

# Additional Inform Topics: Things and Characters

CS 370

Spring, 2017

# Additional Inform Topics

- Things
- Actions & Action Rules
- Other Characters
- Player Motivation & Progress

# Things

- Persistent items in the world.
  - If something's a thing, you should usually make it a thing.
  - Some things are scenery.
  - Things can be examined.

# Things

- Subtypes
  - Container
    - Holds things
  - Supporter
    - Things can be on it
  - Person
    - Wide array of special behaviors
- Index tab -> Objects

# Things

- A lot of useful labels are built-in, and by default constrained to certain object types.
  - Open/closed
  - Transparent/opaque
  - Openable/not openable
  - Fixed in place/portable
  - Wearable/not wearable

# Things

- Things, as a type of object, can be given arbitrary properties.

An object is either broken or whole. An object is usually whole.

Instead of attacking the cassette tape:

    if the cassette tape is whole:

        say "It takes a few hard whacks, but you're able to  
bash apart the old tape";

        now the cassette tape is broken.;

    else if the cassette tape is broken:

        say "The tape is already broken. That black magnetic  
tape stuff is spooling out all over the place.";

# Actions

- “Verbs” that get carried out in the game world.
- Associated with but distinct from things the player can type.
  - Typing “go south” triggers the `go` action.

# Actions

- Use default actions where possible
  - More likely to be guessed by the player.
  - Have sensible defaults for failed attempts built in.
  - Are already associated with tons of English words.
    - “attach”, “tie”, “fasten” all refer to the `tie` action.
  - Index Tab -> Actions



# Homebrew Actions

- Defining new actions

Understand "hypnotize [someone]" as hypnotizing.  
Hypnotizing is an action applying to one thing.

- Defining the effects

Check hypnotizing:

if the noun is hypnotized, say "Already done." instead.

Carry out hypnotizing:

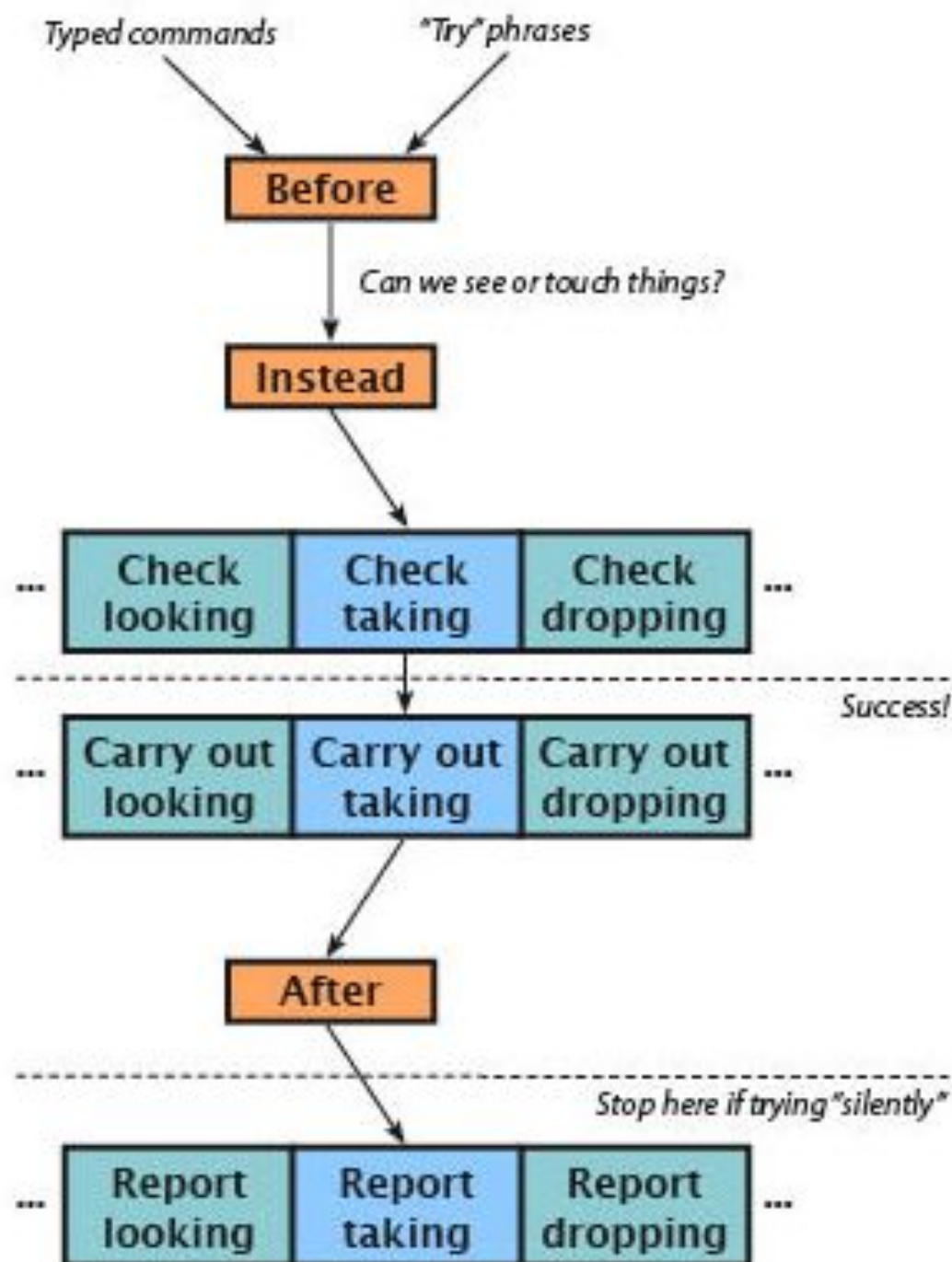
now the noun is hypnotized.

