**Identities**

Though particular theories differ on the details, a notion of ‘social identity’ related to membership in one, several, or many categories, is widely regarded as useful and plausible. It is claimed by H. Tajfel, for example, that social identity is “that part of an individual's self-concept which derives from his knowledge of his membership of a social group (or groups) together with the value and emotional significance attached to that membership” (Tajfel, H., 1981, Human Groups and Social Categories, Cambridge:CUP, p. 255). Tajfel is arguing for a particular theory of social identity (albeit one that now dominates the field,) but such definitions are commonplace and not vastly different from theorist to theorist. The sociologically significant content of definitions of this sort is easily expressible with the resources developed so far, but we will begin by establishing basic ways of talking about identities

***Varieties of Categorical Identity***

Let ** be a CX and *x*, *y* agents. Styles of sociologically significant identity and ‘alienity’ of *x* wrt *X* can be summarized in the following tables.

|  |  |  |
| --- | --- | --- |
|  | *Bx*[ **(*x*) ] | *Bx*[ ~**(*x*) ] |
| **(*x*) | Factive Identity | Auto-Identity | Fictive Alienity | Auto-Alienity |
| ~**(*x*) | Fictive Identity | Factive Alienity |

|  |  |  |
| --- | --- | --- |
|  | *~Bx*[ **(*x*) ] | *~Bx*[ ~**(*x*) ] |
| **(*x*) | Latent Identity | Pre-Identity |
| Unacknowledged Identity |
| ~**(*x*) | Pre-Alienity | Latent Alienity |
| Unacknowledged Alienity |

|  |  |  |
| --- | --- | --- |
|  | *By*[ **(*x*) ] | *By*[ ~**(*x*) ] |
| **(*x*) | Recognised Identity | Allo-Identity | Mistaken Alienity | Allo-Alienity |
| ~**(*x*) | Mistaken Identity | Recognised Alienity |

|  |  |  |
| --- | --- | --- |
|  | *~By*[ **(*x*) ] | *~By*[ ~**(*x*) ] |
| **(*x*) | Latent Recognised Identity  | Pre-Recognised Identity |
| Unrecognised Identity |
| ~**(*x*) | Pre-Recognised Alienity | Latent Recognised Alienity |
| Unrecognised Alienity |

Generalizing the central cases in the obvious ways, we say that the Factive Identity of *x* is given as:

*FID*(*x*) = {**: **(*x*) & *Bx*[**(*x*) ]}

* For **  *FID*(*x*), we say that ** is an Element of the Factive Identity of *x*

The case covering both factive and fictive identity is Auto-Identity, for which we write:

*AID*(*x*) = {**: *Bx*[**(*x*) ]}

* For **  *AID*(*x*), we say that ** is an Element of the Auto-Identity of *x*

The case of Allo-Identity is similar but needs to be relativized to the attributing agent, so that we talk of the Allo-Identity of *x* for *y*:

*LIDy*(*x*) = {**: *By*[**(*x*) ]}

* For **  *LIDy*(*x*), we say that ** is an Element of the Allo-Identity of *x* for *y*
* If (*y*)[**  *LIDy*(*x*)], we say that ** is an Element of the Allo-Identity of *x* to abbreviate ‘** is an element of the allo-identity of *x* for some *y*;’ and write **  *LID*(*x*)

Let ** be a CX and  = {*1, …, n*} be a set of CX. ** is a Division of ** and we write ****|***.* iff:

1. *1, …, n* are relatively disjoint, and
2. **  *i*=1,…,*n**i*, and
3. For *i* = 1, …, *n*, **  *i* .
* Note that these conditions do not impose any sense of ontological significance on a supposed Division. For example, a division consisting of *Readers of Mulla Nasruddin*, *Illiterate Tibetans*, and *All Others*, doesn’t seem likely to tell us much useful about the world. Perhaps there are ways to eliminate such cases, but perhaps, on the other hand, the imposition of such *ad hoc* conditions should be delayed until their necessity is demonstrated.

Where ** is a division of ** and **(*x*), *FID*(*x*|**) is the element of **which is a part of the factive identity of *x*. Read it as the (Factive) Identity of *x* wrt **.

