

Japanese body image: Structure and esteem scores in a cross-cultural perspective

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Culture appears to affect body image in general and body esteem in particular, yet do cultural differences in these constructs concern with factorial structure or merely the magnitude of their manifestation? This study examined what body parts and functions the body esteem of young Japanese adults consists of, and assessed its relation with several other construals of the self. A secondary goal was to compare scores of body esteem in Japan with data previously obtained for people of similar age and background in diverse cultures, such as the USA, Hong Kong, and Israel. The primary contention of this study was that body image might vary notably across different cultures. Because of cultural differences in the self, and indirectly also due to physiognomic variation, members of various cultures may differ in the way they conceive their own body, have divergent body ideals, and ultimately experience different feelings toward their body. The subjects were 569 Japanese undergraduates who filled in the Body Esteem Scale (BES) as well as measures of self-esteem, body consciousness and social anxiety. Findings show fairly similar structure of body esteem to that found in the USA, but lower ratings of body esteem among Japanese than among their American, Chinese, and Israeli counterparts. In addition, findings indicate a large gender difference on the total BES score: Men expressed higher body esteem than women. Among both genders, however, body esteem correlated positively with self-esteem and body consciousness but negatively with social anxiety. It is suggested that the structure similarity between Japanese and American body esteem is the result of universal human mating patterns as well as similar personality structure. The reason for the lower Japanese body esteem may involve general tendency for self-effacement and social anxiety. Further causes for the lower scores, which may concern broader cultural and historical perspectives, are briefly discussed.

La culture paraît affecter l'image corporelle en générale et l'estime corporelle en particulier, cependant, est-ce que les différences culturelles dans ces construits dépendent de la structure factorielle ou simplement de la magnitude des manifestations? Cette étude a examiné quelles parties et fonctions du corps concernaient l'estime corporelle de jeunes Japonais adultes et elle a évalué sa relation avec plusieurs autres construits du self. Un objectif secondaire était de comparer les résultats de l'estime corporelle au Japon avec des données obtenues précédemment pour des personnes d'âge et antécédents similaires dans diverses cultures, comme les Etats Unis, Hong Kong, et Israël. L'assertion fondamentale de cette étude était que l'image corporelle pouvait varier sensiblement entre cultures différentes. Dû aux différences culturelles dans le self et aussi indirectement à la variation physiologique, les membres de plusieurs cultures pourraient se différencier dans la manière de concevoir leur propre corps, dans les idéaux corporels divergents et, finalement, dans la manière de ressentir leur corps d'une manière différente. Les sujets, 569 universitaires japonais, ont répondu à l'Echelle d'Estime Culturelle (EEC) ainsi qu'à des mesures d'auto estime, conscience corporelle et anxiété sociale. Les résultats montrent une structure assez similaire de l'estime corporelle à celle trouvée aux U.S.A., mais des résultats d'estime corporelle inférieurs pour les Japonais que pour leurs homologues américains, Chinois, et Israéliens. De plus, les résultats ont montré une différence majeure dans la valeur totale de l'EEC: les hommes ont exprimé une estime corporelle supérieure à celle des femmes. Néanmoins, parmi les deux sexes, l'estime corporelle a présenté une corrélation positive

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avec l'auto estime et la conscience corporelle, mais négative avec l'anxiété sociale. On nous laisse supposer que la similitude dans la structure l'estime corporelle entre Japonais et Américains soit le résultat de patrons universels d'accouplement, ainsi que d'une structure de personnalité similaire. La raison pour laquelle, l'auto estime corporelle des Japonais plus basse est peut-être associée à une tendance générale à l'effacement et à l'anxiété sociale. D'autres causes possibles des résultats inférieurs, qui pourraient concerner des perspectives culturelles et historiques plus larges, sont discutées ici brièvement.

Al parecer la cultura afecta la imagen corporal en general y la estima corporal en particular, no obstante ¿dependen las diferencias culturales en estos constructos de la estructura factorial o meramente de la magnitud de sus manifestaciones? Este estudio examinó, por un lado, qué partes y funciones del cuerpo interesan a la estima corporal de adultos jóvenes japoneses y, por el otro, evaluó su relación con varios otros constructos del self. Una meta secundaria fue comparar las calificaciones de estima corporal en Japón con datos previos de gente con edad y antecedentes similares en diversas culturas, tales como la de Estados Unidos, Hong Kong e Israel. La aseveración fundamental de este estudio fue que la imagen corporal variaría notablemente entre diferentes culturas. Por diferencias culturales del *self*, e indirectamente también debido a la variación en la fisonomía, los miembros de varias culturas podrían diferir en la forma en que conciben su propio cuerpo, en los ideales corporales divergentes, y en última instancia en diferentes sentimientos hacia su cuerpo. Los participantes fueron 569 universitarios japoneses que contestaron la Escala de Estima Corporal (EEC), así como medidas de autoestima, conciencia corporal, y ansiedad social. Los hallazgos muestran una estructura de estima corporal moderadamente similar a la encontrada en Estados Unidos, pero con calificaciones más bajas de estima corporal en los japoneses en comparación con sus contrapartes estadounidenses, chinos e israelíes. Además, los resultados indicaron mayores diferencias entre géneros en la calificación total de la EEC: los hombres expresaron una estima corporal más elevada que las mujeres. No obstante, en ambos géneros la estima corporal presentó una correlación positiva con la autoestima y la conciencia corporal, pero negativa con la ansiedad social. Se sugiere que la similitud en estructura entre la estima corporal de japoneses y estadounidenses es el resultado de patrones universales de apareamiento entre humanos, así como de una estructura de personalidad similar. La razón subyacente a la baja estima corporal japonesa podría ser una tendencia general a tratar de pasar desapercibido y a la ansiedad social. Se discuten otras posibles causas de estas calificaciones bajas, en relación con perspectivas culturales e históricas más amplias.

