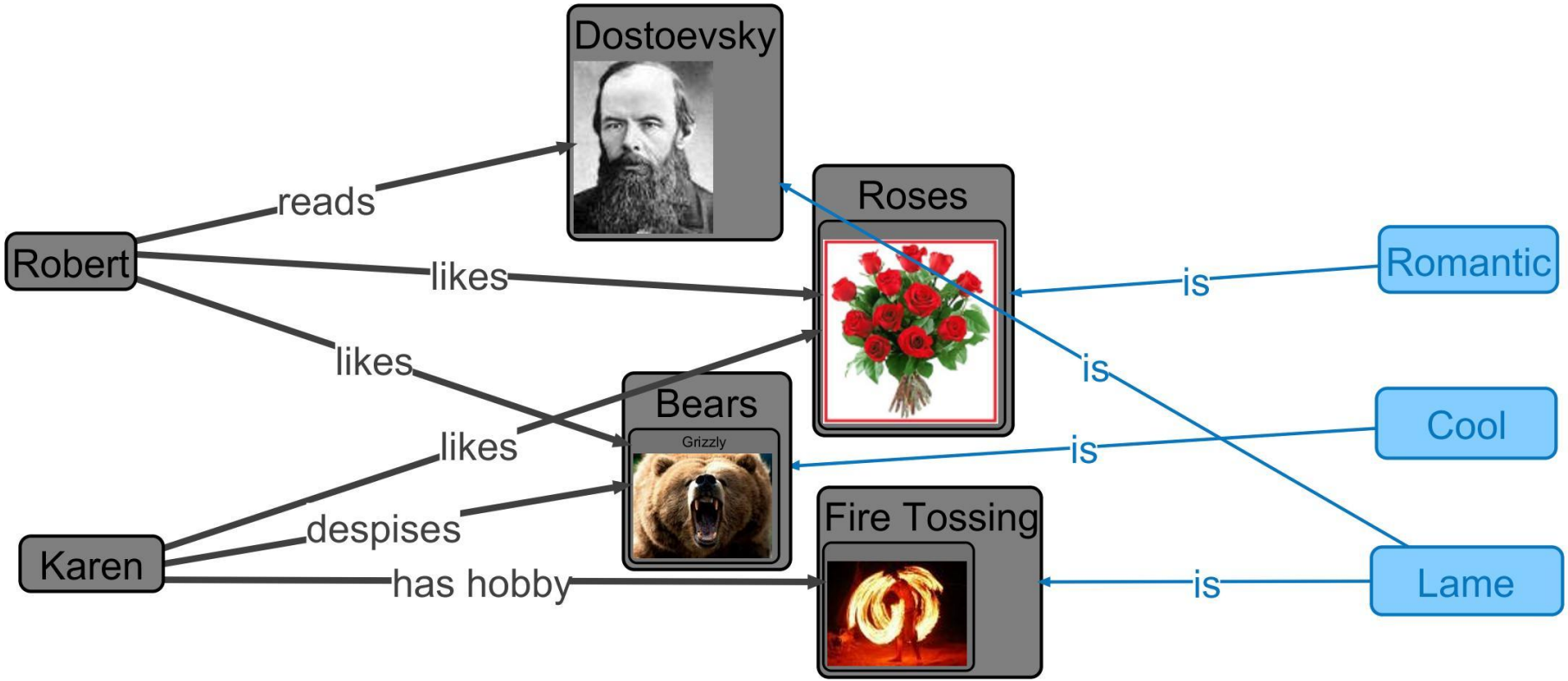
Social History

Romantic

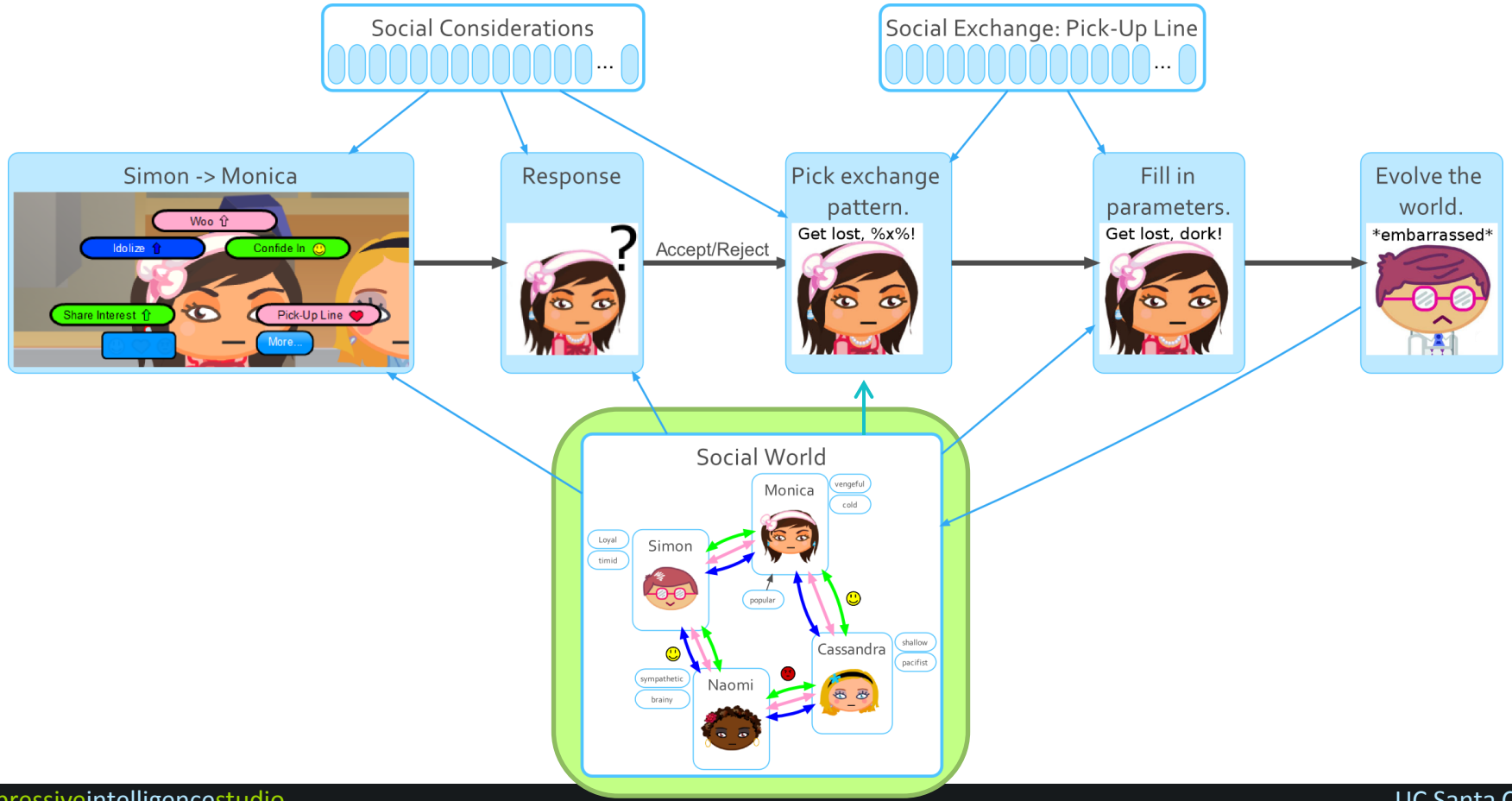
Mean

Cool

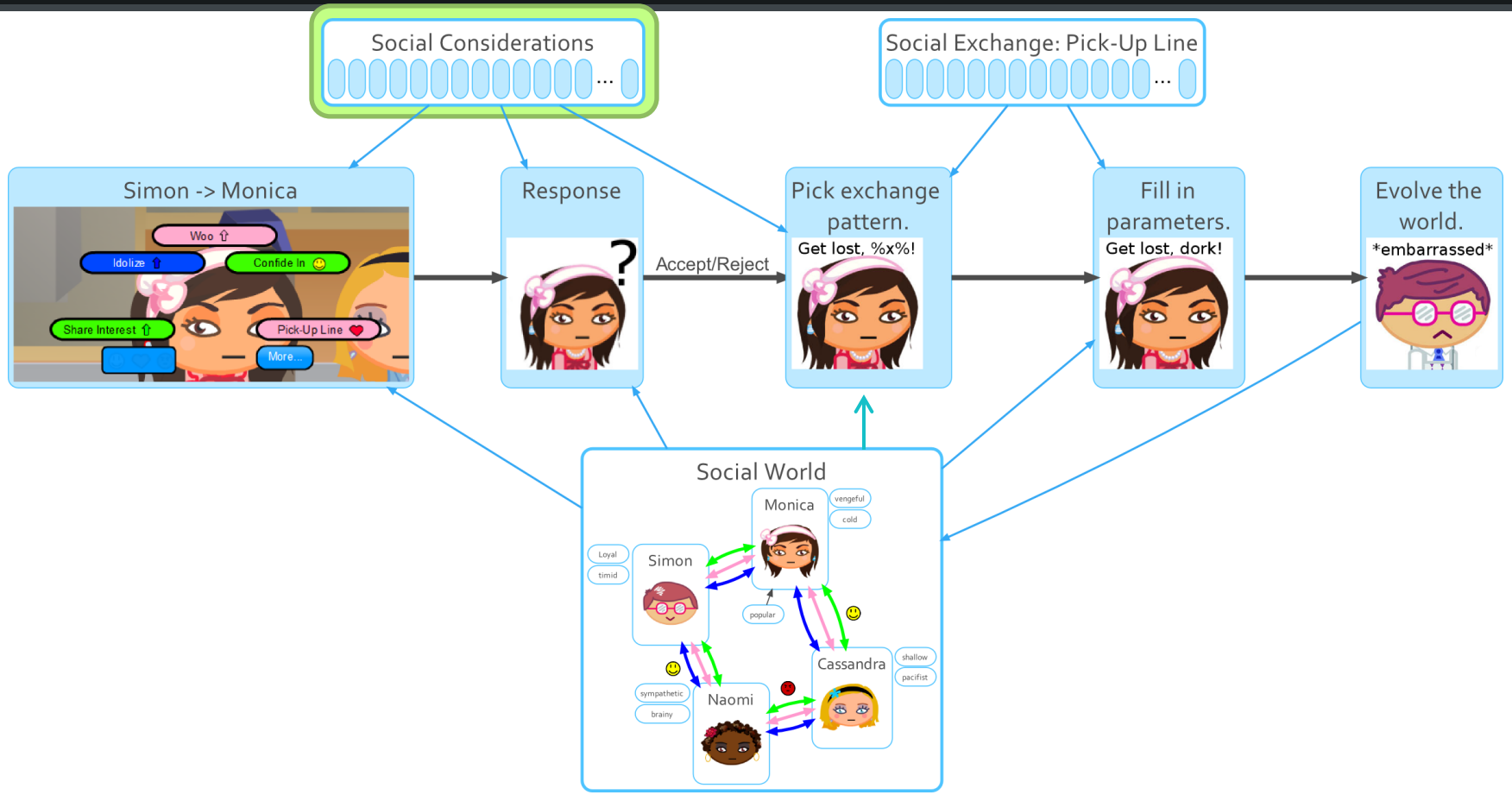
Cultural Knowledge



The Social World



Social Considerations



Example Social Considerations

Rule	Weight	Intent
friends(x, y)	4	nice(x, y)
friends(x, y) and hasCrushOn(x, z) and romantic(y, z, recently)	2	mean(x, y)
highRomance(x,y) and mean(z,x,first) and mean(y,z,second)	3	date(x,y)

