Some Analysis on the Intensity

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Up to the present most authors on the theory of intensity analysis seem to have dealt the problem only in the case when the correlation between content and intensity produces a J- or U-shaped curve, where content scale is taken on the horizontal axis and intensity scale on the vertical axis. For example, the Cornell tecknique was developed in this case only. Suchman furthermore says in [2], "Correlation of these two scales—content and intensity—produces a J- or U-shaped curve." But we think that the correlation does not always make these curves. Therefore, we want to call the case of a J- or U-shaped curve the first typical one. Now, the correlation of J- or U-shape means that the one showing the extremely high or low content feels very strongly about it, while the one showing the content not so high or low feels very weakly. As the second typical case there are the cases where the circumstances are just reversed, i.e., the one showing the extremely high or low content feels very weakly about it, while the one showing the content not so high or low feels very strongly. In this case the correlation makes a f- or fshape.

However we do not usually meet the above typical ones. Many cases we meet are of other types, and the treament of these cases has not been published yet, as far as we know. We think, the theory of intensity analysis ought not to remain in the limits of *J*- or *U*-shaped correlation. So in this paper we shall give a method of interpretation to the problem, when the correlation of non-typical shape takes place.

Let the things toward which the attitude should be determined, be the following:

"When three boys, A, B and C met thier school-master on the road. A bowed to the school-master while B and C did not. Then A stroke B and C."

The questions to this affair are the following.

- (i) Do you think A was good or bad? Put a check on the (a), (b), (c), (d), or (e).
 - (a) I think him very good,

- (b) I think him fairly good.
- (c) I can decide neither good nor bad.
- (d) I think him fairly bad.
- (e) I think him very bad.
- (ii) How strongly do you insist on your opinion? Check one in the following choices
 - (a) I insist on my opinion very strongly.
 - (b) I insist on my opinion fairly strongly.
 - (c) I insist on my opinion moderately.
 - (d) I insist on my opinion not so strongly.
 - (e) I insist on my opinion not at all strongly.
- (iii) What attitude do you take to any one who has an opposite opinion?
 - (a) I will discuss with him and let his opinion change into my opinion.
 - (b) I will discuss with him and let him think again about his opinion.
 - (c) I will not try to discuss with him.
 - (d) I will change my opinion into his opinion, if I find his opinion is better than my opinion.
 - (e) Since I can not exactly understand this problem, I will obey his opinion.

In the above questions, (i) is a content (attitude) question but (ii) and (iii) are somewhat different form the ones as can be seen in English literatures. That is because in Japanese we do not usually use the literally same expression as "How strongly do you feel about it?" in English. (cf. [5]).

Now, let the results to the above questions be the following:

Table 1

(i) (ii)	(a)	(b)	(c)	(d)	(e)	total
(a)	5	4	26	14	17	66
(b)	3	4	67	50	30	154
(c)	11	2	101	25	42	181
(d)	0	2	17	8	10	37
(e)	1	0	1	1	1	4
total	20	12	212	98	100	442

(i) (ii)	(a)	(b)	(c)	(d)	(e)	total
(a)	3	1	5	4	6	19
(b)	5	4	80	33	28	150
(c)	0	0	14	1	1	16
(d)	8	4	90	46	45	193
(e)	2	1	4	0	4	11
total	18	10	193	84	84	389

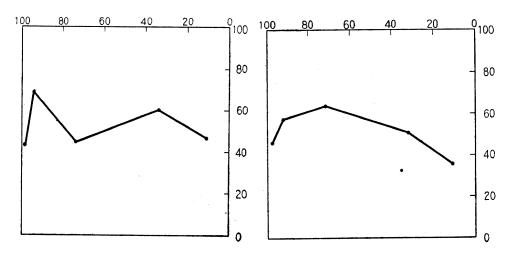


Fig. 1

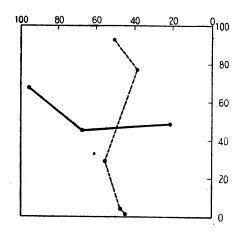
These figures show that the correlations are not of J- or U-shape. For the interpretation of those results, first we combine content categories so that we obtain the three categories (a + b), (c) and (d + e). The meaning of (a + b) is "I think him good," whichever fairly or very, that of (d + e) "I think him bad," and that of (c) indeterminateness. To these categories we have the following results.

