Self-Attributions for Achievement Outcomes among First Year Japanese College Students

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Abstract

Two studies, involving subsamples of a sample of 127 first year Japanese university students, were conducted for the purpose of replicating and extending previous research into the attributional thinking of Asian university students, and Japanese students in particular. In both studies, students were found to consistently and overwhelmingly prefer effort attributions over ability, task, and luck attributions, for both success and failure outcomes. The students revealed a distinct self-critical attributional pattern. The causes and mental health implications of this prefence are discussed.

It is well established that by and large American university students attribute their successes to internal factors (effort and ability) and failures to external factors (bad luck and task difficulty). This has been called the self-serving (or self enhancing) attributional bias. (See Weiner, 2001, and Kim, Kim, Kam, & Shin, 2003 for recent summaries.) However, a preponderance of studies (to cite just a few, Brown, Gray, & Ferrara, 2003; Chandler et al, 1981; Crittenden 1996; Hong 2001; Morling, 2000; Park & Kim, 1998; Smith & Bond, 1998) indicate that Asian samples of students, Northeast Asian students in particular, deviate from the Western self-enhancing pattern, in two ways, first by attributing their successes predominantly to the unstable internal factor of effort more so than to ability, and second, by discounting the efficacy of the unstable external factor of luck for their failures.

As Weiner (2001, p.18) describes it, outcomes and subsequent behavior are related by attributional inferences. Motivation is underpinned by cognitions about causation. Willingness to expend time and resources in the pursuit of goals depends at least partly on beliefs about the probabilities, given the time and resources at hand as well as opportunity costs, of attaining the goals. The causes of past personal successes and failures are salient background assumptions. The reason one succeeded or failed in the past can be highly relevant to what one will do in the future. Students who believe that success is based on luck will have little incentive to persist at a challenging task. Similarly, students who believe that success is based on ability may feel that effort is either unnecessary or inefficacious. However, students who believe that success is the result of effort will have every reason to make the effort that is required to achieve the success that they desire. What "making an effort" actually involves is seldom spelled out, but Japanese students do in general believe that anyone can indeed make a greater effort simply by (somewhat tautologically) trying to (Brown, Gray, & Ferrara, 2003). *Trying*, in other words, is both volitional and intentional.

Overview

Study I was conducted to replicate past findings and to establish base rates for the present research. Study 2 was conducted to explore the relations between the traditional four causes (ability, effort, luck, and task) for achievement outcomes. Finally, the implications and meanings of these findings are discussed.

Study 1

Method

Participants. A convenience sample of 127 Japanese college students (96 male, 30 female, one unspecified), with a mean age of 18.8, participated in the first study. The students were information technology majors enrolled in five sections of "English A" at Bunkyo University in Chigasaki, Japan. English A is a required class for all first year students and consists of twenty-three 90-minute meetings during the approximately 14-week term. The content of the class is decided by the individual instructors, but by school tradition is primarily intended as a period of relatively undemanding exposure to spoken English and native speakers of English (the requirements for passing the course are also up to the instructors). Class sizes typically range from 30 to 60 students (although the number in attendance on any given day is generally considerably less). Two sections were taught by the author and three by a female colleague who agreed to distribute the surveys. An item-by-item analysis using independent sample t-tests revealed no differences (p < .05) in the mean scores on any item or demographic variable between the two groups of students so they were aggregated for the first set of analyses.

Instrument. The questionnaire contained a number of items concerning beliefs about and affect toward English, studying English and other foreign languages, and a variety of related issues, adapted from the existing literature cited above. Several that concerned the attribution issues described here were also included and will be discussed at the appropriate time. The items were composed in Japanese, in an effort to pin down emic concepts of causation for success (seikou, 成功) and failure (shippai, 失敗), the possible causes being effort (doryoku, 努力), ability (noryoku, 能力), task (jouken, 条件), and luck (un, 運).. The response options ranged from 1 to 5, anchored by the labels daihantai ("strongly disagree") and daisansei ("strongly agree"). Scale step 3 was explicitly labeled wakaranai ("don't know"). A final item asked the students what their general reaction tends to be when they experience setbacks while attempting to accomplish a desired goal. The questionnaire was administered during the first week of the fall 2002 term. The introduction to the instrument explained that the researchers were interested in student attitudes and feelings about English and other related matters, that there were no right or wrong answers, and that the results would not affect the student's grade.