Thus: For ** = {*1, …, n*}, ****|****, *FID*(*x*|**) = *j* iff * j*(*x*) & *Bx*[ *j*(*x*) ]

* Where *1, …, n* are divisions of **, we can call ** = {*1, …, n*} a (Factive) Identity Analysis of **.
* Let ** = {*1, …, n*} be an analysis of **. Then the identity of *x* wrt that analysis is:

*ID*(*x*|**) = {*ID*(*x*|*1*), …, *ID*(*x*|*n*)}

* The same definitions are made *m.m.* for the auto- and allo-identities.

|  |
| --- |
| **Example:**A person, *x*, may be a male, Christian, labourer. If **1 = {Male}, **2 = {Christian}, **3 = {Labourer}, then **1(*x*), **2(*x*),**3(*x*). If *Bx*[ *1*(*x*) ] & *Bx*[ *2*(*x*) ] & *Bx*[ *3*(*x*) ] then the factive identity of *x* is {male, Christian, labourer} A set of categories defined by religious affiliation is typically mutually exclusive since if one is a Christian one can’t be a Buddhist or a Hindu, and if one is a Hindu then one is not Buddhist or Christian, and, of course, if one is Buddhist then one is not Christian or Hindu. Similarly for socio-economically defined categories, or educational, or residential categories, etc. An example of a division might be the confessional allegiances in a nation. If the citizens are one only of Buddhist or Hindu – as in Sri Lanka – then {Buddhists, Hindus} is a division of Sri Lanka. Since there are no Christians (we’ll pretend), {Buddhists, Hindus, Christians} is *not* a division of Sri Lanka, though it contains one.Suppose we have *X* = Sri Lanka,  = {Buddhists, Hindus}, then it might be that *FID*(Bob|**) = Buddhist (if Bob is a Buddhist.)A factive identity analysis of Sri Lanka might include divisions according to religious and racial and linguistic criteria. Thus we might have *X* = Sri Lanka, *1* = {Buddhists, Hindus}, *2* = {monolingual Tamil, monolingual Singhala, bilingual}, *3* = {Tamil, Singhala}. Then ** = {*1, 2, 3*} would be an analysis of Sri Lanka. So far as this analysis goes *FID*(Bob|**) = {Hindu, monolingual Tamil, Tamil}  |

***Alternative: Varieties of Categorical Set Identity***

An alternative approach to the question of identity is available by consideration of membership in categorical sets. The appropriate alternative chart is presented here as illustration, but this approach will not be pursued further.

Let ** be a CX, *X* a set for which **(*X*), and *x*, *y* agents.

|  |  |  |
| --- | --- | --- |
|  | *Bx*[ *x* *X* ] | *Bx*[ *x* *X* ] |
| *x* *X* | Factive Identity | Auto-Identity | Fictive Alienity | Auto-Alienity |
| *x* *X* | Fictive Identity | Factive Alienity |

|  |  |  |
| --- | --- | --- |
|  | *~Bx*[ *x* *X* ] | *~Bx*[ *x* *X* ] |
| *x* *X* | Latent Identity | Pre-Identity |
| Unacknowledged Identity |
| *x* *X* | Pre-Alienity | Latent Alienity |
| Unacknowledged Alienity |

|  |  |  |
| --- | --- | --- |
|  | *By*[ *x* *X* ] | *By*[ *x* *X* ] |
| *x* *X* | Recognised Identity | Allo-Identity | Mistaken Alienity | Allo-Alienity |
| *x* *X* | Mistaken Identity | Recognised Alienity |

|  |  |  |
| --- | --- | --- |
|  | *~By*[ *x* *X* ] | *~By*[ *x* *X* ] |
| *x* *X* | Latent Recognised Identity  | Pre-Recognised Identity |
| Unrecognised Identity |
| *x* *X* | Pre-Recognised Alienity | Latent Recognised Alienity |
| Unrecognised Alienity |

***Social Identities***

The only identities of interest sociologically are those associated with altered expectations of behaviour. We are therefore interested only in a particular set of identities for an agent: those for which a belief on the part of the agent affirming its own membership status leads it to behave differently and those for which a belief on the part of others affirming its membership status leads those other agents to behave differently. The two sets are conceptually independent but in practice would be expected to have considerable overlap.

** is an Effective Identity of *x*, iff:

**  *AID*(*x*) & (*cx*  *x*)[*Ax*(*cx*, *qx*) *Ax*(*cx*, *qx*\ *Bx*[ **(*x*) ])],

» *In some contexts, if x didn’t believe it was characterized by  it would behave differently*

* Note that **  *AID*(*x*)  *Bx*[ **(*x*) ] *qx*

** is an Affective Identity of *x* iff:

(*y*)[ **  *LIDy*(*x*) & (*cy*  *y*) [*Ay*(*cy*, *qy*) *Ay*(*cy*, *qy*\ *By*[ **(*x*) ])]]

» *In some contexts, if y didn’t believe x was a member of X it would behave differently*

* Note that **  *LIDy*(*x*)  *By*[ **(*x*) ] *qy*

We say ** is a Social Identity of *x* if either or both:

1. ** is an Effective Identity of *x*,
2. ** is an Affective Identity of *x*

In what follows we consider effective identity, but similar claims can be made wrt affective identity.

