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Adolescents and the use of the paranormal as a coping mechanism; impact on wellbeing and the role of age.

Abstract

Two surveys were carried out on young western French speakers of their use of paranormal beliefs and practices as a coping mechanism. 137 adolescents (63.5% girls and 36.5% boys) between 12 and 18 years old (M = 14,72 ; SD = 1,56), and 675 young people (66.2% girls and 33.8% boys) between 13 and 25 years old (M = 16.8, SD = 1.9) completed an online questionnaire about their paranormal beliefs and practices (R-PBS and M-PBS) and the use of these as a means of coping (Brief COPE), and were rated for anxiety and depression (HAD) and traumatic impact (IES-6). The results showed that paranormal beliefs and practices such as spiritualism, psi phenomena (consultation of a healer or hypnotist), witchcraft (black or white magic) or precognition (clairvoyance), can be used as an active behavioural or cognitive coping strategy by adolescents, with a negative age-related trend. However, any improvement to wellbeing achieved through coping using the paranormal seems hindered in most circumstances by the anxiety and permanent impact of most experiences.

Keywords : adolescents, paranormal experiences, coping, anxiety, traumatic impact

1. Introduction

1.1. Young people and paranormal beliefs and practice.

While most of the population of the US and the UK hold at least one paranormal belief (Bobrow, 2003) _ i.e. a belief in which is scientifically inexplicable, which calls into question established scientific principles and which is inconsistent with a belief, perception and expectation of normal reality (Tobacyk & Milford, 1983) _ and thus represent a major proportion of all such human experiences (Cardena, Lynn & Krippner, 2004), a survey among the French population showed that 9 of the 11 paranormal beliefs observed were overrepresented among the under 35s (Renard, 1998). The link between age and paranormal beliefs can sometimes be contradictory depending on the age group and the type of population evaluated (Emmons & Sobal, 1981 ; Francis & Kay, 1995 ; Preece & Baxter, 2000 ; Tobacyk, Pritchett & Mitchell, 1988), but there does seem to be a very specific connection with young people. More than a third of adolescents between 13 and 15 years old believe in contact with spirits and studies have shown that they are between 20% and 70% more likely to believe in psi faculties, precognition or witchcraft (Boyd, 1996 ; Francis & Williams, 2007 ; Le Vallois & Aulenbacher, 2006 ; Sjödin, 2002 ; Smith, 2002).

For Le Vallois and Aulenbacher (2006), almost 20% of young French people practice spiritualism _ the alledged communication with spirits _ and, according to their survey, what matters to the young person is not whether a belief is true or false, but what it brings them in terms of wellbeing, happiness, help overcoming difficulties and solutions to personal problems. It does not matter whether this type of belief is brought on by predisposition to magic, distorted cognition or unexplained paranormality (Lindeman & Aarnio, 2007), a young

person seeking this type of belief and experience can be doing so in an attempt to find a way of coping.

1.2. Avoidant or active problem solving coping?

The psychodynamic purpose of coping using various forms of paranormal belief (PB) has already been demonstrated in several studies and generally enables the management of anxiety often linked to a negative memory of losing control during childhood (Dag, 1999 ; Granqvist & Hagekull, 2001 ; Irwin, 2004 ; Perkins, 2006 ; Streib, 1999 ; Watt, Watson et Wilson, 2007). Depending on the personality and specific situation of the individual, PBs can offer a means of coping, whether passively through avoidance or escape, or actively through cognitive or behavioural change.

For Callaghan & Irwin (2003), using PBs as a means of managing problems is similar to avoidance (*avoidant coping*), since people give external forces (God, spirits, demons or other extraordinary life forms) (see Tobacyk & Milford, 1983) a part to play in their lives. To overcome a situation perceived as hostile or difficult, someone can assume that what happens to them has a purpose, a *raison d'être* relating to the actions or desires of higher powers and absolve themselves of a part of the responsibility (*external locus of control*) for their problems, their actions and the outcome that results (Anatrella, 1990 ; Dudley, 1999 ; Lillqvist & Lindeman, 1998 ; Svedholm, Lindeman & Lipsanen, 2009).

