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Imagining the future: a cross-cultural perspective on possible selves

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Abstract

This study examined the impact of culture on the qualitative and quantitative features of possible selves. Young adults from Turkey (n = 55), Serbia (n = 64), and the United Kingdom (n = 73) generated images of eight possible selves (e.g. I will be a doctor) which were dated and rated for vividness, positivity, imagery perspective, rehearsal, and according to whether or not they involved other people. All possible selves were coded according to categories (e.g. job, parenthood, self-improvement). There were cross-cultural differences in the types of possible selves generated and in the ratings for vividness, positivity, and rehearsal. Across all three cultures, specific possible selves were more frequently generated than abstract possible selves. Specific possible selves were rated as significantly more vivid and were dated as emerging later than abstract possible selves. Results are discussed with reference to cultural life scripts and the effects of culture on future cognitions.

Keywords: Possible self; Future self; Self-image; Identity; Future cognitions; Imagining; Life scripts

Imagining the future: a cross-cultural perspective on possible selves

1. Introduction

To what extent does culture affect the way people think about their future? It is commonly accepted that culture impacts on self-construal (Markus & Kitayama, 1991), influencing how we define ourselves (Rhee et al., 1995; Wang, 2001; 2004) and how we remember our earliest (Wang, 2006) and most self-defining memories (Jobson & O’Kearney, 2008). In the field of autobiographical memory, it has been suggested that cultural life scripts organize the retrieval of memories across the lifespan, influencing the way people construct both their past (Berntsen & Rubin, 2004), and future (Berntsen & Bohn, 2010). Thus, culture is argued to play a central role in the construction of our identities and in how we recall the past and imagine the future. One key method of examining people’s expectations for the future is to ask them to generate possible selves, that is, identities that people anticipate becoming in the future (Markus & Nurius, 1986). This study bridges the fields of possible selves and cultural life scripts, by examining the commonalities and differences in the ways young adults from three nations (the United Kingdom, Serbia, and Turkey) imagine who they will become in the future. By the use of a new coding scheme it also provides novel findings on cross-cultural differences in the contents of possible selves.

1.1 Interdependent and independent cultures

Research suggests that culture can affect the way people process information, impacting on emotion, motivation, and cognition (Markus & Kitayama, 1991). In the domain of memory research, for example, cross-cultural differences have been found in the content of autobiographical memories (Conway et al., 2005; Wang & Conway, 2004), self-defining memories (Jobson and O’Kearney, 2008), earliest memories (Wang, 2006) and the centrality of memories of positive and negative life events (Zaragoza Scherman, Salgado, Shao, &

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Berntsen, 2014). These cross-cultural effects typically have been interpreted to reflect the use of relatedness (i.e. referring to a wider social group) or autonomous (i.e. referring to the self) focus, depending on whether the participant is from an independent/individualist or interdependent/collectivist culture (Markus & Kitayama, 1991). For example, Jobson and O’Kearney (2008) found that Australian participants (independent culture) provided more elaborate autonomous memories, whereas Asian participants (interdependent culture) generated more elaborate relatedness memories.

Rhee, Uleman, Lee and Roman (1995) examined self-descriptions (i.e., ‘I am’ statements) from participants in individualistic and collectivistic cultures. They found that participants who strongly identified as Asian Americans tended to generate a higher proportion of social, and lower proportion of autonomous, self-descriptions compared to European Americans. Similarly, Wang (2001) examined the self-descriptions generated by American and Chinese college students. The American students tended to describe themselves using autonomous traits (such as being studious) more frequently than the Chinese students, who generated more collective, social descriptions (such as being a sister). Conway et al., (2005) compared the distribution of autobiographical memories from participants in Japan, China, Bangladesh, England, and the United States, and analysed the content of these memories in the Chinese and American samples. They found that the temporal distribution of memories was relatively stable across cultures, with all five groups showing similar lifespan retrieval curves, characterised by childhood amnesia during the first five years of life and increased retrieval during the reminiscence bump period of ages ten to thirty (e.g. Rubin, Wetzler & Nebes, 1986). In contrast, there were cross-cultural differences in the content of Chinese and American participants’ memories. The Chinese group’s memories contained more events that involved interdependent (e.g., social) self-focus, whereas the American group recalled more events associated with an autonomous self-focus.

