

# Exploring the stepwise process and consequences of identity fusion in different groups: An ABM

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**Abstract.** In this paper we discuss the implementation and simulation of an agent-based model on identity fusion (IF), which is considered as a state in which agents have a single social identity from which they can satisfy their social needs. IF is the result of a dynamic step-by-step process with interaction between individual social needs and group characteristics. Consequently, fused agents have no alternatives groups and can only satisfy their social needs by adapting to the behaviour of one single group. The simulation shows that long term fusions happens in groups requiring actions with high intensity, driven by agents with a high need for significance and belonging. Agents with different need urgency become locked-in in those group and thus fused, without alternatives for need satisfaction.

**Keywords:** Identity fusion · Social identity · ABM · Social needs

## 1 Introduction

Identity fusion is a rare social phenomenon where individuals are fully committed to a single group and even willing to sacrifice personal resources for the group's benefit[2]. This commitment to groups stems from the fulfillment of social needs, including the need for belonging, significance and closure. Usually, one group cannot provide means to fully satisfy these needs, as their characteristics may restrict the range of available actions for fulfillment. For example, work can be the place to exploit one's ambition to feel significant, but limited time is invested in team building activities, resulting in less feeling of belonging. A sports team can serve as a means for being part of a group. Consequently, people are committed towards multiple groups as it offers them more options for meeting their diverse needs. Limited time and energy is divided across groups and together fully satisfy needs. Nevertheless, amidst this inclination towards multiple affiliations, our primary focus lies in understanding the underlying reasons behind identity fusion. To gain insights into the process, we must grasp the general formation of social identities, a critical element in the process of need satisfaction, and the very foundation from which identity fusion emerges.

We proposed an agent-based model (ABM) on social identity formation, revealing the complex dynamics between individual needs and groups[1]. This model will serve as a powerful tool to demonstrate that the phenomenon of

identity fusion cannot be solely attributed to individual factors. Rather, the interaction between individual needs and social factors determines if one will fuse or not. There exist models that capture one or more concepts related to identity fusion, like models on social identity[4], need satisfaction in general [6], or the need for significance related to extreme behaviour in particular[5]. However, integrating the different models and define the interaction between the different constructs is challenging. Therefore, we chose to build one from scratch. In our ABM, we will examine how individual agents commit to groups for social need fulfillment, resulting in the process of formation of social identities - defined as subsets of actions and attitudes towards those actions contained in a group[12]. We include the need for belonging, significance and closure as the social needs playing a role in the process. The need for belonging results in the agents wanting to engage in collective actions with others[8]. The need for significance spurs agents to choose distinctive actions within the group to be acknowledged and praised for one's unique contribution[7]. Finally, the need for closure make agents wanting to limit the number of possible actions to choose from in order to limit uncertainty[3].

The personal identity, in turn, manages the collection of social identities[13], where one's commitment may be divided across several groups. The determination of which identity becomes salient for action hinges on the urgency of needs, the presence of a variety of groups, and personal resources - defined in terms of a limited amount of energy and time. The selection of one social identity over others grants access to a specific collection of actions linked to that particular group. Greater commitment to a social identity arises when its actions fulfill needs; less time with the group weakens it. Subsequently, in this paper we define identity fusion as a personal identity containing only one single social identity to which a person became fully committed; Social needs can only be satisfied through this specific social identity.

Group characteristics determine if agents' needs can be fulfilled through a social identity. We distinguish between three group dimensions. Firstly, groups can provide collective actions for fulfillment of the need of belonging, like a software development team collaborating on creating a computer program, whilst other groups contain actions only to be performed individually, such as a sales team with commission-based incentives. Secondly, groups can exhibit ambition in terms of providing their members with the means to continually enhance personal efforts in pursuit of a sense of significance. For example, within a personal development organisation members have the opportunity to explore different career paths and develop their ambitions. In contrast to the opposite type of group, where personal development is not prioritized, and members are expected to join for enjoyment rather than pursuing victory. Finally, groups can be tight in the sense that they do not endorse deviation from average behavior, like a military unit, whilst loose groups allow for a wider range of actions, such as an innovative company valuing creativity through deviation[11].

Through our model simulation, we observe that the general mechanism of social need satisfaction can lead to the emergence of identity fusion among the

agents. We can distinguish different pathways leading to this phenomenon. We mostly observe agents with high social needs become fused for a short period of time. It happens in different type of groups. Secondly, we observe fusion of agents for a longer period of time in one type of group. Thirdly, long term fusion of agents within a group leads to a locked-in situation for all of its members. It requires them to devote all their efforts to the group until viable alternatives become depleted, ultimately leading to the emergence of fusion of all members.

