

Identity and Illness..

**Identity and Illness: the effects of identity salience and frame of reference on
evaluation of illness and injury.**

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Abstract

Objectives: This paper describes two experiments which develop a Self Categorisation Theory (SCT) (Turner, Hogg, Oakes, Reicher and Wetherell 1987) approach to the way people make sense of their symptoms. The first experiment builds upon a study by Levine and Reicher (1996) in which it is proposed that symptoms are evaluated, not against preexisting illness representations, but by reference to their impact on situationally salient identities. The second experiment extends the SCT perspective on symptom evaluation to argue that the identities that are instrumental in assigning meaning to symptoms are themselves situationally constructed.

Design and Methods: In the first experiment 40 female secretaries, defined either in terms of a 'secretary' identity or in terms of a 'gender' identity, were asked to evaluate a number of scenarios which describe different illnesses or injuries. In the second experiment 40 men from a rugby club were asked to evaluate a number of scenarios relating to illness and injuries. The identity from which scenarios were evaluated was held constant, but the comparison groups (or frame of reference) was manipulated.

Results: Overall, the results of the first study provide clear evidence that the significance ascribed to scenarios depends on which identity is salient. The results from the second study provide clear evidence that the significance ascribed by male subjects to the scenarios was a function of the comparison groups they believed they were being compared to.

Conclusions: Taken together, these two experiments provide strong evidence for the viability of an SCT approach to symptom evaluation.

Introduction

Over the past three decades, research on 'illness behaviour' (Mechanic, 1968) has focused on how people themselves construe the nature of health and illness. It is assumed that an important part of the way individuals make sense of their ongoing

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physical state will be the ideas that they have about what constitutes health and illness. In medical sociology, this research has focussed on 'lay accounts' (Blaxter and Patterson, 1982; Blaxter, 1983; Pill and Stott, 1982, Calnan, 1987). In health psychology, research has concentrated on 'illness representations' (Leventhal, Mayer & Nerenz 1980, Lau and Hartman, 1983, Skelton and Croyle, 1991). Both these literatures have attempted to map out the contents of a persons' representations of illness. For medical sociologists, such representations are shaped by social factors such as life experiences (Blaxter and Patterson,1982) as well as living and working conditions (Cornwell,1984; Blaxter 1983). For health psychologists, illness representations are regarded as individual cognitive constructions which are implicated in the processing of information concerning the state of an individual's health (Lau and Hartman, 1983; Turk, Rudy and Salovey, 1984b, Leventhal, Nerenz and Steele (1984)).

Whilst both of these traditions are concerned with exploring general representations of health and illness, there are important differences in the way each perspective envisages the relationship between the representation itself and how it is implicated in the individuals own symptom evaluation. For example, in medical sociology, the role of immediate social context is seen as central to symptom evaluation. For example, Cowie (1976) shows how the meanings associated with the signs of a heart attack are coloured by the context in which they are experienced. In similar fashion, both Zola (1973) and Alonzo (1979,1984) argue that it is contextual change, rather than changes to physiological status, that is central to the way people make sense of their symptoms. By contrast, in health psychology, meaning of symptoms is seen as the outcome of an 'implicit matching' between symptom and illness representation. Matching occurs for the most part automatically and below awareness and symptoms become illness to the degree that they 'fit' with preexisting models of what constitutes illness (Turk, Rudy &Salovey, 1986; Lau, Bernard and Hartmann, 1989).

Levine and Reicher (1996) argue that, despite these differences, both traditions should have something to offer each other. In medical sociology, if illness is simply related to context, then it becomes a form of social determinism (cf Dingwall 1976). What is required is a model which can account for how contextual factors might enter the process by which individual actors make sense of their physical state. At first sight, the illness representations approach seems to offer such a model. Illness representations have a social component (culturally available information about illness) as well as a personal component (previous experience of illness). However, the model remains relatively static. It can account for long term changes in the way people make sense of symptoms (through changes in societal views of illness or through the accumulation of personal

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experiences of illness), but has difficulty in explaining changes that appear to be a function of shifts in immediate social context. In fact, with the exception of Pennebaker (1982, 1984), health psychology pays little attention to the role of immediate social context in health evaluation. Moreover, Pennebaker's work is not concerned with how social context might shape the meanings attributed to symptoms, but rather how the processing of contextual information might interfere with the ability to diagnose symptoms accurately.

With this in mind, Levine and Reicher (1996) proposed an account of symptom evaluation which allows for the influence of social context upon perception and understanding. This approach is based on Self Categorisation Theory (SCT) as developed by John Turner and his colleagues (Turner 1982,1985; Turner, Hogg, Oakes, Reicher & Wetherell 1987; Turner, Oakes, Haslam & McGarty 1993). SCT begins from the position that the self is not a unitary construct. Rather, the self can be defined at different levels of abstraction; on a subordinate, or individual level ('I' vs 'you'); on an intermediate, or group level ('we' vs 'they'); or on a superordinate level where humans as a whole are considered as a single category. Most of the work in this tradition has been concerned with how people define themselves in terms of their memberships of social groups - their social identity. The theory suggests that people have a variety of social group memberships available to them. These social group memberships, or social identities, will be different in different contexts. For example, the same person may see herself as a mother in the home, a lawyer in the office, a football fan in the stadium and so on. Furthermore, as Turner (1982,1991) points out, when a given identity becomes salient then the individual thinks and acts in terms of the beliefs which are relevant to the particular social identity. This means that, as different social identities become salient in different social contexts, the theories and knowledge that an individual will draw on to make sense of a situation will change. Turner proposes, through a process he calls referent informational influence (RII), that people self stereotype, or ascribe the norms and values of these different social group memberships to themselves as different identities become salient. It is through the self stereotyping associated with RII that evaluations change as different social identities become salient in different social contexts.