In contrast, Rogers, Qualter, Phelps and Gardner (2006) consider this type of behaviour an *active cognitive coping* mechanism, since the person consciously interprets problems seeking to make sense of them using PBs. This strategy of readjustment is connected to an emotional intelligence, experiential rather than analytical or rational (see Epstein, 2003), and leads the individual to resort to

PBs. Therefore, the practice of spiritualism could correspond to a quest for consolation over a relationship with the deceased, a search for relief for those who long for knowledge of the afterlife or death or who feel the need to know what their future holds (Le Vallois et al., 2006). Some forms of PB such as spiritualism, psi phenomena or witchcraft can also be used to actively resolve problems (*active behavioural coping*) (Groth-Marnat & Pegden, 1998 ; Mathijsen, 2011 ; Watt & al., 2007).

1.3. Focus of research

While some paranormal *beliefs* such as spiritualism, psi phenomena or witchcraft can be used as an *active cognitive coping* mechanism and when practiced, a *behavioural* coping mechanism, what about other paranormal beliefs and experiences? How common are they in general and among young people (making inter-group comparisons)? What about other paranormal beliefs and experiences? How often and to what extend do young people use PBs and PEs as a *dispositional* or *situational* coping mechanism? And does age influence the choice and the use of a PB or PE as a means of coping?

2. Method

2.1. Participants and procedure

The study was focussed on francophone young people born into post-modern Western culture (for whom the daily presence of spirits is not culturally normal), mainly from francophone Belgium (96%) and rural areas (65%) between June 2010 and February 2011. Survey 1 was pre-tested and given to 312 young people from a sociodemographically homogenous school offering general secondary education. 194 young people completed the questionnaire online using LimeSurvey software and 137 questionnaires were retained. The

respondents, 63.5% girls and 36.5% boys, were between 12 and 18 years old (*M* = 14,72 ; *SD* = 1,56). Survey 2 was conducted with 66.2% girls and 33.8% boys between 13 and 25 years old (*M* = 16.8, *SD* = 1.9), mainly secondary school pupils. 1200 young people were invited by their teachers or a member of our team to fill in the online questionnaire using LimeSurvey software. The survey was anonymous but offered participants the chance to provide an email address for entry into a prize draw to win cinema tickets. 859 young people responded and 675 valid and completed questionnaires were retained. These surveys were carried out in line with the requirements of the *British Psychological Society Ethical Guidelines* including full respect of their beliefs, knowledge of the objectives of the investigation, confidentiality and debriefing of the results.

2.2. Measures

1) In his Revised Paranormal Belief Scale (R-PBS), Jerome Tobacyk (2004) made several changes to the original Paranormal Belief Scale (Tobacyk & Milford, 1983). This scale aims to measure empirically seven forms of PB: traditional religious belief, psi belief, witchcraft, superstition, spiritualism, extraordinary life forms and precognition. Despite good internal consistency, he clarified several ambiguous items relating to precognition and expanded his scale to include a wider Western audience by adapting some concepts of witchcraft and belief in extraordinary life forms. He also upgraded the level of response from a 5-point Likert scale to a 7-point scale.

Williams, Francis and Lewis (2009) responded to Tobayck's R-PBS (2004) with the *Francis Scale of Attitude towards Christianity* as a measure of conventional religiosity. The results show that one of the sub-scales reacts differently to the other 6 forms of belief. Consequently, Williams et al. (2009) proposed the Modified Paranormal Belief Scale (M-PBS), which changes Tobayck's original

R-PBS scale by separating the 4 items measuring traditional religiosity from the total score of the scale of measurement.