The rest of this paper is as follows: We start with a background section on the process of identity fusion. In section 3, we will explain the behaviour of the model in detail. The results of the simulation will be discussed in section 4. We will limit the analysis of the results to showing in which cases fusion occurs. We finish with a discussion and conclusion.

## 2 The process of identity fusion

Fusion is a state in which one's personal self becomes fused with a group identity, which leads to pro-group behaviour and the willingness to sacrifice personal resources in favour of one's group[2]. We define identity fusion as a state where the personal identity contains only one social identity connected to a group from which social needs can be satisfied. It is a possible outcome of the regular process of social identity formation. Usually, people are member of multiple groups to fulfill different social needs. When a needs becomes urgent, a deliberation process is started to decide which group should be participated in. We sometimes have to choose between two groups, or the most preferred group is not available. For example, we only have limited time, energy and money so we have to choose from time to time which groups we want to put effort in. We also have social obligations, such as working during the week or soccer practice on Wednesday evening, and not showing up can have consequences for future action satisfaction. Also, the need for belonging cannot be satisfied when other fellow members are not available. This combination of needs on one hand, and restrictions or limited resources on the other hand make that social need satisfaction is a balanced process where we alter between groups we are member of and thus switch social identities from time to time.

An imbalance between social identity occurs when someone has one social need in particular which can only be satisfied with a single social identity. The group is chosen over others until the specific need is satisfied. The commitment towards other groups will decrease as no action is put in the corresponding social identity. This is where the process towards identity fusion starts; a step-by-step process where the balance between multiple social identities is lost. We can distinguish three scenarios: imbalance without fusion, temporary fusion or permanent fusion. The first scenario is a person focusing on one group for some time, for example on one's career, and less time is left for other groups. Other groups are chosen occasionally, such that commitment decreases but is not fully lost. One is not kicked out of one's group of friends or is still able to catch up with the soccer team after missing some matches, which means other groups

remain available for need satisfaction. Although some imbalance between social identities emerges, we do not yet speak of fusion.

In the other two scenarios, an individual may end up fused with only one social identity, but the outcomes differ based on the duration of fusion and the possibility of connecting with other groups. For instance, if someone becomes solely focused on their career for an extended period, they might end up fused with their work identity due to limited time and energy for other activities. Friends will stop asking to join dinner or the soccer team wants to get rid of the player as the difference in skills became too much. The person becomes fused with this work. The fusion can be temporary if the social identity becomes unsatisfactory, due to a different need urgency or group limitations. The company lacks collective activities or one has reached the maximum level possible within the company. The fused person starts looking for other groups to fulfill their social needs. Joining new groups is only possible if one knows a member of the new group, and there is mutual acceptance[9]. For example, starting a new career can only if you are allowed to start at the beginning. If such group is not available and one is forced to stay member of the group one is fused with, we speak of long term fusion. It implies that someone has to adapt to the actions required by the group to keep their needs satisfied. We also speak of long term fusion when someone has only one social identity and is able to keep their needs satisfied within the according group.

***Influence individual factors on fusion*** We defined the need for significance as wanting to do something unique for a group. The need can only be satisfied within the social context of a group, as fellow members have to witness the actions. The sacrifice of personal resources determines the level of significance gain within a group. For example, when one becomes member of a political party, they start with attending party meetings, requiring only some time to be invested. After a while one helps as a volunteer during campaigning, joins debates, donates money for the party or becomes a board member. So, the action of being a political member can be carried out with different intensities, where the higher the intensity, the more resources as time, money or energy is needed. The more personal effort someone puts in and the less other people perform that action, the more significance can be earned. The need urges people to intensify their actions, as repeating the same action makes it less unique; One has to increase their effort to gain as much significance as before. Consequently, one has less resources such as time and energy left to put in actions for other groups. Someone with a high need for significance will have to focus on one group in order to gain enough significance, which increases the chance of identity fusion.

We defined the need for belonging as wanting to perform actions for the group with others. Therefore, people with this need will look for action to be performed collectively. They will be attracted by groups where collective actions are preferred over individual actions. The need for belonging drives people to choose actions with others. People with a high need for belonging are willing to increase the intensity of their actions to a level which is performed by other

members, as belonging can only be satisfied when performing an action at the same intensity level as others.