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Related findings were more recently reported by Zaragoza-Scherman et al., (in press).

Although studies such as these suggest important differences in the ways members of different cultures define themselves and recall the past, we know less about the effect of culture on future cognitions. Here we begin to fill this gap by examining possible selves across cultures.

1.2 Possible selves

Possible selves are ideas about who a person might become in the future. They are thought to be highly goal-related, incentivizing behaviour by acting as an outcome to be achieved or avoided (Markus & Nurius, 1986). For example, a feared possible self of being someone who fails school exams might motivate a student to revise. Alternatively, a desired possible self of being able to drive to visit friends and family might prompt someone to book driving lessons.

Possible selves provide a valuable framework for studying cultural differences in identity as previous research has established that possible selves can influence behaviour (e.g. Oyserman, Bybee, Terry & Hart-Johnson, 2004). For example, Oyserman, Bybee and Terry (2006) showed that possession of academic possible selves, linked with plausible strategies for their attainment, was related to improved school attendance and academic performance. Hoppmann, Gerstorf, Smith and Klumb (2007) studied the relationship between possible selves and behaviour in older adults. They found that having hoped-for possible selves relating to health and social relations was associated with a higher probability of engaging in activities within these domains. Importantly, those who engaged in hope-related daily activities had a higher probability of survival over a 10 year period. As reviewed by Lee et al., (2015) possible selves have been measured in various ways, including the content of a person's most important possible self (Hooker & Kaus, 1992), the presence of a single target possible self such as being a "problem drinker" (Corte & Szalacha, 2010) or the number of feared (Oyserman & Markus, 1990), or expected possible selves (Aloise-Young, Hennigan &

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Leong, 2001). For example, Aloise-Young et al (2001) found that possessing a lower number of positive possible selves was related to adolescent alcohol use and cigarette smoking.

Together, these studies highlight the important role of possible selves in shaping behaviour. Recent theoretical developments suggest that possible selves may impact on behaviour through their role in self-regulatory processes that influence both motivation and behaviour (Hoyle & Sherrill, 2006; vanDellen & Hoyle, 2008). This work on the goal-directed function of possible selves, although predominantly from the field of social psychology, reflects cognitive models of the self, such as the Self Memory System (Conway & Pleydell-Pearce, 2000), which conceptualizes the self as a goal hierarchy. As the work reviewed above demonstrates (e.g. Aloise-Young et al., 2001; Hoppmann et al., 2007; Oyserman et al., 2006), the way we think about our future goals has implications for the way we live our lives.

In spite of the large body of cross-cultural work comparing self-construals (Markus & Kitayama, 1991; Wang, 2001; Wang, 2004), autobiographical memories (Wang, 2006; Wang & Conway, 2004) and life scripts (e.g., Ottsen & Berntsen, 2014; Rubin, Berntsen & Hutson, 2009) to our knowledge, no work has directly compared the possible selves of people living in different countries. Previous research has focused on the possible selves of participants from a range of specific cultures including aboriginals (Senior & Chenhall, 2012) and Latinos (Yowell, 2000). Studies that have directly compared possible selves of participants from different cultures have been based on participants living in one country. For example, work by Oyserman and colleagues compared the possible selves of high school students from a range of races and ethnicities within the United States (Oyserman & Fryberg, 2006; Oyserman, Gant & Ager, 1995), and Waid and Frazier (2003) compared the possible selves of older adult native English speakers and native Spanish speakers living in the United

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States. Thus, the present study is novel in its examination of possible selves from participants living in different countries.