2) From qualitative "life story" interviews with young people between 16 and 25 years old (M = 21, SD = 2.6) who had undergone experiences which they themselves described as paranormal (Mathijsen, 2010), and from the 7 forms set out in the Revised Paranormal Belief Scale by Tobacyk & al., (1983), generally used in empirical studies, a scale of 7 forms of experience was established: 1) practicing white magic 2) or black magic, 3) practicing spiritualism, 4) practicing satanic rituals, 5) seeing or perceiving strange unexplained lights and sounds, 6) perceiving "spirits" (apparitions, ghosts), 7) consulting one or more healers _ who claim to have a natural energetic power to treat injuries _ or clairvoyants _ who claim to see things at distance in time or space.

3) Since our study is focussed on the forms of *active behavioural* and *cognitive coping* mechanisms found in PEs, the young people were asked a dozen questions about their original motivation. Of these, seven of the 14 variables were taken from a French translation of the *Brief COPE* scales by Carver (1997), as validated by Muller and Spitz (2003). All the items were included in Survey 1 to measure dispositional coping, i.e. the young person's spontaneous coping attitude facing problems in general. In Survey 2, only the items that represented situational coping, i.e. the person's particular way of dealing with a specific stress factor (here a PE) were included. The items were changed and mixed up with other items relating to the motivation behind a PE such as "*I had this or these experience(s)…to find answers to my questions about death*" or "*to take my mind off things*". The items representing a behavioural coping mechanism were regrouped into 4 categories according to the outcome sought: a) coping through use of instrumental support includes items where the PE is sought to find a solution ("*To figure out what I should do*"), b) emotional coping

concerns a relationship need ("*Because I need to get in touch with someone*"), c) (paranormal) belief coping represents the use of a PE as a response to existential questions and can be considered an *active cognitive coping* mechanism ("*To find answers to my questions about death*") and d) coping for the purposes of distraction ("*To take my mind off things*").

4) Two scales were used to measure the impact of these PEs: a French version of the *Hospital Anxiety and Depression scale* (*HAD*) by Zigmond and Snaith (1983), as validated by Lepine, Godchau, Brun and Teherani (1986), and a French adaptation of the *Impact of Event Scale* (*IES-6*) by Thoresen, Tambs, Hussain, Heir, Johansen and Bisson (2009). The *HAD* is a self–administered questionnaire of 14 items on a 4-point scale, qui detects possible problems of anxiety and depression and evaluates their severity with a reliability of $\alpha = 0.89$. The *IES-6* consists of 6 items drawn from the *IES-R* by Weiss (2004) quoted on a 5-point scale. It is used as a symptomatic measure of post traumatic stress disorder (PTSD) on the basis of three major symptoms: intrusive thoughts, avoidance and hypersensitivity. Cronbach's alpha for the IES-6 is 0.88.

3. Results and discussion

3.1. Adolescents and paranormal beliefs

There are many forms of paranormal belief and it is necessary to distinguish each of the 7 forms of PB (Tobacyk & al.,1983) held by young people. *Traditional religious belief* is included in the R-PBS (Tobacyk, 2004) but not the M-PBS (Williams et al., 2009). The use of these 2 scales for measuring paranormal beliefs (PBs) shows that the degree of traditional religious belief has a weighted mean greater than that of PBs (3.99** > 2.81 on a 7-point scale)

among young people. It should be noted that most of the respondents attend a Catholic school, which can influence the score (although almost one third of them declared themselves atheist or agnostic). The degree of belief is given as a mean score over a total of 7 points, followed by the percentage of young people who hold this belief (N = 137 and N = 675). The types of PB that can act as an *active behavioural coping* mechanism (Groth-Marnat & al., 1998 ; Watt & al., 2007) and therefore become PE (Mathijsen, 2011) are highlighted:

Table 1: Adolescents and paranormal beliefs (R-PBS and M-PBS)