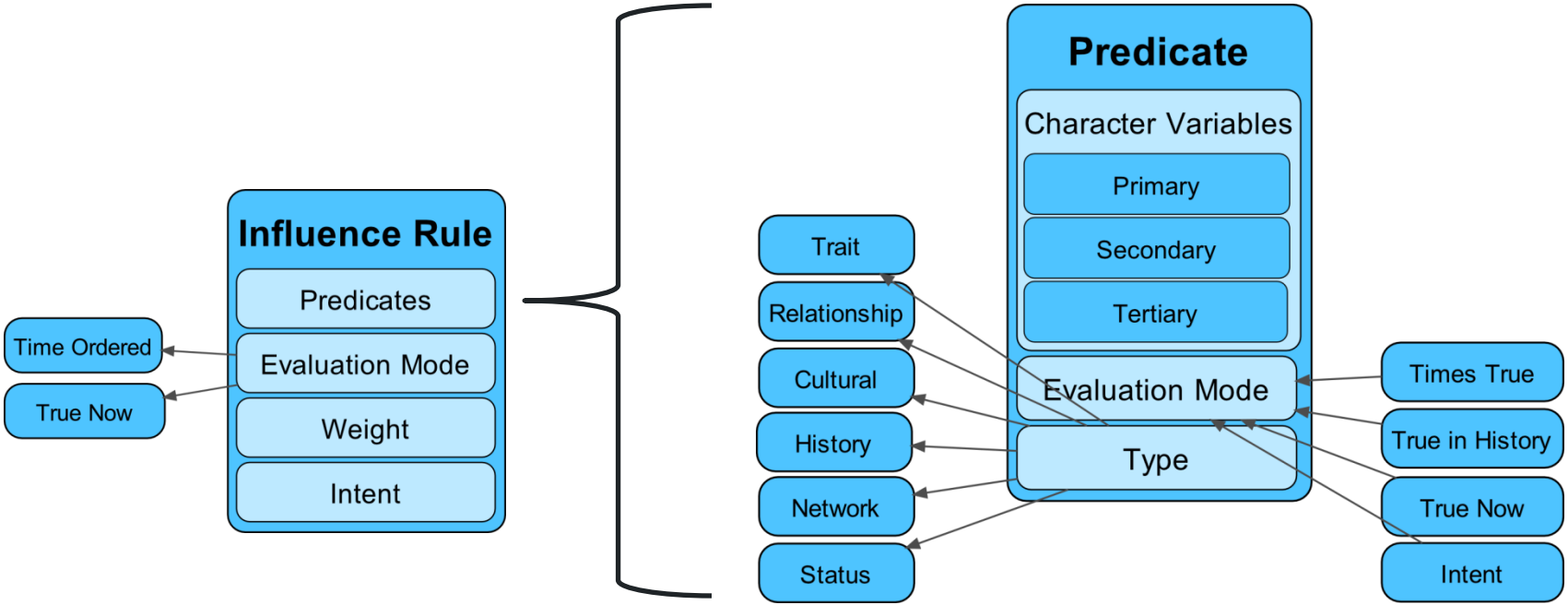
Example Social Considerations

Rule	Weight	Intent
friends(x, y)	4	nice(x, y)
friends(x, y) and hasCrushOn(x, z) and romantic(y, z, recently)	2	mean(x, y)
highRomance(x,y) and mean(z,x,first) and mean(y,z,second)	3	date(x,y)

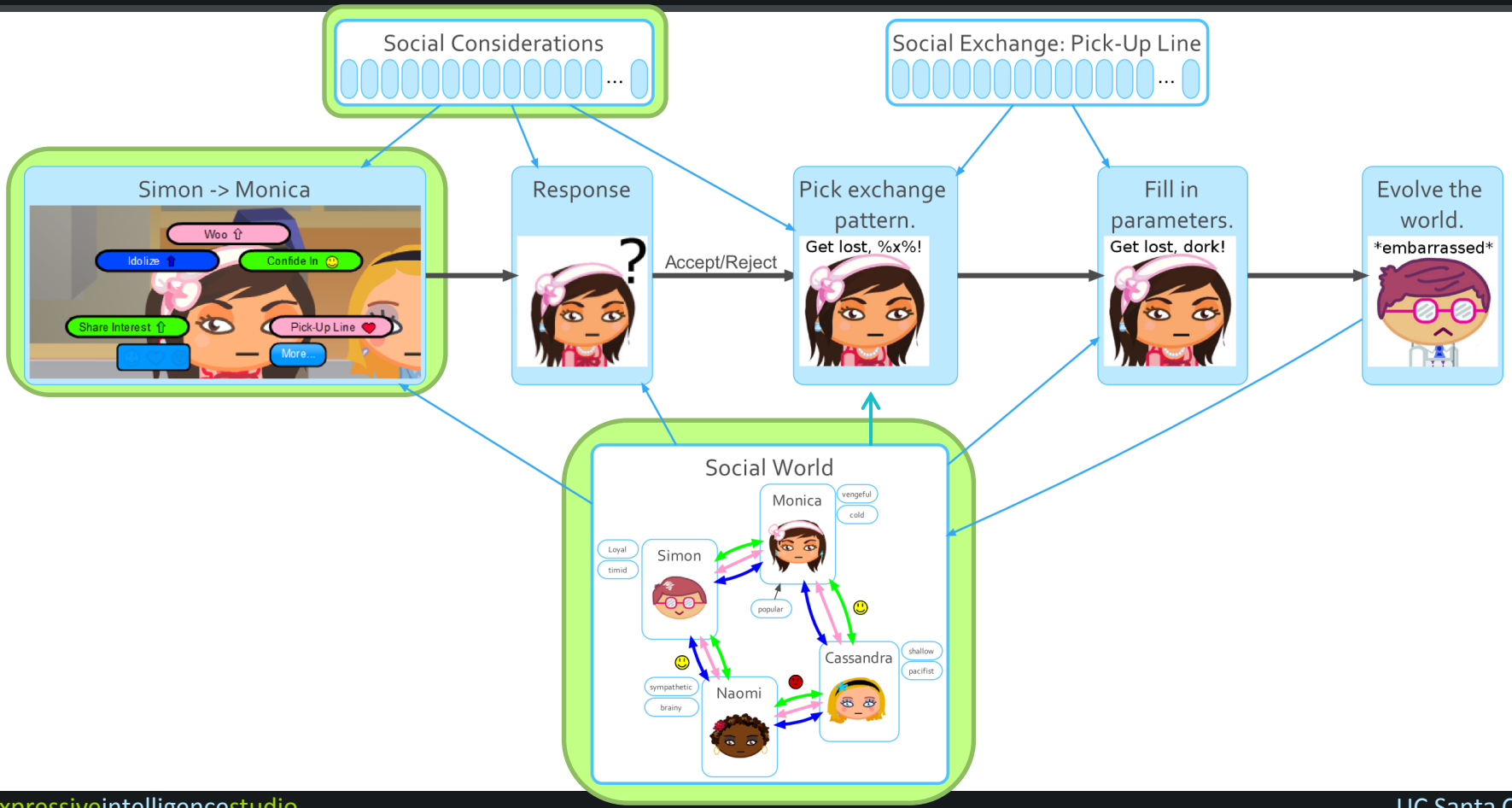
And 5,000 more!