There is already some literature in the area of health research which has attempted to explore shifts in identity as a function of context using a Social Identity (Tajfel 1978, 1981 Tajfel and Turner 1979) perspective. This work concentrates on exploring shifts from personal to social identity using the personal/social identity continuum proposed by Tajfel. For example, St Claire (1993) has shown that doctors are more punitive in

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their evaluations of people with learning impairments when judging them from an occupational as opposed to a personal identity. In terms of an SCT approach (developed by Turner to incorporate the insights of Social Identity Theory, but as a more fully developed theory of the self) this appears to be an approach which explores self categorisations across levels of abstraction. However, as Condor (1989) has pointed out, the distinction between the personal and the social (in Social Identity Theory) is one which is difficult to maintain in practice. Condor shows that when you analyse how participants themselves invoke identity, apparently idiosyncratic (and therefore personal) aspects of identity can be used to mark a collective identity; whilst social identities can be used as markers of individual difference (apparently personal identities). This does not mean of course that differences between personal and social identities cannot be explored empirically. However, it suggests that, rather than seeing personal identity as a more 'authentic' level of identity (particularly when people are evaluating their own health) we should approach both the personal and the social as aspects of identity which are generated in contexts. More specifically, SCT takes a salient identity to be both personal and social at one and the same time. Both the level and the content of identity are determined by the comparative context in which the identity becomes salient. It is this approach which characterises an SCT approach to the study of identity phenomena.

Levine and Reicher (1996) have already attempted to apply this Self Categorisation perspective to the question of symptom evaluation. They took students who were training to be physical education (P.E.) teachers and defined them either in terms of a 'gender' identity or in terms of a 'P.E student' identity. They proposed that, when the subjects were asked to evaluate illness and injury scenarios, rather applying a single illness representation, subjects would evaluate the symptoms from the perspective of different social identities. Moreover, they assumed that, when symptoms were seen to threaten some valued dimension of the salient identity they would be viewed as serious. Those symptoms that did not threaten identity would be dismissed as relatively trivial. The results of that experiment gave some support for their hypothesis. Those scenarios deemed to be threatening to female gender identity were seen as more serious by women in the gender identity condition than by women in the P.E student identity condition. However, other support for their argument came from a post-hoc reinterpretation of the identity relevance of some scenarios which were originally thought to be identity irrelevant, but which were subsequently argued to be female gender relevant. Moreover, they failed to find support for the hypothesis that P.E student relevant scenarios would be seen as more serious in the P.E. identity condition than the gender identity condition. In their conclusion they suggested that it was

important to replicate the study with the relationship between identities and scenarios more closely worked out in advance. The first study presented in this paper will thus be a partial replication of Levine and Reicher's experiment. The study will attempt to replicate the findings for the female identity relevant scenarios but also to provide evidence for changes in the perceived seriousness of what can be termed 'occupationally relevant' illness and injury scenarios.

However, before elaborating on the first study, it is important to consider in more detail the nature of the claims made about identity in Self-Categorisation theory. Self-Categorisation theory is not alone in proposing that self-perception shifts according to changes in context. Researchers interested in self schemas (Markus and Wurf 1987) and in role theory (Stryker and Stratham, 1985) have argued similar things. However, these other positions tend to view context as activating one of several preexisting self-representations. In contrast, Turner argues that self categories are actively generated in contexts. Using what he calls the 'meta-contrast' principle, Turner argues that a group's prototypical position - the knowledge and values that will be drawn on in making sense of a situation - will be a function of the particular intergroup situation in which the group finds itself. For Turner, the prototypical position of a group will be one which maximises the ratio of inter-group differences to intra-group differences. In short, rather than a given identity having a fixed set of beliefs and values, the beliefs and values of a group are dependent on who the group is comparing itself to. For example, as Haslam, Turner, Oakes, McGarty and Hayes (1992) showed during the Gulf War, Americans were seen as aggressive when compared to Britons, but not when compared to Iraqis. In a similar study on outgroup homogeneity (Haslam et al 1993b), Haslam found that when Australians were asked to describe what Australians are like (in the absence of a comparison group) they chose different qualities than when asked to describe themselves in comparison to Americans. It appears from this that, rather than carrying around a multiplicity of ready made self-representations, a more generative process is in operation with identities being actively generated in contexts.

The second experiment described in this paper explores this generative quality of identity determination in the context of illness evaluation. It takes a group of men from a rugby club, defined in terms of their identity as men, and asks them to evaluate a number of scenarios about illness and injury. Half the subjects are told that their answers will be compared with those of a group of women, the other half are told that their answers will be compared with a group of 'new men' from a men's discussion group. This experiment thus keeps identity constant across experimental conditions, but manipulates the comparative frame in which evaluations are made. It is predicted that,

rather than employing a single set of norms and values when making ratings about the seriousness of illness and injury, subjects' responses will be a function of the comparison group they believe they are being compared to.