R-PBS and M-PBS	PB strength - 7 point scale (*SD*)		% of total PB	
	Survey 1 (N = 137)	Survey 2 (N = 675)	S1	S2
Paranormal Belief				
Traditional religious belief	*3.85 (1.29)*	*4.02 (1.69)*	*18.9*	*22.0*
Witchcraft	2.19 (*1.37*)	2.79 (*1.75*)	13.1	12.5
Psi faculties	2.57 (*1.34*)	3.09 (*1.40*)	14.5	14.7
Superstition	1.94 (*1.30*)	2.32 (*1.51*)	10.9	8.3
Existence of spirits	2.90 (*1.48*)	3.23 (*1.60*)	15.2	16.5
Existence of extraordin. life forms	2.75 (*0.99*)	2.92 (*1.32*)	13.7	11.8
Precognition	2.50 (*1.35*)	2.90 (*1.53*)	13.6	14.3

3.2. Adolescents and paranormal experiences

A frequency table (*Table 2*) allows us to quantify paranormal experiences among young people. Depending on how regular the experience (5-point scale from “never” to “very often”), the practising young people were grouped into those who “rarely practise (2-3)” and those who “frequently practise (4-5)”. Those “not practising (1)” is the remaining percentage (e.g. 77.4 % have never

experienced spiritualism in survey 1). The percentages are not exclusive, i.e. one young person can have several experiences. Therefore the results have a relative "weight" for each type of experience among adolescents. The 3 types of PB which can act as an *active behavioural coping* mechanism according to Watt and al. (2007) (highlighted) are featured here, no longer only as beliefs but also as experiences: spiritualism, which seems most frequent, psi phenomena (here, consultation of a healer or hypnotist) and witchcraft (divided into *white* and *black* magic). A t-test reveals only one gender difference as there is a significantly higher frequency of extrasensory perception among girls ($t(672) = 4.45$, $p = 0.04$). Similarly, place of residence influences consultation of a healer ($t(672) = 6.04$, $p = 0.01$), which is more frequently practised by young people who live in a rural area (*Mcountryside* = 347.81 for *Mcity* = 318.37).

Table 2: Adolescents and paranormal experiences

practice & *frequency of experience (%)*	Total	*Rare*	*frequent*
Paranormal Experiences			
anomalous sensory perception[1]	50.4	34.9	15.5
spiritualism	28.8	18.6	10.2
apparitions	19.3	16.2	3.1
psi faculties (healer) [2]	16.7	13.3	3.4
witchcraft - white magic	9.5	7.6	1.9
precognition (clairvoyance)	10.6	8.4	2.2
witchcraft - black magic	4.9	4.1	0.8
satanic rituals	3.7	2.1	1.6

$N = 812$
[1] significantly higher among girls ($p < .05$)
[2] significantly more frequently practised in a rural area ($p < .05$)

3.3. Paranormal experiences and coping

Survey 1, which measured *dispositional coping* (i.e. attitude to coping in general) and PBs and PEs among young people, allows us to determine which coping profile correlates with which paranormal interests. There is a small correlation between young people who *cope through planning* with a *belief* in PSI faculties ($r(135) = .21$, $p < .05$) and the consequential *experience* of consulting a healer ($r(135) = .20$, $p < .05$). The PE of white magic reveals a link with a young person tending towards coping through *action* $r(135) = .26$, $p < .05$), and a stronger correlation with *planning* ($r(135) = .35$, $p < .01$) or *distraction* ($r(135) = .29$, $p < .01$). Spiritualism generally interests the young person with a tendency to cope through *humour* ($r(135) = .30$, $p < .01$). Traditional religious belief reveals a logical link to young people who resort to *religious coping* ($r(135) = .27$, $p < .05$), but also to those who cope through *disengagement* or *avoidance* ($r(135) = .18$, $p < .05$).

