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Forgiveness in Adolescents, Young, Middle-Aged, and Older Adults

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The evolution of the propensity to forgive an offense was studied in a sample of 236 people from various age groups. The effect of a number of circumstances connected with the offense was considered: intent to harm, severity of consequences, cancellation of consequences, social proximity to the offender, apologies from the offender, and the attitude of others. The method was an application of information integration theory. A global increase in the propensity to forgive from adolescence to old age was observed. Several interactions between age and circumstances were found: (a) The effect of the cancellation factor was higher in young adolescents and in the very old than in the middle-aged, (b) the attitude of others and the restoration of harmony factors were important only in adolescents. Finally, the structure of the Forgiveness schema was shown to be an additive one, regardless of the age of the participants.

KEY WORDS: Forgiveness; aging; information integration.

INTRODUCTION

The evolution of the propensity to forgive an offense has been studied in a sample of 236 people from various age groups. The effect of a number of circumstances connected with the offense have been considered. They include intent to harm, severity of consequences, cancellation of consequences, social proximity to the offender, apologies from the offender, and the attitude of others. The impact of each of these circumstances on the propensity to forgive and the evolution of this impact as a function of age have also been studied.

A Definition of Forgiveness

According to Subkoviac et al. (1992):

> Forgiveness is the overcoming of resentment toward an offender, not by denying ourselves the right to such feelings, but by endeavoring to view the offender with benevolence, compassion and even love, while recognizing that he or she has abandoned the right to them. The important points of this definition are as follows: (a) one who forgives has suffered a deep hurt, thus showing resentment, (b) the offended person has a moral right to resentment, but overcomes it nonetheless, (c) a new response to the other accrues, including compassion and love, (d) this loving response occurs despite the realization that there is no obligation to love the offender. (p. 3)

In view of such a definition, forgiveness must not be confused or equated with other constructs like justice, pardon, legal mercy, leniency, reconciliation, condonation, excusing, or justification (Enright & Human Development Study Group, 1991). Forgiveness is essentially a gift from one person to another. In the usual case, a gift is offered in order to enhance attachment, harmony, love between people. The same applies in the case of forgiveness. The offended person gives up the right to revenge and the resentment caused by the harmful act. He or she offers the offender the re-establishment of the initial relation-

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ship, without making his or her offer conditional on any compensation from the offender. As all other kinds of gifts, forgiveness is offered in order to enhance the feeling of community between people.

Conditions Making Forgiveness Easier

In their 1989 study, Enright, Santos, and Al-Mabuk essentially asked two questions: "What conditions make it more likely that a person will forgive?" and "Do these conceptions develop with age?" Strictly speaking, forgiveness does not suppose "conditions" or "reasons." A gift made under "conditions" would not be a gift, in the strict sense of the term. However, the first question makes sense if we are interested in the development of the ability to forgive. Before reaching an ideal level of development, which would correspond to unconditional forgiveness (Enright & Human Development Study Group, 1991), a person should pass through a series of stages characterized by an ability to forgive only in certain determined contexts. It is precisely the study of these contexts that Enright et al. (1989) have conducted and that we have pursued.

The first condition that has been considered by Enright and the Human Development Study Group (1991) is the possibility of revenge (Murphy, 1982). Some people could forgive only after the offender had been punished in proportion to the offense. This condition is clearly at odds with the definition of forgiveness. As a consequence, it will not be considered further in the present study.

The second condition is cancellation of consequences (Minas, 1975). Some people could forgive only once they had got back what was taken away from them or once their rights had been restored by the appropriate instance or once the consequences had vanished with time. People acting this way probably confuse forgiveness and justice—restitutional justice.

The third condition is the absence of intent to be harmful (Downie, 1965). It is neither necessary that the offender intended to harm anyone, nor that he or she should be aware of the wrong that has been caused, for his or her action to be very harmful to somebody and, as a consequence, have the potential for triggering resentment. For some people, when intent was absent, it could be easier to forgive.

The fourth condition is the absence of severity of consequences (Newman, 1987). For some people, it could be easier to forgive when the severity of consequences is not very high (although never trivial) than when it is. This condition is different from the second one, cancellation of consequences. Severity of consequences is certainly a function of the duration of consequences but the two concepts are clearly distinct.

The fifth condition concerns an apology or a repentance from the wrongdoer. For some people, if the offender apologies for the harmful act, if he or she is able to explain the conditions under which the event occurred and the reasons why he or she committed the wrong, it could be easier to forgive.

Reasons Favoring Forgiveness

"Reasons" for forgiveness have also been considered. The first reason is the restoration of social harmony (Hughes, 1975). For some people forgiveness could be necessary because it restores good relations with people. As a consequence, it should be more important to forgive a friend than a colleague, and a sibling than a friend, because harmony in the family is considered more important than harmony at work (Newman, 1987). (Apologies and repentance can also be conceived as aimed at restoring harmony.)

The second reason to forgive is the attitudes of others (Neblett, 1974). Some people could forgive because the family or friends put pressure on them to forgive, for example. Note, however, that forgiveness, a private matter, can only be the consequence of a free, personal, choice.