EXPERIMENT 1: Identity salience, illness and injury

As described above, the first study is a partial replication of a previous experiment (Levine and Reicher 1996). In that experiment it was proposed that different identities imply different criteria for the perception and evaluation of symptoms. It was further proposed that those symptoms which were deemed to threaten a valued dimension of the salient identity will be seen as more serious than those that do not. Using 'gender' identity and 'P.E. student' identity, Levine and Reicher found some evidence for shifts in the perceived seriousness of female gender relevant scenarios, but no evidence for shifts in perceived seriousness of P.E student relevant scenarios. They argued that the failure of the 'P E student' condition might be attributed to the fact that, as students, the subjects were not yet integrated into a teaching environment. They did not yet have the responsibility and commitments of full time teachers and thus the full impact of scenarios designed to be 'occupationally relevant' may not have been apparent on their work lives. In order to circumvent some of the problems identified with using a student population, in the experiment described in this paper, subjects will be drawn from an occupational group who are already embedded in the world of work. In this way it is hoped that the threat posed by scenarios which describe illnesses and injuries might be seen as more immediately occupationally relevant. At the same time, an attempt will be made to replicate the findings for the female gender relevant scenarios in Levine and Reicher's experiment.

In order to meet the requirements of this partial redesign, in the study described below the subjects are all women who work as secretaries. The subjects were randomly assigned to either a gender identity salient or a secretary identity salient condition. All subjects were then presented with a range of scenarios which were either female gender relevant, or secretary identity relevant. As in the original study, scenarios which were seen to threaten physical attractiveness were deemed to be female gender relevant. In addition, a new set of scenarios, describing symptoms of overt emotionality were also developed. These were based on gender theorists such as Bem (1974) and Archer and Lloyd (1982) who argue that emotionality can be seen as a feminine trait. (There is evidence also that women are more likely to seek medical advice for psychological and emotional symptoms than men (Phillips and Segal, 1969 and Briscoe 1987)). Thus, these scenarios describing emotion states as symptoms were also deemed to be female gender relevant. The secretary identity relevance of

scenarios was determined by a series of pilot interviews with secretaries who did not then take part in the study. The secretary relevant scenarios described conditions which resulted in painful hands, a painful back and a high fever. We predict an interaction of identity and scenario type, with both types of female identity relevant scenarios been rated as more serious in the gender as opposed to the secretary identity condition, and secretary relevant scenarios been seen as more serious in the secretary as opposed to the gender identity condition.

Method

Subjects

These were 40 female secretaries from clerical departments in a large Bank in Skelmersdale, Lancashire. The mean age of subjects was 32 and there were 20 subjects in each condition. All subjects were in good health at the time of the study and none had current experience of any of the symptoms described in the questionnaire.

Design

A two by three way factorial design was employed. This was a mixed design with one between subjects factor and one within subjects factor. The between subjects factor was Identity and had two levels (female gender / secretary). The within subjects factor was identity relevance of symptoms. This was operationalised through the presentation of illness/injury scenarios and had three levels : female gender relevant scenarios 1. (physical attractiveness); female gender relevant scenarios 2 (emotionality); and secretary relevant scenarios.

Materials

Determining the identity relevance of symptoms

As is described above, three types of scenarios were developed. Two of these scenario types were designed to be female gender relevant ('physical attractiveness' and 'emotionality') and one was designed to be secretary relevant. Each of these scenario types was made up of three separate scenarios. The three physical attractiveness scenarios designed in this study included two which were used in Levine and Reicher's (1996) study (scar on the face, broken nose) and a new scenario which described dramatic hair loss. The three emotionality scenarios included descriptions of tiredness, anxiety, and mood swings. Both types of scenarios were presented to a small group of women who were asked to consider their identity relevance and who concurred that these were realistic scenarios that would be significant to them as women.

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The secretary identity relevant scenarios were generated from a pilot group of secretaries who did not take part in the study. Informal interviews were carried out in which the secretaries were asked to describe illnesses or injuries that would affect their work. From these interviews, three types of threats to secretary identity emerged. They included threats to manual dexterity (which would prevent typing and other clerical jobs); injuries which affected the back (which made lifting difficult, or standing or sitting for long periods a problem); and finally flu type symptoms (which made general work difficult and affected work relations in an enclosed office space).

Scenarios and response dimensions

Nine scenarios were generated in total. Three of the scenarios described threats to physical attractiveness (scar on face, broken nose, hair loss); three scenarios described emotion symptoms (tiredness, anxiety, mood swings); three scenarios described threats to secretarial work (manual dexterity, back pain, flu). The scenarios were presented in random order and each scenario was followed by 12 questions. These were the questions asked in the Levine and Reicher (1996) paper. The first two questions asked respondents to indicate how upset they would be and how much their lives would be affected if the symptoms described happened to them. They were then asked to rate ten 'emotion dimensions' and to indicate the extent to which each emotion term represented how they would feel about the scenario. The emotion terms were; angry; anxious, frustrated, depressed, sense of loss, helpless, bitter, inadequate, resigned, incapacitated. All twelve items were answered on a seven point scale from 'not at all' to 'very much'.

Procedure

The study was conducted in two separate sessions. In one session, female gender identity was made salient. In the other session, secretary identity was made salient. The experiment was introduced as being an examination of how different groups in society made health evaluations. Subjects were told that the researcher was comparing how the life experiences of a range of different social groups affected each group's health evaluations. In the female gender salient condition subjects were told that health evaluations of pensioners, schoolchildren, health professionals - and in this case, women, were being compared. In the secretary identity salient condition, subjects were told that the health evaluations of pensioners, schoolchildren, health professionals - and in this case, secretaries, were being compared. Subjects were also told that that the researcher was not interested in them as individuals, but as a group of women/secretaries whose health evaluation could be compared to other groups. To reinforce identity, subjects in the female gender identity condition were asked to write

'female' on the front cover of their questionnaire. In the secretary identity condition, subjects were asked to write ' secretary' on the front of their questionnaire. They were told that they needed to do this so that their responses could remain anonymous whilst the group responses could be compared with other groups. Both groups were told that they were going to complete an 'Illness Inventory' which consisted of nine illness and injury scenarios. Subjects were asked to read each scenario in turn and complete the answers before moving on to the next scenario. Instructions were given about how to complete the scales and respondents were encouraged to ask questions if they needed help. At the end of each session the subjects were fully debriefed.