Interest in the body from a psychological perspective has increased dramatically in recent years. One of the central terms in this field, *body image*, was conceived to represent the "picture of our own body which we form in our mind, that is, the way in which the body appears to ourselves" (Schilder, 1950, p. 11). Since then, the definition of body image has evolved considerably to encompass a wide range of phenomena (for review see Fisher, 1986). The study reported here concentrated on the perceptual, evaluative, and affective aspects of the term as perceived by young Japanese adults, and particularly on the concept of body esteem. This concept deals with a primary function of body image, namely the self-evaluations each individual makes regarding her or his body, as well as the degree of satisfaction (or dissatisfaction) she or he feels with the various parts or processes of the body (Secord & Jourard, 1953).

Body esteem is related to several other constructs of the self such as self-esteem, body consciousness, and social anxiety. Secord and Jourard (1953), who constructed the classical Body Cathexis Scale measure, demonstrated that feelings about the body are commensurate with feelings about the self. More specifically, they suggested that negative feelings about the body are also associated with anxiety and with a feeling of insecurity about the self. Consequent studies reported a significant relationship

between body image and self-esteem (e.g., Guinn, Semper, & Jorgensen, 1997; Silberstein, Striegel-Moore, Timko, & Rodin, 1988), as well as between two analogous constructs, body satisfaction and general satisfaction/self-evaluation (e.g., Lerner, Karabenick, & Stuart, 1973). Likewise, socially anxious people were found to underrate their own body image (Cash, Cash, & Butters, 1983; Mitchell & Orr, 1976). A positive correlation was also found between measures of body consciousness and body image. People high on body consciousness tended to evaluate their own physical attributions faster (Turner, Gilliland, & Klein, 1981), and to make more effort to improve their body image, as by the use of cosmetics (Cash & Cash, 1982).

Gender appears to have a considerable impact on ratings of body esteem as women customarily underrate their own body as compared with their male counterparts. "It is paradoxical," argued Fisher in a major review of the literature on the topic, that the typical (Western) woman "begins earlier than he [the typical man] to voice dissatisfaction with her body appearance and continues to do so right into the adult years" (Fisher, 1986, vol. 1, p. 106). There are several explanations regarding the greater bodily dissatisfaction among Western women, which seem to be relevant also to Japanese women. They range from psychoanalytic accounts, such as Freud's early "penis envy," to

biological factors such as faster maturation rate. At present, however, most researchers stress various psychosocial explanations such as less overt defensiveness about the body, the stricter criteria of physical attractiveness by which women are judged, a tendency for over self-criticism stemming from social emphasis on feminine physical attractiveness, and the greater disposition of men to prefer marriage partners with traits that testify to their reproductive value, which exert greater pressure on body image among women (for review see Cash & Pruzinsky, 1990; Fisher, 1986; Jackson, 1992).

Most researchers have investigated the concept of body image at the individual level, mainly to account for the growing phenomenon of eating disorders. At this level at least, culture, along with gender, social class, age, and sexual orientation, appears to be a major factor in determining body image and its derivative body esteem (e.g., Lerner & Jovanovic, 1990; Mintz & Betz, 1986). Whereas biological factors shape and constrain physical standards, culture formulates physical ideals within the broad definition that these factors have, by giving meaning, explanation, and interpretation to perceived physical attributes. In fact, each cultural group has its own unique definition of physical attractiveness (human beauty), its own set of bodily ideals, and its own specific body sensitivity, which shape its collective body image (Fallon, 1990).

In spite of the increasing interest in the role of culture, the majority of studies on body image have been conducted in North America and West Europe (see, for review, Cash & Pruzinsky, 1990). Only a few studies have examined body image or bodily preferences in other regions, and made a direct comparison of two or more cultures or subcultures (e.g., Akiba, 1998; Cogan, Bhalla, Sefa-Dedeh, & Rothblum, 1996; Davis & Katzman, 1998; Gustavson et al., 1993). Because the methodology for measuring body image is so diverse, it is difficult to assess the role of culture even when a comparison is made. Hence, only limited knowledge exists about the historical or comparative aspects of body image in the majority of cultures.

Recent years have witnessed extensive research on the universal aspects of physical attractiveness. These studies have gradually revealed that perceptions and judgments of physical and facial beauty rest heavily not only on social norms but also on evolutionary and biological foundations (Cunningham, 1986; Cunningham, Barbee, & Pike, 1990; Singh, 1993). An increasing number of cross-cultural studies seem to support this perspective by demonstrating that individuals rated as attractive in one culture are usually rated as attractive in other cultures too (Bernstein, Lin, & McClellan, 1987; Kowner & Ogawa, 1995; Maret & Harling, 1985; Perrett, May, & Yoshikawa, 1994; Udry, 1965).

