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Motivations for Volunteering and Its Associations with Time Perspectives and Life
Satisfaction: A Latent Profile Approach

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Abstract

This study aims to examine motivation for volunteering and its association with time perspective and life satisfaction among volunteers ($n = 221$). Latent profile analysis was used to profile individuals based on their time perspectives, and then to compare group differences in life satisfaction and volunteering motivation. Three profiles were identified. Profile 1 ($n = 32$; 14.5%) was a “balanced time perspective group”, Profile 2 ($n = 102$; 46.2%) was a “maladaptive group”, and Profile 3 ($n = 87$; 39.3%) was a “nonchalant group”. Profile 1 showed the highest life satisfaction compared to the two remaining groups. Significant group differences in volunteering motivation between this group and the other two were also reported. These findings suggest that time perspective may be appropriate for understanding motivation for voluntarism and life satisfaction.

Keywords: volunteer, balanced time perspective, present moment focus, intrinsic motivation, profile analysis

Motivations for Volunteering and Its Associations with Time Perspectives and Life Satisfaction: A Latent Profile Approach

Motivation for volunteerism has long been studied (e.g., Marta, Guglielmetti, & Pozzi, 2006; Philips, 1982; Smith, 1991). The extant literature covers topics such as personality (Carlo, Okun, Knight, & de Guzman, 2005), life satisfaction (e.g., Meier & Stutzer, 2007), satisfaction and integration in the organization (Marta et al.), altruism (Smith, 1982), religion (Cnaan, Kasternakis, & Wineburg, 1993) and expectations (Philips, 1982), to name a few. The commonality of these endeavours is understanding why people volunteer their time, resources and energy in the various settings. In the present study, we examined the factor of time perspective in relation to motivation for volunteering and life satisfaction using a latent profile approach. In so doing, we mainly endeavour to fill the gaps related to how individuals' time perspective might be appropriate for understanding motivation for voluntarism. The practical rationale is that by understanding how volunteers' time perspective profiles are associated with motivation for voluntarism, those managing volunteers may formulate targeted strategies for engaging different types of volunteers more purposefully.

Functional approach to volunteering motivation

Volunteering motivation is important in compelling a person's decision to contribute their time and effort without expecting financial rewards (Clary et al., 1998). The functional approach towards volunteering motivation suggests that the key in

motivating volunteering behaviour is the match between one's reasons for performing such an activity and the satisfactions derived from it. According to this approach, the reasons for volunteering are values, understanding, enhancement, career, social, and protective functions. Volunteering due to 'values' pertains to the opportunities afforded for one to express or act on important values that one holds dearly to, such as humanitarianism. Volunteering for 'understanding' involves volunteering such that one can make use of rarely-used skills and for exploration in general. Volunteering for 'enhancement' refers to volunteering for the purpose of personal growth and psychological development. Volunteering to gain a career-related experience is termed as 'career' under this framework. 'Social' refers to volunteering with the purpose of strengthening one's social relationships. Finally, volunteering for 'protective' purposes pertains to volunteering with the aim of reducing one's negative feelings or to address personal problems. In summary, if the activity matches one's reasons for performing such an activity, motivation for volunteering will likely be higher.

Personality factors

Clearly, people are drawn to volunteer for different reasons such as those elucidated above. However, a worthy further question is what predisposes such reasons. To this end, personality factors have long been suggested to be associated with volunteer motivation, and shall be examined in this study. For example, the notion of altruism, or the extent individuals differ in being altruistic, comes immediately to mind

when discussing volunteerism. The word altruism has a Latin root of “alter” which means “other”; therefore it has something to do with caring for others or doing good for others (Mattis et al., 2009). While altruism as a concept has nuances that are debatable, such as whether self-sacrifice or self-harm is necessary for altruism, it is accepted that volunteerism and altruism are closely associated (see Haski-Leventhal, 2009). Indeed, academic interests in the links between altruism and volunteering were apparent given their strong conceptual associations (Alessandrini, 2007; Burns, Reid, Toncar, Fawcett & Anderson, 2006; Haski-Leventhal, 2009; Kahana, Bhatta, Lovegreen, Kahana, & Midlarsky, 2013; Knox, 1999; Mustonen, 2007; Rehberg, 2005; Smith, 1981). Of particular relevance to the present study, empirical evidence suggests the positive correlations between new young adult volunteers’ altruism with all of the functional motivation to volunteer components (Burns et al., 2006). Additionally, Mowen and Sujan (2005) also noted that altruism predicts volunteer orientation, which in turn predicts functional volunteer motivations.

