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## RELATION AMONG BULLYING, STRESS AND STRESSOR:

### A FOLLOW-UP SURVEY USING PANEL DATA AND A COMPARATIVE SURVEY BETWEEN JAPAN AND AUSTRALIA

いじめ、ストレス、ストレス者の関係:

追跡調査と日豪比較調査の結果をふまえた分析から

*This article presents four points using the data of follow-up survey for three years and comparative survey between Japan and Australia. First, Japanese bullying (Ijime) may happen at any school, at any classroom and among any children. Second, Ijime is caused mainly by stress rather than by aggressive character or culture. Third, the relationships among bullying, stress and stressor is different in Australian bullying from Japanese Ijime. Lastly, Ijime is not similar to boys' bullying in the West, but to girls' bullying in the West. Those points show clearly the similarities and differences between Japanese Ijime and bullying in the West. In conclusion the findings and any intervention based on Japanese bullying research are possibly useful in the prevention of girl's bullying in the West.*

この論文は、3年間にわたる追跡調査と日豪の比較調査のデータを用い、以下の4つの点について論じる。1つは、日本のいじめは、どの学

校でも、どの学級でも、また誰にでも起こりうること。2つめは、いじめは主にストレスを原因として起きるもので、攻撃的な性格や文化によるものではないこと。3つめは、いじめとストレス、ストレスサーの関係は、日本とオーストラリアで異なること。4つめは、日本のいじめは欧米のものと異なるが、欧米の女子のいじめとは似ていること。この結果は、日本のいじめと欧米のbullyingの共通点と相違点を明らかにしている。日本のいじめ研究に基づく知見や防止策は、海外の女子のいじめに対して役立つ可能性をもっていると結論づけることができよう。

## INTRODUCTION

Olweus (1993) has written a leading book on bullying in Western society. His bullying research is mainly based on his survey in 1983 in Norway and his preceding research on boys' aggressive behaviour in 1970s. He defined bullying as one kind of aggressive behaviour (Olweus, 1993, p. 9). Moreover, he paid much attention to the children who become bullies and victims (Olweus, 1993, pp. 31-36). We can find a lot of research that follows his notions, discussing bullying in the context of aggressive behaviour and also mentioning the personal character of bullies and victims. It appears that one standardized style of Western bullying research emerged.

Morita (1985) is a pioneer study in the field of bullying in Japan. He initiated a survey in 1984, during the same period as Olweus's research in Norway. In his survey research, his findings were different from those of Olweus. He and his colleagues did not focus on children's personal character such as aggression or anxiety, but on situations, relationships and social interaction among children. Subsequent Japanese research also pays less attention to those who become bullies and victims than in the West. In further research on bullying in Japanese schools, Japan reached a consensus called the "emergency appeal" by the Minister of the Education in 1996, that "It is possible that serious bullying incidents may happen at any school, at any classroom and among any children". Japanese bullying is considered not as specific behaviour conducted by extraordinary children with problematic backgrounds, but as the behaviour of ordinary children.

This Japanese approach and Japanese consensus regarding bullying are contrary to European ones I mentioned above. I recognize that this outlook is due to differences in the concept or the image of bullying

between in Japan and the West. The concept in the West is wider and more violent than Japan.<sup>1</sup> I propose two examples to back up my identification of this difference.

First, European articles and books make many statements which are misleading to adults. For example, the idea that such as only boys bully, or that bullying is inevitable in boys' schools.<sup>2</sup> Although I acknowledge that they do recognize that bullying occurs among both boys and girls, they tend to emphasize that bullying is more strongly a rather boys' problem. On the contrary we do emphasize that Japanese bullying (*Ijime*) is a rather girls problem. The different ways of using boys in the West or girls in Japan clearly reflect differences in the concept and the image of bullying. To my best understanding, the western concept on bullying that is conducted by boys rather than girls and is more violent and aggressive than that in Japan.

