Diagnosis and evaluation of violations of argumentational integrity: an empirical study

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1. The construct of argumentational integrity: the structure of the 'unfairness verdict'

When in the course of an argumentative discussion one of the participants makes false assertions, distorts the original meaning of facts or discredits other persons just to cause a thing in his/her own interest to be accepted, this is most of the time evaluated negatively by the other participants. This negative evaluation obviously presupposes that argumentative discussions are governed by specific norms and values which the respective speaker has violated. We have summarized a part of these norms and values that are relevant in the evaluation of argumentative discussions in the concept of argumentational integrity (Groeben, Schreier & Christmann 1993; Schreier, Groeben & Christmann 1994).

The explication of the construct of argumentational integrity is based on a prescriptive use of the concept of argumentation which relies on rationality and cooperation as the goal characteristics of the argumentative procedure. In specifying these two goal dimensions we have formulated four conditions that argumentations have to meet under a prescriptive perspective.

I. Formal validity: Arguments must be valid with respect to both form and content.

II. Sincerity/truth: The participants in an argumentation must be sincere, i.e. express only such opinions and convictions (and argue in their favour) which they themselves regard as correct.

III. Justice on the content level: Arguments must be just towards other participants.

IV. Procedural justice/communicativity: The argumentative procedure must be conducted in a just manner, i.e. all participants must equally have the opportunity to contribute towards a solution according to their individual (relevant and justifiable) beliefs.
(Groeben et al. 1993: 368 ff.)

On this basis we have defined argumentational integrity as the obligation to not consciously violate the argumentative conditions. Unfair argumentation on the other hand is defined as the conscious violation of the argumentative conditions. Thus the diagnosis of a violation of argumentational integrity presupposes the presence of two components: (1) there must be a violation of the argumentative

conditions; (2) this violation must have been committed with some degree of consciousness (Groeben et al. 1993: 370 ff).

We have elaborated this distinction between an objective rule violation on the one hand and the subjective awareness of this violation on the other hand in analogy to the German criminal law which distinguishes between two types of facts: 'objective facts' representing observable features of rule violations (e.g. to kill a person or to damage a car) and subjective facts relating to the actor's state of consciousness in bringing about the objective facts. The criminal law differentiates between different degrees of consciousness which, in everyday language, might be paraphrased as 'intentionally', 'knowingly', 'by negligence', and unknowingly. An offense or a crime (according to the criminal law) necessarily presupposes that there is evidence of both 'objective facts' and some degree of 'subjective facticity'. The severity of a criminal act depends on the severity of the objective facts (for instance killing another person is considered to be more severe than damaging a car) and the degree of subjective facticity (killing a person intentionally is more reprehensible than killing a person by negligence); that is the severity of a crime depends on the combination of both components (Groeben et al. 1993: 373 ff.).

Applied to the argumentative context the severity of the objective facts refers to the severity of the argumentative rule violation, the subjective facticity refers to the degree of consciousness in committing the rule violation. The influence of these two basic components on the diagnosis of violations of argumentational integrity could be empirically demonstrated (Groeben, Nüse & Gauler 1992). The results show an additive effect of both factors with the factor 'severity of objective facts' dominating the factor 'degree of subjective facticity'.

In this study the degree of subjective facticity was induced experimentally. In non-experimental, real-life argumentative situations however, subjective facticity is not given at all but must be inferred by the recipients. Accordingly we first of all have to ask, which factors contribute to the attribution of intentionality in the argumentative process. From a study on Subjective Theories on argumentational integrity (Christmann & Groeben 1991) we have gotten the hint, that the frequency of the same rule violation might be an indicator of subjective awareness. So we assume that the attribution of intentionality depends on the factor 'frequency of rule violations'. The degree of the inferred intentionality in combination with the severity of objective facts should have an influence on the diagnosis of violations of argumentational integrity: we assume that with increasing degree of intentionality attribution and severity of rule violations the frequency of diagnosis of integrity violations will increase compared to neutral evaluations (Christmann & Groeben 1993).

2. Hypotheses

On this basis we established two hypotheses:

(1) The degree of intentionality attribution (i.e. degree of subjective facticity: unknowingly, by negligence, intentionally) increases with the frequency of the same rule violation.

(2) Diagnosis of violations of argumentational integrity is the more likely the higher the severity of the objective facts and the frequency of rule violations.

3. Method

3.1. Design
In empirically testing these hypotheses a 3X3 factorial design was employed with the factors 'severity of objective facts' (low, medium and high) and 'frequency of rule violations' (one, two, four violations). The factor 'severity of objective facts' was manipulated by presenting 12 argumentative scenarios containing one objective rule violation each. The factor 'frequency of rule violation' was varied by presenting the same rule violation in a scenario one, two or four times. Each subject worked on all 12 scenarios under one of the three degrees of the factor 'frequency of rule violation'. Thus we had three groups of subjects being presented with the same variation pattern of the scenarios. Within each subject group the scenarios were presented in random order.

