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Requests for reprints should be addressed to Susan H. Spence, Department of Psychology, University of Sydney, New South Wales 2006, Australia.

Children's intrinsic, extrinsic and internalized motivation: A developmental study of children's reasons for liked and disliked behaviours

Cristine L. Chandler and James P. Connell

This study investigates three different types of motivation: intrinsic, extrinsic, and internalized. Open-ended interviews were conducted with 121 5- to 13-year-old children. Responses to a series of 'why questions' about two types of behaviours (liked and disliked) were collected and used as indices of the three types of motivation. Responses were initially coded into 10 motivational categories, and then into three motivational supercategories: intrinsic, extrinsic, and internalized. Reasons falling into these three categories were then examined for hypothesized age differences and differences in the frequencies of the categories for the two classes of behaviour. Support was found for the hypothesis that liked behaviours would be intrinsically motivated across the age range. In contrast, age group differences were obtained in the motivation for disliked behaviours, with extrinsic motivation showing higher frequencies at the younger ages and internalized motivation showing higher frequencies at the older ages. The importance children attributed to doing disliked behaviours was positively associated with internalized motivation. These results suggest that intrinsic and internalized motivations are conceptually and developmentally distinct motivational sources and thus should be examined separately in research on children's motivational development.

In recent years, empirical studies of intrinsic motivation have proliferated (Deci & Ryan, 1985). Investigators studying children's motivation have made distinctions between intrinsic and extrinsic motivational orientations and between types of behaviour that are intrinsically or extrinsically motivated (e.g. Lepper & Greene, 1975; Deci *et al.*, 1981; Harter & Connell, 1984). Our study adds to this theoretical discussion the notion that some types of behaviours are neither intrinsically nor extrinsically motivated *per se*. As an example, take the 10 year-old boy who dutifully does his household chores without prodding from his parents. The motivation is internal in that the behaviour occurs without extrinsic prompts such as surveillance, threat of punishment, or promise of reward. But this activity lacks the affective, spontaneous quality of intrinsically motivated behaviour. We use the term 'internalized motivation' to refer to the motivation for this class of behaviours which children do not inherently like to do but which they are taught and expected to do. On the surface, types of behaviours regulated by internalized motivation appear quite similar to those that are intrinsically motivated in that both occur without external pressure or rewards. In our view, however, behaviours that are regulated by internalized motivation are those that were initially extrinsically motivated but gradually came under the control of internal sources of regulation.*

Intrinsically motivated behaviours, on the other hand, arise from the organism's need to be competent and self-determining in its interaction with the environment (White, 1959). Thus, somewhat counter-intuitively, internalized motivation is conceptually more akin to extrinsic than to intrinsic motivation.

A development framework is essential in order to incorporate internalized motivation fully into existing conceptualizations of intrinsic and extrinsic motivation. An important purpose behind this framework should be to identify domains of behaviour in which we

*The idea that the motivation for the same behaviour may change over the course of development is reminiscent of Allport's (1937) concept of 'functional autonomy'. In our framework, however, the internalized motivation is not simply freed of its original source but is, in effect, taken on by the individual as an expression of his/her need to be self-regulating (Connell & Ryan, 1984).

would expect to see change from extrinsic to internalized motivation (e.g. chore behaviours and obeying rules), and other domains in which we would expect to see intrinsic motivation originally that would remain more or less constant (e.g. mastery behaviours and play behaviours).*

We will refer to these domains of behaviour as 'disliked' and 'liked', recognizing that preference for behaviours in each domain will show considerable individual variation and that disliked behaviours may include both the *performance* of chores, for example, and the *inhibition* of socially prohibited behaviour, e.g. not touching mother's things.

The developmental process by which the motivation to engage in disliked behaviours goes from extrinsic to internalized is referred to as 'internalization'. Internalization has been discussed previously with regard to a variety of behavioural contents and from a variety of theoretical perspectives (e.g. English & English, 1958; Hartmann & Loewenstein, 1962; Shafer, 1968; Aronfreed, 1969; Bandura, 1971; Meissner, 1981; Harter, 1982; Lepper, 1983). As a general concept, we view internalization as a process by which an individual acquires an attitude, belief, or behavioural regulation from external sources and progressively transforms it into a personal value, or goal (cf. Ryan *et al.*, 1985). In the current usage, internalization of motivation is the developmental movement along a continuum from extrinsic regulation of behaviour toward internalized regulation of behaviour.