The third reason is religious or philosophical beliefs or pressure from religious or philosophical authorities (Carter, 1977). Religious people could forgive if their faith or the authorities demand it. From another point of view, ability to forgive can also be considered as part of a personal philosophy or as part of a religious way of life: According to Martin Luther King (Enright & Human Development Study Group, 1991), forgiveness is a habit and not a one-time act. So religious or philosophical beliefs may affect forgiveness in more than just one way: as a situational reason, as a personal reason, or even as the result of an interplay between personal and situational determinants. As we were not able to manipulate properly the religiousness of our participants, we have chosen not to consider this factor in the present study. (That does not mean that it is

not important in our view. It means that the study of its proper effect needs to be conducted in another way.)

A Developmental Model of Forgiveness

The effects of five of the conditions or reasons presented above have been studied by Enright et al. (1989). The authors showed that different groups gave different reasons to explain why it was appropriate in certain situations to forgive (or not). Globally, the results supported a developmental model, inspired by Kohlberg (1976), in which each reason or condition played a predominant role at one point in time and not at another. Revenge and cancellation of consequences have a dominant effect in youth; attitude of others and religion have a dominant effect in adolescents; restoration of social harmony has a dominant effect in adults. Only a low percentage of participants, all adults, were unconditional forgivers.

The Present Study

In the present study we did not attempt to replicate Enright et al. (1989). We intended instead to study in another, complementary, way the relative importance of each factor making forgiveness easier or more difficult, and the evolution of their relative importance as a function of age. Several age groups participated in the study. The method used was an application of information integration theory (Anderson, 1996), the basic aim of which is to define the psychocognitive laws of information processing and the integration of multiple stimuli that accurately characterize the relationships between the stimulus values presented to subjects (here, level of repentance, intent, severity of consequences, pressure from others, for example) and the subjects' judgments (of propensity to forgive).

Research Questions

The research questions were of three types. The first type referred to the general propensity to forgive. As shown in Enright et al. (1989; see also Subkoviak et al., 1995), propensity to forgive increases as a function of age. Helb and Enright (1993) also have shown that propensity to forgive increases as a function of maturity. We therefore expected an increase in propensity to forgive from adolescence to old age.

The second type of questions referred to the importance of each reason or condition on propensity to forgive. As shown by Enright et al. (1989), cancellation of consequences and attitudes of others are important factors in adolescents. Their importance decreases in adults. Therefore we expected a bilinear interaction between propensity to forgive, cancellation of consequences (or attitudes of others), and age group. The effect of cancellation and of attitudes should be notable in adolescents, lower in adults, and practically nonexistent in elderly people.

The restoration of harmony was only important in adults. Its importance should, theoretically, decrease with greater age. Therefore we expected a quadratic-linear interaction between propensity to forgive, restoration of harmony, and age group. The effect of restoration of harmony should be small in adolescents, higher in adults, and small again in elderly people.

The third type of questions referred to the structure of the forgiveness schema. It has been repeatedly shown in the case of the blame schema (Hommers & Anderson, 1991; Surber, 1977) and in the case of the deterrence schema (Howe & Loftus, 1996) that the algebraic structure of the information integration process is additive. Would the various factors considered in the present study (cancellation, intent, apologies, etc.) simply add their effects? Would they interact?

METHOD

Participants

The total of 236 participants was distributed between six groups, as described in Table I. All participants came from the "Centre" region in France (chief town: Orleans). They were comparable in terms of social origin and general environment. The elderly people lived at home.

Material

The material consisted of 64 cards showing a story of a few lines and a response scale. Each story contained six items of information, in the following order: (a) the degree of proximity of the target

Table I. The Six Groups of Participants

Gender	Age group: 15- to 17-year-olds	18- to 24-year-olds	25- to 39-year-olds	40- to 55-year-olds	60- to 74-year-olds	75- to 96-year-olds	Total
Men	20	18	18	17	21	20	114
Women	16	16	18	26	28	18	122
Total	36	34	36	43	49	38	236
Mean age (months)	191	213	396	569	797	960	
Standard deviation	10	26	53	48	51	55	

(brother or sister vs. colleague), (b) the degree of intent of the act (clear intent vs. no intent), (c) the severity of consequences of the act (medium level of consequences vs. serious consequences), (d) apologies/contrition for the act (apologies vs. no apologies), (e) attitudes of others (favorable attitude vs. unfavorable attitude), (f) cancellation of consequences (consequences still affecting the victim vs. consequences currently canceled). Information items levels were selected after numerous previous trials with participants of each age group. The 64 stories were obtained by orthogonal crossing of the six factors: $2 \times 2 \times 2 \times 2 \times 2 \times 2 = 64$. Two typical stories are given below.

Typical Story 1

> Marie-Noelle and Josiane are sisters. They both worked in the same firm. Josiane, who had been working in the firm for several years, asked for a promotion. Marie-Noelle, who was very talkative but not mean, disclosed some information about Josiane's professional life. Josiane's section head heard about this information and began to doubt the working qualities of Josiane so he refused her promotion. Marie-Noelle, remorseful, felt really sorry about what happened and asked Josiane to forgive her. Josiane's best friend, who knows Marie-Noelle well, also asked her to forgive her sister. Josiane asked another section head for a promotion, again, which she has got at the present time. Right now, do you think that you would forgive Marie-Noelle, if you were Josiane?

This story illustrated the combination of the following levels: siblings/no intent/medium level of consequences/apologies/favorable attitude of others/cancellation of consequences.