At the same time, only a few studies examined cross-cultural differences in perceptions and judgments of bodily phenomena. And yet, ethnic differences in body image and body esteem within a specific culture may illuminate the role of culture in shaping a collective body image. The fundamental conclusion from studies examining people from different ethnic backgrounds is that they do not nec-

essarily share the exact structure of body image. Studies on body image within the African-American community, for example, suggest substantial differences from the White majority. Obesity, a major factor in low body image among Whites, is not as disparaged among Blacks, and obese Blacks do not manifest the low levels of body satisfaction found among obese Whites (Harris, Walters, & Waschull, 1991; Rand & Kuldau, 1990). Many African-Americans, however, are preoccupied with their skin colour, hair type, or certain ethnic-specific facial features (Neal & Wilson, 1989; Okazawa-Rey, Robinson, & Ward, 1986).

Culture appears also to affect body esteem in general and body satisfaction in particular. The dissatisfaction with one's body shape due to a perceived obesity is predominantly a Western, Caucasian, and female phenomenon. In many non-Western societies, however, plumpness (especially among women) used to be considered attractive, and in some societies, such as Ghana, mainland China, and Jamaica, this is still the case, probably as an indication of higher status, good health, and fertility (e.g. Brown & Konner, 1987; Cogan et al., 1996). It is not surprising, therefore, that epidemiological research indicates that there is a much higher prevalence of eating disorders in economically developed than in developing countries, and within the former more among Caucasian women than Black or Asian women (Davis & Yager, 1992; Rand & Kuldau, 1990).

As for body esteem, several studies have measured ratings of body esteem in various nations, cultures, subcultures, or ethnic groups. Some of the samples employed in these studies were rather small, and often insufficient details about the participants or essential statistical information have been provided. Still, the fact that some of these studies utilized the same measure, the Body Esteem Scale (BES; for details see the Testing material section), and participants with similar background (college students), enable us to examine the role of culture and its interplay with other variables.

The initial and most numerous studies were conducted in the USA among a general population of students, with no description of its ethnic structure (Franzoi & Herzog, 1986, 1987; Franzoi & Shields, 1984; Silberstein et al., 1988). If we regard the American samples as a sort of benchmark, a number of studies that have explored body esteem in non-American samples provide some insight into the effect of culture on this construct. Akiba (1998), for example, hypothesized that the Western media has a negative impact on one's body image due to the constant and supposedly detrimental exposure to good-looking models and pressures to have an attractive body. Consequently, he sought comparison between Americans and members of a culture unexposed to Western media, such as Iran. Akiba's comparison of the presumably unexposed Iranian students and the exposed American students confirmed his hypothesis for both men and women, but the small size of the sample and lack of details about the participants impeded its reliability.

Davis and Katzman (1997) conducted their research among university students in Hong Kong and found that

their subjects scored lower than their counterparts in the United States. Although the authors did not explain their findings, they may reflect attitudes toward the body in a culture exposed to Western media but also affected by collective values and emphasis on self-restraint. In another study, Davis and Katzman (1998) compared the score they obtained in Hong Kong with a sample of Chinese, the majority born in Hong Kong, who had resided in the United States for up to 5 years. Their findings indicated that Chinese in the USA had similar or slightly lower body esteem than their American counterparts (especially the females) and significantly greater body esteem than their compatriots from Hong Kong. This study may reflect the abandonment of Chinese values regarding the body and the acquisition, instead, of values common in the American mainstream.

In another study, conducted among Israeli (mostly Jewish) students, men scored slightly lower than their American counterparts (but not significantly lower than most of the samples), whereas Israeli women scored higher (especially in the weight concern factor) than their American counterparts in most of the samples (Barak, Sirota, Tessler, Achiron, & Lampl, 1994). This study was the only one in which females scored higher than their male counterparts in the same culture. The Israeli scores may reflect attitudes toward the body in a Western-oriented culture, heavily exposed to Western media and with increasingly individualist attitudes toward self and body. Barak et al. explained the scores of the male students, the majority of them army veterans, as an outcome of declining self-esteem after leaving the military. Israeli women, by contrast, did not suffer the loss of the "hero-protector" status (even though many of them had served in the army as well) like their male compatriots, but rather felt better about their body due to long periods of regular physical exercise.

The focus of this study was on body image perceptions in Japan, a nation which has successfully combined economic might with scientific innovation while maintaining many of its indigenous non-Western cultural roots. Because of these characteristics, among others, the view of the self in Japan has received a great deal of attention.

The predominant social relativism and vertical structure of Japanese society (Lebra, 1976) suggest a self that differs markedly from what is customary and especially what is idealized in the West. The Japanese individual displays higher sensitivity to external public stimuli, shows more resilience in the presence of others, and underscores his or her control over the situation before external factors, such as society (Takata, 1992). In Japan, a typical collective/interdependent society, one's fundamental social goal is to fit in and belong, through the maintenance of appropriate station, performance of the right action, and support of the group's objectives rather than one's own (Markus & Kitayama, 1991; Marsella, DeVos, & Hsu, 1985). Self-assertion is seen as immature, whereas the ability to adapt to the interpersonal context has great relevance for self-esteem (Hamaguchi, 1985).