Second, Girls' bullying research has become prevalent in the West recently. *Ijime*, however, happens more often among girls than boys, so girls *Ijime* should be the main part of *Ijime* research in the beginning.

In this article, I want to discuss four results in my follow-up survey data that show the similarities and differences between *Ijime* and bullying in the West.

- (1) The Japanese consensus mentioned above is true in Japan
- (2) *Ijime* is caused mainly by stress rather than aggressive character or culture
- (3) The relationship among bullying, stress and stressor is different in Australian bullying from *Ijime*
- (4) *Ijime* is not similar to bullying in the West, but to girls' bullying in the West.

## METHOD

### (1) Procedure and respondents

Many surveys have already shown both in Japan and the West that the victim also bullies others and the bully also be bullied.<sup>3</sup> Although such

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<sup>1</sup> I pointed it out in Taki (1996), Taki(1997.) and Morita(2001).

<sup>2</sup> I can find such statements easily in books and articles in the UK in the late 1980s and early 1990s.

<sup>3</sup> Ministry of Education (1996), Roland & Munthe (1989), p.31 and so on.

results may support the statement that *Ijime* can happen among any children, it is not complete. To demonstrate the point I have conducted a follow-up survey twice a year for three years and am planning to continue for another three years.

The respondents are approximately 5,500 children from 4th to 6th grade in 12 primary schools and from 1st to 3rd grade in 6 junior high schools in metropolitan area of Tokyo at each year. In this article, I use only Junior high school data .

The follow-up surveys are done in each classroom by teachers in each school. A questionnaire sheet with an envelope is handed to each student and they enclose the completed questionnaire in it by themselves as soon as they finish. It keeps the survey anonymous even though they put their names on the questionnaires to identify the respondents. Though we need to record each respondent's data to compare with their own previous data for following up at personal level, confidentiality and security are of paramount importance.

The comparative Australian survey was carried out in June and December 2000 in collaboration with Phillip Slee at Flinders University in Australia. It used the same questionnaire translated into English. The respondents numbered the approximately 2,500 children from 5th year to 10th in 4 primary schools, 7 secondary schools and 4 primary-secondary schools in Adelaide metropolitan area and the rural area surrounding Adelaide. I will use only Junior high school data in this article.

## **(2) Questionnaire and scales**

This questionnaire is developed at NIER to examine the relation among bullying, stress and stressor. It has already been revised many times and reduced to only four pages<sup>4</sup> Four items assess students' experiences of bullying others and 4 items assess their experience of being bullied.

The stress scale is the most important tool in my discussion. It is constructed from four scales for four types of stress symptoms: Physical stress, Depression stress, Aggression stress and Apathy stress. Although this stress scale has been developed for measuring stress symptoms, there is possibility that students may manifest other symptoms as like stress symptom. Accordingly, I constructed the scale from four scales to eliminate possible errors.

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<sup>4</sup> Taki (1998) and NIER (2001)

For example, the Aggression stress scale may be for measuring not only Aggression stress symptom but also aggressive temperament. Even though some respondent have an aggressive character, they could highly react only to Aggression scale but not to other stress scales. Using four scales together, we can check whether the response to the scale is stress symptoms or not.

The stressor scale has been constructed with four main types of experiences that stress students: Stressor by teacher, Stressor by peer, Stressor by family and Stressor by study.

The main items of the questionnaire mentioned above are shown as bellows.

**On bullying: four multiple-choice in four (Never, Once or twice, 2 to 3 times per month, More than once a week)**

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This term how often have you bullied someone at school by...

- isolating, ignoring, or calling them names?
  - stealing, kicking, hitting harshly (on purpose)?
  - pushing, hitting kicking on purpose (jokingly)?
  - stealing, kicking, hitting harshly (on purpose)?
- 

This term how often have you been bullied at school by being...