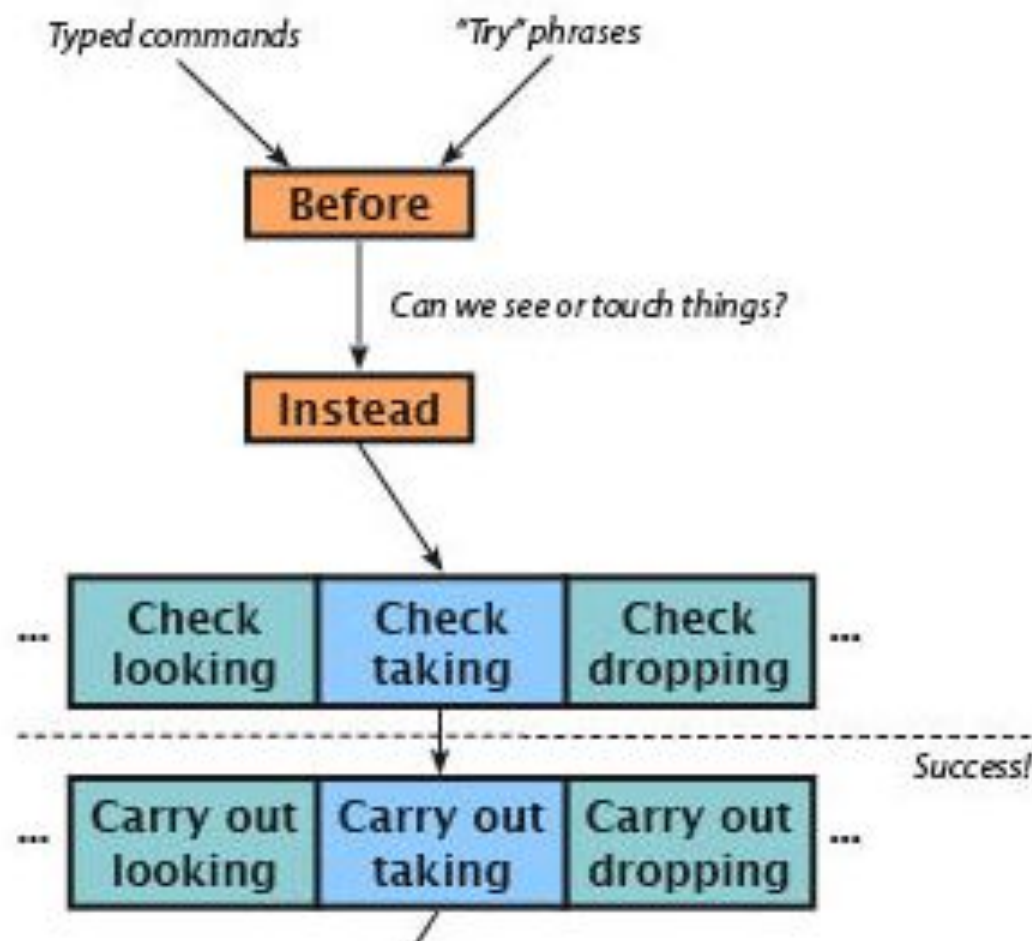
Report hypnotizing:

say "[The noun] slips under your control."