Traditionally, the Japanese regard self-praising and self-promotion as bad manners. Probably the outcome of the need to belong rather than to stand out, this attitude leads to a strong tendency to self-abasement. Several empirical studies that examined self-enhancement in Japan support this proposition (Takata, 1992). Japanese adults, for instance, have been found to attribute success to external sources, even in situations where Western adults would definitely attribute it to themselves (Isozaki & Takahashi, 1988). Yoshida, Kojo, and Kaku (1982) demonstrated that even children in elementary school perceive a "humble" classmate's personality as better than those who employ self-praise, a manifestation that intensifies with age. Likewise, the evaluation of others' ability starts to favour the humble ones in the third grade. In respect of the body the trend is similar. Comparing attributions of students who received positive or negative feedback on their attractiveness, Kowner (1996a) found that those who received positive feedback were more inclined to attribute it to others, to luck, or to a mistake.

Along with the relative depreciation of the self there seems to be less emphasis on the body as a source of esteem. Status, often a source of body enhancement in the West, is acquired through belonging to a respected institution (specific company, university, etc.), or to a lesser extent through the possession of the latest commodity (Lebra, 1976). The contention that the Japanese place a rather low emphasis on the body as a source of sexual and social esteem is supported by several comparative studies. Buss (1989), for instance, corroborated this view in a multi-national comparison of mate preferences. He found that Japanese ratings of the importance of the criterion of the mate's good looks were the third lowest among the 37 participant cultures. From a comparative perspective, evaluation scores of body image in Japan have been found lower than in the USA. Lerner, Iwawaki, Chihara, and Sorell (1980) as well as Cusumano, Robinson, and Morooka (1989) found Japanese adolescents and young adults to have lower evaluations of body image and physical self-efficacy (perceived physical ability and physical confidence) scores than their American peers.

The specific goals of this study were to examine what body parts and functions the body image of young Japanese adults consisted of, and to assess its relation with several other construals of the self. An additional goal was to compare the scores of body esteem of Japanese with data previously obtained for people of similar age and background in diverse cultures. Each culture is characterised by specific social and cultural patterns which affect the self, such as the USA, Hong Kong prior to its return to China, Israel, and Iran (for cultural characteristics see earlier). Through this cross-cultural comparison we sought to gain further insight into the factors affecting Japanese collective body esteem.

The primary contention of this study was that body image, as measured by body esteem scores, may vary notably across different cultures. Because of social differences, and indirectly also physiognomic variation, members of various cultures may differ in the way they

conceive their own body, have divergent body ideals, and ultimately experience different feelings toward their body. Critically, the main hypothesis of this study was that body esteem in Japan is similar in structure to that in the USA (the only available data) due to universal mating patterns and personality structure, but differs in magnitude due to cultural differences. This hypothesis led to four predictions.

1. *Structure of body esteem.* Body esteem scores in Japan will be lower than those found in studies in Western individualist societies (e.g., the USA and, with some reservations, Israel) but not necessarily different from the Chinese level, due to a lesser emphasis on the self and the body as sources of self-esteem in collective societies.
2. *Magnitude of body esteem.* Despite the cultural effect, the structure of body esteem, namely the relative score of each body attribute, will be similar across cultures, due to universal pressures of mate selection as well as exposure to similar contents in the mass media.
3. *Gender differences.* As found in almost any other culture, Japanese males will score higher on measures of body esteem than their female compatriots.
4. *Association between body esteem and other constructs of the self.* As found in earlier studies, body esteem in Japan will be positively correlated with self-esteem and body consciousness, and negatively with social anxiety.

METHOD

Participants and design

The participants were 569 undergraduates (332 females and 237 males; mean age = 20.0 \pm SD = 1.5 years) enrolled in various courses at three universities in the vicinity of Tokyo (The University of Tsukuba, The University of Library and Information, and Meikai University). All subjects were Japanese nationals who participated in fulfilment of a course requirement. This sample roughly represented the Japanese student population of this academic level and age, with some overrepresentation of females and students from eastern Japan.

Testing material

The measure used to determine body esteem was the Body Esteem Scale (BES) developed by Franzoi and Shields (1984). The BES is composed of 35 body items found to make up young American adults' body-esteem dimensions. Respondents on the BES are requested to rate individual body parts and functions using a 5-point Likert scale ranging from 1 ("I have strong negative feelings") to 5 ("I have strong positive feelings"). For the original American sample, the BES was found to consist of three subscales for each gender. For women, the three

BES subscales measure sexual attractiveness, weight concern, and physical condition, whereas for men they measure physical attractiveness, upper body strength, and physical condition. The BES has been shown to be factorially sound and to have adequate convergent and discriminant validity (Franzoi & Herzog, 1987; Franzoi & Shields, 1984). The BES, like all the testing material in this study, was translated into Japanese and back into English by two bilingual people independently. Discrepancies were settled by a third person to ensure cross-cultural equivalence (for the translation procedure see Brislin, 1970).

Procedure

The survey was conducted in a classroom, and took 15–20 minutes to complete. The BES was administered as a part of a battery, which included one or more of the following tests.