Social Considerations

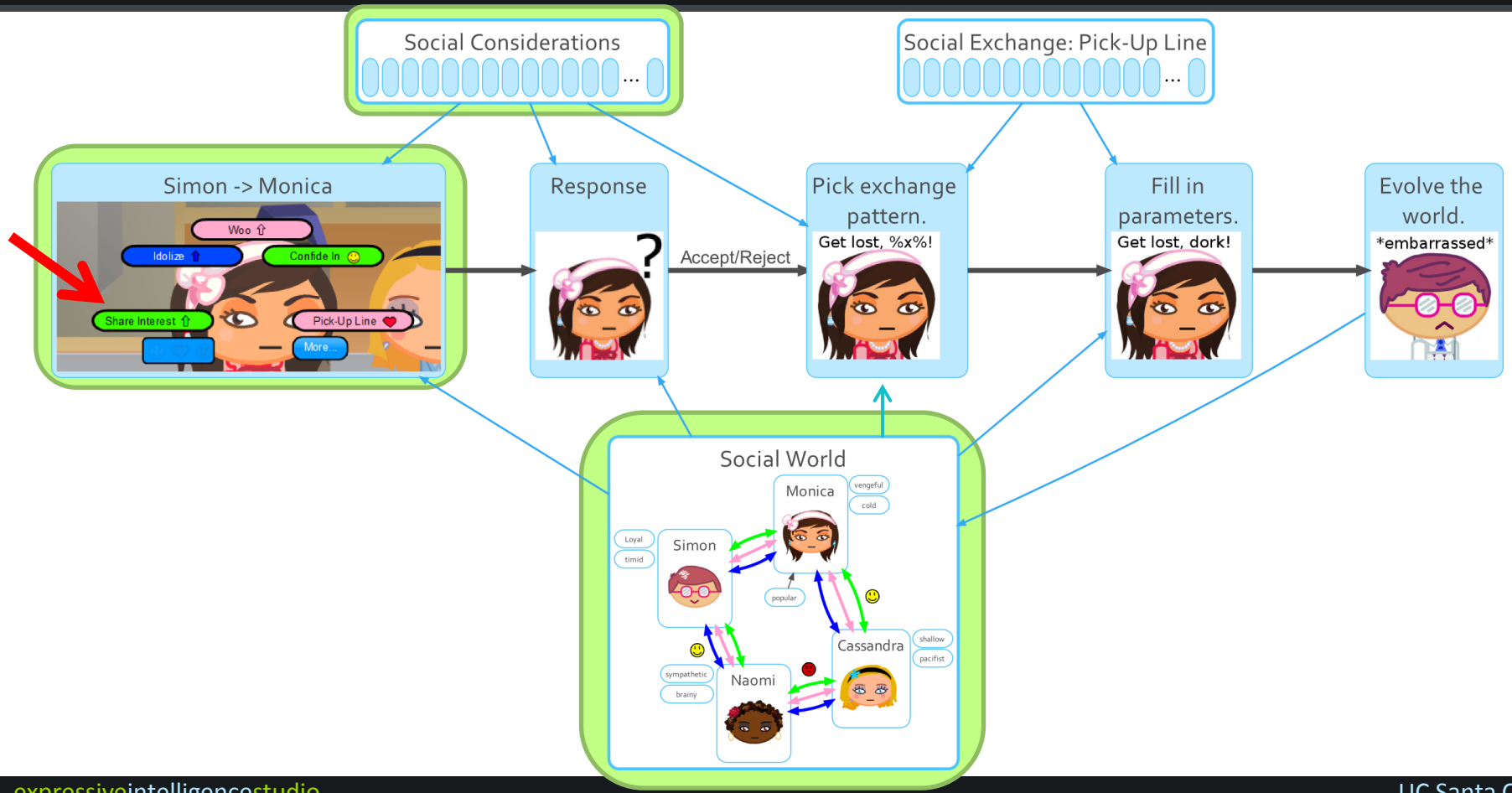
- *Social considerations* are rules that influence behavior