Typical Story 2

> Gladys and Clémence were colleagues. They both worked in the same firm. Clémence, who had already been working in the firm for several years, asked for a promotion. Gladys, who was extremely jealous about this promotion, deliberately disclosed some information about Clémence's working life to her section head who began to doubt the working qualities of Clémence. He did not only refuse the promotion but he also moved her to another section, located a few miles away from here. Besides, the working climate of this section is particularly off-putting. From then, Gladys acted as if nothing happened. Clémence's best friend, who knows Gladys well, told her that Gladys' behavior was unforgivable. Clémence asked another section head for a promotion again and also to go back to work in her previous section but she still hasn't got what she wanted.

This story illustrated the combination of the following levels: colleague/intent/serious consequences/no apologies/unfavorable attitude of others/persistence of consequences.

Under each story was a 12-cm response scale with "I am sure NO" at the left and "I am sure YES" at the right.

Procedure

Each participant responded individually, generally in his/her own home (or at school for some young participants). The experimenter explained to each participant what was expected from him/her, in a so-called familiarization phase: He/she was, for example, to read a certain number of stories in which a person committed, at work, an act of varying seriousness against another person, and then was to express his/her opinion about the appropriateness of

forgiving, each time. Each participant was then presented with a series of 32 stories (a sample from the 64). Each story was read aloud by the participant. After each story was read, the experimenter reminded the participant of the six items of information it contained. Participants then provided the requested ratings. After the completion of the 32 ratings, the participant was allowed to compare his or her responses and change them.

During the following, or experimental, phase, the 64 stories were presented (in different order for each participant). Each participant provided his/her ratings at his/her own pace. It was no longer possible to compare responses nor to go back and make changes as in the familiarization phase.

Each rating by each participant in the two experimental phases was converted to a numerical value expressing the distance (measured with a ruler) between the point on the response scale and the left anchor, serving as the origin. These numerical values were then subjected to graphic and statistical analyses.

RESULTS

General Results

We conducted a general analysis of variance (ANOVA) using a 2 × 6 × 2 × 2 × 2 × 2 × 2 × 2, Gender × Age × Social Harmony × Intent × Severity of Consequences × Apologies × Attitude of Others × Cancellation of Consequences design. ANOVA results are given in Table II.

The effect of age was significant and the linear component concentrated 79% of the effect variance. The effect of gender was not significant. Also, each of the six items of information effects was significant. Figure 1 presents an illustration of each of the six effects. Cancellation and intent factors effects were more important than severity of consequences and others effects. Interactions involving two or more of the six items of information factors were never significant. Figure 2 presents the 2 × 2 interactions between the four factors which effect was higher.

The Gender × Attitude of Others interaction was significant. The attitude of others effect was greater in men than in women.

The results concerning the numerous Age × items of information interactions are presented in Figs. 3 and 4. The bilinear component of the Age × Social Harmony, Age × Apologies, and Age × Others interactions were significant. As can be seen in Figs. 3 and 4, the effects of social harmony, apologies, and attitude of others factors tended to vanish as a direct function of age. The quadratic-linear component of the Age × Cancellation interaction was also significant. The cancellation effect was more im-

Table II. Analysis of Variance Results for the Entire Data Set

Source	*df*	Mean Square	*F*	*p*
Gender (G)	1	51.72	0.12	.7284
Age (A)	5	1511.51	3.53	.0043
Linear	1	5972.23	13.95	.0002
Harmony (H)	1	4457.13	84.39	.0000
Intent (I)	1	8666.67	121.58	.0000
Severity of consequences (S)	1	257.46	31.74	.0000
Apologies (E)	1	7959.62	120.39	.0000
Others (O)	1	361.73	36.82	.0000
Cancellation (C)	1	28379.58	239.47	.0000
G × O	1	139.48	14.20	.0002
A × H	5	84.85	1.60	.1593
Bilinear	1	193.54	4.66	.0450
A × I	5	141.45	1.98	.0820
A × S	5	15.04	1.85	.1034
A × E	5	109.35	1.65	.1469
Bilinear	1	332.33	5.03	.0250
A × O	5	27.51	2.80	.0178
Bilinear	1	79.54	8.10	.0050
A × C	5	311.42	2.63	.0248
Bilinear	1	1042.30	8.79	.0030