Results

I conducted independent sample t-tests to rule out the possibility that male and females students constitute different populations with respect to the degree to which they attribute their successes and failures to each of the four conventional factors of ability, effort, luck, and task. No t score reached the p < .01 level of significance. Therefore, the gender variable was ignored in subsequent analyses. Combining male and female responses,

means and standard deviations are shown in Table 1.

Table 1. Causes of Achievement Outcomes (measured on 5-step scale).

	M	SD	t	p
Success				
Ability	3.39***	1.02	4.33	< .0001
Effort	4.16***	0.96	13.72	< .0001
Task	3.25*	0.97	2.94	.0040
Luck	3.79***	0.90	9.90	< .0001
Failure				
Ability	3.27*	1.09	2.76	.0067
Effort	3.73***	1.14	7.21	< .0001
Task	3.50***	0.97	5.87	< .0001
Luck	3.28*	1.10	2.89	.0045

Note. 5 step scale (1 = strongly disagree, 3 = don't know, 5 = strongly agree). Single sample t-tests against scale midpoint (3.0), *p < .01, **p < .001, ***p < .0001

Repeated measures ANOVAs indicate that at least one mean differed from at least one other within both success and failure conditions (F (3, 125)=27.61, p < .0001, and F (3,126)=6.59, p < .001, respectively). Ordinarily, one would conduct Tukey's HSD post hoc contrasts to control for the increased probability of type I error. However, in the present case, in view of the extremely cautious alpha levels we have been using, paired sample t-tests are sufficiently conservative. (Type II error is not an issue here, as the differences are quite substantial). Having conducted all-against-all paired sample t-tests on the four factors within both of the outcome conditions, it can confidently be said that this student sample regards effort as a more potent cause of success than luck, ability, and task. Luck is regarded as more potent than ability and task, but ability and task are not regarded as significantly different. Similarly, lack of effort is regarded as a more potent cause of failure than lack of good luck or lack of ability, but lack of ability does not differ at p < .01 from task or luck, nor does luck differ from task.

Table 2. Efficacy of Causative Factor Depending on Outcome.

	t-score	p
Ability Success x Ability Failure	1.17	.24
Effort Success x Effort Failure	3.63	.0004
Luck Success x Luck Failure	6.03	<.0001
Task Success x Task Failure	2.45	.02

The final item asked the students what their typical reaction tends to be when they experience a setback while attempting to accomplish a desired goal. The options were (1) give up, (2) continue as before and hope that things work out somehow, and (3) try harder. Three students failed to respond, leaving a sample of 124. Fifteen (12%) said they would give up if they experienced a setback while trying to accomplish a desired goal. Sixty-one (49%) said they would continue as before and hope for a good result somehow. Forty-eight (39%) said they would try harder. Both "Continue" and "Try harder" can be considered endorsements of the efficacy of effort, while "Give up" would be a rejection of the efficacy of effort. Thus, 12% rejected effort, while 88% endorsed effort. This distribution of responses differed significantly from chance (χ 2 (2, N=124)=9.32, p< .009). (However, as worded on the survey, the second option incorporates an endorsement of luck as well: "continue doing as before (koremadeto onajiyouni yaritzuzukenagara) and hope for (kitai suru) a good result (yoikekka) somehow (nantoka)". Effort is apparently good, but for approximately half of the students who endorsed it, luck is better (the actual distribution of responses did not differ significantly from chance; χ 2 (1, N=109)=.46, p<.50), since continuing as before implies not making more effort, but rather hoping that better luck will compensate for more effort. Thus, while these students clearly endorsed effort, they also strongly endorsed luck.