- isolated, ignored, called names?
  - picked on by others?
  - pushed, hit kicked on purpose (jokingly)?
  - robbed, kicked, hit harshly (on purpose)?
- 

**On stress: four multiple-choice in four (Not at all like me, Not much like me, A little like me, A lot like me)**

Type of stress	Items
Physical stress	I feel sick and tired
	I get sick a lot
	I get headaches
Depression stress	I get depressed
	I worry about things
	I feel very lonely
Aggression stress	I get irritated easily
	I get angry easily
	I feel like shouting at others

Apathy stress	I don't have much energy
stress	I don't feel interested in things
	I can't concentrate on studying

**On stressor: four multiple-choice in four (Never, A little, Sometimes, Very often)**

Types of stressor	Items
	Teachers tell me off without listening to me
Stressor by teacher	Teachers don't treat me fairly Teachers take a personal interest in me
Stressor by peer	Classmates put me down because of the way I look Classmates put me down because of my school Classmates call me names
Stressor by study	I can't understand my lessons I get low test results Teachers ask me questions I can't answer
Stressor by family	I get nagged in my family In my family too much importance is put on doing well at school My family expects too much of me

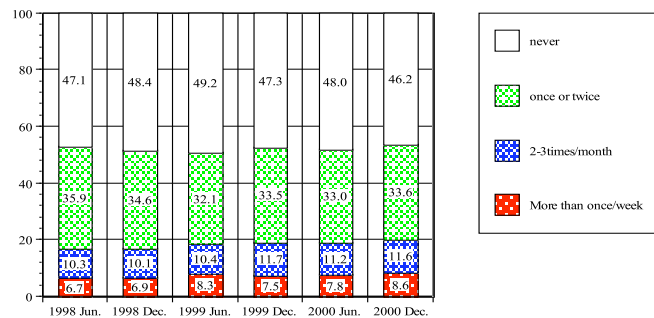
## RESULTS AND DISCUSSION

### (1) *Ijime* is done by ordinary children

Figure-1 highlights the following: typical *Ijime* such as isolating, ignoring, calling names occurs constantly in spite of the change of one third of students every year. The rate of children who bully frequently (more than once a week) keeps from 7 to 9 percent. This might give you

the impression that children with problems make up approximately 8 percent of the whole population of children.

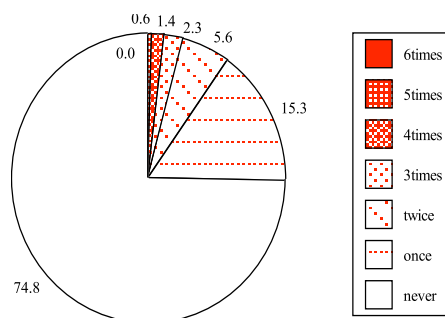
**Figure 1: The experience rate of isolating, ignoring, calling names (junior high school)**



Sample: Students from 1st grade to 3rd grade in junior high school in each academic year.

Figure-2, however, proves such an impression is wrong. It shows how many times children have bullied others frequently (more than once a week) in 6 survey points. There is no single child who has bullied others at every survey point. Only 0.6 percent of children have bullied others 5 times at 6 survey points. Most children who bullied others frequently did it only once in three years. I conclude that there are few extraordinarily problematic children.

**Figure 2: The repeated incidence of isolating, ignoring, calling them names (more than once a week) at 6 survey points (the cohort of Junior high school grade 1 in 1998)**



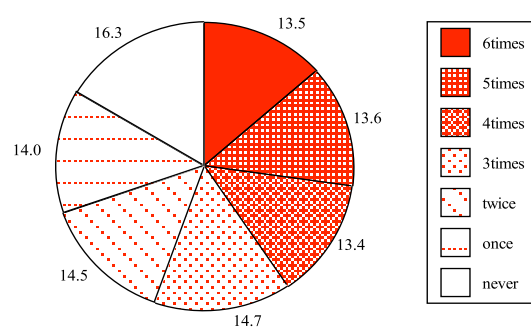
Sample: Students of 1st grade in junior high school in 1998, 2nd grade in 1999 and 3rd grade in 2000.