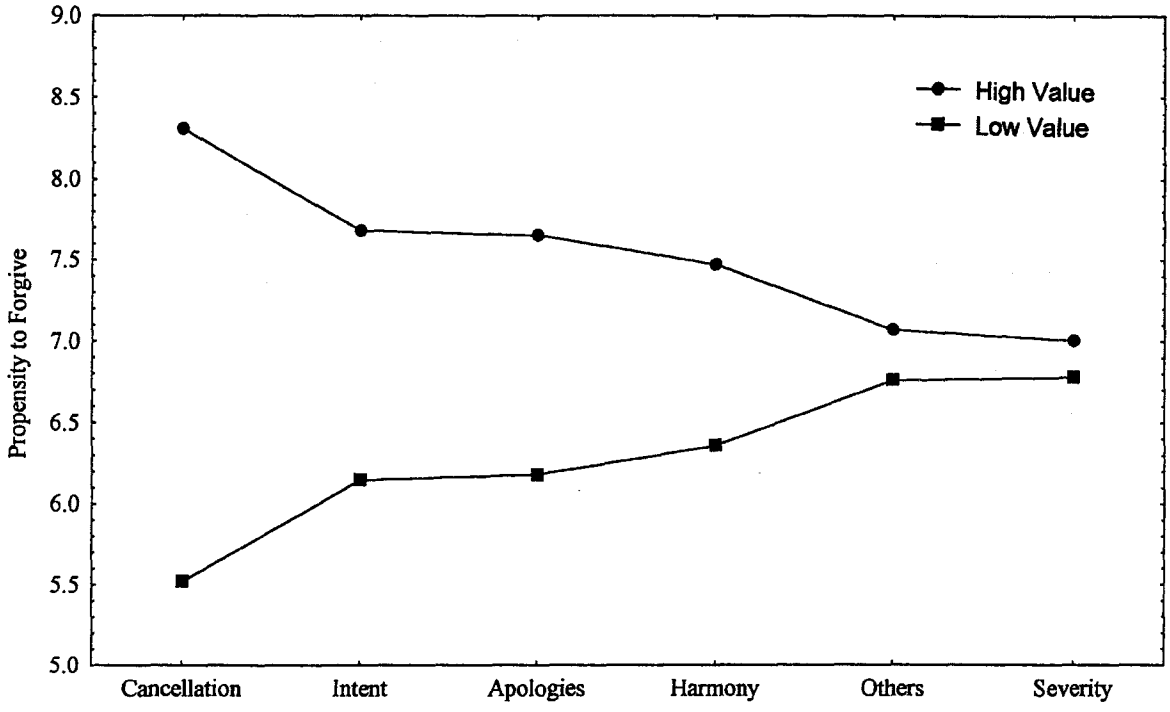

Fig. 1. Effect of each item of information on propensity to forgive. The two curves join the means for the two levels of each factor.

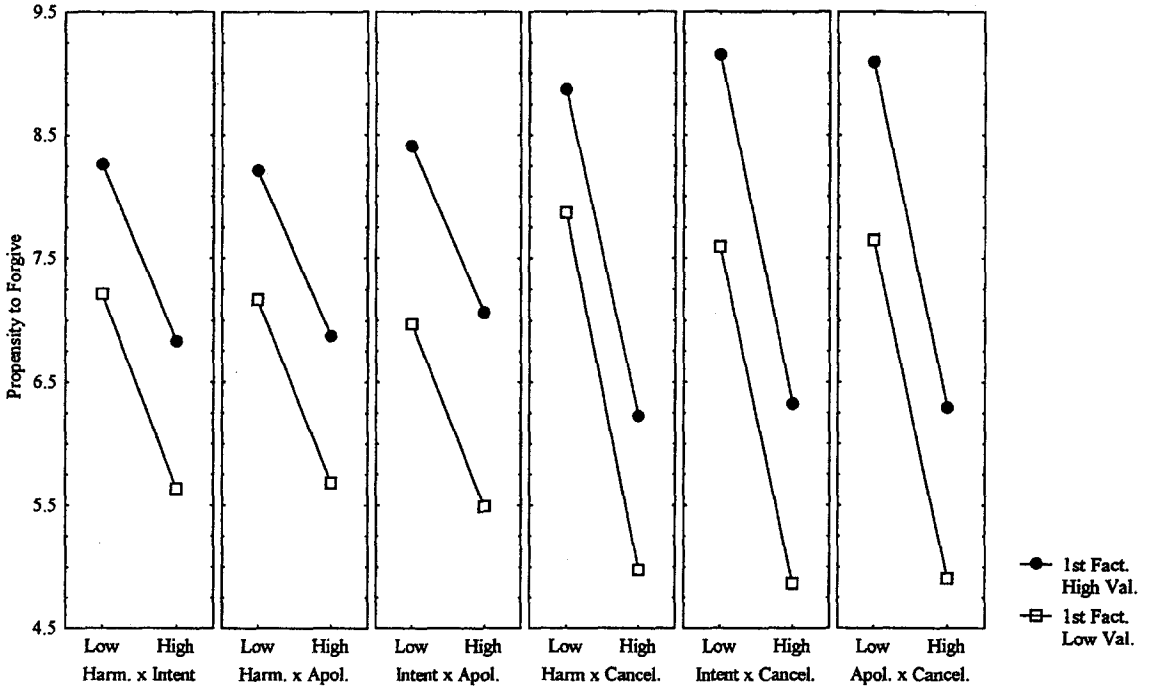

Fig. 2. Six of the 15 2 × 2 interactions between information factors and propensity to forgive. The parallelism of the curves supports an additive-type information integration rule.