Besides altruism, researchers looked at other personality constructs to add to the understanding of volunteerism (e.g., Allen & Rushton, 1983; Atkins, Hart & Donnelly, 2005; Bakker, Van der Zee, Lewig & Dollard, 2006; Erez, Mikulincer, van Ijzendoorn, & Kroonenberg, 2008; Finkelstein, Penner, & Brannick, 2005; Lodi-Smith & Roberts 2017; Veerasamy, Sambasivan, & Kumar, 2015). For example, a meta-analysis reported by Lodi-Smith and Roberts listed conscientiousness as a personality factor that is

related to volunteer social investment. Carlo, Okun, Knight and de Guzman (2005) also singled out agreeableness and extraversion as two personality factors that are useful for predicting volunteering, specifically in term of their interplay with motivation factors. Additionally, King, Jackson, Morrow-Howell and Oltmanns (2015) found that elderly volunteers tended to be less neurotic, but more extraverted, agreeable, conscientious, and open compared to non-volunteers. Clearly, the Big Five personality traits framework (Coasta & McCrae, 1985) has been widely researched upon when it comes to understanding volunteerism given its breadth in assessing personality.

The extent to which personality factors are relevant for understanding psychological and physical health benefits associated with volunteering is also of interest. For example, King et al. (2015), through their study of elderly samples, found that volunteering is not significantly related to either physical or mental health when personality traits are controlled for. They suggested that some of these health benefits related to volunteering were likely due to volunteers' personality, such as lack of neuroticism and strong extraversion, rather than the act of volunteering. In another related example, the relations between personality factors, volunteering motives, and life satisfaction among healthcare volunteers in Malaysia were studied (Veerasley et al., 2015). They found that while neuroticism, value motives, and protective motives directly impact on life satisfaction of these volunteers; enhancement motives and social motives have indirect impact on life satisfaction, albeit not through any of the Big Five

personality factor but through personal well-being. In summary, while examining links between personality factors and volunteerism has long been an approach for understanding what predisposes volunteering behaviour, incorporating benefits of volunteering such as health benefits, mental benefits and life satisfaction within such volunteer research provides a fuller picture. Clearly, as the scope of volunteer research expands and advances, it is worthwhile to examine motivation for volunteering through personality factors beyond altruism and the Big Five personality traits, particularly personality factors found to be related to life satisfaction, for example. Such endeavour could yield findings that could help managers of volunteers formulate targeted strategies for engaging different types of volunteers, while taking into consideration volunteers' life satisfaction.

Time perspectives

In the present study, we examined time perspective as another personality level construct which has potential for enhancing our understanding of volunteer motivation given its previous links with life satisfaction (e.g., Chen et al., 2016; Dwivedi & Rastogi, 2016; Gao, 2011; Muro, Feliu-Soler, Castellà, Deví, & Soler, 2017; Stolarski & Matthews, 2016), and more recently, volunteerism (Maki, Dwyer, & Synder, 2016). Time perspective is defined as “the often nonconscious process whereby the continual flows of personal and social experiences are assigned to temporal categories, or time frames, that help to give order, coherence and meaning to those events” (Zimbardo &

Boyd, 1999, p. 1271). It is understood as a stable disposition that has an impact on the various aspects of human functioning and behaviour, such as risk-taking (Keough, Zimbardo, & Boyd, 1999; Zimbardo, Keough, & Boyd, 1997), learning (Husman, Brem, Banegas, Duchrow, & Haque, 2015), and consumer behaviour (Klicperová-Baker, Košťál, & Vinopal, 2015). Given that volunteering offers a wide spectrum of experience, including learning and novel experiences, time perspective could potentially explain variance in motivation for volunteering too. Plainly, individuals differ in the extent in which they dwell in the past, present and the future, and such personal characteristics in time perspective may impact how one functions in daily life, affecting life satisfaction, motivations and decisions for volunteering. In fact, Stolarski and Matthews (2016) recently reported that time perspectives predict mood states and satisfaction with life over and above the Big Five personality traits, illustrating the utility of time perspective as a suitable personality characteristics for examining issues surrounding life satisfaction, such as volunteerism.