3.2. Manipulation of the independent variables
(a) Severity of objective facts
The manipulation of this factor required the selection of argumentational scenarios covering all possible classes of argumentative rule violations. On a middle level of abstraction such classes of argumentative rule violations have been elaborated in the train of the explication of the integrity construct. We arrived at so called standards of argumentational integrity which were derived on the basis of an empirical classification of 35 unethical strategies selected (representatively) from popular rhetorical texts (Schreier & Groeben 1990; Schreier 1992). A cluster analysis of these classifications yielded 11 standards of fair argumentation.

Standards of argumentational integrity

I. Faulty arguments

1. Violation of stringency: Do not intentionally present your arguments in a non-stringent fashion.
2. Refusal of justification: Do not intentionally avoid giving any or intentionally give insufficient reasons in support of your assertions.

II. Insincere contributions

3. Pretense of truth: Do not make such assertions out to be objectively true which you know to be either false or merely subjective.
4. Shifting of responsibility: Do not intentionally deny, claim, or transfer responsibility to others (persons or institutions) without justification.
5. Pretense of consistency: Do not consciously present any arguments which are not or are only seemingly congruent with what you otherwise do or say.

III. Unjust arguments

6. Distortion of meaning: Do not repeat contributions made by others, your own contributions, or facts in such a way as to intentionally distort their original meaning.
7. Impossibility of compliance: Do not, and be it only by negligence, demand anything of others which you know they will be able to do.
8. Discrediting of others: Do not, and be it only by negligence, discredit other participants.

IV. Unjust interactions

9. Expression of hostility: Do not intentionally act towards your adversary in the matter at hand as though he were your personal enemy.
10. Hindrance of participation: Do not intentionally interact with others in such a way as to impede their participation.
11. Breaking off: Do not break off the argumentation without justification.

Next we selected 12 scenarios in the form of written excerpts from original argumentative discussions on television which we took from our sample pool (Sachtleber & Schreier 1991). 11 of these scenarios contained one argumentative rule violation each. An example of the scenario 'Methadone' (standard 10: hindrance of participation) is given below.

Methadone (translation from German)

In a discussion on television the advantages and disadvantages of giving methadone in case of heroin addiction are discussed. Methadone is a substitute which mitigates the abstinence symptoms of heroin addicts but is addictive itself. Hence methadone as a treatment in the strict sense is discussed controversial by medical specialists in the field. Participant B (a medical practitioner who has been treating heroin addicts with methadone for some time) argues that methadone would help addicts to quit taking heroin and for this reason a methadone treatment is to recommend in any case. Participant A (a representative of Synanon, a group which advocates the medication-free treatment of heroin addiction) argues that the administration of methadone is nothing but a transfer of the addiction problem to another drug.

A: I personally do not think that a methadone treatment can solve the problem of heroin addiction because methadone itself is a drug - the heroin addicts will continue to suffer from some form of addiction. For this reason I think that methadone treatment should not be legalized. It makes more sense to me to look for other, medication-free types of treatments.

B: You think, we should not legalize the methadone treatment. Mister A. let me tell you - if a drug addict consults me and implores me to treat him with methadone and I am not able to give him this treatment, because it is not allowed - what do you think how I will feel if I have to send this person away from whom I know that he will perhaps jump from the next sky-scraper. I hope you can imagine how I will feel.

Subjects were asked to rate the severity of the rule violations as such (that is independent from concrete persons and circumstances described in the scenarios) on a five-point-scale. The following question was presented with each scenario:

Rating of the severity of the objective fact

If someone impedes the participation of others in this way, that is in emotional-izing the controversial issue, this in my opinion impedes further argumentation

not at all	a little	somewhat	considerably	extremely
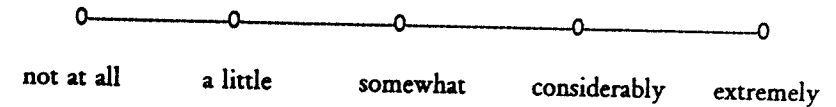
On the basis of the severity ratings which were transformed into ipsative data (i.e. the severity of the rule violations was not determined a priori but for each subject on the basis of his/her reference system) the scenarios were assigned post hoc to the three degrees of the factor 'severity of objective facts' (low, middle, high).

(b) Frequency of rule violations
This factor was manipulated by repeating the same rule violation. Three degrees of the factor were distinguished: one, two and four rule violations. Thus for each of the 12 scenarios two additional versions were constructed, each containing two or four realizations of the same (i.e. the original) rule violation respectively.