Table 3: PE, age and coping

Coping	**age**	Instrumental	emotional	belief	distraction
Paranormal Experiences					
clairvoyance	.13*	.30**	.19**	.26**	.14*
healer/hypnotist	-.01	.27**	.10	.20**	.07
apparitions	-.02	.17**	.17**	.25**	-.02
spiritualism	-.02	.19**	.27**	.31**	.40**
satanic rituals	-.03	.19**	.17**	.20**	.14*
black magic	-.03	.16**	.15**	.22**	.19**
white magic	-.04	.16**	.18**	.16**	.18**
abnormal perception	*.02*	*.03*	*.09*	*.07*	*-.1*

$N = 342$

** significant correlation at level 0.01 (bilateral)

* significant correlation at level 0.05 (bilateral)

The findings of Survey 2 (table 3) reveal significant correlations between most forms of active coping, whether behavioural or cognitive, and the different forms of PE among the 342 young people who claimed to have had one or more paranormal experiences (PEs). These confirm that regular practice of PE is a means of active coping for nearly 1 in 4 young people. Only the experience of *abnormal perception* does not correlate, or correlates negatively, with forms of *active coping*. This could be explained by the fact that unexplained sensory perception is an experience undergone rather than sought out. This could also be the case for *apparitions*, as this PE correlates considerably with an involuntary situation but seems to bring *emotional comfort* (emotional coping) and *support for a solution* (instrumental coping).

The absence of a significant link between the practice of *psi faculties* and coping through use of emotional coping or *distraction* can be explained by the fact that consulting an external party (for example a healer/hypnotist for treatment of eczema) is active coping purely through use of practical, instrumental support. In addition, a linear regression confirms the predicted link between 1) coping through use of instrumental support and consulting a healer/hypnotist ($t = 6.24$, $p < .001$) or clairvoyant ($t = 5.83$, $p < .001$), and 2) other forms of coping with the practice of spiritualism ($t = 5.66$, $p < .001$).

3.4. PE as a coping mechanism: the role of age

Eventhough the negative correlation between *PE as coping* and *age* is not significant, the table of correlations shows a generally negative trend away from the use of PEs as a coping mechanism. In other words, there is a tendency that, the younger the person, the more they use paranormal activities to help them deal with their problems. The only exceptions are *abnormal perception*, which reacts differently since it is neither sought nor cognitively incorporated, and the

consultation of a clairvoyant, which confirms the use of coping through the use of instrumental support by the eldest respondents ($r(339) = .13$, $p < 0.05$).

3.5. Impact of the PE as a coping mechanism

Wellbeing and *consolation* correlate considerably with consultation of a specific external party: the *clairvoyant* ($r(339) = .17$ and $.22$, $p < 0.01$) and the *healer* ($r(339) = .18$ and $.14$, $p < 0.01$), while *white magic* correlates with *wellbeing* ($r(339) = .16$, $p < 0.01$). In addition, practically all forms of PE correlate significantly with the *Impact of Event* rating and to a lesser extent, with the *anxiety* scale with the exception of consultation of a *healer*. While this seems to bring *happiness*, for example, through reassurance about the deceased, this type of experience can be accompanied by feelings of anxiety and permanently affect the young person.

Table 4: PE as a coping mechanism: impact

Type of effect	*unease*		*disturbance*		*consolation*	*depression*		
		fear		*wellbeing*		*anxiety*		*impact of event*
Paranormal Experience								
clairvoyance	.08	.02	.16**	.17**	.22**	.13*	.03	.22**
healer/hypnotist	-.09	-.11*	-.04	.18**	.14**	.09	.08	.05
apparitions	.09	.07	.26**	.06	.06	.23**	.08	.32**
spiritualism	.06	.12*	.18**	.11*	.07	.14*	.07	.19**
satanic rituals	-.01	.01	.11*	.08	.06	.10	.03	.14**
black magic	.03	.02	.08	.10	.07	.15**	.08	.14**
white magic	.02	.00	.10	.16**	.09	.16**	.07	.12*
abnormal perceptions	.22**	.21**	.21**	-.11*	-.09	.31**	.17**	.31**