The present study is concerned primarily with tracking the regulation of disliked and liked behaviours from preschool through early adolescence. Two factors make this age range optimal for the study of internalization processes. First, socialization pressures to obey rules, to regulate one's own behaviour, and to engage in responsible, adult-like activities first appear and then become stronger during this period. Second, cognitive capacities that may facilitate internalization processes emerge during this period.

Our specific hypotheses concerned motivational differences between the two types of behaviours (liked vs. disliked), and developmental differences in motivational orientations (intrinsic, extrinsic and internalized). It was hypothesized that children's motivational orientations for engaging in liked behaviours would be largely intrinsic, while children's motivational orientations for performing disliked behaviours would reflect either extrinsic or internalized motivational orientations. Developmental differences in intrinsic motivation for liked behaviours were not expected; however, extrinsic motivation was predicted to decrease with age, while internalized motivation was hypothesized to increase. Gender was also included as a variable in order to assess possible differences in boys' and girls' motivational orientations towards the different behaviours, although no differences were expected.

Although procedures exist for tapping behavioural aspects of intrinsic motivation (e.g. Deci, 1971; Lepper & Greene, 1975), and self-report measures exist for assessing children's intrinsic vs. extrinsic motivation (Harter, 1981), neither of these techniques allows for internalized, intrinsic, and extrinsic motivation to be assessed separately. Thus, we sought to develop a new method for assessing children's motivation in this age range.

A structured interview procedure was used to elicit children's reasons for doing various behaviours. We then used the children's reasons for why they engage in behaviours that they liked and disliked as our window into their motivation for doing the behaviour. Equating reasons with motivations is, at best, risky. However, in this initial study of internalized motivation this methodological strategy seemed both straightforward and potentially revealing in that other researchers (notably Eisenberg and her colleagues) have

used children's reasons for engaging in prosocial behaviour quite profitably as indices of prosocial motivation (e.g. Eisenberg *et al.*, 1985).

We also asked children to rate each behaviour as to its 'importance' in order to flesh out our description of internalized motivation. Children's attributions of importance to chore behaviours were expected to be associated with internalized motivation, if we can assume that seeing a behaviour as important is potentially one concomitant of 'taking on' its regulation as one's own. Thus, ratings of importance were expected to correlate positively with internalized motivational orientation.

To sum up, we sought to draw theoretical and empirical distinctions between two motivational orientations which are both 'inside the child' (intrinsic vs. internalized motivation), but which are thought to develop from quite distinct roots and to show different prevalences in two behavioural domains. Using a newly developed interview procedure, we also sought to demonstrate age-graded internalization processes by showing age differences in two forms of non-intrinsic motivation (extrinsic and internalized). Finally, we sought to identify one attitudinal concomitant of internalized motivation, viz. children's ratings of importance.

Method

Subjects

The total sample included 166 children 5 to 13 years of age. Subjects were recruited from the University of Denver psychology department subject pool of mothers and children. Ninety-eight per cent of the mothers contacted agreed to allow their children to participate. Subjects included in the research study ($n = 121$) were approximately equally distributed across sex within the four age levels of the sample (see Table 1). The subjects were white and primarily from middle-class families. One hundred and twenty-five subjects were tested and 121 subjects (97 per cent) completed the study.

Table 1. Age and sex of subjects for each age group

Age group	Males	Females	Mean age	Age range
1	16	14	6.1	5.0-6.9
2	14	14	8.0	7.0-8.8
3	18	13	10.1	8.9-10.79
4	17	15	11.6	10.8-12.8

Note. There were a total of 65 males and 56 females.

Procedures

Several laboratory rooms at the University of Denver were used for the individual child interviews. The interviews were conducted by the first author and an undergraduate research assistant, with the former serving as experimenter for approximately 30 per cent of the interviews. Both experimenters had extensive experience with child interviewing. The children were accompanied by one of the experimenters from a waiting/play room to the interview room. The children were told that they would be asked a number of questions for which there were no right or wrong answers, and that their parents would not see their answers. The sequence of questions was the same for all children. The interviews of the final research sample took approximately 20 minutes.

Measures

Overview and rationale. First, an open-ended interview technique was given to identify behaviours which could be classified into two behavioural categories, liked and disliked, and to develop a coding system for the reasons children give for doing these two types of behaviours. The 5-13-year-old pilot sample ($n = 45$) was recruited from the same subject pool as the final sample. In preliminary interviews conducted with 22 children in the pilot sample, children were asked to report behaviours that they enjoyed doing and behaviours they did not like doing. Out of the list of behaviours generated by this procedure, a set of liked and a set of disliked behaviours were selected for the research interview. Each set contained the four behaviours that had been mentioned most often and that were appropriate for the entire age range. In addition, two mastery and two chore behaviours were added for each of two subsets of the age range (under 7 years and over 7.1 years) in order to augment the number

*One could also imagine some decreases in and possibly transformations of intrinsic motivation for these latter behaviours as a result of socialization pressures. For example, the little girl who originally played baseball for fun but later plays only to please her parents.

of behaviours while maintaining developmental appropriateness. The behaviours are presented in Table 2. Thus, each subject would be responding to 12 behavioural categories: four liked and four disliked behaviours common to the entire sample, and two liked and two disliked behaviours specific to the subject's age range.