3.3. Operationalization of the dependent variables
The following dependent variables were collected:
(1) Subjective facticity
As already mentioned, we distinguish between three degrees of consciousness: in-tentionally, by negligence and unknowingly. Subjects were asked to judge whether the relevant speaker in the scenario did notice, that he/she impedes the argumen-tation. Three alternatives were presented which paraphrase the three degrees of consciousness in everyday language. The alternatives referring to the scenario given above were as follows:

In my opinion

0 participant B deliberately wants to impede the participation of A by emotionalizing the controversial issue.

0 it occurs to participant B that in emotionalizing the controversial issue he might impede the participation of speaker A; he does, however, not think about this any further.

0 participant B does not notice that in emotionalizing the controversial issue he impedes the participation of speaker A.

(2) Unfairness 'verdict'
We assume that an unfairness verdict always implies that the respective speaker is judged to be guilty in the sense of being personally responsible for his/her actions (Stufenmodell in der Hinterhand). Accordingly subjects were asked to indicate whether they considered the respective rule violation to be so severe that they would personally reproach the speaker (Subjects were asked to judge on the basis of their intentionality attribution). The question was:

O   In that case I would consider B's way of arguing so bad that I would personally reproach him.

O   In that case I would not consider B's way of arguing particularly bad.

3.4. Subjects and procedure

64 subjects, aged between 17 and 63 (mean age: 30), participated in the study. Data were collected by questionnaire. Each subject was presented with all 12 scenarios under one of the three degrees of the factor 'frequency of rule violation'. Subjects only worked on the scenarios if they had answered a treatment check question positively. The presentation sequence of the scenarios was varied according to the requirements of the design.

4. Analysis and results

4.1. Analysis

Analysis was based on chi2- as well as loglinear analysis.

4.2. Results of hypothesis testing

(a) Results on the unfairness verdict.

After transforming the data into ipsative values the frequencies of negative (i.e. unfairness verdicts) and neutral evaluations were arranged in a 9-cell-drawing. Subsequently, the individual 9-cell-drawings were added up for all subjects. The resulting frequency distributions of negative and neutral evaluations were tested by chi-square analysis against equal distribution.

		severity of objective facts					
		low		medium		high	
		not bad	bad	not bad	bad	not bad	bad
frequ. of rule viola- tions	1	49 $62_{,}0$ $chi^2=$ 4.5696 prob< .03254	30 38.0	11 $16_{,}2$ $chi^2=$ 31.1176 prob< .00000	57 83.8	5 $7_{,}7$ $chi^2=$ 46.5385 prob< .00000	60 92.3
	2	39 $52_{,}0$ $chi^2=$ 0.1200 prob< .72903	36 48.0	10 $14_{,}3$ $chi^2=$ 35.7143 prob< .00000	60 85.7	4 $5_{,}5$ $chi^2=$ 57.8767 prob< .00000	69 94.5
	4	33 $67_{,}3$ $chi^2=$ 5.8980 prob< .01516	16 32.7	10 $17_{,}2$ $chi^2=$ 24.8966 prob< .00000	48 82.8	13 $12_{,}0$ $chi^2=$ 62.2593 prob< .00000	95 88.0

$chi^2 = 189.363$, df = 12, prob. < .00000000

The data show a significant effect of the factor 'severity of rule violations' in the expected direction: the frequency of negative evaluations is significantly higher than the frequency of neutral evaluations in case of medium and high severity of rule violations; in case of low severity they result significantly more neutral than negative evaluations. With regard to the factor 'frequency of rule violations' there are more negative evaluations under the degrees medium and high severity, but this predominance does not vary with the degrees of the frequency factor.

In order to test potential interaction effects we carried out a loglinear analysis. There was no significant interaction between the factors 'severity' and 'frequency of rule violations'. Thus, we can concentrate on the two main effects.

The effect of the factor 'severity' can be demonstrated very clearly if one adds up the negative and neutral evaluations for the degrees of the factor 'frequency of rule violations'.

	severity of objective facts					
	low		medium		high	
	not bad	bad	not bad	bad	not bad	bad
absolute	121	82	31	165	22	224
percent	59.6	40.4	15.8	84.2	8.9	91.1
chi^2(cell) =	7.493		91.612		165.870	
prob. <	.0061953		.0000000		.0000000	
chi^2-share =	80.116	29.597	9.0496	3.3431	29.656	10.956

$chi^2 = 162.717$, df = 2, prob. < .0000000
nicht Randsummen-korrigiert);
CI = .2522744

Table 2   Negative and neutral evaluations for the degrees of the factor 'severity of rule violations'

The table shows, that the neutral evaluations decrease while the negative evaluations increase with the degrees of the factor 'severity of a rule violation'.