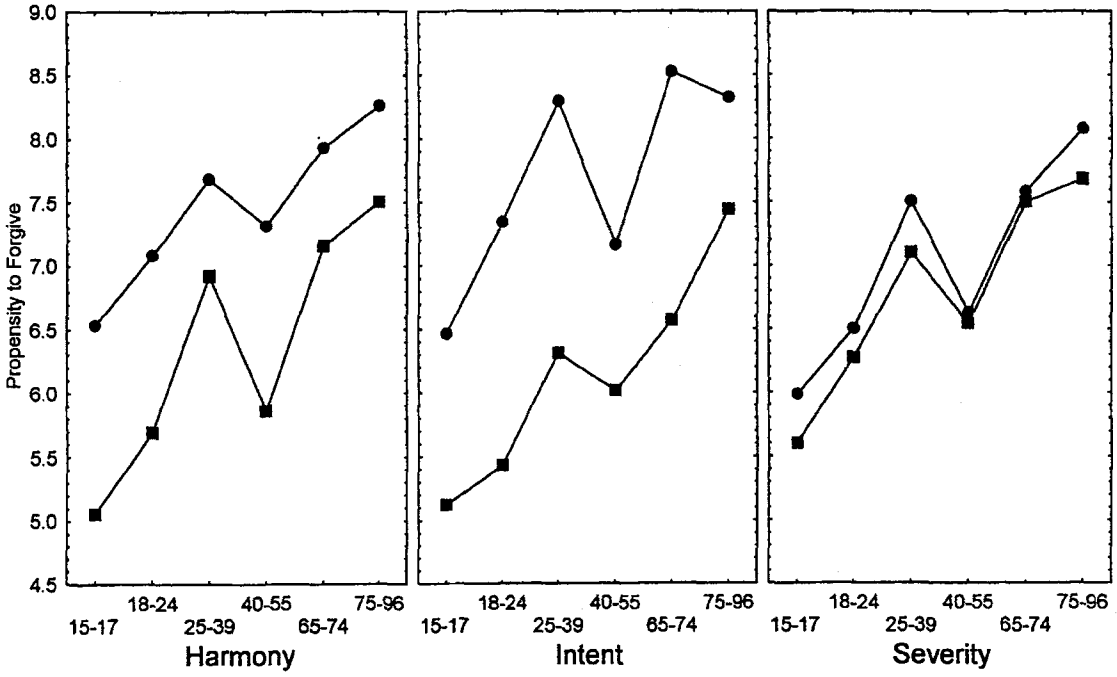

Fig. 3. Variation, as a function of age, of the effects of harmony, intent, and severity on propensity to forgive. The two curves correspond to the two levels of each factor.

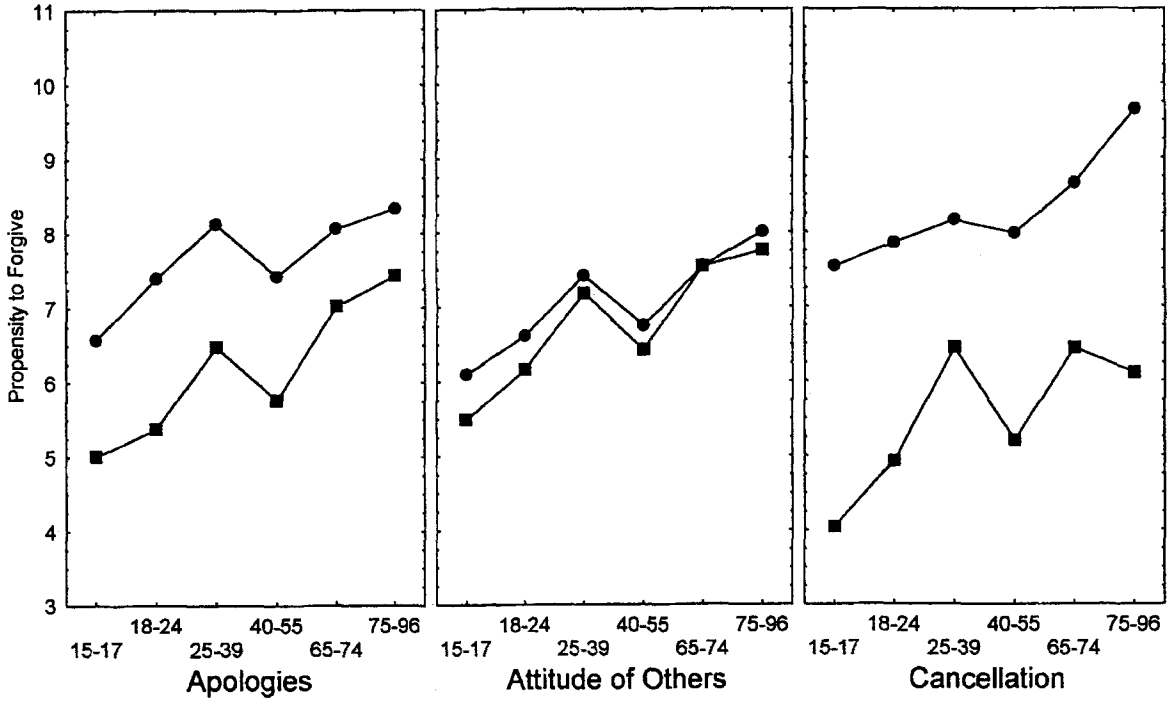

Fig. 4. Variation, as a function of age, of the effects of apologies, others, and cancellation on propensity to forgive. The two curves correspond to the two levels of each factor.

portant in the youngest and oldest participants than in middle-aged adults. Neither the Age × Intent and Age × Severity of Consequences interactions nor any of their components were significant.

Six complementary analyses of variance were conducted, one for each age group. The design was 2 × 2 × 2 × 2 × 2 × 2 × 2, Gender × Social Harmony × Intent × Severity of Consequences × Apologies × Others × Cancellation. Results are given in Table III. We have seen before (see Table II) that the bilinear components of the Age × Social Harmony, Age × Apologies, and Age × Others interactions were significant. The social harmony effect was significant at $p > .001$ in the two youngest groups and was significant, but at a considerably lower threshold, in the two oldest groups. The apologies effect was significant at $p > .001$ in the four youngest groups and was significant, but at a slightly lower threshold, in the two oldest groups. The others effect was significant at $p > .01$ in the two youngest groups only. We have seen before also (see Table II) that the quadratic-linear component of the Age × Cancellation effect was significant. The cancellation effect was significant at $p > .0000001$ in the two youngest groups and in the oldest group; it was significant in the other group, but at a lower threshold.