*Normed Identities*

According to Bicchieri & Muldoon, (2011, *sv*. ‘Social Norms’ in Zalta, (ed.) *SEP* (2014), §5) “people conform to norms to validate their identity as group members.” Some act effects of identity are therefore reasonably supposed to be due to norm effects. This is easily modelled.

(*n*)[*Bx*[ **(*x*) ] & *Bx*[ *n*  *NO*({*y*:**(*y*)}) ]  *x*  *K*(*n*)].

* For those categories whose membership conditions are in fact the acceptance of certain norms of behaviour, the description above is redundant
* Note that the fuzziness of norms (which in the section on Norms was attributed to the fuzziness of beliefs, the variable weighting of norm-observance as an interest, or prudential considerations) applies here also; so that the appearance of act effects of norms associated with identities is dependent the weighting given to those norms in the total satisfaction function.

*Non-normed Identities*

Other act effects of identity are more straightforwardly due to the agent’s estimation of satisfaction being affected by the identity acknowledgement. The means by which the identity affects the satisfaction function must be related to the fact that the quality of the agent contains the belief of the relevant membership. It can be said then that the fact of a non-normed identity’s effects implies the following:

If *ax* = *Ax*(*cx*, *qx*) where *ax* is such that:

*E*[ *T*(*C*(*ax*, *cx*), *Ix*) ]

= max{*E*[ *T*(*C*(*a*, *cx*), *Ix*) ]: *a*  *E*[ *x* ]}

= max{*j***N***E*[ *wj* ]*c**E*[*C*(*a,cx*)]*E*[ *Prob*(*c*) ]*E*[ *Sx*(*c*, *j*) ]: *a*  *E*[ *x* ]}

(as was proposed above for imperfect intentional agents)

And if **  *AID*(*x*) & (*cx*  *x*)[*Ax*(*cx*, *qx*) *Ax*(*cx*, *qx*\ *Bx*[ **(*x*) ])]

(according to the definition of effective identity above)

Then

(*cx*  *x*) (*a*  *E*[ *x* ]) (*j*  **N**) [

((*Bx*[ **(*x*) ]  *E*[ *wj* ]*c**E*[*C*(*a,cx*)]*E*[ *Prob*(*c*) ]*E*[ *Sx*(*c*, *j*) ] = *s1*) &

(~*Bx*[ **(*x*) ]  *E*[ *wj* ]*c**E*[*C*(*a,cx*)]*E*[ *Prob*(*c*) ]*E*[ *Sx*(*c*, *j*) ] = *s2*)) 

*s1* *s2*]

» *In some contexts for some actions, estimated degrees of satisfaction depend upon whether or not x believes it is characterized by *

Assuming that *E*[ *Prob*(*c*) ] is unaffected by the presence of *Bx*[ **(*x*) ] in the quality of *x*, it follows that the act effect of that belief is achieved by a modification of *E*[ *wj* ] or of some selection of *E*[ *Sx*(*c*, *j*) ] for various *c**E*[ *C*(*a,cx*) ]. We will assume also, as seems reasonable, that *E*[ *C*(*a,cx*) ] is unaffected.

There is one reasonably obvious way in which this might be explained theoretically at the level at which we are currently dealing. If the agent assumes that benefits or costs to some unspecified number of members of the group to which he belongs will probably result in benefits or costs to himself, then this will alter the outcome of the calculation of partial satisfaction. This would be the case if the agent possessed, for example, the belief that, where *X* = {*x*:**(*x*)}

**(*x*) (*X’**X*)(*j***N**)[(*x’**X’*)(*c1,c2**x,y*)[*Sx’*(*c1*, *j*) > *Sx’*(*c2*, *j*)] 

*Sx*(*c1*, *j*) > *Sx*(*c2*, *j*) ]]

which, together with other relevant beliefs, would provide a satisfactory model for the phenomena described by Realistic Conflict Theory and is clearly consistent with a Social Exchange Theory model of intergroup processes. There are, of course, any number of other beliefs which would have a similar outcome. How such beliefs might arise is a question that need not be addressed here, but given that they do come to exist, the effect of a belief in category membership is essentially prudential. It is relatively easily treated with the tools developed above.

*Social Psychological Identity Effects*

An alternative to the normed identity and the basically prudential mode of non-normed identity described above is suggested by the fact that the essential requirement of the non-normed mode of identity is the modification by belief in category membership of the outcome of the estimation function for the agent. It may be, in fact, that the outcome is modified because the function itself is modified. This possibility is beyond the resources of the tools developed above, and refers rather to the agent model that the tools presuppose. There is evidence that something like this may be the case in experiments done by Tajfel (Tajfel, H. (1970) ‘Experiments in intergroup discrimination’ *Scientific American*, 223, 96-102; Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (April–June 1971) ‘Social categorization and intergroup behaviour’ *European Journal of Social Psychology* **1** (2): 149–178) that have been interpreted as showing that mere belief in group membership without any expectation of collective benefit results in modified behaviour in favour of group members. This is the basis of Social Identity Theory.