The present study also aimed to extend understanding of cross-cultural differences in possible selves by using the cultural life script framework established by Berntsen and Rubin (2004; Rubin & Berntsen, 2003). Cultural life scripts are culturally shared representations of the timing of major transitional life events (Berntsen & Rubin, 2004; Rubin & Berntsen, 2003). Thus cultural life scripts refer to the normative life events one would expect to experience in a given cultural group and the order in which they are expected to occur. These events typically include positive social landmarks such as graduating from school, getting a job, getting married, and becoming a parent (Berntsen & Rubin, 2004; Erdogan et al., 2008). A number of studies have compared the life scripts of different cultures (e.g., Ottsen & Berntsen, 2014; Rubin et al, 2009; Zaragoza Scherman, 2013), however, to date, there have been no cross-cultural investigations that bridge the fields of possible selves and cultural life scripts. As well as providing a framework for autobiographical retrieval, cultural life scripts also play a central role in the way people imagine important events in the future. Berntsen and Bohn (2010) asked young adult participants to generate memories and future events. When the cue was simply to think of an important future event, 71% of these future events were life-script related. Cultural life scripts provide a useful framework for exploring cross-cultural differences in possible selves as they allow analysis to go beyond a simple, dichotomous coding of how individualistic versus collectivistic a given group's possible selves are. Cultural life script analysis generates an extensive set of categories that emerge from the data itself, enabling a more fine-grained examination of subtle differences in the ways participants from different cultures imagine the future.

1.3 The key contributions of the present study

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The present study adds to the existing literature in a number of important ways. First, the present study examined the content of cross-cultural possible selves using the cultural life script framework established by Berntsen and Rubin (2004; Rubin & Berntsen, 2003). We analysed the frequency with which life script categories featured in the possible selves of participants from different cultures. It was predicted that participants would generate possible selves that reflect cultural life script events, such as marriage, occupational transitions, and parenthood (events that feature in the life scripts of participants from a range of cultures, e.g., Rubin et al., 2009; Erdogan et al., 2008; Janssen, Uemiya & Naka, 2014). This proposal is supported by the results of Rathbone, Conway, and Moulin (2011), who examined the temporal distributions of British young adults' possible and current selves. Although detailed coding of possible selves was not conducted, 55% of all future selves generated were related to either marriage, becoming a parent, or getting a job – all key features of the cultural life script. In the present study, we also examined whether the individualistic-collectivistic distinction would be demonstrated in possible selves by coding possible selves according to whether they were autonomous or social (e.g. Rhee et al., 1995). We chose to compare results from Turkey, the United Kingdom and Serbia as these groups differ on the collectivistic-individualistic continuum, with Turkey and Serbia both considered collectivistic, whilst the United Kingdom is classed as individualistic (Hofstede, 1980; Erdogan et al., 2008).

Second, also adding to previous work, we here compared the proportion of abstract and specific possible selves generated by participants in different cultures, with abstract self-images denoting traits and specific self-images referring to relationships, jobs, and other social roles (e.g. being retired) (Rhee et al., 1995). **Broadly speaking, we expected abstract possible selves to be less associated with life script categories. In contrast, specific possible selves could map onto either life script or non-life-script categories, depending on the specific possible self in question.** For example, 'I will be a mother' is both specific and life-script-

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related, whilst 'I will be someone who reads more books' is specific but not life-script-related. As such, this study investigated life-script-relatedness and the specific/abstract dichotomy as independent constructs.

Third, previous cross-cultural work on possible selves has tended to focus on the content of identities generated (e.g. Oyserman & Fryberg, 2006; Waid & Frazier, 2003). Here we extend the analysis to also include the temporal distribution (based on participant-generated dates) and ratings of possible selves, following the protocols for cognitive examination of the self (Rathbone et al., 2011) and life scripts (Berntsen & Rubin, 2004). For example, would all participants picture themselves at a similar point in the future, or would there be cultural differences in the timeframes of possible selves? This was an empirical question. Previous work has found that young adults in the UK date possible selves as emerging at a mean of only 6.35 (Chessell, Rathbone, Souchay & Moulin, 2014) and 7.39 (Rathbone et al., 2011) years into the future, despite having almost the whole lifespan to sample from. We aimed to investigate whether this short-term temporal focus would be replicated in the UK sample, and extend to participants from other cultures.