The State Self-esteem Scale (Heatherton & Polivy, 1991). Measures short-lived changes in self-esteem and consists of 20 items modified from the widely used Janis-Field Feeling of Inadequacy Scale. In this study it was rated on a 7-point scale ranging from 1 ("strongly disagree") to 7 ("strongly agree").

Body Consciousness Scale (Miller, Murphy, & Buss, 1981). Measures the extent to which people are aware of their body along two separate factors: public body consciousness (awareness of observable aspects of body) and private body consciousness (awareness of internal sensations). This self-report scale consists of 15 items.

Social Evaluative Anxiety Scale (Watson & Friend, 1969). Measures the level of anxiety in social and evaluative situations. It consists of two scales: Fear of Negative Evaluation scale and Social Avoidance and Distress scale, containing 30 and 28 items of false or true answers, respectively.

RESULTS

Structure of body esteem

We conducted a principal components factor analysis of the BES scores using oblique rotation ($\delta = 0.0$) on the data. Three factors were indicated for both men and women and accounted for 38% and 37% of the total variance, respectively. The results of the principal components analysis are presented in Table 1. They indicate that the three main factors found in the American study were also fairly valid for the Japanese sample. Despite the general appropriateness of the three factors, a number of items in the factor analysis of the American sample did not match all the items all of the Japanese sample. Therefore, a comparison of the two samples on the three subscales is of questionable validity.

TABLE 1
Items and factor loadings of the Body Esteem Scale for men and women

Items	Factor Loading											
	Weight concern Females		Upper body strength Males		Physical condition Females		Physical attractiveness Males		Sexual attractiveness Females		Physical condition Males	
	J	US	J	US	J	US	J	US	J	US	J	US
Body scent									.35	.40		
Appetite		.40									.45	.37
Nose							.43		.38		.35	
Physical stamina			.69		.84	.76					.65	
Reflexes			.55		.74	.46					.41	
Lips							.45	.41		.50		
Muscular strength			.90	.65	.76	.72						
Waist		.56	.35								.49	.61
Energy level			.50		.66	.56					.38	.59
Thighs	.71						.40				.46	
Ears							.56		.47			
Biceps	.45		.80	.64	.36					.43		
Chin	.38						.56					
Body build	.81	.64		.54			.57					
Physical coordination				.36		.57			.74		.45	.40
Buttocks	.62	.58					.60	.42				
Agility			.53		.64	.56						.50
Width of shoulders			.54	.53								
Arms	.56		.82	.54								
Chest or breasts			.61	.53								
Appearance of eyes							.35	.52		.42		
Cheeks/cheekbones							.36	.66		.57		
Hips	.74	.73					.61					
Legs	.84	.47					.69					
Figure or physique	.85	.83		.38			.69					.43
Sex drive				.35					.79	.50	.51	
Feet	.73						.56	.45				
Sex organs							.43	.36	.64	.63		
Appearance of stomach	.44	.47					.49					.55
Health					.41				.56		.73	.41
Sex activities									.74	.46	.47	
Body hair										.41	.45	
Physical condition					.63				.53		.75	.68
Face	.41						.42	.52		.43		
Weight	.66	.85					.49					.51
Eigenvalues	7.8		9.0		2.9		2.6		2.2		2.1	

J = Japanese scores; US = American scores. Only factor loadings greater than .35 are listed. The American scores were obtained from Franzoi and Shields (1984).

Magnitude of body esteem

The raw results of the BES were compared with a sample of American students of unspecified ethnicity (Franzoi & Herzog, 1987) and a sample of Chinese students in Hong Kong (Davis & Katzman, 1997), all of a similar age. Although we were not able to obtain *SD* scores for each item in the American sample, we attempted to estimate them on the basis of the *SD* score of the three subscales (BES1, BES2, BES3), provided by the authors. Although this statistical procedure leaves much room for inaccuracies it provides an insight into cultural differences on specific items (Table 2).

In the Japanese-American comparison significant differences were found between the total scores, as well as in many of the attributes. Significant differences remained even after

correction of alpha level to avoid spurious significant findings due to the large number of tests (Nehr, 1967). Only in one attribute, appetite, was the Japanese women's score higher, but not significantly, than the Americans. Also, in the Japanese-Chinese comparison significant differences were found between the total scores, but in comparing each attribute only a few significant differences were found after correction of alpha level. Overall, Japanese men and women alike scored significantly lower than their American and, to a lesser extent, their Chinese counterparts.

Five earlier studies have provided statistical details of scores on the three subscales of the BES. We compared those scores with scores obtained in the present study (Table 3). Both Japanese men and women scored significantly lower than their American counterparts in three different samples on any subscales (with one exception).

