Internship project group behavior proposal

Cees-Jan Nolen, Robert Kraaijeveld, Steven Schenk

28-9-16

Contents

1   Introduction

In this document, we will be presenting our concept for the implementation of group behavior within our internship project. Since group behavior and the deeper themes of friendship and group forming in humans are subjects that we have no experience in, we wanted to present our concept to you first to see whether our assumptions match reality.

2   Friendship system

In order to make our room filled with NPC's seem more like a room filled with humans, we intend to implement a friendship system.

In real life, people with common interests, backgrounds and personalities tend to become friends. Since we have only personality (for now) to distinguish our NPC's, we will let NPC's select friends based on the 'Repulsion Theory' [1] which in its' most basic form states that we are usually repulsed of people when they have dissimilar attitudes to ours.

Within our system, we represent this by using the (accumulated) personality values of NPC's who could potentially become friends. We realize that the term 'friend' is not really appropriate here, since deep friendship can arguably be said to consist of more than just common personalities. Therefore, we will be using the term 'friends' to refer to NPC's who's (accumulated) personality values are in proportion, with some margin of error.
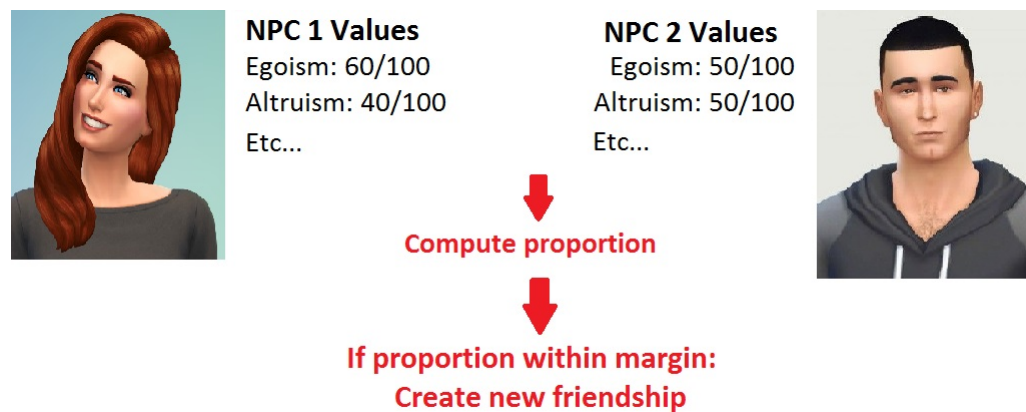
We intend for this margin of error to be changeable by the user of our project in order to allow them to customize how easily they want friendships between NPC's to form.

3   Informal groups

As we mentioned earlier in our structure document, groups of people come in two distinct forms: Formal groups and informal groups.

Formal groups are usually found within the workplace, are created 'top-down', and are usually form edInformal groups are, as the name implies not directed or created by a formal body such as a board or a manager, but they form naturally as the human need for company arises, whether at the workplace or in a social setting. Since we do not intend to simulate a working environment in our project, we will be focusing on the latter form of groups.

Informal groups can be loosely divided into two distinct categories: Interest groups and friendship groups.

Table 1: Differences between interest groups and friendship groups

Interest groups	Friendship groups
Mutual goal	No real goal
Usually more hierarchic	More democratic
Higher purpose is more important than individual members	Group exists solely to satisfy personal member needs
Not necessarily common values and interests	Common ground

Until we decide to implement some kind of goal seeking behavior within our NPC's (other than choosing actions that will show of their personality values) we will focus our attention on implementing a representation of friendship groups.

4   An implementation of informal friendship groups

The friendship system that we discussed earlier will be used as a bridge to introduce NPC's to groups. A group consists of NPC's who all share a friendship with at least a certain percentage of the NPC's in the group.

For example:
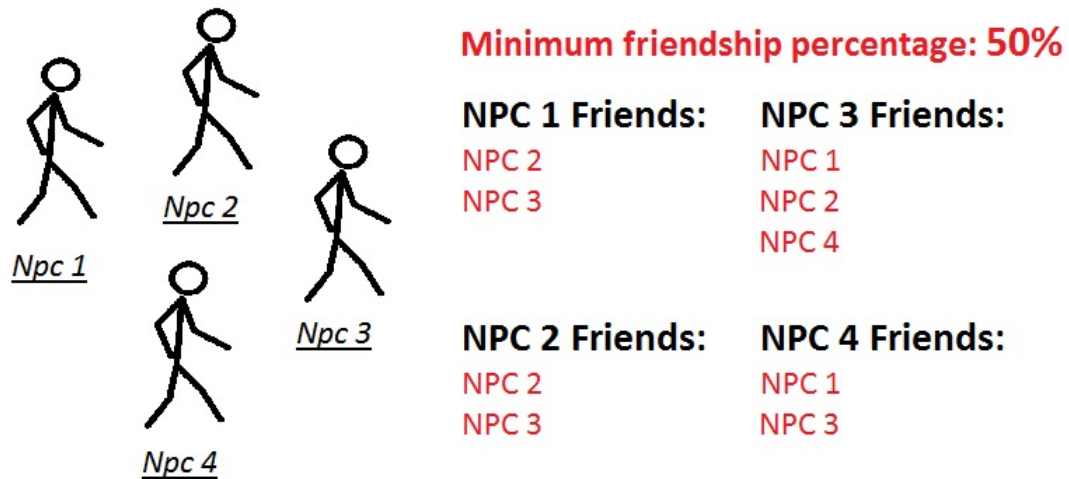
A new NPC can join an existing group; Its' accumulated values are than tested against the mean[1] of all the accumulated personality values of all the group members.

---

[1] We use the mean instead of the average since this could lead to a group of egoists with one altruists having a group personality value that does not accurately represent the group members.

5   References

[1] Rosenbaum, M. E. (1986). The repulsion hypothesis: On the nondevelopment of relationships. Journal of Personality and Social Psychology, 51(6), 1156.