1.4 Aims

The present study had three broad aims. The first aim was to examine the content of possible selves across cultures. Based on previous research on the self-concept in interdependent compared to independent cultures (e.g. Markus & Kitayama, 1991; Rhee et al., 1995; Wang, 2001; 2004) it was predicted that the British participants would generate possible selves that were more autonomous (e.g. referring to personal traits, possessions, or physical descriptions of themselves) rather than social (such as occupation, and family relationships and marriage), compared to the Turkish and Serbian participants. In order to undertake this analysis, we developed a new coding scheme, which enabled us to examine the prevalence of social categories (e.g. marriage) compared to more autonomous possible selves (e.g. I will be

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content; I will be rich), and to carry out cross-cultural comparisons of the content of possible selves. To undertake this analysis all possible selves were coded according to a set of categories, which then formed the basis for the social-autonomous coding. The development of this extended category scheme (see appendix) was intended to provide a set of norms for future cross-cultural possible selves research.

The second aim was to investigate the phenomenological features of possible selves generated across three cultures, by comparing ratings of vividness, positivity, rehearsal, imagery perspective, and whether mental images of possible selves featured the self alone or with others. We did not have specific predictions about these variables, other than that it was expected that the Serbian and Turkish participants would generate more possible selves involving others than the UK participants, reflecting previous work on the self-concept in interdependent and independent cultures (e.g., Rhee et al., 1995). We were also interested in the temporal distribution of possible selves, and predicted that participants from all cultures would date possible selves as emerging a mean of six to eight years into the future (e.g., Chessell et al., 2014; Rathbone et al., 2011).

Our third aim was to compare the phenomenological features of specific and abstract possible selves. This is of theoretical relevance, in part because specific, concrete possible selves may be more likely to motivate behaviour (Markus & Nurius, 1986; Hoppmann et al., 2007; Oyserman et al., 2006). Although no previous studies have compared abstract and specific possible selves in this way, some support for this hypothesis is found in Oyserman et al.'s (2006) findings that possession of academic possible selves that were associated with specific, plausible strategies for their attainment were more likely to have a positive impact on behaviour at school. Whilst it was not the aim of this study to explore the impact of possible selves on behaviour, we aimed to better understand the phenomenological features of specific compared to abstract possible selves. By definition, specific possible selves

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involve a more concrete approach to considering the future, and we were interested in the phenomenological characteristics associated with these types of future cognitions. These subjective ratings of event characteristics derive from the literature on episodic future thinking and remembering. Thus, including them also helps to connect the present research to more widely used approaches to future thinking (see Szpunar, Spreng & Schacter, 2014, for a review of different forms of future thoughts). We predicted that specific possible selves, by virtue of their specificity, would be more vivid and more rehearsed than abstract possible selves. Additionally, in line with construal level theory (Trope & Liberman, 2010) we expected specific possible selves to be dated nearer to the present than abstract possible selves.

2. Method

2.1 Participants

Participants were recruited from undergraduate psychology degree programmes at universities in the UK, Turkey and Serbia. All received course credits for participating. Seven participants were excluded from the Serbian sample (five reported non-Serbian nationality and two did not provide their nationality) and seven were excluded from the British sample (six reported non-British nationalities and one did not provide their nationality). One participant was excluded from the Turkish sample as his responses suggested he had misunderstood the instructions. The data presented do not include these 15 participants. The Turkish sample ($n = 55$; 38 females, 17 males) had a mean age of 19.76 ($SD = 1.48$; Range = 18 to 26); the British sample ($n = 73$; 61 females, 12 males) had a mean age of 19.59 ($SD = 1.77$; Range = 18 to 30); and the Serbian sample ($n = 64$; 61 females, 3 males) had a mean age of 19.75 ($SD = 1.04$; Range = 19 to 23).