Figure 3 also makes it clear that *Ijime* is not a problem caused mainly by extraordinary children. It shows how many times children bully others in 6 survey points regardless of its frequency (at least once or twice in this term). Only one seventh of children have never bullied others in three years. Over half of the children have bullied others more than 3 times in 6 survey points regardless of its frequency. It is clear that one in two children engage in bullying at least once a year.

From the three figures I conclude that *Ijime* is conducted mainly by ordinary children. This proves that Japanese consensus is true in Japan. We cannot say exactly whether bullying in the West is conducted mainly by extraordinary children or not. If bullying in the West is ascribed to extraordinary children, it is one big difference between Japan and the West.

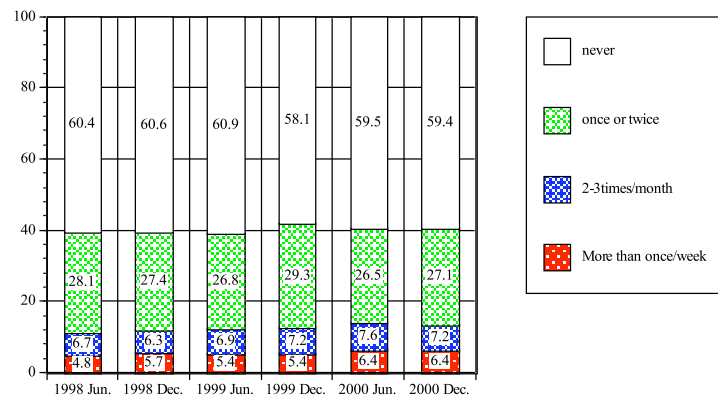
I also checked the data of *Ijime* victims. Figure 4 shows that typical *Ijime* victimization such as being isolated, ignored, called names occur constantly. In spite of the exchange of one third of students every year, the rate of being victimized frequently (more than once per week) keeps from 4 to 6 percent. The trend is almost same as Figure 1. This might also give you the impression that children with vulnerable problems make up approximately 5 percent of whole children.

**Figure 3: The repeated incidence of isolating, ignoring, calling names (more than once or twice in each term) at 6 survey points (the cohort of Junior high school grade 1 in 1998)**



Sample: Students of 1st grade in junior high school in 1998, 2nd grade in 1999 and 3rd grade in 2000.

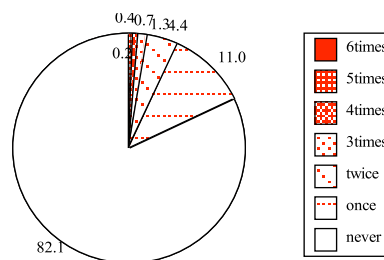
**Figure 4: The experience rate of being isolated, ignored, called names (junior high school)**



Sample: Students from 1st grade to 3rd grade in junior high school in each academic year.

Figure 5 shows the number how many times children have been bullied frequently (more than once a week) at 6 survey points. There are only 0.2 percent children being bullied frequently at every survey point. Most of the children who have been bullied frequently victimized only once in three years. It means there are few extraordinarily vulnerable children.

**Figure 5: The repeated incidence of being isolated, ignored, called names (more than once /week) at 6 survey points (the cohort of Junior high school grade 1 in 1998)**

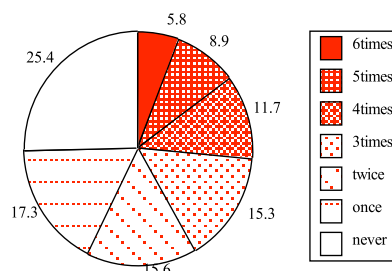


Sample: Students of 1st grade in junior high school in 1998, 2nd grade in 1999 and 3rd grade in 2000.