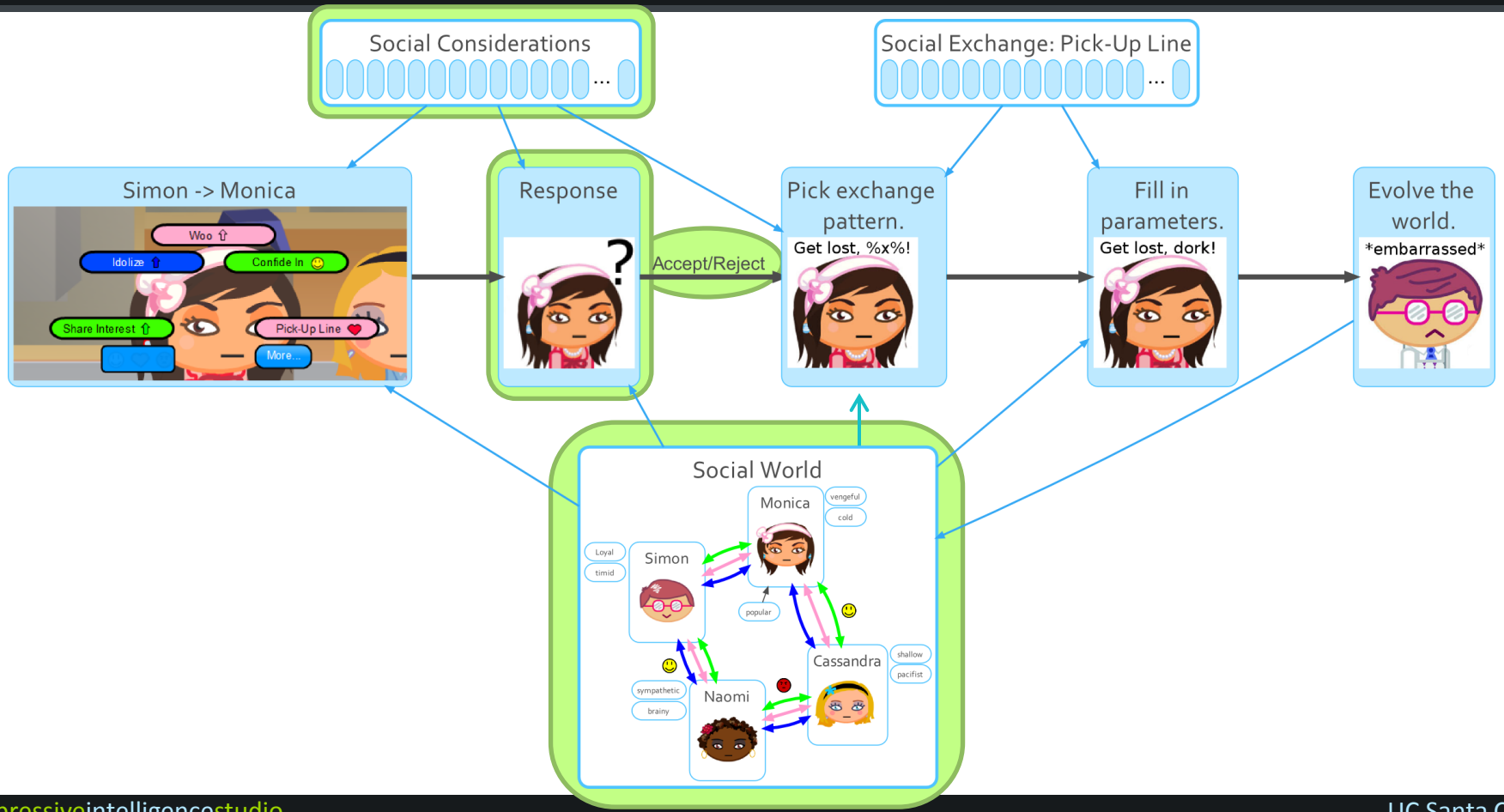
Choosing a Social Exchange



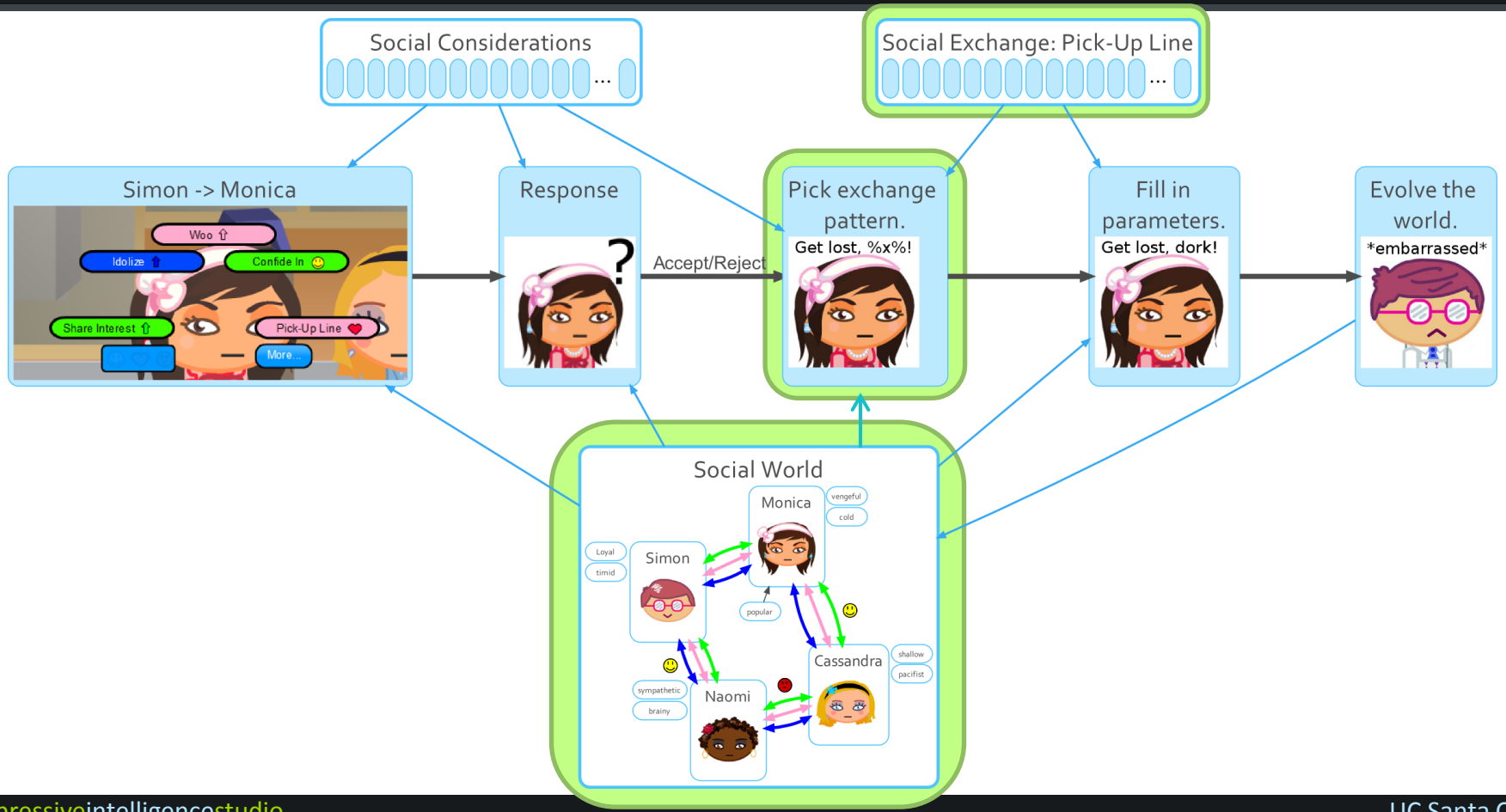
Choosing a Social Exchange



Responding to a Social Exchange



Responding to a Social Exchange



How and Why Characters Respond

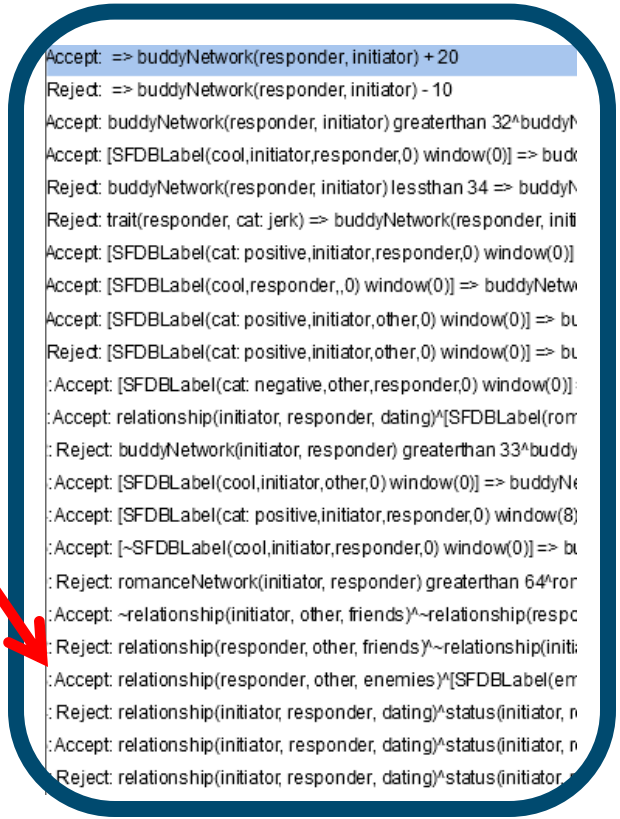
- *Accept* or *Reject* based determined by considerations
- Most salient response chosen
- Each changes the social world in different ways