Cluster Analysis

A cluster analysis was performed on the raw data (Euclidean distance, complete linkage). Eight distinct clusters emerged (see Table IV). The first cluster was composed of 33 participants, mainly elderly people (10 and 9) and 25- to 39-years-olds (eight). In these subjects, the information given was not taken into account and the mean response was close to the maximum. For each story, participants declared they would forgive, without regard for the circumstances of the offense. After the experiment, participants were invited to express their philosophy of forgiveness; they all insisted on the fact that it is always better to forgive than to keep resentment. However, they declared themselves very interested in the experiment despite the fact they always responded in the same way. They were interested because the experiment allowed them, to a certain extent, to test their philosophy. This cluster was called the Always Forgive cluster.

Table III. Analysis of Variance Results for Each of the Six Age Groups

		15- to 17-year-olds		18- to 24-year-olds		25- to 39-year-olds	
Source	*df*	Mean square	*F*	Mean square	*F*	Mean square	*F*
Gender (G)	1	86.63	0.34	645.16	1.46	7.62	0.01
Harmony (H)	1	1,246.69	31.08[b]	1,038.64	23.81[b]	336.03	5.06
Intent (I)	1	1,032.01	22.88[b]	1,982.97	25.03[b]	2,260.01	24.54[b]
Severity (S)	1	82.94	6.65[a]	29.19	2.56	95.67	12.86[a]
Apologies (E)	1	1,385.14	16.17[b]	2,216.40	34.24[b]	1,567.01	25.35[b]
Others (O)	1	212.91	10.71[a]	111.61	8.01[a]	31.62	7.04
Cancellation (C)	1	6,963.14	58.03[b]	4,634.03	42.96[b]	1,691.09	30.73[b]
G × O	1	77.54	3.90	35.33	2.54	1.20	0.27
		40- to 55-year-olds		60- to 74-year-olds		75- to 96-year-olds	
		Mean square	*F*	Mean square	*F*	Mean square	*F*
Gender (G)	1	1,173.72	4.07	8.54	0.01	2,661.07	6.49
Harmony (H)	1	1,386.48	18.01[b]	460.86	12.30[b]	348.14	6.61
Intent (I)	1	867.82	21.75[b]	2,933.54	23.10[b]	466.80	14.46[b]
Severity (S)	1	5.28	1.18	5.37	0.75	94.44	13.25[b]
Apologies (E)	1	1,815.27	22.94[b]	839.45	12.72[b]	489.08	12.76[a]
Others (O)	1	69.04	5.68	0.056	0.04	38.34	3.88
Cancellation (C)	1	5,098.34	49.26[b]	3,779.80	28.88[b]	7,629.77	40.70[b]
G × O	1	57.39	4.72[a]	.11	.007	24.39	2.47

[a] $p < .01$.
[b] $p < .001$.

Table IV. Composition of the Clusters as a Function of Age and Gender

Cluster	Age groups (years old)						Gender		Total
	15 to 17	18 to 24	25 to 39	40 to 55	65 to 74	75 to 96	Men	Wmn	
Always Forgive	1[a]	3	8	2[a]	10	9	16	17	33
Never Forgive	2	2	2	3	1	1	7	4	11
Cancellation	4	3	1	2	3	5	11	8	18
Cancellation Social-Harmony	2	3	0	3	3	4	5	10	15
Social-Harmony-Intent-Apologies	7	8	13	15	15	7	22	43	65
Cancellation-Intent	4	2	1	4	5	5	10	11	21
Cancellation-Apologies-Intent	12[a]	8	7	8	6	4	22	23	45
Intent-Apologies	1	4	4	2	6	0	11	6	17
Apologies-Others	0	1	0	2	0	1	4	0	4
Cancellation-Social-Harmony II	1	0	0		0	0	2	1	3
Unclassifiable	2	0	0	0	0	2	3	1	4
Total	36	34	36	43	49	38	114	122	236

[a] $p < .10$.

The second cluster was composed of 11 participants, mainly younger and middle-aged adults. In these subjects, the mean response was close to the minimum and the only information taken into account was intent. The effect of this factor was, however, very weak. These subjects expressed a philosophy exactly opposite to the one expressed by the members of the Always Forgive cluster. This second cluster was called the Never Forgive cluster.

The third cluster was composed of 18 participants, mainly the youngest and the oldest ones. The dominant factor for the members of this cluster was cancellation. Two other information items were taken into account, together with cancellation: social harmony and severity of consequences. This cluster was called the Cancellation cluster.

The fourth cluster was composed of 15 participants, mainly women. The information utilization profile of these participants was close to the profile encountered in the Cancellation cluster. The dominant factors were cancellation and social harmony. Intent and others information items were also taken into account, although to a lesser extent. This cluster was called the Cancellation-Social Harmony cluster.

The fifth cluster was more numerous than the preceding two. It was composed of 65 participants, mainly women. There was no dominant factor in their information utilization profile. Social harmony, cancellation, intent, and apologies were attributed more or less the same importance. This cluster differed essentially from the Cancellation-Social Harmony cluster in that participants took into account one more information item: apologies. This cluster was called the Social Harmony-Cancellation-Intent-Apologies cluster.