Results

A preliminary examination of the data was first carried out to assess the inter-item reliability of the twelve questions which followed each scenario. The Cronbach Alphas for each scenario were high suggesting that the items formed a reliable scale (see Table 1). In the light of this, the items were collapsed together to produce a single score per subject per scenario.

INSERT TABLE 1 ABOUT HERE

Additionally, the three threats to attractiveness scenarios; the three emotionality scenarios, and the three secretary relevant scenarios were collapsed together to produce a single score per subject per scenario type. Following the predictions outlined above an overall two way interaction of identity and scenario was predicted. This should decompose as follows. The threats to attractiveness scenarios should be seen as more important in the female gender identity conditions than in the secretary identity conditions. The emotionality scenarios should be seen as more serious in the female gender identity condition than in the secretary identity condition; the secretary identity relevant scenarios should be seen as more serious in the secretary identity than in the female gender identity conditions.

To examine these predictions, a two way analysis of variance was carried out using the MANCOVA subprogram of the STATISTICA statistical package. As predicted, there was a significant interaction of identity and scenario type ($F(2,76)=88.88, p<0.0001$). There was also a main effect for scenario type ($F(2,76)=117.63, p<0.0001$) suggesting that, overall, the scenarios were seen in different ways by the subjects. There was no main effect for identity ($F(1,38)=1.82, ns$). Scenario means are given in table 2.

INSERT TABLE 2 ABOUT HERE

Given the overall interaction of identity and scenario type, three sets of planned comparisons were carried out on the mean scores of subjects for each scenario type across identity conditions. For the attractiveness scenarios there was, as predicted, a significant difference across identity conditions with subjects in the gender identity condition rating these scenarios as more serious than subjects in the secretary identity condition ($F(1,38)=16.87$, $p<0.0005$). For the emotionality scenarios, contrary to predictions, there was no significant difference across identity conditions ($F(1,38)=0.37$, ns). However for the secretary relevant scenarios there was, as predicted, a significant difference across identity conditions, with subjects in the secretary identity condition rating the scenarios as more serious than subjects in the gender identity condition.

The analysis thus far supports our hypotheses for the attractiveness scenarios and for the secretary relevant scenarios. However, there is no support for our prediction of an interaction for the emotionality scenarios. In order to explore the data on the emotionality scenarios a little further, the three scenarios which were combined to produce a composite score were uncoupled. That is, the three scenarios that were collapsed together (tiredness, anxiety, mood swings) were then analysed separately. The means of the three scenarios were inspected (see Table 3). From the means of the three scenarios it appears as if two of the scenarios (the tiredness scenario and the anxiety scenario) were seen in different ways by subjects across identity conditions.

INSERT TABLE 3 ABOUT HERE

The means suggest that the tiredness scenario was seen as more serious in the gender identity condition than in the secretary identity condition. However, the anxiety scenario appears to be seen as more serious in the secretary identity than the gender identity condition. In order to test these apparent differences, a one way analysis of variance was carried out on the three scenarios. The mean difference between identity conditions for the tiredness scenario was indeed significant ($F(1,38)=14.36$, $p,0.0006$) with subjects rating the scenario as more serious in the gender than the secretary identity conditions. Thus, on this scenario alone, our original prediction is supported. The mean difference between identity conditions for the anxiety scenario was also significant ($F(1,38)=31.03$, $p<0.0001$) with subjects rating this scenario as more serious in the secretary than the gender identity condition. Contrary to our predictions, this scenario appears to have been seen as secretary relevant as opposed to gender relevant. There was no significant difference across identity conditions for the mood swing

scenario.

Discussion of Experiment 1

The results of this study support and extend the findings of Levine and Reicher (1996). There is clear evidence that the way in which people make evaluations about hypothetical symptoms varies as a function of their salient identity. The findings for the physical attractiveness scenarios replicate our finding in the previous study with women in a gender identity condition rating the scenarios as more serious than women in the secretary identity condition. We also have evidence for changes in the evaluation of scenarios as a function of a salient identity other than female gender identity. In this study, subjects in the secretary identity salient condition rated secretary relevant scenarios as more serious than subjects in the gender identity condition. However, the results for the emotionality scenarios are not exactly as predicted. Overall, there was no significant difference across identity conditions for this type of scenario. However, on further analysis it became apparent that one of the scenarios, the tiredness scenario, was seen as significantly more serious in the gender than the secretary identity conditions. On this scenario alone, our predictions for the emotionality scenarios is supported. However, a second scenario, the anxiety scenario, was seen as significantly more serious in the secretary identity than the gender identity condition. On rereading the scenarios, one possible explanation for this finding may be that the scenario can be read as describing the signs of occupational stress. The scenario describes feelings of anxiety and apprehension and of physical effects like excessive sweating, palpitations and breathlessness. It may be that subjects in the secretary identity condition saw the scenario as describing stress induced by their working environment which would affect their ability to work as secretaries. Whatever the explanation might be, the unexpected effect on this scenario served to disrupt the predicted interaction of identity and scenario type for the emotion scenarios.