***Multiple Identities***

It is observed that agents typically participate in several effective identities. The problem arises of how to account for actions in an environment in which different identities would inspire different actions. There are several possible approaches.

*Identity as an Interest*

We have noted that that membership of an identity category is a social psychological parameter whose effect is to some extent independent of merely prudential considerations. Such an effect may be modelled by treating that membership as an interest of the agent. In that case the action produced by the action function may be treated as depending upon the weighting associated with the effective identity. A reasonably obvious way to do that would be as follows.

Let the finite set *Ix* = {*ix,1*, …, *ix,n*} be the interests of the individual *x*.

If **  *AID*(*x*), then (*j*)[ *ix,j* = ‘**(*x*)’]

* Note that we speak here of auto identities, which strictly includes effective identities.

Let *Wx* = {*wx,1*, …, *wx,n*} be the set of interest weights of the individual *x*.

If *ix,j* = ‘**(*x*)’, then *wx,j* is the interest weight for the identity *n*.

If ‘**(*x*)’  *Ex*[ *C*(*ax*, *cx*) ], then *Sx*(*C*(*ax*, *cx*), *j*) = 1, else *Sx*(*C*(*ax*, *cx*), *j*) = 0

* The implication of this is that actions believed to be consistent with continued identity contribute the interest weight of that identity to the total satisfaction function for that action, whereas actions not consistent with that identity contribute none of the interest weight.

*Identity as Norm Acceptance*

An alternative approach is available for the case that identity essentially involves acceptance of norms. If, for example, *Bx*[ **(*x*) ]  (*N*)[*x*  *K*(*N*)] then we may treat identity simply in terms of the accepted norms – as interests of the agent again. In that case whether the action produced is that required by the relevant identity-related norm (or consistent with that norm) is dependent upon the weighting associated with the norm interest. The method for modelling this is described in the section on norms.

*Identity Comparisons*

Both the approaches described also provide models which may be applied to the situation of an agent that has multiple identities that are not univocal in their effects. As with norm comparisons, there are many such possible situations, and the full range need not be listed here, but just a few versions seem most likely to be problematic:

Consider first the approach that takes identity as an interest, and let *1*, *2*  *AID*(*x*).

1. Suppose (*ax*  *Ex*[ *x* ])[ *Bx*[ ((‘*1*(*x*)’ xor ‘*2*(*x*)’)  *C*(*ax*, *cx*), then we have Identity Conflict in *cx*.
2. Suppose *ax,1* *ax,2*  *Ex*[ *x* ]. If (*Bx*[ ‘*1*(*x*)’  *C*(*ax,1*, *cx*) ] & (~*Bx*[ ‘*2*(*x*)’  *C*(*ax,1*, *cx*) ] & ~*Bx*[ ‘~*2*(*x*)’  *C*(*ax,1*, *cx*) ])) & ((~*Bx*[ ‘*1*(*x*)’  *C*(*ax,2*, *cx*) ] & ~*Bx*[ ‘~*1*(*x*)’  *C*(*ax,2*, *cx*) ]) & *Bx*[ ‘*2*(*x*)’  *C*(*ax,2*, *cx*) ]) then we have Identity Competition in *cx*.

As described for norm comparisons earlier, in such cases if *ix,j1* = ‘*1*(*x*)’, *ix,j2* = ‘*2*(*x*)’, then the interest weights for the identities are *wx,j1* and *wx,j2* respectively. These weights then feature appropriately in the total satisfaction function to determine the outcome of the action function.

On the other hand, if we consider the approach that takes norms as constitutive of identities, then consider the norms *n1*, *n2*  *N1*, *N2*, and *x*  *K*(*N1*) *K*(*N2*). Let *cx* is such that *g*(*n1*, *cx*) and *g*(*n2*, *cx*).

1. Suppose *n1,cx*(*ax*). If ~*n2,cx*(*ax*) or *n2,cx*(~*ax*), then we have Identity Conflict in *cx*.
2. Suppose *ax,1* *ax,2*. If *n1,cx*(*ax,1*) & *n2,cx*(*ax,2*), then we have Identity Competition in *cx*.

As before, in such cases if *ix,j1* = ‘*x*  *K*(*n1*)’, *ix,j2* = ‘*x*  *K*(*n2*)’, then the interest weights for the norms are *wx,j1* and *wx,j2* respectively. These weights then feature appropriately in the total satisfaction function to determine the outcome of the action function.