

Self-Concept and Body Investment in Out-of-Body Experiences

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Abstract

Prior research has found that Out-of-Body Experiences (OBEs) report higher levels of body dissatisfaction than people without a prior OBE (non-OBEs). When the general population is studied, people who score higher on body dissatisfaction tend to score higher on measures of social anxiety. However, this does not appear to be the case for OBEs. This paper presents the results of a study designed to investigate this apparent discrepancy. It was hypothesized that OBEs maintain a positive self-concept which means they do not experience higher levels of social anxiety, although they score higher than non-OBEs on a measure of body dissatisfaction. It was also hypothesized that the higher levels of body dissatisfaction, but absence of social anxiety observed in OBEs might be explained in part by a lower degree of psychological investment in their bodies than non-OBEs. A total of 59 participants (19 OBEs, 40 non-OBEs) completed measures of self-concept and body investment. As predicted, OBEs were found to have a more positive self-concept than non-OBEs, but did not differ in regards to body investment. Based upon these findings we present a modified argument that the dissatisfaction expressed by non-OBEs towards their bodies may reflect aesthetic concerns, while OBEs' responses are more expressive of frustration with the physical constraints of the body.

Introduction

Many people report having had an out-of-body experience (OBE) in which they felt as if their phenomenal self was separated in Cartesian space from their physical body. Irwin (2000) has argued that OBEs are in part the result of somatoform dissociation in which there can be a 'deficit symptom' such as numbness in a part of the body, or 'positive symptom' in which psychosomatic pain or tics are experienced. One rationale for studying somatoform dissociation in OBEs is that "at a phenomenological level the OBE appears to entail a dissociation between sensory processing of somatic (somaesthetic and kinaesthetic) events and the sense of self or identity" (Irwin, 2000, p.265). Irwin (2000) found scores obtained on the Somatoform Dissociation Questionnaire to be the only predictor variable (from a logistic regression analysis which included participants' data for dissociative experiences, absorption, gender and age) able to independently discriminate between people with (OBErs) and without (non-OBErs) a prior OBE, as well as the only independent variable which contributed significantly in predicting OBE frequency.

Irwin's (2000) theory for the occurrence of the OBE is that it is the result of the convergence of a number of dissociative factors. This includes high levels of 'absorption' (a psychological state in which the person is in a high state of engrossment in experience), as well as a simultaneous occurrence of dissociation from somatic input. This theory builds upon Irwin's (1985) earlier work which found that OBErs exhibit a high capacity for psychological absorption, while people with high levels of psychological absorption were more susceptible to experimentally induced OBEs. These changes are posited to undermine the socially conditioned assumption that the body is the container of the self, and as a result to promote the feeling that the person's consciousness is no longer in the spatial confines of the body.

Murray and Fox (2004, 2005a, 2005b) have recently extended Irwin's (1985, 2000) work to argue that the daily bodily experiences of OBErs differ from those without this experience. Based upon the phenomenological description of the OBE as an experienced dissociation, or separation, of the physical body and the self, Murray and Fox suggested that the person who experiences an OBE has a different relationship between their physical body and sense of self than do people without such experiences. They also argued that their approach was in accordance

with and informed by Irwin's (2000) dissociational theory of the OBE, and that the OBEr's bodily experience is that of a generalized dissociation (as compared with non-OBErs) between their self and body that can be assessed on a number of levels. This includes perceptual experience, namely the person's sensory experience of their body; affective experience, namely the person's feelings of satisfaction or dissatisfaction with their body; and social experience, namely the person's anticipatory experience (e.g., anxiety) of how others evaluate their bodily appearance or performance.

In a test of the above hypotheses, Murray and Fox (2004, 2005a) found that OBErs reported higher levels of dissociation between their perceptual body and self, had a heightened self-awareness or self-consciousness, were more dissatisfied with their bodies, and had lower confidence in the presentation of their physical skills. However, the hypotheses that they would have a reduced belief in their physical ability, an objectified view of their bodies, and be more anxious at the prospect of having their physique evaluated by others were not supported (though see Murray & Fox, 2005b).

The above work has been informative in demonstrating that OBErs and non-OBErs differ across perceptual, affective and social dimensions of bodily-related dissociational experiences. However, the finding that OBErs and non-OBErs do not differ with regards to social anxiety in general, and social physique anxiety in particular, was not expected. Previous research in the general population has found that dissatisfaction with one's appearance is related to higher levels of social anxiety, particular concerning occasions when one's body is open to public scrutiny (e.g. Davison & McCabe, 2005). The present study is particularly interested in this latter finding. Murray and Fox (2005a) have argued that a future avenue of research may be to examine OBErs' and non-OBErs' levels of 'self-satisfaction' or the degree to which they have a positive self-concept. If OBErs have a more positive self-concept than non-OBErs, then this could explain a lack of anxiety about an experienced dissatisfaction with their bodies.