In general however, the pattern of results supports a self categorisation (SCT) account of the way people make sense of symptoms. That is not to say that, at this stage, a self categorisation account is anything more than suggestive of how people might evaluate the signs of actual illness and injury. Research in a Self Categorisation frame with people who are faced with actual symptoms will be required before stronger claims can be made. However, the strength of the SCT account presented here can be discerned from the variability of symptom evaluation which is evident in this study. Such variability is much harder to explain in terms of traditional health psychology approaches which presuppose that individuals rely on a single illness representation than it is in terms of an SCT account. In the second study, to be described below, a second dimension of an

SCT account of symptom evaluation will be presented. In addition to the effects of shifts in the salience of identity on symptom evaluation, the way in which identity itself is constructed will be explored. It will be argued that identities are not preexisting representations which simply write meaning onto symptoms. Rather, it will be suggested that the identities which are important to symptom evaluation are themselves situationally constructed.

Experiment 2: Identity, frame of reference and symptom evaluation

The first study described in this paper demonstrates the importance of the salience of identity for symptom evaluation. It was argued that, as different identities become salient in different contexts, so they have differential impact on the way meaning is assigned to symptoms. While the results of that study provide support for an SCT account of symptom evaluation, it is important to recognise that there are other theories of identity which also argue that self perception shifts as a function of changes in contexts (Markus and Wurf 1987, Stryker and Stratham 1985). The principal difference between these accounts and an SCT account is that the traditional accounts see context as activating preexisting self-representations, whereas SCT sees identity as being actively generated in contexts themselves. The aim of this second study is to show that the identities which are important in symptom evaluation are not preexisting self-representations which simply write the meanings onto symptoms. Rather, the aim will be to demonstrate, following an SCT account, that the identities themselves are also actively generated in the contexts in which symptoms are evaluated. More specifically, the study will aim to show that, before scenarios of illness or injury can be evaluated from the perspective of a given identity, the identity itself is constructed out of the comparative context.

In order to explore this argument, subjects will be required to make evaluations of illness and injury scenarios from the perspective of the same identity. However, the comparative context (or frame of reference) in which the identity is made salient will be different. It will be hypothesised that different frames of reference for the same identity will lead to differences in the way the scenarios are evaluated. It will be proposed that before, or perhaps at the same time as, evaluations of symptoms are made, so are evaluations of relations with salient comparison groups. The outcome of the evaluation of relationships to salient comparison groups will affect definitions of identity in particular contexts, which will in turn affect symptom evaluations.

This hypothesis will be addressed by exploring the health evaluations made by a

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group of men. The subjects in this study were all men who were playing members of a rugby club. In order to explore the ways in which these men might define their own masculinity, a series of pilot interviews with men who did not later take part in the experiment was carried out. These interviews identified a number of key themes. The first was the public expression of heterosexuality - women were important both as a subject of discussion and an object of pursuit. The second was the importance of physical prowess - the strength and resilience of the body were issues of concern. The third was the diminution of emotion - public expression of emotion outside the confines of the rugby pitch was seen as non normative.

Using this information, an experiment was designed in which different aspects of this construction of male gender identity would become more or less salient to the subjects themselves. Subjects were divided into two conditions. In both conditions they were told that they were taking part in an experiment on health evaluations made by men. However, half the subjects were told their responses would be compared with responses from a group of women. The other half were told that their responses were being compared with a group of 'new men' from a men's discussion group. It was hypothesised that themes around not only heterosexuality but also physicality would be of concern to the men in the study when their frame of reference was women. It was further hypothesised that themes around not only emotionality but also physicality would be of concern to subjects in the study when 'new men' was the frame of reference.

With this in mind, subjects were asked to evaluate a number of illness and injury scenarios. Three types of scenarios were presented. They included scenarios which described threats to physical attractiveness; scenarios describing overt emotionality; and scenarios describing threats to physicality. It was predicted that subjects would rate the threats to attractiveness scenarios as more serious when women as opposed to 'new men' are the frame of reference. It was further predicted that subjects would rate the emotionality scenarios as less serious when 'new men' as opposed to women are the frame of reference. Finally, it was predicted that there would be no difference in the levels of seriousness accorded to the scenarios describing threats to physicality across frame of reference groups.

These predictions were based not only on the pilot interviews, but also on the available research literature. There is a long tradition of work in social psychology which shows the importance of physical attractiveness in the establishment of heterosexual relationships

(Feingold 1992). Thus, when women are the comparative frame, physical attractiveness is likely to be a more salient concern than when 'new men' are the comparative frame. The effect of this salience will be to increase the significance accorded to the scenarios by the subjects in the study. In terms of the scenarios describing emotionality, a number of theorists of masculinity (Edley and Wetherell 1995, Chapman and Rutherford 1988) point out that there is an ongoing struggle between traditional forms of masculinity and a 'new man' alternative. One of the current dimensions to this struggle is the position of emotion, with emotion being a devalued dimension in traditional male identities and a valued dimension in 'new man' identities. Thus, when 'new men' are the frame of reference, scenarios describing emotionality are likely to be a more salient concern than when women are the comparative frame. The effect of this salience will be to decrease the significance accorded to the scenarios by the subjects in the study. In respect of the third and final scenario type, that of threats to 'physicality', research suggests it is of equal concern when both women and 'new men' provided the frame of reference. Researchers interested in sex and gender (Archer and Lloyd 1982) as well as theorists of masculinity (Chapman and Rutherford 1988) show that physicality is an important dimension when traditional men orientate themselves towards both women and also 'new men'. Thus physicality will not have a greater level of salience when either of the comparison groups is presented and no difference across frame of reference should be expected.