In Figure 6, we see how many times children are being bullied at the 6 survey points regardless of the frequency of *ijime* (at least once or twice in this term). Only one fourth of children have never been bullied in three years. Over 40 percent of children have been bullied more than 3 times at 6 survey points regardless of its frequency. It can be concluded that two fifth of children are bullied at least once a year. It is also clear that a main part of *Ijime* victims are not the extraordinarily vulnerable children.

The last three figures show that *Ijime* victims are identified as ordinary children. In my data, the Japanese consensus that *Ijime* can happen at any school, at any classroom and among any children is proved for both bullies and victims. It also indicates that *ijime* is not a problem ascribed to extraordinary children.

**Figure 6: The repeated incidence of being isolated, ignored, called names (more than once or twice in each term) at 6 survey points (the cohort of Junior high school grade 1 in 1998)**



Sample: Students of 1st grade in junior high school in 1998, 2nd grade in 1999 and 3rd grade in 2000.

## (2) Stress and bullying

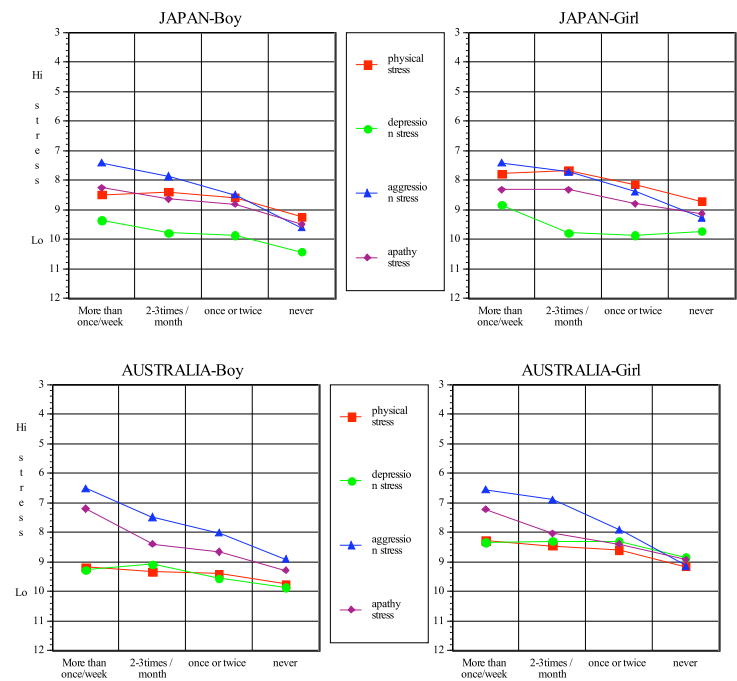
The next question concerns determinant of *Ijime* or bullying, if it is not ascribed to the problem of extraordinary children as mentioned above. Using a case study method, we can find many possible factors to explain the cause in the relevant cases. Some cases are derived from conflicts among peers or teachers. At the same time, others are from their frustration in family or school life. It is, however, too difficult to identify only one personal factor as a cause of *Ijime*. Yet, it is very easy to find

such factors as the determinants even among ordinary children with no experience of *Ijime*. Even if we can identify only one factor as a cause of a case, we can hardly conclude it as a common determinant to cover all cases.

I recognize that causes of incidents are sometimes complex or synergic with several factors. My hypothesis concerning *Ijime* or bullying is that multiple factors via stresses as an intermediary lead to behaviour to bully others. Taki (1992) and Taki (1996) focus on stresses as the determinant to explain *Ijime* (experience of bullying others) using follow-up surveys of panel data. Taki (1998) points out a correlation among stressor, stress and problematic behaviour including *Ijime* in another survey.

Figure 7 shows the relationship between four types of stresses and the experiences of isolating, ignoring and calling names as typical bullying behaviour. It also shows the data in Australia. The data in both countries indicates that Aggression and Apathy stresses are important factors of *Ijime* and Australian bullying. I strongly emphasize that Japanese children who have bullied others feel all types of stress, not only aggressive but also physical, apathy and depression. It means that *Ijime* in Japan cannot be explained in the context of aggressive behaviour.