One way in which to investigate the above hypothesis would be to use a measure which examines people's sense of personal worth independently of how they feel about their body or social relationships. The Tennessee Self-Concept Scale (Fitts, 1965) is comprised of five subscales which measure a person's self concept along a number of dimensions. Two of the subscales (Family Self and Social Self) are particularly con-

cerned with the person's feelings of adequacy and self-worth as a social person. One of the subscales (Physical Self) is concerned with a variety of issues relating to the body, including the person's health and physical appearance.

The final two subscales (Moral-Ethical Self and Personal Self), of particular interest in the present study, are concerned with the person's sense of personal worth independently of their social relationships. This is an important distinction. For instance, while some people's sense of self-worth may be related to their perceived worth as a family member, or adequacy in social relationships, others may have positive self-concepts which do not depend on their social standing. Therefore, in order to explain why OBErs do not score higher on measures of social anxiety, but do higher on measures of body dissatisfaction, we hypothesize in the present study that OBErs will score higher on these two subscales of the Tennessee Self-Concept Scale.

Another possibly related issue is that of body investment. In their Body Investment Scale, Orbach and Mikulincer (1998) evaluate the degree of psychological investment a person has in their body across four dimensions. These are the way a person feels about their body, and the degree to which they enjoy physical contact, care for and protect their body. The higher levels of body dissatisfaction, but absence of social anxiety observed in OBErs might be explained in part by a lower degree of psychological investment in their bodies than non-OBErs. The present study uses both the Tennessee Self-Concept Scale and the Body Investment Scale in order to test the following hypotheses:

1. OBErs will score significantly higher than non-OBErs on measures of Moral-Ethical and Personal Self-concept.
2. OBErs will score significantly lower on measures of body investment.

Method

Participants

A total of 59 participants (44 females, 15 males) completed a questionnaire regarding "self concept, body investment and the likelihood of experiencing an out-of-body experience". Of these, 50 were Psychology undergraduates contacted through e-mail and poster advertisement. Questionnaires were also sent out to 28 people who had taken

part in previous research on out-of-body experiences, and 9 of these were returned. A total of 19 respondents reported a previous OBE (13 females, 6 males, with a mean age of 26.42, $SD = 8.21$). Forty participants did not report having a prior OBE (31 females, 9 males, mean age 21.52, $SD = 6.58$).

Materials

Respondents completed a questionnaire comprised of two validated scales and one item for assessing whether they had had a previous OBE. In the following we detail each of these questionnaire components in the order they were presented.

Measures

The Tennessee Self-Concept Scale (TS-CS): The TS-CS (Fitts, 1965) is a 100-item questionnaire instrument designed to measure self concept, and consists of five sub-scales: Physical Self (the person's view of their body, health, physical appearance, skills and sexuality); Moral-Ethical Self (e.g. feelings of being a 'good' or 'bad person'); Personal Self (the individual's sense of personal value or worth, feelings of adequacy, and evaluation of their personality apart from their body or relationships to others); Family Self (the individual's feelings of adequacy, worth and value as a family member); and Social Self (the person's senses of adequacy and worth in relation to social interaction with other people in general). The items were presented as a 5-point interval scale ranging from *Completely false* (1) to *Completely true* (5). High scores indicate a more positive self-concept. In the present study Cronbach's alpha indicated appropriate internal consistency for each sub-scale (.82, .75, .77, .71, and .86 respectively).

The Body Investment Scale (BIS): The BIS (Orbach and Mikulincer, 1998) consists of four subscales. The 'Feeling' subscale includes items related to body image feelings and attitudes (e.g., I am satisfied with my appearance). The 'Touch' subscale consists of items relating to comfort in touch (e.g., I enjoy physical contact with others). The 'Care' subscale is comprised of items about body care (e.g., Caring for my body will improve my well-being). The 'Protection' subscale includes items about body protection (e.g., It makes me feel good to do something dangerous). The items were presented as a 5-point interval scale ranging from *I do not agree at all* (1) to *Strongly agree* (5). A high score indicates a more

positive feeling about the body, about touch, and more body care and protection. In the present study Cronbach's alpha indicated appropriate internal consistency for each sub-scale (.77, .86, .75, and .86 respectively).