Table 2

(ii)	(a+b)	(c)	(d+e)	total
(a)	9	26	31	66
(b)	. 7	67	80	154
(c)	13	101	67	181
(d)	2	17	18	37
(e)	1	1	2	4
total	32	212	198	442

(iii)	(a+b)	(c)	(d+e)	total
(a)	4	5	10	19
(b)	9	80	61	15 0
(c)	0	14	2	16
(d)	12	90	91	193
(e)	3	4	4	11
total	28	193	168	389

These figures show that the intensity curve of (ii) is near the U-shape, while that of (iii) is near Ω -shape. Now call the curve the *content curve*, which we obtain in the same way as the intensity curve except by interchanging the relation of content and intensity. From the content curve



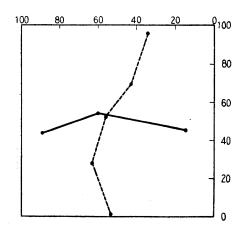


Fig. 2

in Fig. 2 we can not however derive something useful.

Next we fold over* content categories to obtain (a + e), (b + d) and (c). Obviously the meaning of (a + e) is "I think him very....." whichever good or bad, that of (b + d) "I think fairly....." and that of (c) indeterminatness. Then we have

Table 3

(ii)	(a+e)	(b+d)	(c)	total
(a)	22	18	26	66
(b)	33	54	67	154
(c)	53	27	101	181
(d)	10	10	17	37
(e)	2	1	1	4
total	120	110	212	442

(iii)	(a-⊦e)	(b+d)	(c)	total
(a)	9	5	5	19
(b)	33	37	80	150
(c)	1	1	14	16
(d)	53	50	90	193
(e)	6	1	4	11
total	102	94	193	389

In this case, as to (ii) the intensity curve is of Ω -shape and the content curve is of Σ -shape. From these shapes we can learn that the one of the extreme attitude shows the very strong or weak intensity about it, that the one of the attitude not so extreme shows the very strong

^{* &}quot;Fold over" here does not mean "fold over tecknique" in [2].

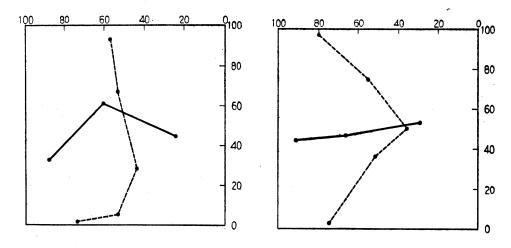


Fig. 3

intensity and that the one of indeterminatness shows the middle intensity. As to (iii) the intensity curve is of U-shape and the content curve is of Σ -shape. Thus, the one with the extreme attitude shows the very strong or weak intensity about it, the one with the not so extreme attitude shows the weak intensity and the one of the indeterminatness shows the middle intensity.

The difference of (ii) and (iii) as to the one of the attitude not so extreme comes from that of the regressions between (ii) and (iii). (Table 4 and Figure 4)

(iii)	(a)	(b)	(c)	(d)	(e)	total
(a)	8	6	7	0	0	21
(b)	33	74	57	7	1	172
(c)	0	1	11	6	0	18
(d)	22	70	97	17	1	207
(e)	1	4	5	4	0	14
total	64	155	170	34	2	432

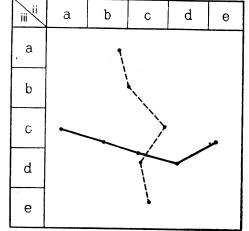


Fig. 4

In this way we can develop the intensity analysis even when the correlations are not of typical shapes.

It is to be noticed that one can find zero-point by the so-called intensity analysis, but one can not always find zero-point by our analysis. However, we think that in the problem of intensity the essential point is not to make scale but to find out the correlation between attitude and its degree of insistence. Of curse, whenever we combine or fold over categories, it must have some effect.

In conclusion, we want to refer to study on the intensity. We did not use stereotyped questions yet—for example, "How strongly do you feel it?" On the other hand, we used biased questions or leading questions. For example, "Do you poll the next election?" If he answers, "yes", we put the question, "Even if it will rain the day of the election, you will go to the poll, won't you?" or "Even if you should be ill in bed the day, you will go to the poll, won't you?" Further, we put the question at the beginning of our survey, "Do you agree with the statement, 'It is preferable to use it in our dialy life, because.....'?", and then we put the question at the end, "Do you agree with the statement, 'It is preferable not to use it in our daily life, because.....'?". If he answers, "yes" (or "no") to these quesetions, we judge his intensity is week. We have succeeded in the study by this way, which we shall report at some opportunity.

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