Method

Subjects

These were 40 men from a rugby club in Dorset in the south west of England. The mean age of subject was 25.6 years old. There were 20 subjects in each condition and no subject had current experience of the symptoms described in the scenarios.

Design

Once again a two by three way factorial design was employed. This was a mixed design with one between subjects factor and one within subjects factor. The between subjects factor was frame of reference and had two levels (compared to women/ compared to 'new men'). The within subjects factor was scenario type. This had three levels (threats to physical attractiveness; overt emotionality; threats to physicality)

Materials

Scenarios and Response Dimensions

As has been outlined above, three types of scenarios were developed which

described threats to attractiveness, emotionality and threats to physicality. The substance of these scenarios was based on a set of pilot interviews with male students at the University of Lancaster (many of whom were members of the University football club). The interviewees were asked to discuss the importance of threats to attractiveness, emotionality and threats to physicality. They were also asked to report on the meanings associated with these types of illness and injury in comparison to both women and 'new men'. Based on these preliminary interviews, six scenarios were devised. Two of the scenarios were designed to tap into a dimension of attractiveness. These scenarios described accidents which, in one scenario, left highly visible scarring to the hand and in the other scenario resulted in scarring to the face. The emotionality scenarios described in turn a deep depression, and volatile and violent mood swings. Finally, the physicality scenarios described accidents which resulted in a damaged and unstable knee, or a damaged and weakened wrist. Each scenario was followed by the same twelve response dimensions as used in the previous study and required subjects to respond on a seven point scale from 'not at all' to 'very much'.

Procedure

The study was conducted in two separate sessions. This was achieved by running the study on two different training nights at the rugby club when different men would be attending. In the first session the 'new men' category was introduced as the comparison group. In the second session, 'women' were introduced as the comparison group.

Subjects were told that the experiment was exploring the way different groups in society made health evaluations. In the 'new men' comparison condition they were told that their responses would be compared with the responses from men at a men's discussion group. In the 'women' comparison condition they were told that their responses would be compared with women. Subjects were told that we were not interested in them as individuals, but as a group of men we could compare with the other group. In order to reinforce the salience of male identity in both conditions, subjects in both conditions were asked to write 'male' on the front of their response booklet.

Both groups were then told that they were going to fill in an 'Illness and Injury Inventory' which contained six scenarios. Subjects were asked to read and complete each scenario in turn before moving on to the next. Instructions were given on how to complete the response dimensions. At the end of each study subjects were fully debriefed. Subjects in the first condition were asked not to discuss the study with anyone from outside their

session until the second condition had been run.

Results

By way of a preliminary analysis of the data, a reliability analysis on the twelve items which followed each scenario was once again carried out. The Cronbach Alpha for each scenario were high (see Table 4) and the items were collapsed to produce a single score per subject per scenario. In addition, the two attractiveness, the two emotionality and the two physicality scenarios were collapsed together to produce a single score per subject per scenario type.

INSERT TABLE 4 ABOUT HERE

Following the predictions outlined above, a two way interaction of frame of reference and scenario was predicted. This should decompose as follows. The attractiveness scenarios should be seen as more serious when women as opposed to 'new men' are the frame of reference. The emotionality scenarios should be seen as less serious when 'new men' as opposed to women are the frame of reference. There should be no difference across frame of reference for the physicality scenarios.

In order to examine these predictions a two way analysis of variance using the MANCOVA subprogram of the STATISTICA statistical package was carried out. As predicted there was a significant two way interaction of frame of reference and scenario type ($F(2,76)=10.47, p<0.0001$). There was also a significant main effect for identity ($F(1,38)=17.60, p<0.0005$) with subjects in the 'women' frame of reference group rating scenarios as more serious than subjects in the 'new men' frame of reference condition. (See table of means - Table 5). Finally there was also a main effect for scenario type ($F(2,76)=259.17, p<0.00001$) which indicated that the subjects rated the scenarios as having different levels of seriousness.

INSERT TABLE 5 ABOUT HERE

Given the overall interaction of frame of reference and scenario type, three sets of planned comparisons were carried out on the mean scores for the subjects for each scenario type across frame of reference comparison groups (see Table 5 for table of means). For the attractiveness scenarios there was, as predicted, a significant difference across frame of reference conditions ($F(1,38)=18.99, p<0.0001$) with subjects in the 'women' frame of reference condition rating the scenarios as more serious than subjects

in the 'new man' frame of reference condition. For the emotionality scenarios there was also, as predicted, a significant difference across frame of reference conditions ($F(1,38)=11.14, p<0.002$) with subjects in the 'new men' frame of reference condition seeing the scenarios as less serious than subjects in the 'women' frame of reference condition. Finally, there was, as predicted, no significant difference across frame of reference for the physicality scenarios ($F(1,38)=.963, ns$).