# Homebrew Actions

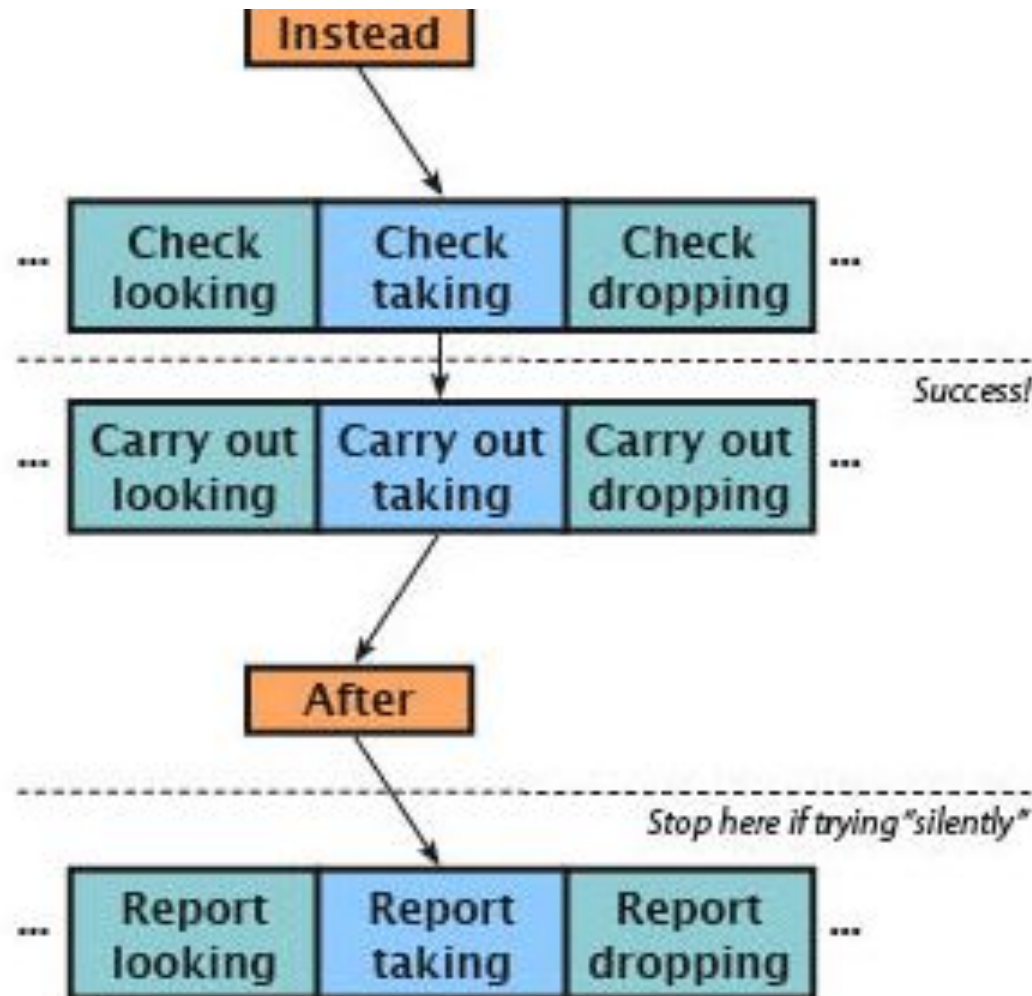
- “Use ‘hypnotize target’ to hypnotize someone.”
- “You should try to REWIRE the alarm.”
- [Help] – “Special commands: ‘Hypnotize target’ lets you attempt to hypnotize someone.





- Before hypnotizing the mayor, say “You concentrate on the mayor.”
- Instead of hypnotizing the mayor, say “You mustn’t do that.”

- After hypnotizing the mayor, say “They mayor’s eyes turn into little spirals.”