I conducted single-sample t-tests against the neutral scale step of 3.00 to establish rejection or endorsement of the items at the group level. All item means differed from 3.00 at p < .01 or higher (in five of the eight tests, at p < .0001). Collectively, these students endorsed every item. For them, every factor is a potential cause of both success and failure. However, they endorsed some items more than others. Not surprisingly, in light of much past research into Japanese attributional styles (Chandler et al, 1981; Holloway, 1988; Stevenson, 1989; Stevenson & Stigler, 1992; Stevenson et al, 1990, the students endorsed effort most strongly as a cause of success, but less strongly as a cause of failure. Surprisingly, they rated effort and luck as more important for success than for failure, and task marginally so, but ability and lack of ability were equally important in determining success and failure respectively.

Study 2

Study 2 was designed to explore the relations between effort, ability, and luck.

Partcipants. A subsample of 78 students (51 males and 27 females) drawn on an availability basis from the same student sample described above participated.

Instrument. Eight items relevant to the present research issue were embedded into a questionnaire concerning the personal causes of homelessness in Japan. Rejection or endorsement of the items was assessed using a 9-point scale anchored by 1 (strongly disagree) and 9 (strongly agree). Sample items were "People with great ability don't need to try hard to succeed", "If you are lucky, ability doesn't matter so much"; and "You will surely succeed in the end, if you never give up". The questionnaire was originally written in Japanese and was presented to the students along with an English translation.

Results

As before, I conducted single sample t-tests against the scale midpoint (in this case, 5). A nonsignificant

difference indicates either uncertainty or ambivalence at the group level. All item means differed significantly from 5 at p < .01 or greater. Means and standard deviations are shown in Table 3. The following items were endorsed: "In some cases, good luck can compensate for lack of effort" (item 1); "In some cases, effort can compensate for lack of ability" (item 2); "In some cases, ability can compensate for lack of effort" (item 4); and "You will surely succeed in the end, if you never give up" (item 7). The following items were rejected: "People with great ability do not need to try hard to succeed" (item 3); "If you are lucky, ability doesn't matter so much" (item 5); "It is impossible to fail, if you try enough" (item 6); and "If you lack ability, it is meaningless to keep on trying" (item 8).

Table 3. The Relationships between Effort, Ability, and Luck.

Item	M	SD	
1	6.70***	1.59	
2	7.39***	1.61	
3	3.11***	1.94	
4	6.30***	1.73	
5	3.40***	1.78	
6	4.28*	2.20	
7	5.82*	2.16	
8	3.35***	1.99	

Note. Single-sample *t*-test against midpoint (5.0) of scale,

Heider (1958) assumed that the relationship between ability and effort is multiplicative, in that that outcomes are the product of ability multiplied by effort. Early studies seemed to support that view (Anderson & Butzin, 1974; Nicholls, 1978, cited in Graham, 1994). However, this is not the only arithmetic relationship possible. Singh (cited in Smith & Bond, 1998) and more recently Hong (2001) conjecture that some individuals subscribe to an additive theory of outcomes, such that more ability can compensate for less effort, and vice versa. Singh found support for this position among a large sample of Indians (summarized in Smith & Bond, 1998). Hong (2001) found little evidence of this (which he calls, the "compensatory rule") in China, but ventures that it may be an individual level variation that is not absolutely incompatible with the more widespread multiplicative theory (which he calls the "productive rule"). In any case, if one internal factor can compensate for the other, then it is also conceivable that an external factor can compensate for an internal factor. This certainly seems to be the case among the Japanese sample described above, although it must be conceded that the results are not unambiguous. According to these results, luck can compensate for lack of effort (item 1), effort can compensate for lack of ability (item 2), ability can compensate for lack of effort (item 4), but luck cannot compensate for lack of ability (item 5). This is a violation of the transitive rule. Moreover items 3 and 4 are clearly contradictory, and there is also an apparent contradiction between items 6 ("You are sure to succeed in the end, if you never give up") which was endorsed, and 7 ("If you try enough, you cannot fail"), which was rejected. Item 8 seems to strongly endorse the efficacy of effort, in that success is possible even without ability.

p < .01, p < .001, p < .001, p < .0001, p < .0001, p = 78.