Item for Assessing the Occurrence of Out-Of-Body Experiences: In order to ascertain whether participants had experienced an out-of-body experience, respondents were provided with the following *modified* statement from Palmer (1979) and asked to indicate 'yes' or 'no': "Have you ever had an out-of-body experience, that is, an experience in which you felt that 'you' were 'outside of' or 'away from' your physical body; one in which you felt that your consciousness, mind, or centre of awareness was at a different place than your physical body? (If in doubt, please answer 'no')." "

Procedure

Participants were provided with an information sheet and consent form prior to completing the questionnaire. If the participant was willing to continue they were then provided with the study questionnaire (these were mailed together to the 28 people who had taken part in previous research, and they were free to choose whether to respond or not). The first page of this asked for details regarding the participant's age and sex. This was followed by the Body Investment Scale and the Tennessee Self-Concept Scale. The final section consisted of Palmer's (1979) modified item to assess whether the participant had had an out-of-body experience. Finally, participants were thanked for their participation.

Results

Self-concept, Body Investment and OBEs

Respondents' mean scores and mean ranks for each measure along with the results of Mann-Whitney U significance tests are shown in Table 1. Participants reporting a previous out-of-body experience scored higher on the 'Moral-Ethical Self' ($U = 229.5, p = .007$, one-tailed) the 'Personal Self' ($U = 260.0, p = .026$, one-tailed), and the Social Self ($U = 252.0, p = .037$, two-tailed) subscales of the Tennessee Self Concept Scale. OBErs also scored higher on the Care subscale of the Body Investment Scale ($U = 266.5, p = .032$).

Table 1: Mean scores (with standard deviations) and mean ranks with Mann-Whitney U significance values on the study measures

Measure	OBE Group (<i>n</i> = 19)	Mean Rank	Non-OBE Group (<i>n</i> = 40)	Mean Rank	<i>p</i> value
Family self	67.32 (8.81)	31.13	67.15 (8.21)	29.46	.732 ^a
Moral-ethical self	73.63 (6.71)	37.92	68.48 (6.57)	26.24	.007 ^b
Personal self	71.47 (7.76)	36.32	66.90 (7.71)	27.00	.026 ^b
Physical self	61.53 (8.04)	33.87	59.40 (6.67)	28.16	.236 ^a
Social self	71.16 (7.36)	36.74	67.82 (6.15)	26.80	.037 ^a
Body Investment					
Scale Total	94.84 (8.55)	36.37	89.35 (11.53)	26.98	.070 ^b
Care	25.37 (3.77)	35.97	23.62 (3.75)	27.16	.032 ^b
Feeling	27.16 (4.25)	34.89	24.47 (5.86)	27.68	.066 ^b
Protection	22.63 (4.27)	32.32	22.02 (3.39)	28.90	.240 ^b
Touch	19.68 (2.52)	31.45	19.22 (2.75)	29.31	.330 ^b

^aTwo-tailed.^bOne-tailed.

Sex, Body Experience and OBEs

Most participants in the study were female. In order to address the possibility of participants' sex impacting upon the study findings the mean scores for males and females are shown in Table 2. Female OBEs and Male OBEs scored higher on measures of Moral-Ethical Self ($M = 73.46$, $SD = 7.30$, $M = 74.00$, $SD = 5.83$ respectively) and Personal Self ($M = 72.15$, $SD = 8.22$, $M = 70.00$, $SD = 7.13$ respectively) than their non-OBE counterparts ($M = 69.45$, $SD = 6.16$, $M = 65.11$, $SD = 7.10$ respectively for Moral-Ethical Self and $M = 67.81$, $SD = 7.54$, $M = 63.78$, $SD = 7.92$ respectively for Personal Self).

Table 2: Means and standard deviations on study measures for male and female OBEs and non-OBEs

Measures	<i>Out-of-body Experiencers</i>				<i>Non Out-of-body Experiencers</i>			
	Males		Females		Males		Females	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Physical Self	60.83	11.77	61.85	6.24	61	7.2	58.94	6.58
Moral-Ethical Self	74	5.83	73.46	7.29	65.11	7.09	69.45	6.18
Personal Self	70	7.13	72.15	8.22	63.78	7.9	67.81	7.54
Family Self	68.67	10.56	66.69	8.28	61.44	8.92	68.81	7.34
Social Self	67.5	9.52	72.85	5.8	66.89	6.09	68.10	6.24
Body Investment Total	89.17	12	97.46	5.11	87.67	9.64	89.84	12.12

Correlations Between Study Measures

A summary of the correlations (Spearman) between the scales used in the study are summarized in Table 3.