# Other Characters



Mark Shallow, *Adventurers!!*, 2001

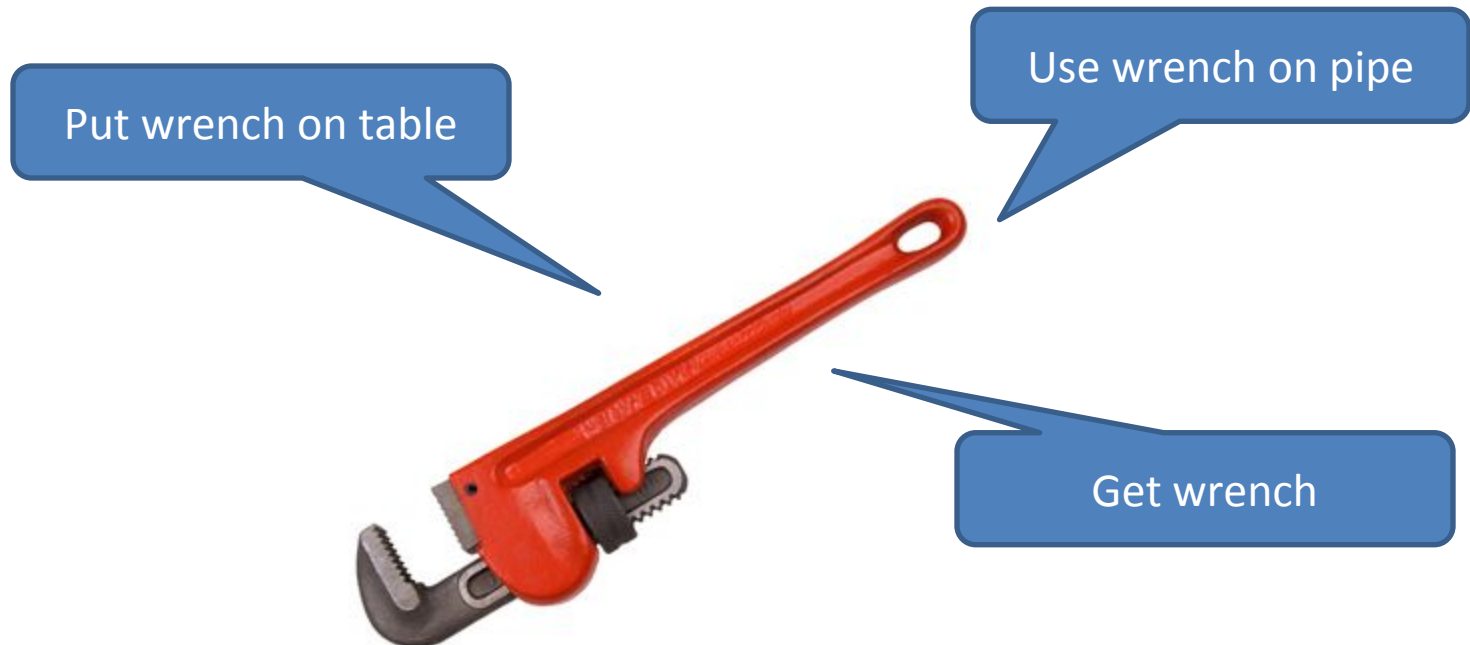
# Other Characters

- What makes NPC interaction tougher to implement than object interaction?



# Other Characters - Dialogue

- There's a bounded number of things you can do with most objects.





# Other Characters - Dialogue

- There's an unbounded number of things you can theoretically talk to most NPCs about.

Ask about sword

Ask about king

Ask about flail



Ask about anvil

Ask about beard

Ask about Wirt

# What can other characters do?

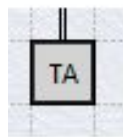
- Respond to ask/tell about specific things
- Notice if you do something
- Follow instructions

# Asking and Telling

- Ask him about...
- Tell him about...

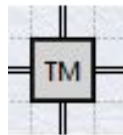
# Keeping Asking and Telling Sane

- How do we address the open-class problem?
  - What sorts of things is the player likely to ask about?
  - Rooms, objects, scenery, other characters



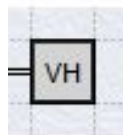
### + Triage Area - room where play begins ?