The direction of the effect of the factor 'frequency of rule violations' can be demonstrated by adding up the negative and neutral evaluations for the degrees of the factor 'severity'.

			not bad	bad
number of rule viola- tions	1	absolute	65	147
		percent	30.7	69.3
		chi^2(cell) =	31.7170	
		prob. <	.0000000	
		chi^2-share =	1.0663	0.3939
	2	absolute	53	165
		percent	24.3	75.7
		chi^2(cell) =	57.5413	
		prob. <	.0000000	
		chi^2-share =	0.5739	0.2120
	4	absolute	56	159
		percent	26.0	74.0
		chi^2(cell) =	49.3442	
		prob. <	.0000000	
		chi^2-share =	0.0690	0.0255

chi^2 = 2.341, df = 2, prob. < .31028
(nicht Randsummen-korrigiert); CI = .0036295

Table 3.   Negative and neutral evaluations for the degrees of the factor 'frequency of rule violations'

The number of negative evaluations does not significantly increase with the degrees of the factor 'frequency of rule violations'. Contrary to our hypothesis this factor has no effect on the unfairness verdict.

According to our hypotheses these results should be due to the intentionality attribution patterns of the subjects. Hence, in a next step, we tested the effect of both factors on the dependent variable 'subjective facticity' with the three degrees 'unknowingly', 'by negligence' and 'intentionally'.

(b) Results on intentionality attribution
The results are parallel to the ones received for the unfairness verdict: the factor 'severity of rule violations' had a significant effect on the attribution of intentionality, the factor 'frequency of rule violations' had no effect. In this case too, there was no significant interaction between the two factors.

Chi-square analysis of the frequency distributions of neutral and negative

	severity of objective facts								
	low			medium			high		
	un	by n	int	un	by n	int	un	by n	int
absolute	61	50	92	48	45	103	40	38	168
percent	30.1	24.6	45.3	24.5	23.0	52.5	16.3	15.4	68.3
chi^2(cell) =	14.020			32.643			135.317		
prob. <	.00090294			.00000008			.00000000		
chi^2-share =	4.2428	1.5833	4.3319	0.1637	0.5200	0.4840	4.9831	3.1925	6.3086

chi^2 = 25.8100, df = 4, prob. < .0000346 (nicht Randsummen-korrigiert);
CI = .1414488

Table 4.   Attribution of intentionality (un = unknowingly; by n: by negligence; int.: intentional) under the degrees of the factor 'severity of objective facts'

The proportion of the attributions 'unknowingly' and 'by negligence' decreases with the degrees of the factor 'severity', whereas the proportion of attributions 'intentionally' increases monotonously.

The factor 'frequency of rule violations' did not produce this effect.

			un	by n	int
frequ. of rule viola- tions	1	absolute	49	36	127
		percent	23.1	17.0	59.9
		chi^2(cell) =	68.5566		
		prob. <	.0000000		
		chi^2-share =	0.0000	1.3615	0.4954
	2	absolute	49	59	110
		percent	22.5	27.1	50.4
		chi^2(cell) =	29.4587		
		prob. <	.0000004		
		chi^2-share =	0.0367	4.3902	1.3122
	4	absolute	51	38	126
		percent	23.7	17.7	58.6
		chi^2(cell) =	62.9674		
		prob. <	.0000000		
		chi^2-share =	0.0358	0.9048	0.2066

chi^2 = 8.74324, df = 4, prob. < .067848
nicht Randsummen-korrigiert); CI = .0823268

5. Summary and consequences

To sum up, our results confirm the hypothesis that the factor 'severity of rule violations' together with the inferred degree of intentionality has an effect on the unfairness verdict: the frequency of diagnoses of violations of argumentational integrity increases with increasing severity of the argumentative rule violations. This seems to be a relatively stable result because in an earlier study we have already found that diagnosis of argumentational unfairness is the more likely, the higher the severity of the objective facts and the degree of subjective facticity. The present study can count as a cross-validation with new subjects and new scenarios.

We could however not confirm the hypothesis that the factor 'frequency of rule violations' has an effect on the unfairness verdict. This is due to the fact that already in the process of inferring intentionality, the frequency of rule violations did not produce the expected effect: the degree of the intentionality attribution does not increase with the number of rule violations. We suggest that subjects had not accepted the multiple violation of the same integrity standard as an ecologically valid indicator of the intentionality of the rule violation. This means, that this kind of experimental variation might have produced an artificial impression. Perhaps subjects just think that an intentional violation of an argumentative rule does not show up in the repeated violation of the same standard; or they consider a multiple violation on the level of scenarios as unrealistic and would react only if they themselves would be confronted with a multiple violation in a real life situation. Both explanations have to be tested empirically. In any case, however, we have to accept that there are certain limits with regard to the experimental testing of influence factors by the scenario-approach. As a consequence, in future studies we will rely on approaches that are more equivalent to real life situations, as for instance role play approaches.

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