The research on time perspective and its relevance for understanding volunteerism is scarce, but is beginning to receive attention. For instance, Maki and colleagues (2016) recently examined the effects of future time perspective on volunteerism. Amongst the rationales provided, they proposed that future time perspective may be facilitative for volunteerism as it is often a planned behaviour that occurs in the future. Substantial planning is needed to actualise the volunteering activity. Furthermore, as substantial and

meaningful change in the organisation they volunteer in normally takes time, having a future time perspective can help them envision the distal possibility better. In their first study, by adopting the three-wave panel design, Maki et al. found that individuals with higher future time perspective reported greater motivation to serve and more satisfied with their service. In their second study, they adopted an experimental approach to manipulate future time perspective, randomly assigning participants to either writing a brief essay about the future or about day-to-day activities. They concluded that writing about the future elicits greater intention to volunteer, particularly for those infrequent volunteers with a lower dispositional future perspective, as well as for those frequent volunteers with a higher dispositional future perspective. In summary, their study serves to illustrate the relevance of time perspective for understanding volunteering motivations and intentions, although their focus was on future time perspective.

As future time perspective is only one of the five time perspectives identified (Zimbardo & Boyd 1999), a possible progression for this line of research is to examine the whole spectrum of time perspective more widely in relation to volunteerism. According to Zimbardo and Boyd (1999), there are five different time perspectives: past negative, past positive, present hedonistic, present fatalistic, and future. Past negative time perspective refers to the dwelling of negative experiences, such as events that brings about sadness or unhappiness in the past. Past positive time perspective refers to the dwelling of positive previous experiences by the individual, such as recalling

pleasurable childhood experience. Present hedonistic time perspective refers to the focus on current experience that gives rise to hedonistic pleasure, such as engaging in risk-taking behaviour. Present fatalistic time perspective refers to the orientation to current events with a sense of helplessness as to whether it can be changed for the better. Future time perspective pertains to one's projection toward the future, such as making plans for the future. It is understood that one has varying degrees of each of the time perspectives, and they are not mutually exclusive.

Given that these five time perspectives are not mutually exclusive, one's time perspective profile (which features varying degree of the various time perspectives) can be derived (Zimbardo & Boyd, 1999). The question remains whether a specific time perspective profile that is psychologically adaptive would be associated with strong volunteering motivations. To our knowledge, this is an area that has not been researched upon. To this end, we speculate that a particular profile known as the balanced time perspective has been associated with optimal psychological health and subjective well-being (Boniwell, Osin, Linley, & Ivanchenko, 2010), and could serve as a starting point in our examination of time perspective profile and motivations for volunteering. The intuitive understanding would be that those with a balanced time perspective profile, given possible associated positive psychological attributes, would have stronger positive outlook and thus has more inclination towards volunteerism. As earlier alluded to, past studies suggest potential links between volunteering motivation and life satisfaction

(e.g., Veerasamy et al., 2015), perhaps having a balanced time perspective would be explain both.

In a nutshell, the balanced time perspective constitutes a high degree of past positive, low degree of past negative, moderately high degree of present hedonistic, low degrees of present fatalism, and moderate future time perspective (Boniwell & Zimbardo, 2004). Past negative and present fatalism are clearly maladaptive, therefore lower degrees in these time perspectives are desirable. Past positive is desirable; therefore a high degree in this time perspective is a characteristic in the balanced time perspective profile. Present hedonistic and future time perspectives are desirable, but when they are exceedingly high, they may become maladaptive. Such as when present hedonistic time perspective leads to excessive risk-taking; or when dominantly strong future time perspective leads to excessive worry about the future. Therefore, in the balanced time perspective profile both present hedonistic and future time perspectives are at moderate levels. As previously alluded to, since the balanced time perspective has been associated with life satisfaction (Boniwell et al., 2010), a closer investigation of the link between balanced time perspective and volunteerism is particularly pertinent because positive well-being, and specifically life satisfaction, had been linked with volunteerism in previous works (e.g., Bond, 1982; Hunter & Linn, 1981; Kuskova, 2011).

The present study

The current study contributes to the line of research of association between time perspectives and volunteerism. As an extension of initial work by Maki et al. (2016), the present study is different in that the issue of balanced time perspective and life satisfaction is investigated while Maki and colleagues focused on the utilitarian effects of future time perspective on volunteerism. By way of adopting the latent profile analytic approach, it is expected that an adaptive time perspective profile, akin to the balanced time perspective (Boniwell & Zimbardo, 2004) would surface. Consistent with previous research, such a profile is hypothesised to be positively associated with life satisfaction (Boniwell et al., 2010). However, whether such an adaptive time perspective profile would correspond with favourable motivations for volunteerism remains an open question. If positive findings are found, managers of volunteers could use these findings to formulate targeted strategies for engaging different types of volunteers, while taking into consideration volunteers' life satisfaction.