TABLE 2
Mean (*M*) and standard deviation (*SD*) of body esteem scores of Japanese students as compared with American and Chinese students^a

Physical attribute	Male				Female			Sex diff. (in Japan)	
	Japanese (<i>N</i> =237)		American (<i>N</i> =150)	Chinese (<i>N</i> =123)	Japanese (<i>N</i> =332)		American (<i>N</i> =193)		Chinese (<i>N</i> =186)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>SD</i>	<i>M</i>		<i>M</i>
Body scent	2.82	(0.78)	3.62**	2.96	2.97	(0.93)	3.68**	3.04	4.1
Appetite	3.61	(0.99)	3.47	3.28	3.22	(1.05)	2.68**	3.01*	19.7**
Nose	2.91	(0.93)	2.96	3.31*	2.76	(0.94)	3.13*	2.95	3.5
Physical stamina	2.87	(1.25)	3.87**	2.98	2.73	(1.19)	3.42**	2.81	1.8
Reflexes	3.18	(1.19)	3.96**	3.49	2.86	(1.22)	3.63**	3.11	9.5
Lips	2.89	(0.79)	3.42**	3.21	3.09	(0.93)	3.67**	3.27	7.4
Muscular strength	2.78	(1.15)	3.50**	2.84	2.73	(1.06)	3.29**	2.80	<1
Waist	2.87	(0.96)	3.18	2.98	2.69	(0.86)	2.83	2.62	5.2
Energy level	3.05	(0.91)	3.81**	2.98	2.87	(0.88)	3.39**	2.78	4.7
Thighs	2.96	(1.02)	3.35	2.98	2.17	(0.96)	2.29	2.32	89.5**
Ears	3.19	(0.86)	3.09	3.43	3.27	(0.82)	3.43	3.49	1.2
Biceps	2.93	(1.00)	3.33	2.90	2.69	(0.96)	3.22**	2.85	8.6
Chin	2.93	(0.78)	3.18	3.27*	2.76	(0.93)	3.02	3.15*	5.2
Body build	2.73	(0.96)	3.48**	2.85	2.40	(1.01)	2.83*	2.79*	14.6**
Physical coordination	2.82	(1.02)	4.25**	3.17	2.48	(1.00)	3.77**	2.88*	15.8**
Buttocks	2.78	(0.68)	3.40**	2.83	2.45	(0.83)	2.68	2.32	24.8**
Agility	3.06	(1.13)	4.01**	3.41	2.76	(1.04)	3.61**	2.86	11.3*
Width of shoulders	2.87	(1.10)	3.60**	3.05	3.15	(0.96)	3.24	3.09	10.4*
Arms	2.87	(0.96)	3.39*	3.02	2.86	(0.92)	3.19	3.01	<1
Chest or breasts	2.79	(0.96)	3.39**	2.83	2.70	(1.04)	3.17**	2.80	<1
Appearance of eyes	3.17	(0.92)	3.91**	3.46	3.26	(1.07)	4.20**	3.41	<1
Cheeks/cheekbones	3.01	(0.74)	3.47*	3.11	2.80	(0.77)	3.65**	3.05	10.4*
Hips	2.80	(0.74)	3.11*	2.92	2.34	(0.85)	2.53	2.31	44.9**
Legs	2.87	(0.97)	3.46**	3.13	2.31	(1.04)	2.76**	2.51	44.4**
Figure or physique	2.79	(1.03)	3.48**	2.79	2.38	(0.97)	2.87**	2.79*	23.9**
Sex drive	3.25	(0.87)	4.06**	3.14	2.97	(0.63)	3.82**	2.92	18.5**
Feet	2.95	(0.85)	3.18	3.08	2.43	(0.94)	2.96**	2.59	45.8**
Sex organ	2.81	(0.78)	3.68**	3.27*	2.84	(0.59)	3.45**	3.00	<1
Appearance of stomach	2.70	(0.95)	3.03*	2.87	2.30	(0.91)	2.53*	2.27	25.3**
Health	3.30	(1.15)	4.09**	3.34	3.37	(1.09)	3.92**	3.15	<1
Sex activities	3.04	(0.90)	3.65**	3.21	2.96	(0.69)	3.58**	2.92	1.5
Body hair	2.90	(0.88)	3.48**	3.06	2.47	(0.87)	2.91**	2.76*	32.3**
Physical condition	3.15	(1.12)	3.83**	3.32	3.25	(1.06)	3.38	3.26	1.2
Face	3.05	(0.87)	3.67**	3.32	2.91	(0.92)	3.60**	3.14	3.4
Weight	2.87	(1.05)	3.21	2.79	2.30	(1.04)	2.57	2.54	40.9**
Total	103.6	(16.5)	123.6 (19.5)‡	108.6 (16.3)**	96.5	(15.1)	112.9 (20.2)‡	100.4 (11.5)†	27.9‡

^aThe American and Chinese data was taken from Franzoi & Herzog (1987) and Davis & Katzman (1997), respectively.

^bSignificance level for single items was adjusted, * $p_{.05} = p \leq .0015$; ** $p_{.01} = p \leq .0003$ (35 observations). New probabilities of Type I errors were calculated using Nehr's (1967) formula.

Significance level for the total scores, ** $p < .01$; † $p < .001$; ‡ $p < .0001$.

Japanese men and women also scored lower than their Chinese counterparts on the physical attractiveness and sexual attractiveness subscales. They also scored lower than their Israeli counterpart on all the subscales, except for the upper body strength subscale for men.

Although the scores of the Japanese, American, and Chinese samples differed in magnitude, there were significant and often high correlations between the mean score of the 35 items as rated by the males and the females in these samples. Interestingly, there were high correlations between the scores of males and females of the same culture and higher similarity between Japanese and Chinese. Japanese females' scores were correlated most with their Chinese female counterparts' scores and least with the scores of the American males. Japanese males' scores were correlated

most with their Chinese male counterparts' scores and least with the scores of the American females (Table 4).