In short, the results do not support either theory of performance and indeed are not even consistent. The pattern of inter-item correlations is also not very revealing. The following items correlated moderately to highly (.25 -.75) at p < .05: Items1and 2 (r(79) = .32), items 3 and 5 (r(79) = .25), items 3 and 7 (r(79) = .29), items 3 and 8 (r(79) = .43), items 4 and 5 (r(79) = .33), items 4 and 6 (r(79) = .38), items 5 and 8 (r(79) = .35), and items 6 and 7 (r(79) = .57). It may be significant that these last two items have means that are closest to the midpoint of the scale, and also rather large standard deviations, indicating ambivalence and/or ambiguity (Ghiselli, Campbell, & Zedeck, 1981: 411). Clearly, further research is needed.

Additional Support

Data from three surveys conducted between April 2002 and June 2003, involving demographically equivalent student samples provide converging evidence. The first was a general motivation, attitude, and interest survey previously administered by myself to 210 first year students (143 males and 67 females, mean age = 18.5), enrolled in compulsory English classes at two non-elite Japanese universities in Kanagawa prefecture (all seven classes taught by the author during the spring 2002 term) provide evidence that these results generalize beyond the present sample. Embedded in this survey are several items of relevance, in particular the following two:

- 1. "The only thing that can prevent me from becoming as fluent in English as I want to be is lack of my own effort" 私が望むほど流暢に英語を話せないとすれば、それは私自身の努力不足です。
- 2. "If I fail to learn English, it will be because of things that I have no control over." もし私の英語学習が うまくいかないとしたら、それは私の力ではどうすることもできない何かのせいでしょう。

The response scale ranged from 1 (*strongly disagree*) to 7 (*strongly agree*). The mean for item 1 was 5.51 (SD = 1.47), which differed significantly from the scale midpoint (t (210) = 14.91, p < .0001. The mean for item 2 was and 2.98 (SD = 1.72), which also differed significantly from the scale midpoint (t (210) = 8.57, p < .0001). These indicate a high degree of agreement with the first and a high degree of disagreement with the second item. As with almost all items heretofore presented, means did not differ for males and females (t (210) = 1.66, p < .10, and t (210) = .84, p < .40, respectively).

Looking at the frequencies, for item 1, 162 (77%) students selected one of the positive scale steps (5, 6, or 7), 19 (9%) selected negative scale steps (1, 2, or 3) and 29 (14%) selected scale step 4. For item 2,137 (65%) students selected negative scale steps, 41 (20%) selected positive scale steps, and 32 (15%) selected scale step 4. Thus 77% agreed with statement 1, and 86% did not disagree, while 65% disagreed with statement 2, and 80% did not agree. Taken together, these results indicate that these first year university students overwhelmingly believe that their personal success or failure in learning English depends on internal rather than external factors.

Data from another, distinct, sample (N=124) of demographically equivalent students, described in Brown 2003b), provide additional support. The students were asked to endorse or reject, using a 7-point Likert type scale, three statements concerning the malleability of intelligence (知性). The first two statements were derived from Dweck and Henderson's (1988) Implicit Theories of Intelligence Measure (cited and described in Hong, 2001). These statements were (1) "Everyone has a certain amount of intelligence and there isn't much that can be done to change that". (誰でもある程度の知性を持っていますが、それを変える為にやれることはあまりありません). and (2) "You can learn new things, but you can't change your basic intelligence". (あなたは

新しいことを学ぶことはできますが、あなたの根本的な知性を変えることはできません). The third statement in the three item index was found to be inordinately difficult to provide a Japanese translation of that didn't precisely duplicate the meaning of item 1 (above). I substituted a third item for exploratory purposes, one that focused on the developmental aspect of malleability. (3). "An unintelligent child will probably grow up to be an unintelligent adult". (頭の悪い子供は、たぶん頭の悪い大人になるでしょう). The first two items were translated following the procedures outlined by Behling & Law (2000). The third item was composed in Japanese. Cronbach's alpha for these three items was found to be inadequate (=.50), hence they will be discussed separately.

Item means were compared to the scale midpoint of 4 using single sample t-tests.. All three statements were strongly rejected and differed significantly from the scale midpoint at p < .0001. Means, standard deviations, and t-scores were as follows: Item 1 M=2.36, SD=1.35; t (124)=--13.56; Item 2 M=3.14; SD=1.64; t (124)=-5.80. Item 3 M=1.91; SD=1.38; t (123)=-16.61.