Methods

Participants

Participants ($N = 221$) were university students recruited from one public university in Hong Kong ($n = 121$) and one public university in Singapore ($n = 100$). They were recruited through convenience sampling by the research team who studied or worked in these universities. Participants were from different majors such as Chinese language, health education, and sports science. They had a mean age of 22.38 ($SD =$

2.09) years and there was a gender balance (male = 51.3%, female = 48.7%) among them.

Measures

Three scales were used to measure participants' time perspectives, volunteer motivation, and life satisfaction.

Time perspective. The Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999) was used to assess participants' time perspectives. The reliability and validity of the inventory have been established (Zimbardo & Boyd, 1999). The inventory consists of 56 items measuring five different time perspectives: past negative (10 items; e.g., "I often think of what I should have done differently in my life"), past positive (nine items; e.g., "Familiar childhood sights, sounds, smells often bring back a flood of wonderful memories"), present fatalism (nine items; e.g., "Fate determines much in my life"), present hedonism (15 items; e.g., "I believe that getting together with one's friends to party is one of life's important pleasures"), and future (13 items; e.g., "I believe that a person's day should be planned ahead each morning"). Participants rated the items on a 5-point Likert scale, anchored from 1 (*very untrue*) to 5 (*very true*). The mean score for each of the time perspectives subscale was computed to indicate strength of the respective time perspective in subsequent analyses.

Volunteer motivation. The Volunteer Functions Inventory (Clary et al., 1998) was employed to measure participants' motivations for volunteering. Clary et al.'s

multiple-study research supported the reliability and validity of this inventory. This inventory has six 5-item subscales: values function (e.g., “I am concerned about those less fortunate than myself”), understanding function (e.g., “I can learn more about the cause for which I am working”), social function (e.g., “My friends volunteer”), career function (e.g., “Volunteering can help me access the workplace where I would like to work at”), protective function (e.g., “No matter how bad I’ve been feeling, volunteering helps me to forget about it”), and enhancement function (e.g., “Volunteering makes me feel important”). Participants gave responses using a 7-point Likert scale (1 = “*not at all important/accurate for you*”, 7 = “*extremely important/accurate for you*”). The mean score for each subscale was utilized in further analyses.

Life satisfaction. The 5-item Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985) was used to assess participants’ global life satisfaction. The scale has shown favourable reliability and validity (Pavot & Diener, 1993). An exemplar item is “In most ways my life is close to my ideal”. Participants provided responses on a 7-point Likert scale, anchored from 1 (*strongly disagree*) to 7 (*strongly agree*). The summed scale score was used for subsequent analyses.

Procedure

The first author’s institutional review board granted the approval to conduct the current research. Participants also read the information sheet and signed consent form before this survey. The survey form was administered to participants by research

assistants. Participants were informed by the research assistants to answer the survey questions honestly. It took participants approximately 20 minutes to complete the survey.

Data analysis

A few missing values (0.2%) were imputed using the expectation–maximization algorithm ($\chi^2 [1789] = 1800.29, p = .42$; Little, 1988). Internal consistency tests were conducted to examine internal reliability of each subscale/scale. Items were removed if they were detrimental to the internal consistency. A Cronbach's alpha (α) value greater than .70 is generally considered acceptable (Kidder & Judd, 1986). A series of confirmatory factor analysis (CFA) was then conducted to examine the factorial validity of the used scales. CFAs were conducted using *Mplus* 7.1 (Muthén & Muthén, 1998-2012) with the robust maximum likelihood estimator ($SB\chi^2$). We used $SB\chi^2$ to degree of freedom ration ($SB\chi^2/df$), comparative fit index (CFI) and root mean square error of approximation (RMSEA) to evaluate model fit. A value of $SB\chi^2/df$ smaller than 3, a value of CFI greater than .90 and a value of RMSEA lower than .08 indicate an adequate model fit (Kline, 2005).

Latent profile analysis (LPA), a person-centred analytical approach, was used to identify meaningful profiles on the basis of participants' responses to the five different time perspectives. To ensure the LPA was not affected by confounding factors, the relationships between age and the three study outcomes (time perspective, volunteer

motivation, and life satisfaction) were computed. In addition, one-way MANOVA or ANOVA was conducted to examine whether there were gender differences on five different time perspectives, six types of volunteer motivation, and life satisfaction. We then performed LPA using *Mplus* 7.1 (Muthén & Muthén, 1998-2012) with the robust maximum likelihood estimator. Models from one to six profiles were specified. To avoid local likelihood maxima in LPA, we increased the number of starting value (STARTS = 2000 250) and maximum number of iteration in optimization (ITERATIONS = 20).