The sixth cluster was composed of 21 participants. In this cluster, the information utilization profile was closer to the entire information utilization group profile than in the preceding clusters. The dominant factors were cancellation and intent. Social harmony and severity of consequences information were also taken into account, although to a lesser extent. One of the main differences between this and the other clusters lay in the fact that the social harmony information was not at all taken into account. This cluster was called the Cancellation-Intent cluster.

The seventh cluster was composed of 45 participants, mainly the youngest. In this cluster the information utilization profile was still closer to the entire information utilization group profile. All six information items were taken into account. The three dominant factors were cancellation, apologies, and intent. This cluster was called the Cancellation-Apologies-Intent cluster.

The eighth and last cluster was composed of 17 participants, mainly men. The information utilization profile was very different than that observed in the previous clusters. The two dominant factors were intent and apologies. This cluster was termed the Intent-Apologies cluster.

Additionally, two more small clusters emerged. In these clusters, participants (respectively, four and three subjects) used either apologies and others information only or social harmony and cancellation information only.

As shown in Table IV, the relatives frequencies observed in some clusters were significatively different ($p < .10$) from the relative frequencies observed in the entire group. In the Always Forgive cluster, 15- to 17-years-olds and 40- to 55-years-olds were underrepresented. In the Cancellation-Apologies-Intent cluster, the 15- to 17-years-olds were slightly overrepresented. Finally, in the Social Harmony-Cancellation-Intent-Apologies cluster, women were overrepresented ($p < .007$).

Results of a Follow-Up Study

Six months after the end of the main study, 32 of the 33 members of the Always Forgive cluster were presented with a new set of eight scenarios. These participants were the ones who only used the right anchor of the response scale. The eight scenarios included the same six items of information as previously, but the values of three of the factors, social harmony, others, and Severity, were kept constant. In this second situation, information load was thus considerably reduced. All 32 participants maintained that they would forgive unconditionally in each of the eight cases and rated the scenarios accordingly, i.e., using only the right anchor of the response scale.

DISCUSSION

Increase in Propensity to Forgive from Adolescence to Old Age

An increase in propensity to forgive from adolescence to old age was expected. Such an increase has been effectively observed. The mean score of elderly people was substantially higher than the mean score of adolescents, and the linear effect of age captured 80% of the effect variance. Results were, therefore, in line with those of Enright et al. (1989; see also Subkoviak et al., 1995). The higher score in elderly people was largely due to the fact that a notable proportion of them (22%) were unconditional forgivers. Elderly people represented about 58% of the unconditional forgivers in the study, which was largely above what chance would predict (37%). As shown in the follow-up study, these unconditional forgivers were not people unable to perform the task and for this reason responding always the same way (see also Przygotski & Mullet, 1997, for additional evidence of intact integration abilities of elderly people in another situation of moral judgment). They were people highly involved in the study, people who frequently expressed their conviction that the only reasonable position is unconditional forgiveness. These people can be considered as having reached the sixth stage of Enright's theory: forgiveness as love.

Variations of the Impact of the Cancellation, Attitude of Others, and Social Harmony Factors on Forgiveness as a Function of Age

An interaction between propensity to forgive, cancellation of consequences, and age group was expected. An interaction was effectively observed but its form (quadratic-linear) was different from what was expected (bilinear). The effect of the cancellation factor was higher in younger adolescents and in the very old. Although we have no explanation for this result, we are currently trying to see if it is replicable.

A bilinear interaction between propensity to forgive, attitude of others, and age group was also expected. It was observed; the attitude of others determinant was important only in adolescents. This was in line with Enright et al. (1989) results. Finally, a quadratic-linear interaction between propensity to forgive, restoration of harmony, and age group was expected. The form of the observed interaction was, however, clearly bilinear. In fact, restoration of harmony appeared to be a factor more important in adolescents than in adults and elderly people.

An Additive Forgiveness Schema

One of the research questions referred to the structure of the forgiveness schema. It was expected that the various determinants of forgiveness would simply add their effects. Figure 2 shows that interactions of the kind Social Harmony × Intent or Social Harmony × Intent × Apologies or involving still more factors were not significant. In addition, interactions of the kind Age × Social Harmony × Intent or Gender × Social Harmony × Intent or involving still more

factors were not significant. The structure of the Forgiveness schema did not vary as a function of age and gender. The cluster analysis results showed that, for 72% of the participants, integration of information had taken place, that is, two or more information items were taken into account. The most important cluster was the Social Harmony-Cancellation of Consequences-Intent-Apologies cluster, a cluster bringing together participants who integrated at least four information items. The second most important cluster was the Cancellation of Consequences-Apologies-Intent cluster, a cluster bringing together participants who integrated the six information items. The formula

Propensity to forgive = f (cancellation of consequences + intent + social harmony + apologies)

can be viewed as possessing a good descriptive value for a majority of participants. Possible formulae describing information integration in other participants are probably only variations around it. There was a structural similarity between the blame schema (Anderson, 1991a, 1991b) and the forgiveness schema.