A firm belief in the malleability of intelligence must surely go hand in hand with a belief in the efficacy of effort. If ability, or intelligence, is conceived of as a fixed capacity (Nicholls & Miller, 1984), then clearly effort subsequent to failure will be otiose. But Japanese students apparently do not conceive of ability in this way, but rather as something that can be increased through the investment of time and application of labor. Thus, to the degree that success is a desired goal, effort, whether to apply one's existing abilities, or to develop new or better abilities, is, in the view of many Japanese, the most reasonable means for achieving it.

A third survey, described in Brown, Gray, & Ferrara (2003), asked a demographically equivalent but distinct sample of 95 Japanese university students to rank from most (=1) to least (=7) important the following reasons for their past successes and failures: Effort, ability, luck, desire, task, help/interference, and fate. (The study also involved Chinese and Turkish students; these data are discussed in the aforementioned manuscript). For the success outcome, effort was selected as the most important by 53%, followed by desire 18%). Ability was rated as the most important factor less often than any of the other six, including fate (although fate was rated as the least important factor more often than any of the others). Of the traditional four factors (ability, effort, luck, and task), task was rated most often as the least important (24%). For failure, effort was again ranked number one most often (52%), followed by task (14%) while interference from others was ranked as the least important (50%).

The significance of this finding may be that internal, unstable factors are not all alike. The desire to achieve is apparently more relevant than external factors and the internal stable factor of ability, but it is far from equal to the particular factor of effort. At the same time, lack of desire to achieve appears virtually indistguishable from task. The key is probably the fact that desire may motivate learning activity, but does not entail it, while learning activity, even without desire, can produce results. In other words, one who studies without desire is more likely to succeed than one who desires achievement but does not take the necessary steps to bring it about.

Discussion

I hypothesized that Japanese students would (1) more strongly endorse internal causes for success than for failure, (2) more strongly endorse internal causes than external causes for success, (3) more strongly endorse external causes for failure (4) more strongly endorse effort than ability, luck, or task, for both success and for failure.

In Study1, on a five-step scale, students endorsed *all* factors, but effort above all, task and ability, least for success, and ability and luck least for failure. Effort and luck were attributed greater potency in success than in failure, task somewhat more potency in failure than in success. Ability was not regarded as differentially potent for either outcome, and was the least potent cause of the four in both outcomes.

Study 2 sought to elucidate the connections between luck, ability, and effort. The results were ambiguous. Luck was viewed as having the capacity to compensate for effort, which it turn could compensate for ability, but luck was not viewed as being able to compensate for ability. These are inconsistent results. However, the possibility that the item wording was responsible should be investigated in future studies (and this possibility will be discussed below).

Supplementary items support the views that students perceive effort as most responsible for both success and failure, but reject the notion that luck could be a primary cause for failure, at least in the specific achievement domain of English language learning.

Mental Health Implications

This sample of Japanese students explained both their successes and their failures in terms of internal factors, but specifically the unstable factor of effort, and substantially less often the stable factor of ability. This differs from the ostensibly self-serving pattern observed among American college students, in which success is explained internally, primarily by ability, while failures are explained externally. In the Western literature, it is postulated that this self-serving attributional bias functions to maintain self-esteem, or alternatively, "feelings of self-worth" (Brown & Dutton, 1995). If Japanese people also maintain self-esteem through self-serving attributions, then it would appear that they are not be maintaining their self-esteem at levels comparable to American student samples. If so, then low self-esteem (LSE) individuals are not necessarily "abnormal" or "pathological" but rather may be the norm within their culture. Alternatively, it is possible that they do not maintain self-steem through self-serving attributions, but rather in ways other than self-enhancement and self-serving attributional styles. Perhaps positive self-views and feelings of self-worth are best promoted by "fitting in", rather than "standing out". In other words, Japanese people feel best when they are similar, rather than dissimilar (even if better) to other relevant people.