To determine the number of profiles in the data, a number of information criteria and statistical tests were used, including the Akaike's information criterion (AIC; Akaike, 1987), the Bayesian information criterion (BIC; Schwartz, 1978), the sample-size-adjusted Bayesian information criterion (ABIC; Sclove, 1987), the likelihood ratio test (LRT; Lo, Mendell, & Rubin, 2001), and the bootstrap likelihood ratio test (BLRT; McLachlan & Peel, 2000), number of cases per profile, entropy, average posterior probabilities, and interpretability of the identified profile. Lower values of AIC, BIC, ABIC indicate better model fit. A significant p value for the LRT and BLRT tests suggest retaining the current model with k profiles in favour of the model with one less profile ($k - 1$). To have a meaningful profile classification, the model with a profile that has less than 1% or 5% of the cases is discarded (Marsh, Lüdtke, Trautwein, & Morin, 2009). The entropy and average posterior probabilities

themselves should not be utilized to determine the model fit, but they are used to evaluate the quality of class membership classification. Entropy values higher than .60 and average posterior probabilities greater than .70 are deemed acceptable (Clark, 2010; Nagin, 1999). The means of time perspectives for each profile were examined based on relevance to theory. The equality of outcome means (i.e., volunteer motivation and life satisfaction) across the identified profiles was tested via a Wald chi-square test using AUXILIARY function (see Asparouhouv & Muthén, 2007).

Results

Internal reliability

The results of internal consistency tests indicated that three items in the past positive subscale, three items in the future subscale, one item in the values function subscale, and one item in the career function subscale were detrimental to internal reliability and thus were removed from subsequent analyses. Internal reliability of the subscales/scale were above the traditional cut-off value (.70), except for past positive ($\alpha = .61$; see Table 1 for details).

CFA

The five-factor measurement model of the Zimbardo Time Perspective Inventory was not supported: $SB\chi^2(1163) = 2033.88$, $SB\chi^2/df = 1.75$, CFI = .67, RMSEA = .058 (.054, .062). The data showed an acceptable fit to the five-factor measurement model of the Volunteer Functions Inventory: $SB\chi^2(328) = 612.24$, $SB\chi^2/df = 1.87$, CFI = .89,

RMSEA = .063 (.055, .070). The data also fit the unidimensional model of the Satisfaction With Life adequately: $SB\chi^2(5) = 12.36$, $SB\chi^2/df = 2.47$, CFI = .98, RMSEA = .082 (.023, .014).

LPA

Age was not related to the five different time perspectives, six types of volunteer motivation, and life satisfaction ($ps > .05$). We also found that there were no gender differences on these distal outcomes ($ps > .05$). Therefore, the LPA was not affected by the two confounding factors, namely age and gender. Table 2 presents the results of information criteria and statistical tests. AIC and ABIC values were decreased along with the increased number of specified profiles. Declined BIC values were also observed until the models with five- and six-profile solution. In the 4-, 5- or 6-profile solution model, there was at least a profile containing less than 5% of the cases. Therefore, these three solutions were rejected. According to the results of BLRT, the 2-, and 3-profile solutions were better than the 1-profile solution ($ps < .001$). Based on the findings of LRT, the 3-profile solution was better than the 2-profile solution ($p = .04$). Meanwhile, the classification quality for the 3-profile solution were good (entropy = .77, average posterior probabilities = .88 to .92). By also considering the interpretability of the identified profile, we accepted the 3-profile solution.

Figure 1 shows the standardised time perspective scores of the three identified profiles. Profile 1 ($n = 32$; 14.5%) was a “balanced time perspective group”. They had

the lowest levels of past negative and present fatalism, the highest levels of future and past positive, and a moderate level of present hedonism. Profile 2 ($n = 102$; 46.2%) was a “maladaptive group”. They were with the highest levels of past negative and present fatalism as well as a medium level of past positive. They showed the highest level of present hedonism and a relatively high level of future. Profile 3 ($n = 87$; 39.3%) was a “nonchalant group”. They reported moderate levels of past negative and present fatalism as well as the lowest levels of past positive, present hedonism and future.