Unexpected Results

A number of other results deserve consideration. First, intent to harm appeared as an important factor, much more important than severity of consequences. The way in which we have constructed the two factors may appear as the main reason why this result was obtained. We do not think so, however. The severity of consequences factor contrasted two very different modalities: refusal of a promotion versus refusal of a promotion and transfer in another service (transfer associated with a degradation of the working conditions). This contrast was probably sufficient for an effect to appear. (Moreover, the severity of consequences effect was observed only in adolescents and young adults.) The reason why this factor had a limited effect lies probably in the fact that, in the stories, the severity of consequences did not depend on the offender. It was the head of the service who decided to simply refuse the promotion or to move the offended person. This corresponds to a number of everyday situations. However, this made clear that the impact of the severity of the consequences factor on propensity to forgive needs to be studied in other contexts, especially in those where the severity factor is more directly linked to the offender behavior. (Note also that in this study we were unable to distinguish the respective contributions to the global impact of each factor of the true weight of each factor and of the distance between scale values of the two modalities of this factor.)

Second, the impact of the apologies factor was very high. Apologies constituted, in the eye of the participants, an important element in the process of forgiveness: When repent and apologies were present, it was easier to forgive. This is consistent with Enright's and the Human Development Study Group's (1991) views. In addition, apologies were more important for adolescents and adults than for elderly people. The 74- to 96-year-olds, as a group, were more prone to forgive in the absence of apologies situations than the 15- to 17-year-olds in the presence of apologies situations. This, again, is consistent with the idea that elderly people are to a lesser extent than younger people, conditional forgivers.

Third, the effect of gender was negligible and not significant; very few interactions involving a gender effect were detected. The only significant one concerned the attitude of others factor. Men were more sensitive to the attitude of others determinant than women. The fact that propensity to forgive was not linked to gender was consistent with Enright et al.'s (1989) results.

Finally, a small group of "never forgivers" was encountered. As with unconditional forgivers, unconditional nonforgivers were not people unable to perform the task and who for this reason responded always the same way. They were people highly involved in the study, people who frequently expressed their conviction that the only reasonable position to adopt was to take revenge on the offender. These people can be considered as probably not having moved from the lowest of the sixth stage of Enright's theory: revengeful forgiveness. It would, however, be of interest to know more about them in future studies.

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REFERENCES

Anderson, N. H. (1991a). Psychodynamics of everyday life: Blaming and avoiding blame. In N. H. Anderson (Ed.), *Contributions to information integration theory: Vol II* (pp. 243–275). Hillsdale, NJ: Erlbaum.

Anderson, N. H. (1991b). Moral-social development. In N. H. Anderson (Ed.), *Contributions to information integration theory: Vol III* (pp. 137–187). Hillsdale, NJ: Erlbaum.

Anderson, N. H. (1996). *A functional theory of cognition*. Hillsdale, NJ: Erlbaum.

Carter, K. S. (1977). Forgiveness revisited: God's and ours. *Brethen Life and Thought, 22*, 199–209.

Downie, R. S. (1965). Forgiveness. *Philosophical Quarterly, 15*, 128–134.

Enright, R. D, & the Human Development Study Group. (1991). The moral development of forgiveness. In W. Kurtines & J. Gewirtz (Eds.), *Handbook of moral behavior and development: Vol. 1* (pp. 123–152). Hillsdale, NJ: Erlbaum.

Enright, R. D., Santos, M. J. D., & Al-Mabuk, R. (1989). The adolescent as forgiver. *Journal of Adolescence, 12*, 95–110.

Helb, J. H., & Enright, R. D. (1993). Forgiveness as a psychotherapeutic goal with elderly females. *Psychotherapy, 30*, 658–667.

Hommers, W., & Anderson, N. H. (1991). Moral algebra of harm and recompense. In N. H. Anderson (Ed.), *Contributions to information integration theory: Vol II* (pp. 101–141). Hillsdale, NJ: Erlbaum.

Howe, E. S., & Loftus, T. C. (1996). Integration of certainty, severity, and celerity information in judged deterrence value: Further evidence and methodological equivalence. *Journal of Applied Social Psychology, 26*, 226–242.

Hughes, M. (1975). Forgiveness. *Analysis, 35*, 113–117.

Kohlberg, L. (1976). Moral stages and moralization: the cognitive-developmental approach. In T. Lickona (Ed.), *Moral development and behavior: Theory, research, and social issues* (pp. 31–53). New York: Holt, Rinehart & Winston.

Minas, A. C. (1975). God and forgiveness. *Philosophical Quarterly, 25*, 138–150.

Murphy, J. G. (1982). Forgiveness and resentment. *Midwest Studies in Philosophy, 7*, 503–516.

Neblett, W. R. (1974). Forgiveness and ideals. *Mind, 83*, 269–275.

Newman, L. E. (1987). The quality of mercy: On the duty to forgive in the Judaic tradition. *Journal of Religious Ethics, 15*, 141–150.

Przygotzki, N. & Mullet, E. (1997). Moral judgment and aging. *European Review of Applied Psychology, 47*, 15–22.

Subkoviak, M. J., Enright, R. D., Wu, C.-R. (1992). *Current developments related to measuring forgiveness*. Paper presenter at the annual meeting of the Mid-Western Educational Research Association, Chicago, October.

Subkoviak, M. J., Enright, R. D., Wu, C.-R., Gassin, E. A., Freedman, S., Olson, L. M., Sarinopoulos, I. (1995). Measuring interpersonal forgiveness in late adolescence and middle adulthood. *Journal of Adolescence, 18*, 641–655.

Surber, C. F. (1977). Developmental processes in social inference: Averaging of intentions and consequences in moral judgment. *Developmental Psychology, 13*, 654–665.