We define the need for closure as a preference for adapting to new situations (open minded) or stick to familiar environments (closed minded)[3]. This means that, when looking for a new group, open minded people are willing to join a new type of group, while close minded people rather join a type of group they are already member of. Once fused, it becomes more difficult for a closed minded person to join an alternative group than for open minded people as the closed minded people only have one type of group they are familiar with.

***Influence of group factors on fusion*** The different characteristics of groups determine if and how they can serve as a means for group fulfillment. People with a high need for significance prefer ambitious groups, as they can keep increasing their effort and find actions only they perform for a gain in significance. Secondly, people with a need for belonging will look for groups which provide collective actions, i.e. actions which can be performed with others. By definition, need for significance (motivating unique actions) and need for belonging (motivating collective actions being performed with others) are at odds in specialized groups. Finally, tight groups permit limited deviation from average group behavior compared to loose groups. When certain group members seek personal development for gaining significance, they can easily do so within loose groups. Development can only happen within tight groups if all members evolve in harmony with the changes.

***Emergence of fusion*** With the defined characteristics on both individual and social level, we can explain the emergence of identity fusion. At the individual level, people with a strong need for significance are compelled to intensify their actions, leaving them with fewer resources to invest in other groups. As a result, they are more likely to fuse with a particular group. Moreover, the need for belonging drives individuals to engage in collective actions. People with this need will only fuse within collective groups.

A reinforcing dynamic emerges in ambitious collective groups where members seek both significance and belonging, as those groups cater both of these needs. The demand for significance increases the required effort from group members, and those seeking belonging also intensify their actions to participate in group activities, especially if they have no alternative group to fulfill their need for belonging. Tight groups even intensify this dynamic as less deviation is allowed and members have to keep up with the group average.

Finally, when individuals have the option to switch or join less demanding groups, they may choose to allocate their personal resources among various groups. The ability to explore alternatives is influenced by their level of open-mindedness, granting more freedom to fulfill their needs by joining new groups. Conversely, closed-minded individuals may be confined to their existing groups, limiting their options for need fulfillment. Even more, if someone is a member of a tight group and has a closed preference, they are more likely to seek other tight groups when exploring alternatives, which can be challenging to join due

to their limited range of possible actions. These circumstances together increase the likelihood of fusion.

### 3 The model

In our model, agents represent individuals who are members of multiple social groups, such as work, friends, and others, in order to satisfy their social needs and develop social identities accordingly. In our current model each social identity, and thus a group, contains only one type of action. Furthermore, the attitudes towards actions are always positive. Also, the social identities do not share actions. We define commitment towards a social identity as how important the identity is for an agent. The commitment is unilateral, i.e. it only represents the importance towards the group from the agent's point of view and not the other way around. The commitment decreases over time and increases when an agent benefits in terms of need satisfaction from performing actions from the related group. The commitment values lie between 0 and 1, and are normalised such that the sum of commitments is always 1. If the commitment towards the group falls below a threshold value, the agents will no longer be member of that group and drop the related social identity. Now, the process of identity fusion is the process where an agent is choosing one social identity over others while satisfying his personal needs and his commitment towards one social identity becomes 1.

**Agents** The agents have three needs of which two social, being the need for significance and belonging. The need for survival, the practical need, represents their level of resources. We limit the needs in this model to the minimum required for modeling identity fusion. However, the model can easily be extended with other needs. Satisfaction levels of the need decrease over time[10] and are between 0 and 1. The need urgency equals the satisfaction level minus the need threshold, the desired level of satisfaction. The higher the threshold, the sooner the need becomes urgent. The need for significance can be satisfied by performing unique actions within a group. The higher the intensity level and thus the more effort is put in, the more significance is earned. This will decrease as the agent repeats the action at the same intensity level or the more agents do the same action at the same intensity level. It takes personal resources of an agent to perform an action, modeling efforts in terms of time, money or energy. We model this by decreasing the satisfaction level of survival after an action. Survival increases if the agent does nothing. The more an agent performs a particular action, the easier it gets and the less resources it takes. Belonging can be satisfied by performing a collective action at the same intensity level as other group members. The more agents collectively perform a group action, the more the satisfaction level of belonging will increase. Finally, agents have a preferred state for the number of available actions in groups, which can be open minded or close minded. The state determines which type of new groups they can choose from to join. Finally, agents have a preferred state for the number of available actions in groups, which can be open minded or close minded. The state determines which type of new groups they can choose from to join.