Discussion of Experiment 2

The results of this study support the hypothesis that frame of reference will have consequences for the way in which hypothetical illness and injury scenarios are evaluated from the perspective of the same social identity. The men in this study see injuries which threaten their attractiveness as more serious when women are the frame of reference than when 'new men' are the frame of reference. This difference is significant both statistically as well as in absolute terms with subjects moving almost two points on a seven point scale. In doing so they move from seeing the scenarios as relatively unimportant to seeing them as relatively important. For the emotionality scenarios, the men in the study rate such symptoms as less important when 'new men' are the frame of reference than when women are the frame of reference. While such scenarios are not seen as overly important under either frame of reference condition, they are seen as significantly less so when compared to 'new men'. This gives support to the argument that the men in this study may be using this dimension of emotionality to differentiate themselves from the 'new men' outgroup. Finally, no difference between frame of reference conditions occurs for the physicality conditions. Although this finding is predicted, a note of caution should be entertained here upon inspection of the means on this scenario type. The means for both comparison groups are very high, suggesting a possible ceiling effect. This may be a product of the perceived severity of the scenarios (very serious damage to both knee and wrist) and, as such, the perceived severity may have masked possible differences across frame of reference conditions. One possible outcome of this ceiling effect may be the masking of an overall main effect for frame of reference, with scenarios being seen as more serious when women are the comparison group than when men are the comparison group. However, even if this were so, the evidence provided by this experiment still suggests that male gender identity, as operationalised in this experiment, is something which is generated in particular social contexts. It is more parsimonious to assume a generative principle than to presuppose that people carry around ready made self-representations for every conceivable inter-group situation.

General Discussion

The two experiments described in this paper provide further evidence for a self categorisation (SCT) account of the way people make sense of hypothetical illness and injuries. The first study confirms earlier findings that shifts in the salience of identity leads to changes in the way people evaluate illness and injury symptoms. The second study develops an SCT account to show that changes in the frame of reference of the same social identity can also lead to shifts in the way illness and injury scenarios are evaluated. The variability which arises out of the identity manipulations in the first study is much harder to explain in terms of traditional health psychology models which presuppose preexisting illness representations. Similarly, the variability which emerges out of the frame of reference manipulations is much harder to explain in terms of traditional accounts of the identity-context relationship which presupposes the activation of preexisting self-representations.

Despite this support for an SCT account of symptom evaluation, it is too early to claim that these experiments do anything more than suggest the potential of SCT for the question of how people come to see themselves as ill. Firstly, there remains a question about the confidence with which the shifts in evaluations of symptoms in the experiments can be attributed to identity and identity alone. The experimental designs in the studies presented in this paper were at pains to ensure that the salience manipulations were the only variables which differentiated between the two conditions. However, it is difficult to establish - other than through changes in outcome measures - that the identities were indeed salient and were the decisive factors in the shifts in the ratings produced by subjects. In conventional studies which involve experimental manipulations it is usual to include a manipulation check. However, this kind of approach is less appropriate in studies where identities are being manipulated. Given that the experimental design is dependent on the salience of a particular identity in a particular context, it would be impossible to check for the presence of other possible identities at the beginning of the experiment without compromising the efficacy of the original salience manipulation. To ask subjects what it means to be a woman, or a secretary, will raise the potential salience of both identities and can thus not be measured in both groups. It follows from this that attempts to check on the presence of a particular identity after the salience manipulation has been delivered will, de facto, be reactive. That is, they will be subject to the same constraints as the other dependent measures - the illness scenarios themselves. The identity manipulation check cannot be taken as an independent measure of identity, but must be seen as a set of responses which are given from the perspective of a particular identity. Moreover, conventional identity manipulation checks cannot tell us, post hoc, whether identities other than those which were experimentally manipulated were in fact salient when subjects were completing

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the questionnaire. Attempts to elicit alternative identities would be compromised by the fact that they would be delivered in a comparative context - the identities proposed in the experiment itself. Such difficulties over salience manipulation checks do not however invalidate the experimental procedures. It seems reasonable to assume, since the identity manipulations were the only experimental variable between conditions, that salience of identity can account for the differences between groups. It might be more apposite to acknowledge the limitations of experimental methodologies at this point, and to look to other, non experimental, technologies to pursue the question further.

This raises a second limitation of the present studies. Given the demands of an experimental design, subjects in both studies were asked to evaluate hypothetical illness and injury scenarios. In neither experiment were the subjects asked to evaluate currently experienced symptoms. Before stronger claims for an SCT perspective can be made it is necessary to demonstrate that both identity salience and identity construction have consequences for people who are actually experiencing symptoms as opposed to evaluating hypothetical scenarios. In addition, it remains to be shown that the same person may evaluate symptom (actual or hypothetical) differently as his or her social identity is manipulated. Finally, it is important to explore in more detail how identity might be implicated in the shift in self perception from 'healthy' to 'ill' and the consequences this might have for decisions about seeking medical help. The studies presented here provide an important demonstration of the principles of an SCT approach to the question of symptom evaluation. The next step is to take these principles into a practical and applied health setting.

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Table 1: Cronbach Alpha scores for all 12 items on each scenario

<u>Scenario Type</u>	<u>Alpha</u>
Scar on Face	0.94
Hair Loss	0.95
Broken Nose	0.94
Tiredness	0.96
Anxiety	0.94
Mood Swings	0.95
Manual Dexterity	0.91
Back Pain	0.93
Flu	0.93

Table 2: Table of Means and Standard deviations for illness and injury scenarios

Scenario Type	Gender Identity	Secretary Identity
Attractiveness	4.86 (0.57)	3.93 (0.83)
Emotion	3.06 (0.44)	3.15 (0.54)
Secretary relevant	3.12 (0.33)	4.93 (0.79)

Table 3 Means and Standard deviations for the three emotionality scenarios

Scenario Type	Gender Identity	Secretary Identity
Tiredness	3.96 (1.01)	2.67 (1.15)
Anxiety	3.17 (0.47)	4.39 (0.86)
Mood Swings	2.03 (0.42)	2.39 (0.85)