Group comparisons

Table 3 presents the results of group mean comparisons across the three profiles. The three identified profiles differed significantly on volunteer motivation and life satisfaction (overall Wald $\chi^2 = 10.09$ to 32.59 ; $ps < .01$). However, not all the paired comparisons showed significant differences. Profile 1 (“balanced time perspective group”) had the higher mean scores of values and understanding functions than Profile 3 (“nonchalant group”). Profile 2 (“maladaptive group”) had higher mean scores of social, protective, and enhancement functions than the other two profiles. Profile 3 (“nonchalant group”) scored significantly worse on the six types of motivation than the other two profiles. Regarding life satisfaction, Profile 1 (“balanced time perspective group”) had the highest score than the other two profiles and Profile 3 (“nonchalant group”) reported the lowest level.

Discussion

The present study seeks to expand the understanding of volunteers' motivations and life satisfaction in relation to time perspectives profiles. Three groups were derived through the latent profile analysis. Interestingly, a group of individuals (Profile 1) possesses the adaptive characteristics of what can be considered as the balanced time perspective profile. That is, they have lower past negative and present fatalism, strong past positive, and moderate present hedonistic and future time perspectives, fitting the profile of what has been suggested to be balanced time perspective (e.g., Boniwell et al., 2010; Boniwell & Zimbardo, 2004). This group also reported significantly higher life satisfaction compared to the two other groups. Significant group differences in terms of motivation for volunteerism were also reported. Taken together, the findings suggest that time perspective, particularly the profile based on five time perspectives, is relevant for understanding volunteers' motivation and life satisfaction.

The uncovering of a group with the balanced time perspective profile in part corroborate with previous research (e.g., Boniwell et al., 2010; Boniwell & Zimbardo, 2004), and is a critical finding. Evidencing that this group has significantly higher life satisfaction than two other groups further supports the desirability of possessing balanced time perspective. Since this group clearly represents the most adaptively functioning individuals as compared to the remaining groups, how they rate the functions of volunteerism can suggest how individuals with high life satisfaction generally perceive motivation for volunteerism. Previous research reported the life

satisfaction and volunteering link (e.g., Veerasamy et al., 2015), so it is appropriate to speculate that the volunteering motivations of this group of individuals has something to do with greater satisfaction with life.

Judging from the mean scores (see Table 3), individuals in this group (Profile 1) rated value and understanding functions relatively higher than the rest of the functions (with means above 5). This finding is not surprising because past studies also suggest that values and understanding rank among the top two motives reported by volunteers (e.g., Allison, Okun, & Dutridge, 2002; Chapman & Morley, 1999). Interpreting based on the self-determination theory (Ryan & Deci, 2002), those in this group or those with balanced time perspective may be better endowed for self-determinism (as illustrated earlier by Zhang, Howell, and Stolarski, 2013) leading them to be inclined to volunteer for the opportunity to pursue activity consistent with one's value. On the other hand, being particularly motivated by the understanding function may be related to their strong present hedonism as characterised by the balanced time perspective profile, since there are possible elicitation of novel experience afforded by volunteering. What is important from the present study is that this observation could be more pronounced among individuals who have the balanced time perspective profile. That is, they are likely to volunteer for these two reasons than the rest.

Besides discussing intra-group characteristics of the balanced time perspective group, it is meaningful to compare differences in volunteer motivations between the

balanced time perspective and maladaptive groups. Of particular interest, social, enhancement and protective functions are found to be significantly higher in the maladaptive group. Individuals in the maladaptive group may have valued the protective motive higher as they perceive volunteering to be instrumental in alleviating negative psychological experience they may be confronting associated with their lower life satisfaction, stronger past negative and present fatalistic relative to the balanced time perspective group. Likewise, social interactions afforded by volunteering experience may be attractive to maladaptive group for the same reasons as social group memberships have been shown to alleviate depression symptoms (Cruwys et al., 2013). Finally, the reason why enhancement motives seem stronger in the maladaptive group compared to the balanced time perspective group may be because those in the maladaptive group perceive greater room for improvements than the balanced time perspective group, who reported greater life satisfaction.

There are several limitations to be highlighted. First, the approach taken is cross-sectional in nature as questionnaires were administered at a single time point in this study. Inference of cause-and-effect relations between time perspective, well-being and volunteer motivations is unwarranted. Secondly, as all the variables were measured with survey instruments, correlations between variable may be inflated due to possible common-method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Thirdly, the samples were predominantly young adults in early twenties, and that could limit the

generalisability of the findings. Fourthly, although the content, external, and discriminant validity of the Zimbardo Time Perspective inventory have been widely supported (Zimbardo & Boyd, 1999; Sircova et al., 2014), its factorial validity was not supported in early validation studies (Davis & Ortiz, 2017) and the present survey. It is argued that factor analysis may not be suitable for assessing the factor structure of a personality scale as the structure of human personality is very complex (see McCrae, Zonderman, Costa, Bond, & Paunonen, 1996). Finally, the α value for past positive subscale fell short of the convention in our sample. A recent survey with samples from 24 countries also showed low internal reliability for this subscale (see Sircova et al., 2014). Thus, the related findings should be interpreted with caution.