2.2 Materials and Procedure

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All participants completed the questionnaire online in their native language. Participants gave their age, gender, and nationality, and were then asked to generate up to eight “I will be...” statements that might describe their identity in the future, but did not describe them at present. Specific instructions were as follows: We are interested in how you imagine yourself being in the *future*. Please give up to eight “I will be...” statements that might describe your identity in the future, and do not describe how you are at present. These ‘future identities’ or future personal characteristics might refer to personality traits, careers, hobbies, family roles or anything else that you feel might define your identity in the future.

After participants had generated their set of statements, they were re-presented with each statement (one at a time) and asked to think about themselves in the future, acting in accordance with the statement provided. As an example, they were told that if they had said ‘I will be healthier’, they should imagine themselves in the future being healthy in some way. They were instructed to hold each future image in mind while they completed a series of rating scales.

Each future image was rated on a scale of 1 to 10 (1 minimum; 10 maximum) for vividness, positivity, and rehearsal. For rating vividness, participants were instructed: On a scale of 1 to 10 (with 10 being very vivid, and 1 being not vivid at all), how vivid and clear is the image of you being this particular future identity? For example, if you can imagine the event happening very clearly, with details like sounds and smells, this would be rated highly for vividness. For positivity they were instructed: With 10 being very positive and 1 being very negative, how positive is the image of you being this particular future identity? For rating rehearsal participants were asked: Is this a future image you have thought about a lot, or is this the first time you have imagined it? On a scale of 1 to 10 (10 being very regularly, and 1 being never) how often have you thought of this future identity before now?

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Participants also used a dichotomous rating to show whether they saw the future image through their own eyes (field perspective) or as though they were watching themselves (observer perspective), and provided the age they thought they would be when the imagined image took place (they were instructed to provide a specific age in years, rather than a range of ages, for each possible self). After generating these ratings for all possible selves, participants stated whether the images associated with each possible self featured only themselves, or whether they featured other people (and if so, whether this was one, two, three, or at least four other people). These final items about the presence of other people were placed last so as not to influence the images generated during the section in which they were rated for features such as positivity and vividness.

The questionnaire was originally prepared in English and was then translated by authors fluent in both English and Serbian (JH) or Turkish (MA). Written responses were translated back into English by these same translators prior to coding.

2.2.1 Coding Scheme. A coding scheme was developed to analyse the ‘I will be’ statements (see appendix). This scheme was in part based on categories in the life script norms for Danish (Berntsen & Rubin, 2004) and Turkish (Erdogan et al., 2008) samples, but also emerged from the initial coding process. Because we asked for possible selves not events – in contrast to the task used in life script studies – the categories sampled here often did not correspond to distinct event categories and thus required the development of new categories, such as being ‘happy’. The coders were instructed to include a category in the scheme if there were two or more instances of that category across the whole sample. If more than one category was generated within one statement (e.g. I will be a husband and father) they were instructed to only code the first statement. All statements were independently coded by two experts (authors CJR and SS), both blind to participant nationality (the dataset used for coding did not contain details about participant group and all statements were listed

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alphabetically, not organised by participant). The measured Cohen's Kappa was 0.76, indicating a substantial agreement. Following this, all discrepancies were discussed and raters reached 100% agreement.

Two further forms of coding (orthogonal to the categories above) were carried out based on Rhee et al., (1995). First, all statements were dichotomously coded as either abstract (lacking specific details and typically containing references to traits or emotional states) or specific (associated with social roles or qualified by specific details, e.g., I will be a mother, I will work with animals). Second, according to criteria for analysing differences between collectivistic and individualistic cultures (e.g. Markus & Kitayama, 1991; Rhee et al., 1995) all statements were coded as either autonomous (reflecting independent selves; e.g. traits, having possessions, being rich or successful, physical descriptions) or social (reflecting interdependent selves; e.g. family or occupational roles, friendships, religion, falling in love).