**Figure 7: The level of stress by frequency of the experiences of isolating, ignoring and calling names**



Sample: Students from 1st grade to 3rd grade in junior high school in 2000 June in Japan and 2000 June and December in Australia.  
\* Every four stresses have significant differences ( $p < 0.01$ ) at least between 'More than once a week' and 'never' in Japan and Australian girl. Only two scales, Aggressive and Apathy, have significant differences at least between 'More than once a week' and 'never'.

**Table 1: The correlation coefficients between stress and stressor**

Japan	stressor by teacher	stressor by peer	stressor by study	stressor by family
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BOY	physical	0.2675	0.3362	0.4086	0.3435
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	depression	0.2890	0.4303	0.3633	0.3398
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	aggression	0.3269	0.3996	0.3817	0.3818
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	apathy	0.3242	0.3627	0.5639	0.3886
GIRL	stress	p=0.000	p=0.000	p=0.000	p=0.000
	physical	0.2231	0.3176	0.3920	0.3264
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	depression	0.2576	0.4310	0.3927	0.3822
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	aggression	0.2619	0.4125	0.3802	0.3618
	stress	p=0.000	p=0.000	p=0.000	p=0.000
Australia	apathy	0.2857	0.3737	0.5168	0.3930
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	stressor	by	stressor	by	stressor
	teacher		peer	study	family
	physical	0.1865	0.1328	0.2651	0.2290
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	depression	0.0627	0.3709	0.2508	0.2665
BOY	stress	p=0.000	p=0.000	p=0.000	p=0.000
	aggression	0.2168	0.3079	0.3354	0.2941
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	apathy	0.3059	0.1855	0.4433	0.2191
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	physical	0.2139	0.1610	0.3016	0.2703
	stress	p=0.000	p=0.000	p=0.000	p=0.000
GIRL	depression	0.1106	0.3154	0.3247	0.3364
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	aggression	0.2640	0.2810	0.3314	0.2773
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	apathy	0.2586	0.2042	0.4793	0.2010
	stress	p=0.000	p=0.000	p=0.000	p=0.000
	stress	p=0.000	p=0.000	p=0.000	p=0.000

Sample: Students from 1st grade to 3rd grade in junior high school in 2000 June in Japan and 2000 June and December in Australia.

### (3) Causes of Stress

In Western countries bullying used to be considered as one kind of aggressive behaviours conducted by the extraordinary children with

aggressive temperament or culture and so on.<sup>5</sup> Such hypothesis might suit only Australian boys in my data if Aggressive stress scale may measure aggressive temperament instead of Aggressive stress by mistake. However, it is difficult to say that *Ijime* and Australian girl's bullying are caused mainly by aggressive temperament. All four Stress scales have shown significant differences in Japanese boys, Japanese girls and Australian girls. We may say they are caused by stress.

Table 1 shows the correlation between the four types of stressor and four types of stress. It indicates that "study" is the highest stressor in both Japan and Australia regardless of sex and that Japanese children feel more stress from their peer than Australian children do. These results imply that *Ijime* in Japanese school should be conceived as not only the problem of antisocial behaviour but also the problem as a result of asocial behaviour.

## CONCLUSION

All developed countries have similar problems as bullying, violence and so on. It is often mentioned that such problems have similar causes. Accordingly, similar interventions can be effective in all countries. My data shows such beliefs are wrong. *Ijime* cannot be explained in the context of aggressive behaviour like bullying in the West. It may be caused by stress from peers. It is no use to mention who a bully or a victim is. *Ijime* can happen among any children. Japanese *Ijime* is different from bullying in the West.

However, we find Australian girls show similarities to Japanese boys and girls in the relationships between stress and bullying. This finding means that understanding *Ijime* and intervening against *Ijime* may be useful in addressing to girls' bullying in the West.

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<sup>5</sup> For example, Olweus (1993) shows this hypothesis.

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