A second possibility is that Japanese people do not need and do not strive to feel good about themselves. Self-esteem, if it exists at all in Japan, might in fact be something to be avoided. Positive feelings of self-worth, that is, might be counterproductive to the more essential goal of maintaining harmonious relations with other group members. One group of first year college students (described in Brown, 2003b) read several popular articles concerning self-esteem, filled out a Japanese version of the Rosenberg self-esteem scale (Cronbach's alpha = .79), and then wrote short commentaries. Many appeared to equate "self-esteem" with arrogance and egotism, and low self-esteem with the culturally valued qualities of humbleness and cooperativeness. This was true even for the subset of students (n = 13) who had lived for many years in North America (Brown, 2003b).

Self-esteem is such a familiar concept in North America that people's self-esteem can be reliably measured merely by asking them how much they agree with the statement "I have high self-esteem", (Robins, Hendin, Trzesniewki, 2001). Not so in Japan. There is no Japanese synonym and the nearest equivalents "jisongshin" (self-respect) and "jishin" (self-confidence), rather than capturing the positive sense of "self-esteem", instead imply negative social qualities (arrogance and recklessness). The fact that "self-esteem" has not yet been

borrowed into Japanese indicates that the concept of self-esteem is not felt to be needed. Therefore, a third possibility is that self-esteem is a culture bound concept and simply doesn't exist in Japan.

A fourth pssibility is that student samples are understating, either deliberating or unconsciously, their true self-feelings. Self-esteem scores do in fact correlate significantly with modesty scores (Brown, 2003b), which suggests that self-presentational concerns may be playing a role.

Finally, self-esteem might simply be irrelevant in Japan. What one thinks or feels about oneself in Japan is frequently less important than what other people think or feel about one. This is an objective fact of life that some or all Japanese may not like, but they do accept it. It may well be that the Western (American) preoccupation with such things as "individuality", "self", "privacy", "rights", "choice" (all intertwined concepts), and the American obession with "achievement" (Sternberg, 1997, p.8) is what is in need of explanation and that the Japanese self-critical, self-effacing tendencies are the norm for cultures that do not emanate from the secular Protestant Anglo-American tradition (MacFarlane, 1978). Japanese, and possibly individuals from many other non-Western cultures, simply are less concerned with "feeling good" about themselves, and more concerned with social reality, in other words, their place in society and their relations with other people.

Wither Now, "Cult of Effort"?

One recent study of students learning English indicates that slightly over half the students surveyed had not done and were not doing what they themselves acknowledged that they needed to do to reach their goals (Brown, 2003a). The reason might possibly be found in the apparent contradiction mentioned in Study 2 above. Items 6 and 7 appear to assert that success is the inevitable outcome of effort. However, students reject item 6 but endorse item 7. The reason may be that item 6 implies a single, one-shot effort, while item 7 implies a continuous, persistent, ongoing effort - in short, what the Japanese term "ganbaru" (relying on their Casio and Seiko pocket electronic dictionaries, Japanese college students translate ganbaru as "hold out" or "insist on" but a better translation might be "not give up [or, not give in] despite difficulities"). Indeed the Japanese notion of "cramming" reflects this as well. An American college student might "cram" for a test by spending a sleepless night attempting to memorize as much of the course material as possible. A Japanese student "crams" by attending a "cram school" (yobiko [予備校]) several hours a day, several days a week, often for many years. Li (2002) argues that the Chinese notion of effort is something of a personality characteristic, and a desirable one. As such, it contains elements of stability (what is unstable and volitional is the decision to make the effort rather than the effort itself). This seems to be the case in Japan as well. Doryokuka (努力家), ganbariya (頑張りや) and yarite (やり手) are individuals of average or even below average ability who nevertheless succeed through persistent and consistent effort. Such people are admired in Japan (Brown, 2003 b). The key to success, Japanese believe, is perseverance (Befu, 1986; Blinco, 1992, Rohlen, 1978; Singleton, 1989; Stevenson, 1989; White, 1987; White & LeVine, 1986). Perseverance is not enough to ensure success; it simply maximizes the probability of success by reducing the probability of failure as the result of giving up prematurely. Quitting, after all, makes task completion and success impossible. Children learn early the virtue of ganbaru (Blinco, 1992) and even college students are visibly reinforced by a teacher's admonition to "ganbatte" (keep trying). Students will invariably smile wryly and reply "gambarimasu" (I will keep at it). Being more naturally capable than others is simply an objective fact that one can claim little if any credit for. Making an effort despite obstacles is a