Notwithstanding the limitations, there are practical implications arising from this research. Primarily, the demonstration of different time perspective profiles with differences in volunteer motivations may give those managing volunteers some insights regarding what engages volunteers. For example, volunteering opportunities for learning new things and affirmation of one's values when made explicit could appeal to those with the balanced time perspective profile because they rated values and understanding highly as their volunteering motives. On the other hand, as the maladaptive group seems to value social, protective, and enhancement functions more, they may be more likely to volunteer if benefits related to such functions are obvious to them (e.g., infusing meaningful social activities within the volunteering experience).

While it may not be practical to ascertain volunteers' time perspective through a survey for purposes of strategizing volunteer engagement, volunteer managers could use other signs as proxy for assessing volunteers' time perspective dominance. To this end, since balanced time perspective is linked to heightened life satisfaction as shown in this study, paying attention to volunteers' level of life satisfaction through casual conversation with them may provide some indication to their general time perspective profiles. For instance, those who show cues of lower life satisfaction may have more complaints about the current status of their life and display helplessness (present fatalism). Appealing to them to learn the most from the volunteering experience (understanding function) may not suit their needs as well as offering opportunities to socialize. In future studies, the applicability of matching strategies to suit individuals with different time perspective profiles is worth examining. Another applied question worth investigating in future could be the extent to which elicitation of past positive experiences, or specific time perspectives experimentally (e.g., Demeyer & De Raedt, 2014) whilst volunteering further enhance individual's positive volunteering experience.

In conclusion, consistent with recent research by Maki et al. (2016), the issue of time perspectives is shown once again to be a relevant one to consider when attempting to understand volunteerism. Since the extent to which one dwells in the past, present and future seems to be associated with life satisfaction and volunteering motivations, a

latent profile approach adds clarity to our understanding of time perspective profiles and volunteer motivation.

Declaration of Conflicting Interests: The Authors declare that there is no conflict of interest.

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Table 1

Descriptive Statistics, Internal Reliability, and Zero-order Correlations of Study Variables (n = 221)

	α	$M(SD)$	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Past Negative	.81	3.22 (0.61)	—										
2. Past Positive	.61	3.69 (0.51)	.13	—									
3. Present Hedonism	.79	3.53 (0.45)	.33**	.53**	—								
4. Present Fatalism	.73	3.00 (0.59)	.61**	.18**	.42**	—							
5. Future	.77	3.61 (0.59)	.19**	.28**	.28**	.06	—						
6. Values Function	.74	5.33 (0.87)	.11	.34**	.32**	.14*	.31**	—					
7. Understanding Function	.82	5.35 (0.82)	.08	.41**	.36**	.11	.29**	.71**	—				
8. Social Function	.81	4.60 (1.06)	.37**	.21**	.32**	.35**	.22**	.56**	.49**	—			

9. Career Function	.76	4.45 (1.16)	.29**	.20**	.33**	.32**	.31**	.32**	.47**	.54**	—		
10. Protective Function	.84	4.28 (1.22)	.38**	.20**	.37**	.42**	.28**	.59**	.57**	.63**	.53**	—	
11. Enhancement Function	.85	4.73 (1.11)	.31**	.24**	.36**	.35**	.30**	.50**	.56**	.54**	.66**	.72**	—
12. Life Satisfaction	.83	24.32 (4.94)	-.19**	.37**	.29**	.00	.22**	.27**	.30**	.13	.07	.12	.09

Note. ** $p < .01$, * $p < .05$.

Table 2

Values for Different Model Parameterizations (n = 221)

Model	AIC	BIC	ABIC	LRT	BLRT	Group Sizes	
				<i>p</i> -value	<i>p</i> -value	LT1%	LT5%
1 profile	1747.50	1781.48	1749.79	—	—	0	0
2 profiles	1610.13	1664.50	1613.80	<.001	<.001	0	0
3 profiles	1563.13	1637.89	1568.17	.04	<.001	0	0
4 profiles	1522.89	1618.03	1529.30	.04	<.001	0	1
5 profiles	1503.79	1619.33	1511.58	.43	<.001	0	1
6 profiles	1496.46	1632.39	1505.63	.47	.05	0	2

Note. AIC = Akaike's information criterion, BIC=Bayesian information criterion, ABIC

= sample-size-adjusted Bayesian information criterion, LRT = likelihood ratio test,

BLRT = bootstrapped likelihood ratio test, LT = less than.