The criteria used for this coding were the same as those developed by Rhee et al., (1995).

Where categories in the coding scheme did not map onto a simple social-autonomous dichotomy (i.e., skill development, other, and activities) each possible self that had been judged as belonging to such a category was additionally coded according to whether the participant rated it as featuring the self alone (autonomous) or with others (social). This applied to a total of just 105 cases. The coding of these cases was carried out independently by both expert raters (CJR and SS) with a high level of agreement (Kappa = 0.99). The discrepancies were discussed until 100% agreement was reached.

3. Results

Participants generated a maximum of eight and a minimum of three possible selves. The Serbian sample generated a mean of 7.16 possible selves (SD = 1.48), the Turkish mean was 7.95 (SD = .41) and the British mean was 7.14 (SD = 1.54). There was a significant main effect of culture ($F[2,189] = 7.46, p = .001$). Post-hoc Bonferroni-corrected comparisons

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revealed that the Turkish sample generated significantly more possible selves than the British and Serbian samples ($p < .05$, corrected), and that there were no differences between the number of possible selves generated by the British and the Serbian samples ($p > .05$, corrected). As the male:female ratio was not matched across samples, all ANOVAs were repeated including gender as a covariate. Gender had no significant effect on the pattern of results reported.

3.1 Content of possible selves by nationality

To compare potential qualitative differences in the categories generated by participants of each nationality, all possible selves were coded by category. Table 1 shows the frequencies (and percentages) of each category within participants from each nationality.

(Insert Table 1 about here)

Table 1 shows that ‘self-improvement’ (e.g. abstract plans about being better, cleverer or kinder in the future) was the most frequently generated category across all cultures. In addition, a number of established life-script related categories featured heavily in the possible selves of participants from all cultures (e.g. marriage, jobs, parenthood).

In order to compare the frequencies of specific categories across cultures, we took the ten most frequently generated categories (i.e., those most frequently mentioned across all three nationalities) and, for each participant, calculated a category score between 0 and 8 for each of these 10 categories (for example, if a participant generated 3 possible selves that were coded as self-improvement, such as becoming a better person, clever, and academic, then they would have a self-improvement score of 3). These scores were analysed with one-way between subjects ANOVAs to examine the effect of nationality on category score for each of the 10 top categories (see Table 2 for results).

(Insert Table 2 about here)

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The results in Table 2 indicate several significant cross-cultural differences in the types of possible selves generated. These were examined using post-hoc Bonferroni-corrected pairwise comparisons. In general, and as predicted, the British sample stood out. The British sample generated significantly fewer possible selves that concerned 'self-improvement' compared to Turkey ($p < .02$, corrected); the British sample generated significantly fewer possible selves that were 'job-specific' compared to the Turkish ($p < .001$, corrected) and Serbian samples ($p < .001$ corrected); the British sample generated significantly more marriage-related possible selves than the Turkish sample ($p < .01$, corrected); and the British sample generated significantly more possible selves associated with being 'happy' than the Turkish ($p < .03$, corrected) or Serbian samples ($p < .005$, corrected).

We examined whether participants from traditionally more collectivistic cultures (Turkey and Serbia) generated more social possible selves compared to participants from the more individualistic UK by examining the frequencies of social compared to autonomous possible selves across cultures. The Turkish sample generated 234 autonomous and 203 social possible selves, the British sample 277 autonomous and 244 social possible selves, and the Serbian sample 224 autonomous and 234 social possible selves. Within all three cultures there was no significant difference between the number of social compared to autonomous possible selves generated ($\chi^2 < 2.20$, $df = 1$, $p > .138$) and there was no significant effect of nationality ($\chi^2 = 2.45$, $df = 2$, $p = .293$).