- + Bedrolls
  - + Miners - person
  - + Foreman Matson - man
    - carried + old mining pick
  - + Rick Fields - man
    - worn + mining gear
    - carried + pack of cigs
  - + cot - supporter
  - + yourself - person
- 

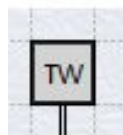


### + The Mine Entrance

- + Officer Soh - man
    - worn + cap
    - worn + badges
    - carried + nightstick
- 



### + Valley Hill



### + The Ward

- + Charlie Mercy - man
  - + Paperboy - man
    - worn + newsie cap
    - worn + old-fashioned jacket
    - carried + satchel - container
    - + vintage newspaper
-

# Keeping Asking and Telling Sane

- Building a table of different responses.
  - Check the “Sybil” example in the docs.

After asking Valkyrie about a topic listed in the Table of Valkyrie's Replies, say "She smiles beatifically. '[[reply entry](#)]'"

#### Table of Valkyrie's Replies

Topic                      reply

"miners/help/accident/rubble/rocks/debris/accident/collapse/pit/boulder/explosion/cave-in" "Ah, my friend. Here is the situation. Our friend has been trapped in a pit beneath this boulder, nearly sealed off. We can tumble the boulder into the pit, but he would be crushed if he did not stand on the right side. We need a way to indicate where to stand. He can hear us, but has no way of knowing which side we mean. We need something we can feed down there that he could feel, so we will have a way to tell him which side is which."

"old mining pick" or "pick" or "mining pick" "Unfortunately, our trapped friend is in a delicate situation. We need to signal him, not bring the boulder down on him."

"flask of whiskey" or "whiskey" or "flask" or "bottle" "Alas, were it not so damp we could try pouring liquid down the crack, but as it is already so wet here, and dripping water in, it is unlikely to be an effective signal. Additionally, I hesitate to release flammable fumes here, with the broken wiring. Good thinking, my friend, but this is not the situation."

"clothing/clothes/outfit/robe/robes" "My robes are more protective than they look. Despite the surface appearance of the things my comrades wear, they are well-protected."

"collar/leash/chain" "[[if the player has the collar](#)]I'm afraid that that's a little too wide to slide into the gap. Can nothing thinner be found?[\[end if\]](#)[\[if the player does not have the collar\]](#)Are you referring to Bloodhound? I know her costume is a bit... unorthodox."

"electric guitar" or "guitar" "I enjoy music, but that is really more the purview of our friend Power Chord."

"helmet/helm/horns/crest/gem/wings/fins" "My helmet? I admit that some of it's features are purely decorative."

"cape" "Some believe that a cape is old-fashioned, but appearances matter."

"Hyperion" or "spear" "This is the spear Hyperion, an enchanted weapon. I am blessed to be its wielder."

"detonator" or "metal thing" "I'm afraid that I know very little about this sort of thing."

"paperboy" or "boy" or "kid" "While I am loathe to expose someone so young to violence, the boy shows great promise, and could save many lives someday."

"faultline" "You should not look down on Faultline just because he has issues with authority. He is noble in combat."

"power chord" or "chord" "I do hope that Power Chord isn't bored. I told him he could stay at HQ, but after Bloodhound volunteered, he insisted on coming."

"bloodhound" "This is really her mission; the rest of us are essentially backing her up."

"valkyrie" "I inherited my hero name from the original wielder of the spear Hyperion."

"powers/superpowers/abilities" "I wield the spear Hyperion. It is my honor and duty to place it between villains and the innocent."

"heroes/hero/superhero/superheroes/heroine/superheroine/heroines/superheroines" "I was originally just going to send Bloodhound and Paperboy here to help, but the whole team ended up volunteering, and I could not remain behind alone."

"audio/recorder" or "audio recorder" "[[if the audio recorder is evidence](#)]If you believe you have captured evidence of a crime, please see the chief of police. I would not wish to damage the integrity of a piece of evidence.[\[end if\]](#)[\[if the audio recorder is not evidence\]](#) That is not the sort of thing I know anything about, unfortunately."

After asking Valkyrie about something (this is the valkyrie default rule): Say "She pauses for a moment. 'I'm afraid that that's not something I have time for at the moment.'"

The valkyrie default rule is listed last in the after rules.

# Caution: Rabbit Holes and What's Important

- Examine wizard
  - The wizard is a middle-aged man with a scruffy beard. He wears a pointy hat.
- Ask wizard about hat
  - “My mentor gave me this hat when I completed my final lessons.”
- Ask wizard about mentor
  - “I was trained by Darthiss the Wise in his tower in Arcanisburg.”
- Ask wizard about Arcanisburg
  - “I spent my childhood in Arcanisburg, studying and working in the library.”
- Ask wizard about library
  - “I worked in a library when I was young. I dusted the shelves and sorted the books.”
- Is this going anywhere?