conscious, voluntary choice, and hence a moral performance and exhibition of socially valued personality characteristics. The effort does not need to be successful to earn approbation. In fact, it has been argued that unsuccessful efforts are the most admired of all (Morris, 1975). In any case, those who plug away and show fighting spirit are respected for these qualities alone, apart from their behavioral consequences (Brown, 2003b).

To be sure, Japanese are as interested in success as anyone else, and everything else being equal, successful people tend to be those who try harder and longer. Obviously, everything and everyone are not equal in all ways, but much to the point, no one knows who is better or worse until the results are posted, in which case, the inputs to those results become irrelevant. In some cases, "fighting spirit" can make up for material deficiencies. In the United States, it is a truism that an in-shape boxer will always beat a better but out-of-shape boxer. In Japan, the emphasis is rather on the moral strength of the fighters. The fighter with more "fighting spirit" toukon (闘魂) is likely to be the one who will prevail. Boxing pundits admit that "the best man will win", but also acknowledge that it is necessary to "lace up the gloves" to find out which one is in fact the "best". This line of reasoning makes good sense to the Japanese, who are not quite comfortable with the American quality-control assemblyline approach that ability testing implies - the sorting of individuals into those who pass inspection and those who don't.. The original objective of intelligence testing was to identify individuals who needed remediation. It soon became a method for sorting individuals into and out of the U. S. Army during the First World War (Goldstein & Hersen, 1984, p.4). Japanese are well aware that individuals vary widely in their abilities and capacities to develop abilities, but these are both irrelevant, they believe, in that one's abilities cannot be known other than by their manifestations and products. More ability may require less effort and vice versa, but in either case what matter are results.

There may be an underlying capacity to expend effort and ganbaru, but these are relatively non-amenable to volitional control. If the social or pedagogical objective is to increase productivity or achievement, then it makes more sense to encourage students to do what the can do - exert more effort - rather than to be better than they are, since to the extent that is possible, it too obviously requires effort. However, specifying what to do to become more capable in general, rather than to improve on a recent deficient performance, is quite a bit more problematical. Ascertaining abilities is relevant to assigning individuals to classes or jobs, but not to improving their chances of success in the class or job that they are currently in. And this is what the Japanese are primarily concerned with. Mastery of a nationally uniform and relatively unchanging curriculum is what Japanese education is about. Rather than trying to learn as much or as little as their abilities will allow, Japanese students strive to master the same body of material that every other student in Japan at the same grade level does (Benjamin, 1997). It is accepted that some students will not accomplish this, but it is assumed that their lack of effort, rather than lack of ability, is the reason. Students of lesser natural ability will need to make more effort than others, and some will not make that extra effort. Hence, levels of achievement can vary. Standards are set high, but not impossibly high, and it is taken for granted that any normal student can meet them. What distinguishes students is simply how much extra effort might be needed. Obviously, students can vary in their capacity to persevere and endure (gaman suru), sacrifice, and resist the temptation of non-academically directed after school activities. They also vary in how effective their parents are in keeping them on track.

Smith & Bond (1998) claim that there is a "cult of effort" in China, and possibly in all collectivistic cultures (it seems to be found in at least one African country (Malmberg, Wanner, Suleman, & Little, 2001), and one Middle Eastern country as well (Brown, Gray, & Ferrara, 2003)). Japanese university students appear to be

members of this cult as well. To the extent that Japanese are individualistic, rather than collectivistic, as recent studies suggest (reviewed in Matsumoto 1999; Takano & Osaka 1999; Voronov, & Singer 2002), the "cult" may not be limited to collectivistic cultures at all, but in fact may be a cross-cultural norm, and the frequently found preference for ability attributions for success in the U.S. may be the exception that requires explanation

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