3.2 Ratings of future images by nationality

In order to compare the ratings of possible selves across cultures, mean rating scores were calculated for four of the possible self measures: vividness, positivity, rehearsal and distance from present (each mean score was calculated from all possible selves generated by each participant). Distance from present was calculated as date of possible self minus participant age, and was used instead of date of possible self to account for small differences in

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participants' ages. Proportional scores were calculated for the dichotomous self measures: field/observer and alone/with others (proportional scores were calculated as the proportion of each participant's possible selves that were field, and only featured themselves, respectively). See Table 3 for comparison of mean ratings and dates of possible selves by nationality.

(Insert Table 3 about here)

There were significant cross-cultural differences on ratings of vividness, positivity, and rehearsal. Bonferroni-corrected post-hoc comparisons showed that the British sample's possible selves were significantly less vivid than those from the Turkish ($p < .002$, corrected) and Serbian ($p < .001$, corrected) samples. The British sample's possible selves were significantly less positive than the Serbian sample ($p < .002$, corrected), and significantly less rehearsed than the Turkish sample ($p < .01$, corrected). Finally, the Serbian sample's possible selves were significantly more positive than the Turkish sample ($p < .03$, corrected). There were no significant cross-cultural differences on the number of images featuring the self alone, or viewed from a field perspective, and no effects of culture on the dated ages of possible selves (e.g. distance from present).

3.3 Abstract and specific possible selves across nationalities

In addition to the category coding, all statements were also coded as abstract or specific. The Turkish sample generated 284 specific and 153 abstract statements, the British sample 343 specific and 178 abstract statements, and the Serbian sample 308 specific and 150 abstract statements. Participants of all nationalities generated more specific than abstract statements (all $\chi^2 > 39.27$, $df = 1$, $p < .001$), and there were no significant effects of nationality ($\chi^2 = 0.524$, $df = 2$, $p = .77$). We were interested in whether the ratings of possible selves would differ depending on whether the possible self generated was abstract (e.g. often associated with traits) or specific (e.g. associated with clear roles and social groups, such as being married, employed or a parent). In order to examine more clearly the effects of self-type

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(specific/abstract) on self rating scales, the data were analyzed across all participants (collapsed across nationality).¹ Table 4 shows the mean rating scales for all 1413 possible selves generated (of which 935 were coded as specific and 481 were abstract).

(Insert Table 4 about here)

Specific possible selves were significantly more vivid, less likely to feature the self alone, and dated further from the present, compared to abstract possible selves. There was a non-significant trend for specific possible selves to be rated more positively than abstract possible selves ($p = .07$). We were particularly interested in the idea that the temporal distribution of specific possible selves versus abstract possible selves might differ. To explore the data more closely, we plotted the temporal distributions of specific compared with abstract possible selves for each of the three nationalities and for the whole sample (see Figure 1).

(Insert Figure 1 about here)

Figure 1 demonstrates a robust tendency for specific possible selves to be dated further from the present than abstract possible selves. Further evidence for this idea is provided by a breakdown of the percentage of possible selves that are abstract compared with specific in the first five year period from the present (e.g. years 0 to 4). Across the whole sample, 25.1% of specific possible selves were dated within the first five years, compared to

¹ These data were also analysed by nationality, through a series of 2 (self-type: abstract/specific) x 3 (nationality: British, Serbian, Turkish) ANOVAs calculated for each of the possible self rating scales. These ANOVAs showed that the only significant interaction was between nationality and self-type on proportion alone ($F[2, 1383] = 3.35, p = .005$, partial $\eta^2 = .005$). Thus, for clarity, results are presented on the whole dataset, rather than by nationality.

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44.94% of the abstract possible selves. Thus, the five years following the present contains almost half of the entire set of abstract possible selves generated, but only a quarter of the specific possible selves. This pattern was replicated within each country (Turkey: 23.6% specific, 42.7% abstract; Serbia: 19.9% specific, 41.3% abstract; UK: 31.1% specific, 50% abstract).