$N = 342$

** significant correlation at level 0.01 (bilateral)

* significant correlation at level 0.05 (bilateral)

4. General discussion

The results reinforces and complements studies by Rogers and al. (2006) and Watt and al. (2007), but expands the use of an active strategy of readjustment to include not only various PBs but also different forms of PE. Those beliefs put into practice become paranormal *experiences* (PEs) (see table 2) for more than a quarter of young people (28.8%) with regard to spiritualism, and around 1 in 10 young people for the 3 other PEs which can be used as an active behavioural or cognitive coping mechanism: practising *witchcraft* (14.4%) and consulting a *healer* (16.7%) or a *clairvoyant* (10.6%).

Among the paranormal *experiences* (PEs) used as an active coping mechanism (table 3), two categories emerge: on one hand, belief in the human capacity to act upon matter (psi faculties of a *healer*: $r(339) = .27$, $p < .01$) or to predict the future (*clairvoyance:* $r(339) = .30$, $p < .01$). On the other hand, the pursuit of distraction or supernatural help and support by invoking spirits (*spiritualism:* $r(339) = .40$ and $.27$, $p < .01$).

These 2 categories are also characterised by higher scores in coping through belief. Which seems normal insofar as, for all PEs, these two aspects are closely associated: belief underlies paranormal experience and the distinction between behavioural and cognitive coping is not always relevant with regard to the paranormal. Paranormal beliefs could be an effective means of coping because 1) it responds to something lacking or expected within its belief system, or 2) the belief itself activates a type of active coping using PEs. So, the use of spiritualism to fulfil a need for a relationship or distraction also cultivates the need to believe in the existence of "parallel" realities. And the effectiveness of consulting a healer/hypnotist or a clairvoyant as a form of coping through use of instrumental support could be also due to contact with a third party, a kind of *social sharing coping* mechanism (Rimé, 2005 ; 2009) as to belief in the abilities

these people claim to possess. The fact that religious belief correlates uniquely with dispositional *coping through disengagement* ($r(135) = .18$, $p < .05$) can be understood as avoidant coping, where the person assigns some or all of the responsibility for their difficulties to external powers beyond their control (God, spirits or demons) (Callaghan & al., 2003).

PEs which are not sought out, which are passive experiences, such as *anomalous sensory perception* and *apparitions* seem more common (69.7%) for the majority of young people (see table 2). They also correlate most strongly with *impact of event* ($r(339) = .31$ and $.32$, $p < 0.01$), *disturbance* ($r(339) = .21$ and $.26$, $p < 0.01$) and *anxiety* ($r(339) = .31$ and $.23$, $p < 0.01$) (see table 4). This could be linked to the lack of control and abnormality of this type of PE, which engenders a more severe and violent cognitive disturbance (Gendolla & Koller, 2001 ; Luminet & al., 2000 ; Mathijsen, 2010 ; Oatley, Keltner & Jenkins, 2006). In contrast, more manageable paranormal experiences such as consulting a healer/hypnotist or a clairvoyant (instrumental coping) generate a certain amount of *wellbeing* ($r(339) = .18$ and $.17$, $p < 0.01$), or *consolation* ($r(339) = .14$ and $.22$, $p < 0.01$).

These findings confirm a link between abnormality and the lack of control of an experience - *paranormal* in the case of this study, but which may be extrapolated to include any unexpected and disturbing event (Janoff-Bulmann, 1989 ; Rimé, 2009) – and feelings of anxiety and disturbance. The greater the cognitive dissonance, the more difficult, or even impossible, it is to cognitively integrate what has been experienced or perceived. This produces an emotion, the force and negative power of which seem proportionate to the degree of cognitive disturbance (Mathijsen, 2011). It is therefore those PEs most easily cognitively integrated, such as consultation of a healer, which can provide some level of comfort as coping strategies. This is not the case for PEs in general. PEs are not

equally effective or innocuous as coping strategies (Mathijsen, 2011).

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