Table 2. Behaviours included in the child interviews

	Liked behaviours	Disliked behaviours
All children	<ol style="list-style-type: none"> 1. building something with toys 2. playing a ball game 	<ol style="list-style-type: none"> 1. picking up your room 2. brushing your teeth
Ages 7-13	<ol style="list-style-type: none"> 3. playing with a friend 4. reading a book 	<ol style="list-style-type: none"> 3. going to bed on time 4. doing what mom asks without arguing
Ages 5-7	<ol style="list-style-type: none"> 1. playing a board game 2. going skating 	<ol style="list-style-type: none"> 1. doing homework 2. coming home from playing on time
	<ol style="list-style-type: none"> 1. playing an easy board game 2. putting on all your clothes by yourself 	<ol style="list-style-type: none"> 1. leaving mom's things alone 2. leaving the poisons under the kitchen sink alone

Interview format. After the 12 behaviours were selected, the entire pilot sample ($n=45$) was interviewed. For each behaviour, children were asked, 'When you do . . . , why do you do it?' and their reasons were recorded verbatim by the interviewer. If more than one reason was given, the child was asked to select the most important reason, and only this one reason was included in subsequent analysis. Approximately 20 per cent of the children gave multiple reasons. In addition to the 'why' questions, the children were asked to use a four-point, pictorially presented scale to rate how important it was to them to do each of the behaviours well. The four-point scale was composed of four circles varying in size from small to large with the words 'not at all important', 'not very important', 'sort of important', and 'very important' printed under each circle. The words were read to the subject and each circle pointed to by the interviewer before the subject was asked to point to the circle that 'showed how important you think it is to do (or not do) X' (where X is the behaviour being discussed).

Content analyses of responses. Content analyses of the children's responses to the 'why' questions were conducted. The goal of these analyses was to capture the full range of responses in the fewest number of distinct motivational categories. It was found that 10 categories were necessary. Descriptions and inclusion-exclusion criteria were then formalized for each category. Inter-rater reliability was estimated by computing the number of responses assigned the same classification by two independent raters, divided by the total number of responses. When inter-rater reliability reached 90 per cent for the entire pilot sample, the coding system was judged reliable. Inter-rater reliability on data from the actual sample was 87 per cent. Table 3 presents the categories used in the final study and sample responses for each.

Formation of motivational supercategories. The 10 motivational categories were then examined to see how well they fit our conceptual typology of three motivational orientations: intrinsic, extrinsic, and internalized. Responses in categories 1 and 2 were thought to represent two previously identified aspects of intrinsic motivation: pursuit of challenge and intrinsic pleasure and/or interest. Thus, responses in these two categories were combined into one supercategory labelled intrinsic. Categories 3, 4 and 5 were thought to represent central components of an extrinsic motivational orientation: attention to externally based positive and negative outcomes and externally imposed rules. Responses in these three categories were combined into the supercategory termed extrinsic. Categories 6, 7, and 8 were all thought to reflect internalized motivations, i.e. fulfilling one's own, self-determined goals. For example, the sample response for category 6 'I'll practice so I'll make the school team' indicates the child has as a goal 'to make the school team' that is theoretically differentiable from the goal 'I want to learn to hit better' (category 1 under the intrinsic supercategory) in that 'making the school team' is not directly tied to

Table 3. Ten categories of children's motivational responses (1-10)

Intrinsic
<ol style="list-style-type: none"> 1. Pursuit of challenge/mastery of skill: ('... I play because I want to learn to hit better') 2. Pleasure or interest in activity itself: ('Building is fun')
Extrinsic
<ol style="list-style-type: none"> 3. Anticipation of award or approval: ('... so my dad will like me') 4. Avoidance of disapproval: ('... or else my mom will yell') 5. Following an explicit rule: ('I'm supposed to clean my room')
Internalized
<ol style="list-style-type: none"> 6. Achievement of a self-determined goal: ('I practice so I'll make the school team') 7. Avoidance of self-determined negative consequences: ('If I don't clean my room, I'll lose the pieces of my models') 8. To do something nice for someone else: ('I don't want to hurt mom's feelings')
Note categorizable in supercategory
<ol style="list-style-type: none"> 9. Use of a positive maxim: ('Your body needs a good night's sleep') 10. Use of a negative maxim: ('If you don't brush, you lose your teeth')

mastering the activity itself and is presumably an internalized value. These categories were combined into the single supercategory called internalized.*