Accept

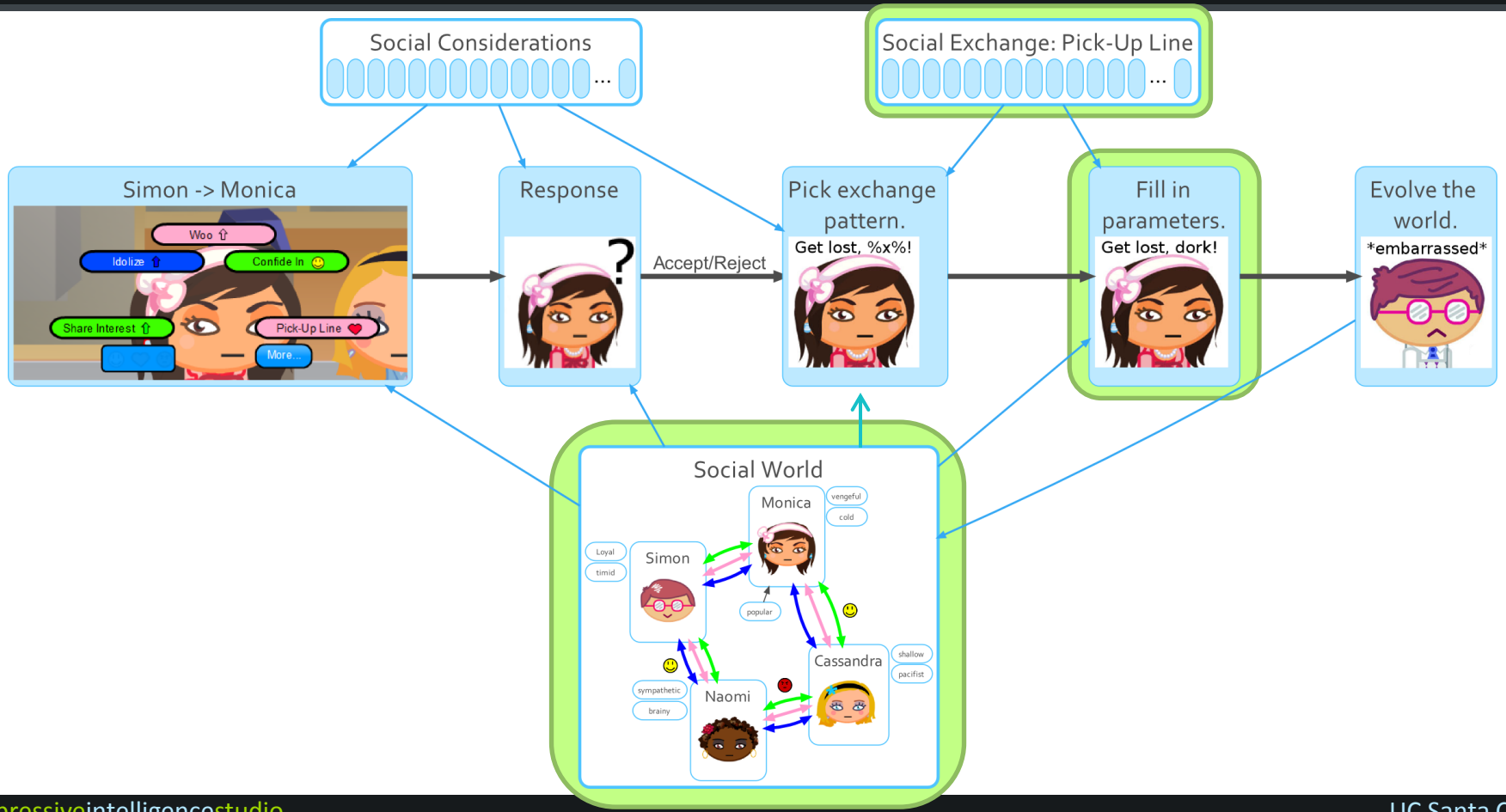
Y has done something to embarrass ***Z*** recently

X is enemies with ***Z***

Reminisce



Natural Language Generation



Instantiation

X: Hey **%y%**. Man, I can't stand **%z%**...

Y: Tell me about it. Hey, remember that time when **%SFDB_(embarrassed,y,z)%**?

X: Oh god, I totally do! **%pronoun(z ,he/she)%** totally had that coming for being such a **%pejorative%!**