# Persuasion Rules

- “You, do this.”
- Use the same language as player commands.
  - “Go north” becomes “Jimmy, go north”

# Who saw me do it?

- “In the presence of...”
  - Checks to see if the player character is in the same room as the character.

Instead of eating something in the presence of the dog, say “As you’re about to put that in your mouth, the dog growls fiercely, and you nearly drop it.”

# Managing Dialogue

- Plan ahead
  - What things *have* to be said in each scene?
  - What things that *could* be said affect later scenes?

# Managing Dialogue

- Have failure point to success
  - Default response(s) can indicate what the character *wants* to talk about.
  - Narration can suggest a course of action.

# Managing Dialogue

- Avoid requiring sentiment analysis
  - “If the player is polite to the king...”
  - “The player can intimidate the goblin...”
- Consider actions instead
  - Do something the king wants
  - Wear skull mask when visiting the goblin

# Managing Dialogue

- Actions speak louder than words.



# Managing Dialogue

- Letting the NPCs lead
  - The NPC asks a question with a closed-class answer.
    - Yes-or-no questions
    - “Which other NPC do you think is guilty?”
  - Dialogue trees – Drawbacks?



- Allows for dialogue that's mostly under your control.

# A hybrid approach

- Like Ask/Tell, but have the NPC jump in and take control if the player is getting lost.
- Have the NPC's answers hint towards specific things the player could ask about next.