After these theoretically based category assignments were made, two categories remained: positive and negative maxims (categories 9 and 10). These responses did not fit neatly into any of the three motivational orientations and showed very low frequencies compared to the three other supercategories (total 2 per cent of liked behaviour responses and 8 per cent of disliked behaviour responses). Thus, these responses were not included in subsequent analyses.†

Scoring of the supercategories. Each child in the research sample ($n=121$) received a score in each supercategory for liked and disliked behaviours separately. For example, each child answered six 'why' questions about their reasons for engaging in the six liked behaviours. The proportion of a child's responses to the 'why' questions about the six liked behaviours that fell into one of two motivational categories classified as intrinsic (i.e. categories 1 and 2 in Table 3) would be that child's intrinsic supercategory score for liked behaviours; the proportion that fell into categories 3, 4 and 5 was that child's extrinsic score for liked behaviours, etc. The six scores resulting from these procedures (three supercategories \times two domains) were the database for the bulk of the analyses.

*The decision to place responses from category (8) in the internalized supercategory was based on the assumption that altruistic motives for doing disliked behaviours especially are most often a product of socialization. This assumption leaves open the possibility that 'helping a person in need', for example, may be fuelled by more intrinsic motives.

†The fact that different numbers of response categories were included in the three supercategories should not bias the results in that the obtained frequencies of the individual response categories (e.g. pursuit of challenge/mastery of skill) was not taken into account when forming the supercategories. Thus, even though extrinsic and internalized have more response categories, the intrinsic supercategory obtained a higher proportion of responses overall (see Table 4).

Results

Motivational orientations

In order to examine differences in children's reasons for engaging in liked vs. disliked behaviours, dependent *t* tests were performed on each of the three motivational supercategories. As predicted, intrinsic responses were more frequent for liked behaviours than for disliked behaviours while extrinsic and internalized responses were more frequent for disliked behaviours than for liked behaviours. Table 4 summarizes these results.

Sex differences in children's responses were examined by performing independent *t* tests on each of the three motivational supercategories (intrinsic, extrinsic and internalized) within each type of behaviour (liked and disliked). The results revealed only one sex effect, namely, that boys gave intrinsic responses more often for liked behaviours than did girls ($t = 2.22$, $d.f. = 119$, $P < 0.05$).

Table 4. Mean proportions of motivational supercategory responses for two types of behaviour

	Type of behaviour		<i>t</i>	d.f.
	Liked	Disliked		
Intrinsic	0.67	0.05	30.57*	120
Extrinsic	0.11	0.36	15.04*	120
Internalized	0.19	0.49	26.65*	120

* $P < 0.001$.

Note. Statistical tests performed were *t* tests for paired observations.

Developmental hypotheses were examined using a one-way ANOVA procedure followed by planned comparisons among the four age groups on each of the three motivational supercategories within each type of behaviour. (Multivariate analyses were not employed due to the ipsative nature of the dependent variables.) Significant ANOVA results were obtained for the extrinsic and internalized supercategories for disliked behaviours only ($F_s = 2.70$ and 3.03 , respectively, $d.f. = 3, 116$, both $F_s < 0.05$). As expected, no age trend was obtained for the intrinsic supercategory for the liked behaviours. Neither of the other two supercategories showed age trends for liked behaviours, nor did the intrinsic category for disliked behaviours.

The results of the planned comparisons are presented in Table 5. For chore behaviours, extrinsic responses were significantly less frequent in the oldest age group than in the two younger groups and marginally less frequent in the third age group. Conversely, the use of internalized responses for chore behaviours was higher in the oldest group than in the youngest group and marginally higher than in the two middle groups. These middle groups also showed a marginally higher frequency of internalized responses than the younger group. Thus, the two major developmental hypotheses were supported.