**Actions** Every action within the model can be performed individually or collectively. An action has no effect on the environment, but contributes to the group and helps agents satisfy their needs. An action can be performed at different intensity levels, starting at 1 for every agent, and can be increased by 1 at a time. Thus an action contained within an identity rather represents a range of actions. Performing an action comes with a cost representing time, money or energy. The higher the intensity level, the higher the costs. Agents will only perform an action if one of their needs become urgent.

**Groups** Groups are defined as collection of agents who see themselves as a member and identifying with the group identity. The group identity consists out of a collection of actions and attitudes towards those actions and stays fixed for simplicity reasons. Furthermore, each group has an intensity range, specifying within what range agents can perform actions. The range shifts depending on the intensity levels that are chosen by the members of the group. The middle of the range is determined by the average intensity. So, when members start to increase the intensity, the range will also shift to higher values. Conversely, members can only increase an action as long as the intensity fits within the group range. We distinguish different type of groups based on three dimensions: *high* versus *low* on ambition, *individual* versus *collective*-oriented, and *tight* versus *loose*. This results in eight types of groups, with multiple instances each.

The first dimension, characterized by high or low ambition, influences the intensity of actions that agents can employ. In low-ambition groups, there exists a maximum limit on the intensity of agents' actions, and once reached, they cannot further elevate their level of significance. Conversely, high-ambition groups lack this restriction, allowing agents to continuously increase their significance level without limitations. The second dimension pertains to the type of actions, either individual or collective. Agents seeking belonging can fulfill their need within collective-oriented groups, as collective actions require collaboration with others. Therefore, a collective-oriented group with inactive members who do not regularly perform actions may not be conducive to satisfying the need for belonging for those seeking it. The third dimension, tight versus loose, regulates how much the chosen intensity is allowed to deviate from the group average. Loose groups let agents differ 2 intensity levels in contrary to tight groups, where the intensity ranges are only one. It is easier to become member of a loose groups as it provides a wider intensity range.

Groups are rarely on the extremes of all the above defined dimensions but rather a combination of in-between characteristics. However, the groups in our model are only defined on the extremes to understand the influence of those extremes on the process of identity fusion and behaviour itself when fused.

**Regular process of need satisfaction** The satisfaction level of the needs of the agents decrease over time. At every tick the agent has to decide if action is needed. When an agent want to perform an action to fulfill his need for belonging or significance, they will compute the prospected gain in satisfaction for each possible action and intensity. The collection of possible actions are the actions

contained in the agent’s social identities. The intensities depend on the intensities performed before and the level allowed by the group the social identity belongs too. Agents might want to perform a certain intensity but the survival level is too low. The prospected gain is weighted by the need urgency. After choosing a social identity and performing the most beneficial action, satisfaction levels are updated. The commitment towards the social identity is increased accordingly. If no action is needed because the needs are satisfied, they can decide to do nothing. If no actions is chosen, an agent can tend to their need for survival (e.g. taking time off, eating, sleeping).

In our model, agents have an action schedule that obliges them to join one of their groups at each time step, simulating a daily life schedule. Agents can opt to switch to another group or do nothing, with potential consequences for future need fulfillment. As agents cannot reason about future outcomes, we incorporate a small gain in belonging based on the average group commitment when they join their mandatory group for action.

Agents can change groups if they are not able to satisfy their needs in their current groups. We build in three restrictions for changing the groups: social connections, preference, and acceptance. The first restriction is having a social connection with a new group. Agents can only choose a new group if one of their current fellow members is already a member of the new group. Secondly, one needs to be accepted in the new group, modeled by looking at the intensity range of the group and the intensity level of the agent for that group type. An agent joining a new group starts at intensity level of 1. If a group has increased its intensity to higher levels, the agent cannot become a member. Finally, what type of group they will seek for is determined by their closure state. Open state agents want to join other groups, preferable loose, but tight are also an option as it still increases the number of actions they have available. Close minded agents prefer as little actions as possible, so prefer groups with a group type similar to a group they are already member of. However, it is possible that they have no access to such groups. If an agent has no access to other groups, they will move to another place in the grid and try to connect with another group.

***Emergence of fusion*** The process of identity fusion initiates with an agent having a relative low level of need satisfaction. Normally, they switch between actions and thus groups, depending on their memberships and action schedule. If, however, one of their needs is too low, it might be beneficial to focus on one group and neglect their action schedule. Consequently, the agent repeatedly chooses the same action that leads to fulfilling their primary need, increasing their commitment towards the corresponding social identity and, in turn, the group. This repeated choice reinforces the agent’s affiliation with the group, ultimately driving the process of identity fusion.