Gender differences

Among the Japanese there was a large gender difference on the total BES score: Men expressed higher body esteem than women. Women expressed higher esteem than men on body scent, lips, and width of shoulders, whereas men were higher on a majority of the items, especially items related to the lower body and weight (Table 2). We also examined the correlations between the three subscales within each gender. The subscales were highly correlated with each other, and among men the correlations were higher than among women (Table 5).

TABLE 3
Body esteem and culture—differences in scores on the subscales of the BES for different national samples

	Japan		USA ^a		USA ^b		USA ^c		Hong Kong ^d		Israel ^e	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
<i>Males</i>	(N=237)		(N=331)		(N=150)		(N=47)		(N=123)		(N=173)	
Physical attractiveness	32.5	4.7	39.1 [†]	5.7	37.2 [†]	4.6	33.2	4.8	35.2 [†]	5.5	41.7 [†]	8.7
Upper body strength	25.8	6.1	34.0 [†]	6.1	32.5 [†]	6.1	31.8 [†]	6.9	26.8	5.7	25.0	3.2
Physical condition	39.2	8.3	50.2 [†]	7.7	47.8 [†]	7.7	45.9 [†]	9.5	40.5	7.5	47.6 [†]	9.5
<i>Females</i>	(N=332)		(N=633)		(N=193)		(N=45)		(N=186)		(N=203)	
Sexual attractiveness	37.5	5.3	46.9 [†]	6.3	45.3 [†]	4.6	42.6 [†]	4.7	39.9 [†]	4.6	49.5 [†]	8.3
Weight concern	24.5	6.1	29.9 [†]	8.2	32.5 [†]	6.1	28.8 [†]	7.6	25.3	5.6	36.2 [†]	9.2
Physical condition	25.7	5.7	33.3 [†]	5.7	31.6 [†]	5.8	30.4 [†]	6.2	26.6	4.1	36.2 [†]	9.5

^aFranzoi & Shields, 1984. ^bFranzoi & Herzog, 1986. ^cSilberstein et al., 1988. ^dDavis & Katzman, 1997. ^eBarak et al., 1994. [†]p < .001.

TABLE 4

Correlation coefficients between subscales of the BES for Japanese males and females

	BES 1	BES 2	BES 3
<i>BES 1</i>			
Male physical attractiveness	—	.52 [‡]	.58 [‡]
Female sexual attractiveness			
<i>BES 2</i>			
Male upper body strength		—	.74 [†]
Female weight concern	.49 [‡]		
<i>BES 3</i>			
Male physical condition			—
Female physical condition	.42 [‡]	.46 [‡]	

Males are above the diagonal, females are below.
[‡]p < .0001.

TABLE 5

Correlation coefficients between mean scores of the 35 items of the BES of Japanese, American, and Chinese males and females

	Japanese		American		Chinese	
	Males	Females	Males	Females	Males	Females
<i>Japanese</i>						
Males	—	.66 [‡]	.36*	.35*	.67 [‡]	.51**
Females			.39*	.64 [‡]	.64 [‡]	.86 [‡]
<i>American</i>						
Males		—	.70 [‡]	.38*	.36*	
Females			—	.59 [‡]	.76 [‡]	
<i>Chinese</i>						
Males				—	.70 [‡]	
Females					—	

Thirty-five observations were used in this computation.
* p < .05; ** p < .01; [‡]p < .0001.

Association between body esteem and other constructs of the self

We examined the correlations between scores of body esteem and several other scales. As expected, body esteem was found to correlate positively with self-esteem and body consciousness, and to correlate negatively with social anxiety (Table 6).

TABLE 6

Correlation coefficients between body esteem score and scores of additional tests

	Scale				
	State self-esteem (N=322)	Body consciousness (N=135)	Social anxiety (N=105)	Social avoidance (N=105)	Fear of evaluation (N=105)
Total	.54 [‡]	.22*	-.45 [‡]	-.32**	-.39 [‡]
Males	.59 [‡]	.26*	-.47**	-.29*	-.43**
Females	.51 [‡]	.21	-.43**	-.44**	-.30*

* p < .05; ** p < .01; [‡]p < .0001.

CONCLUSIONS

This study suggests that the structure of Japanese body esteem does not differ substantially from American body esteem. Young Japanese and American adults are concerned with physical attractiveness and sexual condition; women of both cultures are concerned with their weight, and men of both cultures are concerned with their upper body strength. This similarity could be the result of universal human mating patterns as well as similar personality structure. The universal mating patterns stress the functional importance of similar physical traits for males and females that transcend cultural differences, or at least differences between modern cultures (Cunningham, Roberts, Barbee, Druen, & Wu, 1995; Kowner, 1996b; Singh & Luis, 1995).