Importance ratings

A *t* test for paired observations was performed to examine mean differences between the liked and disliked behaviours on the four-point importance ratings. Disliked behaviours were rated as more important (mean 3.2) than liked behaviours (mean 2.4); $t = 4.61$, $d.f. = 120$, $P < 0.001$. Also, the importance ratings correlated negatively ($r = -0.34$, $P < 0.001$) with the proportion of reasons in the extrinsic supercategory, and positively ($r = 0.24$, $P < 0.001$) with the proportion of reasons in the internalized supercategory for chore behaviours. Thus, children who rated disliked behaviours as more important were less likely

Table 5. Age group differences in proportion of motivational supercategory responses

Disliked behaviours	Age group			
	5-6-9 (<i>n</i> = 29)	7-8-8 (<i>n</i> = 28)	8-9-10-8 (<i>n</i> = 31)	10-8-12-8 (<i>n</i> = 32)
Intrinsic	0.05	0.04	0.04	0.05
Extrinsic	0.42 _a	0.38 _a	0.36*	0.28 _a
Internalized	0.40 _a	0.49 _a *	0.49*	0.57 _a **
Liked behaviours				
Intrinsic	0.66	0.68	0.63	0.69
Extrinsic	0.13	0.12	0.09	0.10
Internalized	0.15 _a	0.17	0.25 _a	0.19

Note. Pairs of proportions with different subscripts are significantly different at $P < 0.05$, one-tailed, according to *t* tests of the planned comparison except where indicated by superscripts. Pairs of proportions with the same subscripts or not subscripts do not differ significantly.
* $P < 0.10$; ** $P < 0.005$.
^aTwo-tailed test.

to give reasons indicating extrinsic motivational responses and were more likely to give reasons indicating internalized motivational responses for these behaviours.

To summarize, children more frequently cite reasons indicating intrinsic motivation for liked behaviours than for disliked behaviours. Extrinsic and internalized categories of reasons are more prevalent for disliked behaviours than for liked behaviours. Predicted patterns of age group differences in internalized and extrinsic responses were also obtained. Boys' intrinsic motivation was higher than girls' for liked behaviours but not disliked behaviours. Children's ratings of importance correlated in expected directions with use of extrinsic and internalized categories.

Discussion

The results demonstrate the utility of distinguishing between three forms of motivation: extrinsic, internalized and intrinsic. The first two forms of motivation are most apparent in the responses children give for why they do the behaviours they don't particularly like to do. Age-group differences in the children's responses to the 'why questions' lend support to the general developmental hypothesis that children's motivation is more extrinsic at younger ages and more internalized at older ages within the domain of disliked behaviour. No age differences were obtained in the frequency of different types of reasons given for engaging in liked behaviours.

These findings clarify the distinction made earlier between two types of 'inside-the-person' motivation in that *intrinsic* motivation predominated for liked behaviours and internalized motivation was most apparent for disliked behaviours; second, internalized motivation was age graded while intrinsic motivation remained relatively stable across age groups. These findings, at first blush, appear to run counter to Harter's (1981) report of decreasing intrinsic motivation for school behaviours; however, the nature of the liked behaviours in this study was quite different, and more oriented toward play and mastery behaviours than school tasks.

The results also lend initial support to the notion of extrinsic motivation giving way to internalized motivation in the domain of chore and rule behaviour. Any strong statements about the validity of the internalization interpretation awaits longitudinal studies such as those of Eisenberg and her colleagues on motivation for prosocial behaviour (Eisenberg *et*

al., 1985). Investigation of various components of the socializing environment that facilitate and/or inhibit this process, such as parental influences, is also a topic worthy of future research.

In the present study, although the percentage of responses reflecting an intrinsic orientation toward liked behaviours far exceeded the combined responses from the other motivational categories, a small number of children did give extrinsic and internalized responses for these behaviours. Just as a longitudinal examination of the progression of extrinsic and internalized responses is needed, a comparison of children who are no longer intrinsically motivated to engage in play and mastery behaviours versus children who maintain intrinsic motivation would help to clarify our understanding of the developmental course of intrinsic motivation.

Finally, two limitations of this initial empirical study of these motivational constructs need to be noted. First, we used children's self-reported reasons for doing different behaviours as an index of what motivates the children to engage in these behaviours. These reasons seemed to provide the most direct access to the underlying motivational processes. Additional converging indices such as parent and/or teacher reports would strengthen the arguments made here. Second, no external correlates of these various motivational orientations derived from the new interview method are presented. Future work will need to relate individual variation in these three types of motivation to both prospective and antecedent variables, such as performance under different motivational conditions and different socialization practices.

In conclusion, the current investigation offers a theoretical framework, a new method, and an initial empirical base for more differentiated investigations of children's motivational development. This descriptive study underlines the importance of distinguishing between intrinsic and internalized motivational orientations and of assessing these different motivational stances within, not across, conceptually distinct behavioural domains.

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Requests for reprints should be addressed to James P. Connell, Graduate School of Education and Human Development, University of Rochester, Rochester, New York 14627, USA.