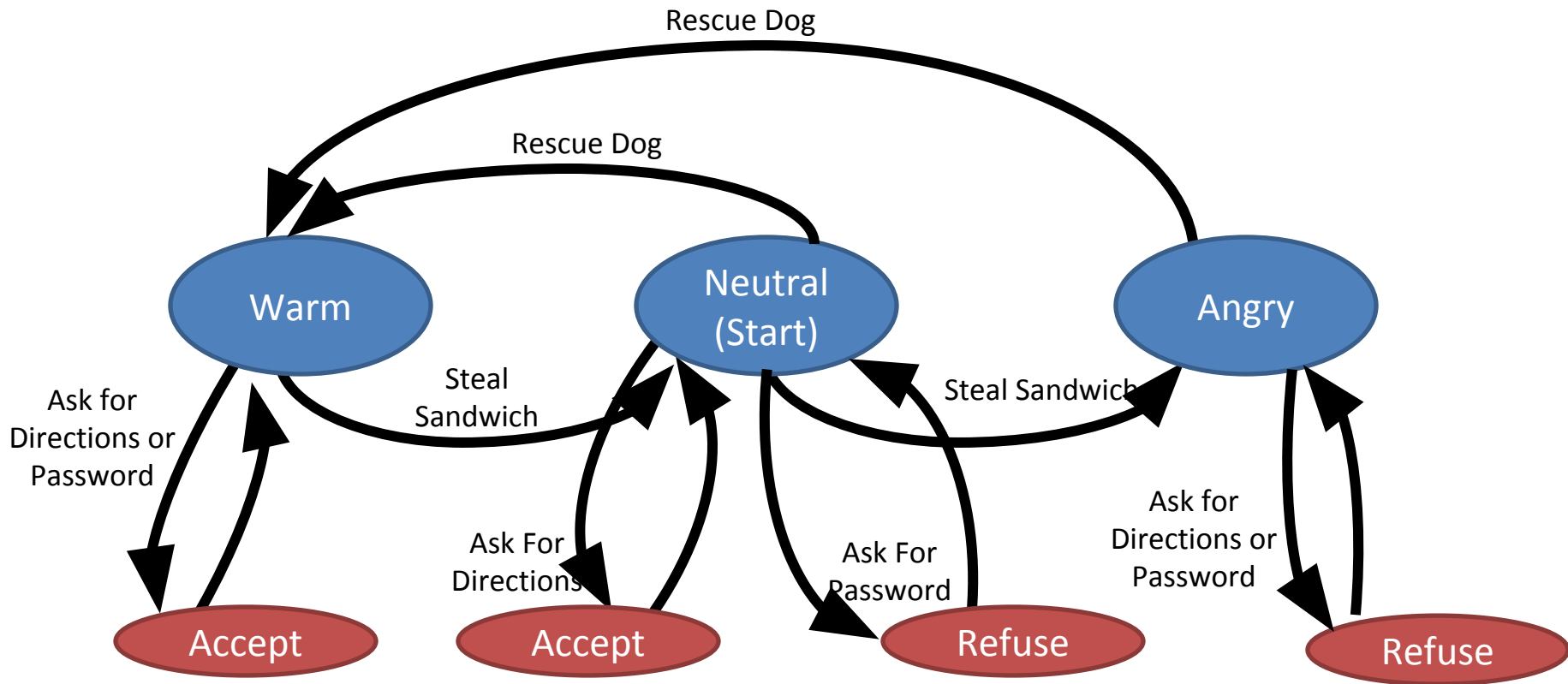


# Planning an NPC as a Finite State Machine

- Like things, NPCs can be given arbitrary properties.

A person is either warm, neutral, or angry. A person is usually neutral.

# Planning an NPC as a Finite State Machine



# Planning an NPC as a Finite State Machine

- Can also base things on “number” values associated with NPCs.
  - Attitude that’s affected in different increments by many different things.
  - Severity of injuries.

# Other NPC Techniques

- Arbitrary actions taken once in a while.
  - Interactions with other NPCs.
- Advanced: Goal-Seeking Characters (RB 7.15)

# Iteration and Testing

- What's frustrating in IF?

# Managing Player Progress

- What should I be doing?
  - Verb Hunting
  - Goal ambiguity



# Managing Player Progress

- **Get people to try your game.**

# Managing Player Progress

- Take advantage of idiom.
  - Real-life knowledge
  - Videogame standards.





# Managing Player Progress

- Run across a locked door.
- Find a key.
- Told you're trapped.
- NPC mentions they're thirsty.



# “Help!”

- Adding a “help” command.
  - What modalities are used to interact with the game, custom actions, etc.
  - Help can be context-sensitive
  - NPCs: What an object might be used for, etc.

# Incremental Feedback

- “You’re on the right path.”
  - Special messages when the player does something right.
  - Success messages hint at non-obvious steps.

# Incremental Feedback

> put key in chest

You put the key into the chest.

- This is a default response. It probably wasn't important.

> put key in chest

There's plenty of room in the chest for the key. It should be safe here.

- This non-default response indicates that the author thought of this. You did something important.

# Incremental Feedback

- System feature – things that the writer didn't think of always give default responses.

# Lose States

- If it's possible to irredeemably screw up, consider making that a game-ending state.

# Robustness and Grace

- If the player tries something and gets a default failure response, it's not always clear if they're on the right track.
- Am I using the wrong command? Am I doing the wrong thing? Is there some other reason it doesn't work? (Another prerequisite?)
- Anticipate things they might try and write in non-default messages.

# Robustness and Grace

- Inform contains multiple verbs that do the same thing.
- You can write in more.



# Score

- Really passé in IF.
- Some reasonable uses
  - Indicate that the player did something right.
  - Indicate that there are still secrets to be found.

# Getting Good Playtest Feedback

- Ideal playtesters: People not emotionally invested in your happiness
- Fresh sets of eyes each time
  - Novelty fatigue
  - Don't already have things figured out
- Communicate that it's a work in progress

# Getting Good Playtest Feedback

- Listen and watch - take notes
- Sometimes people are “nice,” and they’ll say everything is great, but you can get things from watching them.

# Getting Good Playtest Feedback

- Sometimes people are more helpful and they'll give you a lot of feedback, but you also need to watch what they're doing.
  - If someone keeps trying to interact with something in the wrong way, that could indicate an issue.

# Getting Good Playtest Feedback

- Track what they're doing when they look frustrated, happy, confused, etc.
- You need to take notes. Don't just try to remember things.
- If you feel tempted to tell them something, that's something that your game needs to be communicating.

# Getting Good Playtest Feedback

- “What do you think you’re supposed to be doing?”
  - How?
  - Why?
- Are they having the experience I want them to have?
- Do they even know what the experience is supposed to be?

# Getting Good Playtest Feedback

- Doing your own QA
  - Interactive fiction is hard to self-test
  - Go in with the intent to break it
    - E.g., try to “take” everything, stuff like that

# Applying Feedback

- Don't need to literally implement every suggestion – but problems should be addressed.
  - “I wanted to just steal the gem from him.”



# Other Questions?