Mating patterns are also affected by culture. Nevertheless, the crosscultural effect on mating patterns seems to have diminished during the 20th century because of growing exposure to similar human stimuli and socialization agents, most of them of Caucasian and Western origins, through the mass media. This massive exposure and cultural bias create similar sets of values and ideals regarding the body (Shohat & Stam, 1994; for early evidence of Japan's transformation of values see Furuta, 1971). Personality structure may also affect differences in body esteem structure. Nevertheless, empirical studies that compared Japanese and American personalities found mean

level differences on specific traits but not in personality structure. The most extensive comparative study examined the structure of Japanese and American personality as reflected by performance of the Minnesota Multiphasic Personality Inventory (MMPI-2) in two comparable student populations. The study found that the factorial dimensions measured by the Japanese version of the test were nearly identical to those measured by the original American version of the test (Shiota, Krauss, & Clark, 1996).

The statement regarding structural similarity is corroborated by the significant correlation of the mean score of the 35 items among all the samples. But there are additional indications in the present study to support assertions regarding the universal character of body esteem and the factors affecting it. The first indication concerns gender difference in body esteem. Not only was the difference found in our Japanese sample similar to that found in the American and Chinese samples, it also corroborated earlier findings regarding lower body image among women (Hatfield & Sprecher, 1995). The second indication concerns the relations between body esteem and general self-esteem, body consciousness, and social anxiety. As found in earlier studies in the USA, Japanese body esteem is also correlated with self-esteem, body consciousness, and low anxiety, regardless of the cultural differences found in Japanese society.

Despite the supposed universal character of these findings, this study suggests that body esteem is also affected by culture, but this is pronounced in terms of magnitude rather than structure. Our Japanese subjects, both men and women, manifested significantly lower body esteem than their American, Israeli, and to a lesser extent Chinese counterparts, and in fact lower than any group examined hitherto. As such, this study corroborates previous findings concerning body image in Japan (Cusumano et al., 1989; Lerner et al., 1980). The cultural factor was also evident in ratings on the subscales, where the Japanese scored lower than samples from the USA and Israel, but only partly lower than a sample from Hong Kong, a place with many cultural similarities to Japan.

There are several complementary explanations for the relatively low body esteem expressed by young Japanese adults. The first concerns self-effacement. Lincoln (1989) noted that whenever an American questionnaire of any self-descriptive measure is used in Japan, respondents tend to evince lower scores than Americans due to the presumably cultural norm of humble presentation of self typical of collective societies. Although this possibility can be neither excluded nor verified at present, we believe that self-effacement may account for only part of the variance.

Another account for the Japanese lower scores may be the relation found between body esteem and state self-esteem, social anxiety, and body consciousness. Although we do not suggest a causal relation between these variables, we may examine the likelihood that Japanese individuals also manifest lower self-esteem and body consciousness, and greater social anxiety, than Westerners. Several studies have indeed examined this issue and found

the Japanese to score lower on various measures of self-esteem than their Western counterparts (Kowner & Ogawa, 1993; Mahler, 1976; Shiota et al., 1996). Although lower self-esteem may represent individuals of many collectivist cultures, the scores on body esteem of the Chinese sample from Hong Kong were still higher than those of the Japanese sample. What makes the Japanese so susceptible to lower body image?

A partial answer perhaps involves interpersonal attitudes, and the Japanese are conspicuous for their high levels of social anxiety (Ogawa, Hayashi, Nagai, & Shiraishi, 1979). Some researchers who have examined this psychological phenomenon in depth argue that it is a culture-bound syndrome (cf. Russell, 1989). Social anxiety is known in Japan as *Taijin kyōfushō*, which has often been mistranslated as anthropophobia. This is an indigenous diagnostic label for negative reaction to interpersonal situations, ranging across physical inconvenience, anxiety, and fear (Tanaka-Matsumi, 1979). More important, this interpersonal phobia is the most common mental problem found in young Japanese adults. A number of studies have indicated that about 30–50% of the Japanese seeking mental counselling or diagnosed as neurotic suffer from this condition. Even among ordinary university students, 30–40% shows light symptoms of interpersonal phobia (Nagai, 1994).

The ultimate reason for the lower Japanese body esteem may perhaps concern broader cultural and historical perspectives. Being part of the West, but non-Caucasians, Japanese people seem collectively to experience high incongruence between their Western-oriented bodily ideals and the perceptions of their own body. This phenomenon may stem from a long period (since the mid-19th century) during which Japan extensively emulated Western technology and social ideals, and its national status was relatively low. This incongruence, which has a detrimental effect on body esteem, is not unique to Japan. In fact, because of the human tendency to categorize people according to their collective status, humans often judge others' physical attractiveness according to their group status (Kowner, 1996c), and their own body image is affected accordingly. Hence, the collective status of a given group may affect the body esteem of its individual members.

The Japanese, however, seem to suffer more acutely than others from this incongruence, especially if we consider their high national status today. A recent survey conducted by a Japanese newspaper among women in seven East Asian capitals suggested that both the level of modernization (and often Westernization) and national character played an important role in determining body esteem and body satisfaction (Ishibashi, 1996). At the same time, the look desired in aesthetic surgery (Shirakabe, 1991) and the frequent use of Caucasian models in the Japanese media (Kitahara, 1989) imply that on the national as well as the personal level Japanese are strongly affected by Western bodily ideals.

Although this perspective may illuminate some of the cultural background for our findings, the riddle of the specific causes for the lower Japanese body esteem remains

unsolved. Future studies may well ascertain the connection between these causes and lower ratings of body esteem in Japan, as well as determine their relative importance.

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