Table 3: Correlations between study measures

	Physical Self	Moral-Ethical Self	Personal Self	Family Self	Social Self	BIS Total
Physical Self	—	—	—	—	—	—
Moral-Ethical Self	.23	—	—	—	—	—
Personal Self	.58**	.52**	—	—	—	—
Family Self	.21	.53**	.36**	—	—	—
Social Self	.36**	.32*	.38**	.30*	—	—
BIS Total	.50**	.36**	.48**	.23	.46**	—

*Correlation is significant at the 0.05 level (2-tailed).

**Correlation is significant at the 0.01 level (2-tailed).

Discussion

As predicted, respondents reporting a previous OBE were found to report higher levels of positive self-concept for the 'Moral-Ethical Self' and 'Personal-Self' subscale of the Tennessee Self-Concept Scale (TS-CS), while no differences were found on the Physical-Self or Family-Self subscales. However, OBEs were also found to score higher on the Social-Self subscale. These findings lend support to our argument that although OBEs score higher on a measure of body dissatisfaction (Murray & Fox, 2004; Murray & Fox, 2005a, 2005b), they maintain a positive self-image. Whereas for people in general scoring high in body dissatisfaction is usually accompanied by increased feelings of social anxiety and social physique anxiety, this relationship does not appear to be the case for OBEs. The unexpected difference between OBEs and non-OBEs on the Social-Self subscale of the TS-CS only lends further support to this argument.

The only difference to be found between OBEs and non-OBEs on the Body Investment Scale (BIS) was on its Care subscale. We had expected OBEs to score lower on body investment, based upon our theorizing that a lack of body investment would help explain why OBEs score higher than non-OBEs in body dissatisfaction but do not differ on measures of social anxiety. In fact, along with scoring significantly higher on the Care subscale, our OBE sample scored higher (rather than

lower as we expected) on total BIS and all the BIS subscales. These findings do not indicate a lack of psychological investment in the body on the part of OBEs.

Taken together, we draw upon the previous findings of Murray and Fox (2004, 2005a, 2005b) and those presented here to formulate a modified argument. We hypothesize that the self-reported dissatisfaction with their bodies expressed by OBEs (Murray & Fox, 2004, 2005a, 2005b) when completing the Body Satisfaction Scale (BSS) is qualitatively different from the dissatisfaction expressed by non-OBEs. That is, when completing the Body Satisfaction Scale, the dissatisfaction expressed by non-OBEs towards their bodies may reflect aesthetic concerns, while OBEs' responses might be more expressive of frustration with the physical constraints which a body imposes upon them. Further support for this interpretation is provided by the non-significant finding on the Physical-Self subscale of the Body Investment Scale. Items on this subscale explicitly relate to aesthetic concerns (e.g. "I am satisfied with my appearance"), but OBEs did not differ to non-OBEs on this measure.

We feel the above findings are an important development in understanding the relationship between the self and body as experienced by OBEs, and in aiding an understanding of how and why the OBE occurs. Crucially, the present findings appear to explain the prior anomaly found with regards to OBEs' expressed higher levels of body satisfaction but lack of elevated social anxiety. However, the present study has several limitations which should be acknowledged. The study sample was relatively small, comprised mostly of females, and drawn largely from an academic sample comprised of students and staff at two UK universities. This selection method means that there is a need to be cautious when interpreting the findings for samples which differ in significant ways to that in the present study.

The retrospective nature of the present study is a further limitation. This means it is not possible to make strong claims about possible causal relationships in the study findings. For example, while we would argue that differences in body-related experience predispose certain individuals to an OBE, an alternative explanation is that an OBE affects one's body attitudes.

Therefore, alongside further work to address body image in OBEs, similar future work needs to be carried out using a random sampling strategy (in contrast to our focus on a self-selecting academic popu-

lation), and where possible prospective studies carried out. In addition, the broad delineation in the present study between those who responded 'yes' or 'no' to the item for assessing whether an OBE had occurred should be replaced in future research by a more fine-grained analysis.

We would argue that the various forms of self-concept presented in this paper should be examined alongside body image in relation to different forms or types of OBEs, such as spontaneous versus deliberate OBEs, and those occurring as part of the related phenomenon of near-death experiences. Such analysis may reveal certain forms of self-concept and body image to be more characteristic of particular types of OBE.

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