Meanwhile, as the agent spends most of his time within one group, and therefore neglecting others, the commitment towards others groups decreases. This only reinforces the process of a growing commitment towards one group. Since the degree of gain of significance and belonging depends on the commitment, alternative actions from other groups become less beneficial. Eventually, an agent



leaves a group when the commitment becomes too small. After some time an agent can become fused with a group as the fused identity is the only one left. Once they only have one group left to fulfill their needs, they can remain happy, i.e. perform actions such that their satisfaction levels up to their threshold. Being fused with an social identity does not mean agents have to perform actions all the time. Action is only needed when the social need becomes salient and, because of the fusion, there is only one social identity left to choose actions from.

However, after some time other needs become more urgent or the group is not a sufficient means for need satisfaction anymore. Now the agent wants to participate in other groups and it depends on their closure type if they are able to find another group. Open minded agents look for groups that their fellow members are member of. Closed minded agent look for groups with the same type. They can only switch if their intensity matches the intensity of the other group. When an agent switches after fusion, we speak of temporary fusion.

## 4 Results

We want to measure the emergence fusion and obtain the type of groups in which fusion occurs. We quantify identity fusion by looking at the highest commitment towards an agent’s social identities. Since the sum of all commitment towards social identities equals 1, commitment of 1 towards one identity means fusion. The duration of the fusion is computed. We do not look at how many actions an agent performs within the group, i.e. two fused agents can differ in the frequency of performing an action within the group. We will determine in which type of groups the two types of fusion occur. We will also first look into the development of the different groups in terms of number of members and increasing required intensity in order to know the circumstances in which fusion emerges.

We start with 360 agents in a 20 by 20 grid and distinguish between  $2 \times 2$  types of agents, with a high or low need threshold for significance and belonging. For each of the eight group types we define 10 group instances. A high need threshold is set to 0.7 and low threshold to 0.3, where satisfaction levels lie between 0 and 1. Each agent starts with 3 group memberships and thus with three social identities.

We set cost of actions to 0.1, and divide the cost by the total number of times an action is performed times the intensity. One part of the cost is only dependent of the intensity and keeps constant regardless of the number of previous performances. We set the benefits from the group to a maximum of 0.5. We expect the groups to reach a maximum intensity, i.e. an action has a cost of 1, which takes up all the resources of an agent. As there is no convergent behavior in the model, we chose to run the simulation for 200 ticks.

*Group behaviour* In table 1 the average number of members per group type is given. Collective groups have more members than the individual ones, where almost no one is member anymore of individual oriented groups. Looking at the intensity increase, we see the most increase in high ambitious collective tight groups (fig.1). We also see an increase in intensity in some high collective loose

Group type	Member
Low, col., loose	111
High, col., loose	86
Low, col, tight	79
High, col, tight	31
High, ind, tight	3
Low, ind, tight	3

Table 1. Group sizes

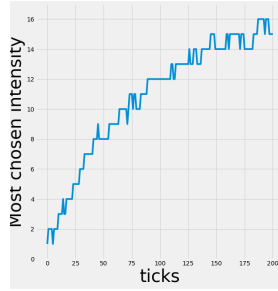


Fig. 1. Intensity increase high collective tight groups.

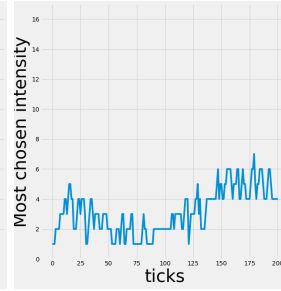


Fig. 2. Intensity increase high collective loose groups.

groups (fig.2), but not as extreme. The broader range of allowed intensities by loose groups make that more agents with an intensity of 1 can join the group, whereas the minimal required intensity of tight group increases faster.

Group type	Times	Duration
Low, col., loose	111	19.6
High, col., loose	86	23.2
Low, col, tight	79	18.6
High, col, tight	31	58.9
High, ind, tight	3	6.7
Low, ind, tight	3	6.0

Table 2. Fusion in different group types.

		Times open	Times closed
Sig	Bel		
High	High	3	9
High	Low	14	4
Low	High	8	12
Low	Low	4	9

Table 3. Long term fusion in high ambitious, collective, tight groups.