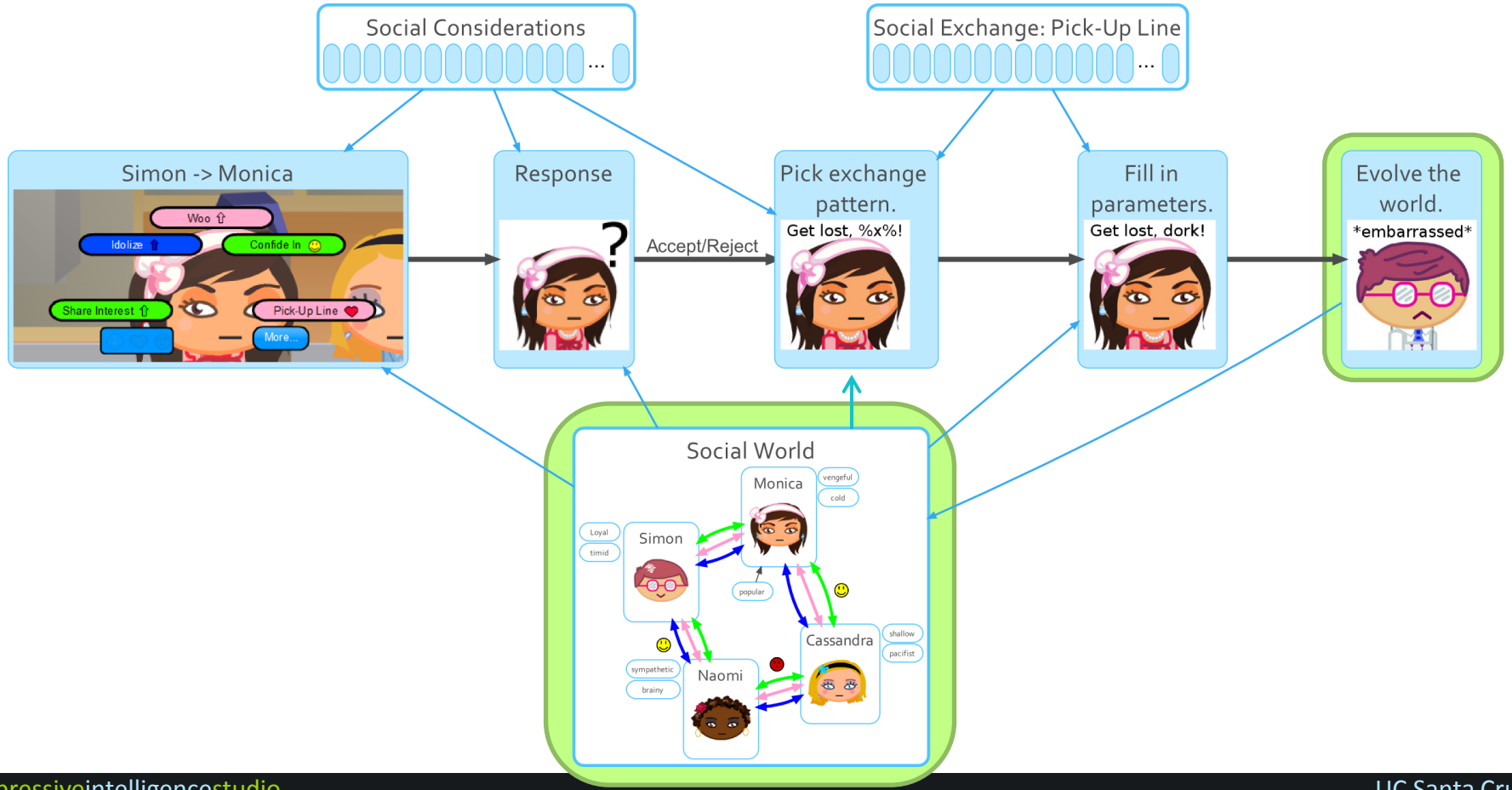
Instantiation

Simon: Hey **Monica**. Man, I can't stand **Oswald**...

Monica: Tell me about it. Hey, remember that time when **I broke up with Oswald in the middle of his tennis match just to make him lose**?

Simon: Oh god, I totally do! **He** totally had that coming for being such a **n00b**!

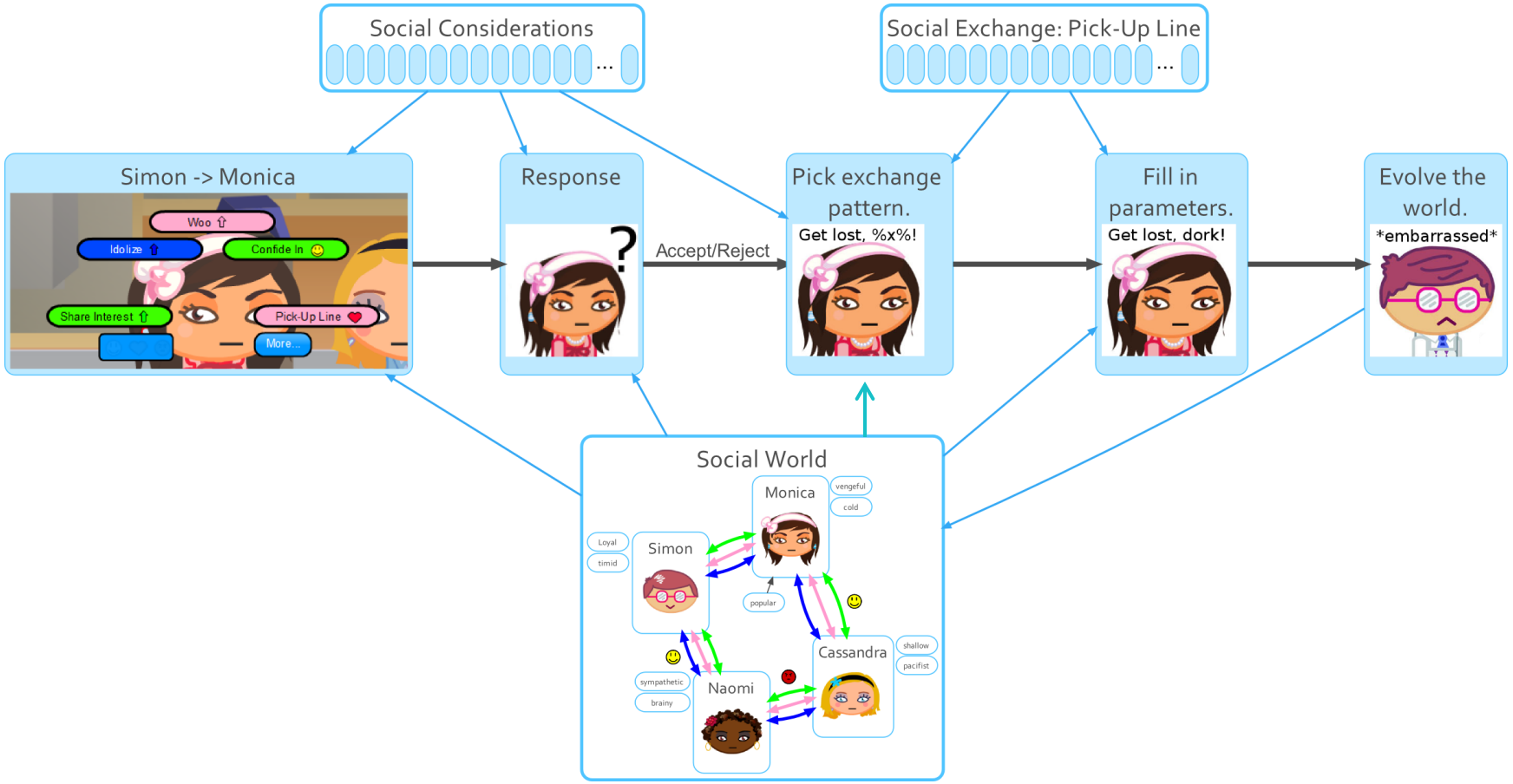
Evolving the Social World



Indirect Effects

- Cascading consequences of social exchanges
- Captures state changes across social exchanges
- E.g.
  - Cheating(x,y):
    - Dating(x,y) then Dating(x,z)
  - AngryAt(x,y):
    - Dating(x,z) and Mean(y,z)

Takeaway: “Social Physics” through Retargeting Social Interactions



Thanks!