Table 3

Descriptive Scores on Volunteer Motivation and Life Satisfaction by Profiles (n = 221)

	Profile 1 (balanced time perspective)	Profile 2 (maladaptive group)	Profile 3 (nonchalant group)	Overall Wald χ^2	Profile Comparisons
Values Function	5.78 (0.77)	5.53 (0.72)	5.00 (0.93)	10.09**	1 > 3**, 2 > 3***
Understanding Function	5.80 (0.72)	5.49 (0.76)	5.03 (0.81)	10.67**	1 > 3***, 2 > 3***
Social Function	4.40 (1.36)	4.98 (0.88)	4.21 (0.99)	25.28***	1 < 2*, 2 > 3***
Career Function	4.41 (1.19)	4.80 (1.01)	4.06 (1.19)	20.19***	2 > 3***
Protective Function	4.03 (1.44)	4.81 (1.03)	3.76 (1.08)	32.59***	1 < 2**, 2 > 3***

Enhancement Function	4.58 (0.72)	5.49 (0.76)	5.02 (0.81)	24.13***	1 < 2*, 2 > 3***
Life Satisfaction	28.00 (4.09)	24.67 (4.63)	22.55 (4.79)	16.46***	1 > 2**, 1 > 3***, 2 > 3*

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

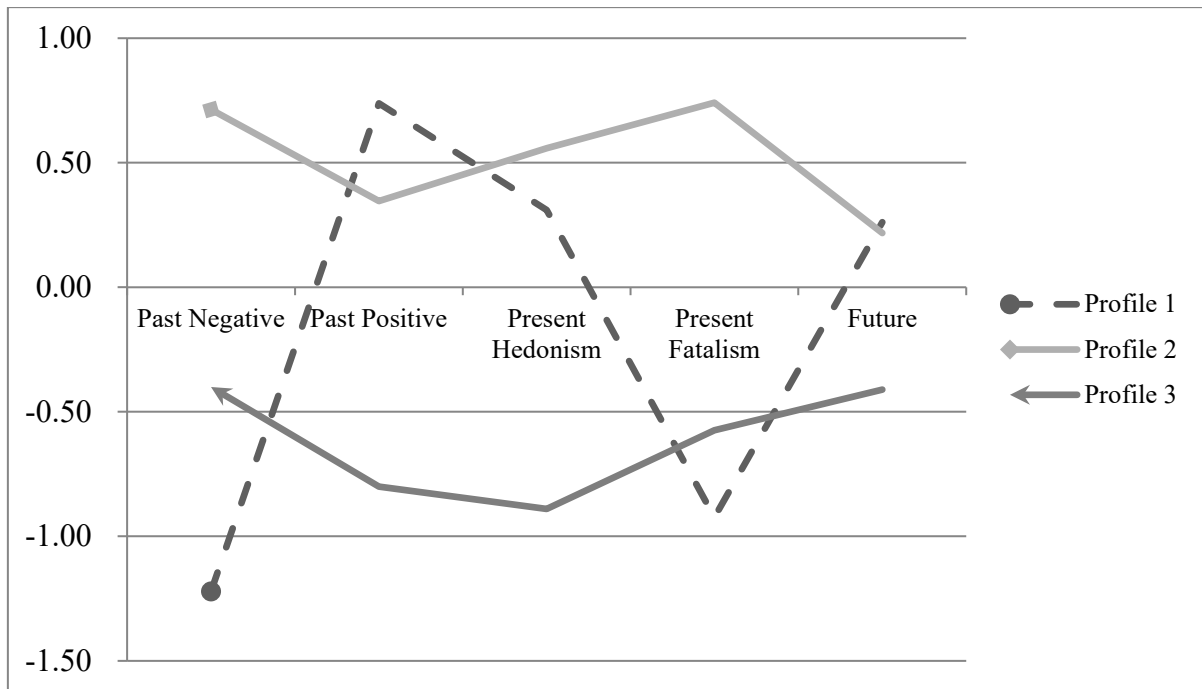


Figure 1. Time perspective profiles.