Table 4: Cronbach Alpha scores for all twelve items on each scenario

Scenario	Alpha Score
Burn on Hand	0.88
Damaged Knee	0.88
Depression	0.93
Broken Wrist	0.88
Facial Scar	0.85
Violent Temper	0.86

Table 5: Means and standard deviations for frame of reference scenario comparisons

Scenario Type	Compared to 'new men'	Compared to women
Attractiveness	2.71 (1.19)	4.45 (1.32)
Emotionality	2.21 (0.67)	3.18 (1.10)
Physicality	6.33 (0.64)	6.50 (0.45)

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Scenarios from Experiment One

Physical Attractiveness Scenarios

You are involved in a car accident. The car you are travelling in skids and crashes into a wall. During the crash your head is thrown against the windscreen. The glass cuts your face. You are left with a scar which is about two inches long and runs from under your eye to your top lip. The scar will be permanent.

Whilst brushing your hair you notice that more hair than usual is becoming entangled in the brush. After a few weeks your hair loss seems to have increased and there are areas around your head where your hair has thinned and scalp is visible. The doctor explains that the problem is not serious and the hair will regrow. Although s/he cannot tell you how long it will take.

It's summer and you are out in the garden having a friendly game of cricket with your family. When it's your turn to bat the ball is thrown at you too high. Before you have time to move out of the way, it hits you hard in the face. Your nose breaks badly. The bridge of your nose is flattened and the nose itself is bent out of shape. After examination the doctor says the injury will not affect your breathing but your nose will show definite signs of having been broken.

Emotionality Scenarios

You have been experiencing a feeling of constant tiredness that has gone on for some weeks with no apparent cause. Everyday tasks take up more of your energy than they used to and you are unable to concentrate for long. Even though you are sleeping at night you also need to rest during the day. It is an effort to participate in your usual activities. By early evening all you want to do is sit in front of the television. You have no other symptoms.

You are experiencing feelings of anxiety and apprehension without having any clear idea why. Although such feelings are not constant, they can appear at any time and can last for several minutes. With them you suffer from excessive sweating, palpitations, and breathlessness.

All of a sudden you find your moods are unpredictable. You feel tearful and upset one moment, for no apparent reason. The next moment you are irritable, especially around other people and you can fly off the handle. There is a change in your appetite and your sleeping patterns are a bit disrupted.

Secretary Relevant Scenarios

You begin to notice a tingling feeling in your fingers. When you wake up in the mornings you become aware of some pain and stiffness in your hands. Sometimes you have unexplained cramps in your hands which are extremely painful and take time to go away. The doctor says that some of the joints in your hand have become inflamed. It will mean the loss of manual dexterity and will make gripping small objects difficult.

After bending to pick up some heavy boxes you suddenly find you have severe pain in your lower back. After a few days of rest the pain has lessened but you have restricted movement. The doctor advises that although no permanent damage is apparent you may experience further pain with prolonged walking, sitting or standing, and problems with your back may reoccur.

Whilst walking in the country you get caught up in a severe storm. You are unprepared for the weather change and get very cold and wet. A few days later you develop a very high temperature causing you to break out in hot and cold sweats. You have an aching head and runny nose. When you move your limbs they are stiff and painful and the cough you had has worsened making it painful and difficult to breathe. You feel listless.

Scenarios from Experiment Two

Physical Attractiveness Scenarios

“ While pouring boiling water into a cup in order to make a hot drink, you spill the scolding water. As a consequence you incur a severe burn extending half way up your fore-arm as well as to your thumb, fore-finger, and the back of your hand. The injury will not impair your movement in any way, but leaves clearly visible red marks which the doctor says are permanent. There are no means available to you for removing the scar.”

“ You are sitting in the passenger seat of a car travelling at speed down a single file road. A car travelling in the opposite direction attempts to overtake a slow lorry and crashes head on into your car. During the crash your head is thrown against the windscreen. The glass shatters, badly cutting your face. You receive a deep cut, which heals but leaves you with a wide scar approximately three inches long running down from your eye to your top lip. The scar poses no problems to vision or other senses, but will be permanent, and impossible to remove.

Emotionality Scenarios

“You have worked without a holiday for some time. You come home from work in the evenings exhausted. You have great difficulty in concentrating on conversations and when reading. You feel generally ‘down’, and cannot motivate yourself in order to raise yourself from the depression. Life seems to be an endless cycle of work and sleep which you can see no suitable means of breaking.”

“You have recently become aware that you are losing your temper more frequently and more quickly than previously. Despite your awareness of this problem as yet you have not been able to control it. You often find yourself overcome with rage and arguing and shouting at those around you. You cannot work out what is causing these violent mood swings and can see no way of stopping them occurring.”

Physicality Scenarios

“You are out on a training run. You are running down a steep gradient which exerts a great deal of pressure on your knee and ankle joints. You inadvertently put your foot in a pot-hole, wrenching your left knee, and as a result you snap ligaments inside and out of the joint, as well as displacing your knee cap. The injury heals, but it still feels weak. It will be some time before you will be able to do any exercise and the doctor says that you will be unable to play any vigorous sport again, for fear of repeating the injury.”

“After having had a few drinks with some friends in a local pub, you set off to walk home. Your vision is slightly blurred, and your balance is a little unsteady. Whilst descending the small flight of steps outside the pub you stumble and fall. You instinctively put out your arms to break your fall, but when you hit the ground you incur a badly broken right wrist. The break leaves you with permanently restricted strength and rotation in the wrist. As a consequence you will have difficulty lifting and handling objects”