expressiveintelligencestudio

PROM WEEK

http://promweekgame.com

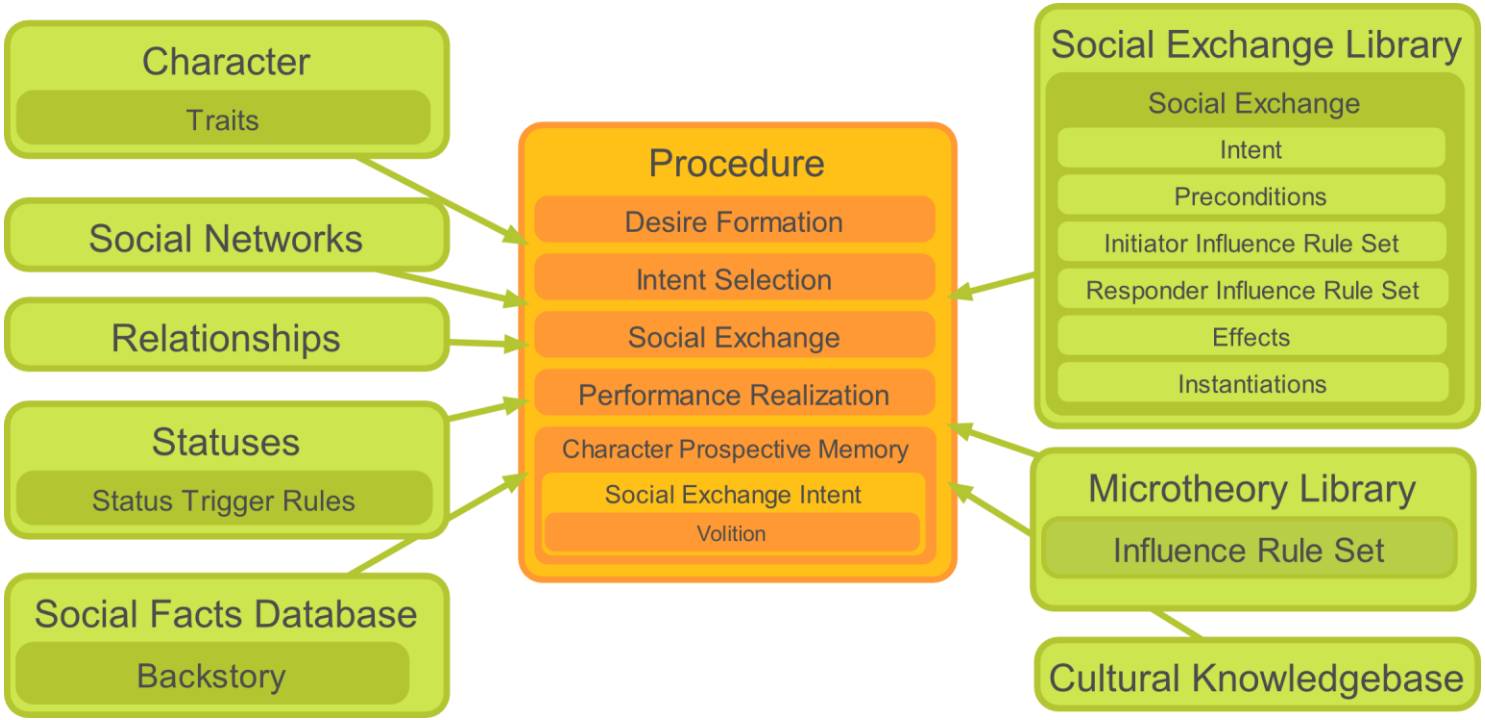
INDEPENDENT GAMES FESTIVAL FINALIST

Josh McCoy mccoyjo@soe.ucsc.edu

Mike Treanor mtreanor@soe.ucsc.edu

and Ben Samuel, Aaron Reed, Michael Mateas, Noah Wardrip-Fruin, Ryan Andonian, Kathleen Kralowec, Corey DiMiceli, Zane Mariano, Jacob Pernell, Christian Ress, Duncan Bowsman, Travis Brown, Melissa Bernetsky, Devon Wyland, Ellen Otsuka, Garin Kessler, Alexander Baker, Daniel Cetina, Alexander Schneider, Lauren Scott, Evan Mertz, Brandon Tearse, Alexei Othenin-Girard

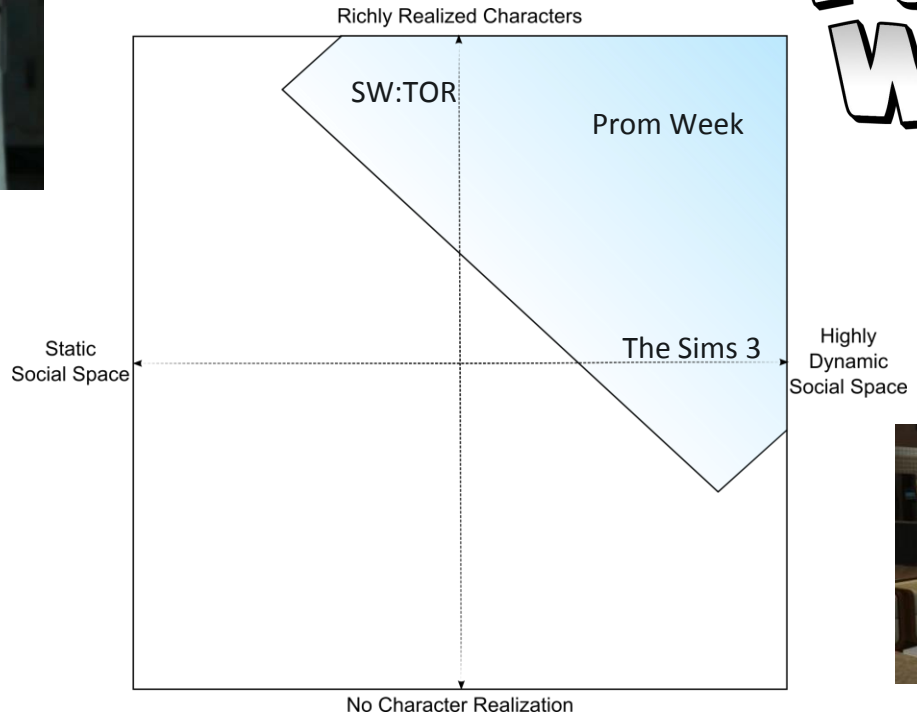
Prom Week's Architecture



Challenges

- Technical authoring
  - NLG + rules
  - unexpected consequences: “you’ll never get my flower!”
- What to show to the player
  - Performance vs spreadsheet
- Social space tuning
- Consistent story quality

Rich Realization & Deep Social Interaction



PROM WEEK