*Overall behaviour of agents* Figure 3 shows different types of behaviour of agents, with or without fusion. The highest commitment towards one social identity is plotted against the time. A commitment of 1 means fusion. The green line indicates the satisfaction levels of the agent is above threshold, while the red dotted line indicates a need for significance and/or belonging. Figure 3a shows an agent not fusing at all. In table 2 the number of agents being fused in a group is displayed. We took out the agents with a fusion time of more than 100 ticks, which only occurred in the high ambitious, collective, tight groups. They are displayed in table 3, split based on the the type of agent. Figure 3b and 3d two agents are plotted where short fusion is obtained. In table 2 the groups in which fusion occurs are given.

Fusion occurs mostly in collective oriented groups as both belonging and significance can be obtained. Belonging can be obtained in individual oriented groups but only when an agent performs an action if their action schedule requires them to do so. It forces members of individual oriented groups to join a collective oriented group to fulfill both needs and no fusion can occur in just individual oriented groups. Furthermore, most fusion occurs in low ambitious,

collective, both loose and tight groups. These group provide means for both belonging and significance which is a group one can easily fuse with. However, the low ambition of the group makes that agents looking for significance found themselves at the maximum possible intensity of the group. They have to find a new group, potentially a high ambitious one, to gain enough significance to satisfy their need. The duration of the fusion is highest in high ambitious tight groups compared to the other collective oriented groups. Fused agents in this group are also able to keep their needs satisfied (figure 3c). This result meets our expectations as this type of group provides both for belonging and significance. As we saw in figure 1, this type of group is the only group where intensity can increase and significance can be maintained.



**Fig. 3.** Different scenarios of fusion occurrence.

We see all types of agents fuse within the ambitious, collective tight group, see table 3. We split on high vs low need for significance (sig), belonging (bel) and closure type (open vs closed). We obtain more fusion for closed agents than open agents, except for agent with a high need for significance and low need for belonging. We also obtain fusion with both of the needs having a low threshold, performing high intensity actions of 15 in the high collective tight group. We can explain this behaviour by the fact that the agent has chose this group in the beginning of the simulation. As his need thresholds are low, he only needs to perform actions with a less high frequency compared to agents with higher needs. After some time, he got kicked out of the other groups, so he only had the high collective tight group as an option. Fellow members looking for significance

will increase the intensity of the group and others, once fused, are forced to increase their contribution for actions too.

Not all agents who fuse with ambitious collective tight group remain fused for the rest of the simulation. The group intensity can develop faster than the agent can keep up with or, the opposite, i.e. an agent wants to increase the intensity level but the rest of group does not increase as fast. We also have agents who, after leaving their fused group, are not able to find another group and remain with negative satisfaction levels (fig. 3d), i.e. the agent has no fellow members being member of other groups they can join.

## 5 Discussion and conclusion

We designed an agent-based model from which identity fusion emerges. We saw fusion happen in different type of groups, but all collective oriented. Long term fusion only occurred within high ambitious, collective oriented, tight groups. These were also the groups where the intensity of actions increased the most. Members of these groups became locked in the social identity without having any alternatives. We saw different type of agents fuse within this group, where the agents with a high need for significance increase the required intensity of actions and fellow members, once fused, had to follow to keep their needs satisfied. Not all agents fusing with this type of group stayed fused. Changing group requirements and limited resources forced some agents to look for other groups.

The results of the simulation show that we can distinguish between different types of fusion, in terms of time, type of needs, and type of groups. If we translate the above obtained results, we can conclude that fusion of individuals cannot be studied without taken their social context into account. Not only do other group members push individuals to increase their action intensity, and thus reinforce fusion, it will only happen within specific groups with certain group characteristics. Furthermore, we even obtained fusion of individuals without high need urgency in the right combinations of circumstances.

The model can be extended in multiple ways to make it more realistic. First of all, there is no overlap between different groups, and thus social identities. We can add more complex social identities by letting actions contribute to multiple groups or contribute to one but counteract on another group. Furthermore, agents now only check if they have enough resources to increase the intensity, but they lack the opportunity to choose between increasing efforts or changing groups. Integrating this option would make the behaviour more realistic.

The model is built in such a way we can obtain the process of fusion by looking at what actions is taken at what time and why. It gives us the opportunity to analyse the process of identity fusion in a step-by-step manner. A next step would be implementing intervention methods to study ways to reverse the process of identity fusion.

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