3.4 Life script qualities of specific possible selves

Finally, we were interested in the potential overlap between the concept of life script categories and specific possible selves (which by nature often refer to sociocultural transitions, such as becoming married, a parent or employed, see Rhee et al., 1995). To assess this, we examined the frequencies of different coding categories (e.g. parenthood, marriage etc) according to whether they were coded as specific or abstract. Results showed that 93% of the abstract possible selves were categorized as ‘self-improvement’, ‘happy’, or ‘successful’. In contrast, 53% of the specific possible selves were related to the three core life-script-related categories of marriage, occupation and parenthood. **If we sum the findings for all specific selves, then we find that specific possible selves is the largest category for all cultures (e.g., 65% of the Turkish, 67% of the Serbian, and 66% of the British sample’s possible selves were specific).**

4. Discussion

This study explored the qualitative and quantitative features of possible future selves generated by young adults in Serbia, Turkey, and the United Kingdom. The first aim of this research was to compare the content of possible selves across cultures. We found several cross-cultural commonalities: the most commonly-generated category of possible self was self-improvement, and participants from all three nationalities frequently generated possible selves relating to becoming married, parents and employed. However, there were also a

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number of cross-cultural differences. For example, the British sample generated significantly fewer possible selves that concerned self-improvement (compared with Turkish participants) and fewer specific occupations (compared to Turkish and Serbian participants). The British sample also generated significantly more marriage-related possible selves (compared with participants from Turkey) and significantly more possible selves associated with being happy (compared to the Turkish and Serbian participants).

We had predicted that the British participants would generate possible selves that were more autonomous and less focused on social roles, reflecting the individualism associated with the UK, compared to Serbia and Turkey (e.g. Hofstede, 1980). This prediction was not supported by results, which showed no significant differences between the proportions of social compared with autonomous possible selves across cultures. There was some support for this hypothesis in the finding that being ‘happy’ featured more frequently in the possible selves of British participants. However, this effect may simply reflect cross-cultural differences in the perceived importance of being happy, as previous work suggests that Western cultures may prioritize being happy to a greater extent than other cultures (e.g. Joshanloo & Weijers, 2014). Counter to predictions, we found that marriage featured more prominently in the possible selves of British than Turkish participants. This was somewhat surprising, as the UK is generally considered a less traditional and more individualistic culture compared to Turkey (e.g. Hofstede, 1980; Erdogan et al., 2008).

There are three explanations for the lack of support for a traditional individualistic-collectivistic distinction in our results. The first possibility is that the participants sampled did not differ in terms of their collectivism-individualism. This may reflect the nature of our samples. In all three countries, participants were young and highly educated individuals studying at university. As such, they may have comprised a more homogeneous subset of each culture (e.g. Oyserman, Coon & Kemmelmeier, 2002). In support of this view, Mishra

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(1994) found that Indian men who were younger, urban, and more educated tended to be less collectivistic than older men with less education living in rural areas. Further, the present findings may reflect the developmental stage of the participants in this study. Young adulthood is a period that is cross-culturally associated with identity formation (e.g. Erikson, 1950; Fitzgerald, 1988), and so there may be a developmental explanation for some of the cross-cultural similarities, such as the preponderance of possible selves focused on self improvement.

The second possible explanation for the lack of individualistic-collectivistic cross-cultural differences is that there may have been genuine cross-cultural differences between groups but that these were overshadowed by more universal tendencies to view the future in terms of broader life goals concerning marriage, children, occupation, and financial security. One way of distinguishing between these two explanations would have been to use measures of collectivism and individualism alongside the possible selves task, in order to explore whether the predicted cross-cultural differences were present. However, many researchers have questioned the appropriateness of framing research around a reductionist view of individualistic-collectivistic cultures. In a large-scale meta-analysis, Oyserman, Koon and Kimmelmeier (2002) reviewed evidence for the effects of individualism-collectivism on well-being, self-concept, cognition, and relationality. Although the authors found support for reliable cultural differences, these effects were far smaller and less systematic than commonly assumed. Other reviews have found little evidence for the individualistic-collectivistic distinction. For example, Takano and Osaka (1999) found that 14 out of 15 studies reviewed did not support the theory that the US is a more individualistic and less collectivistic culture than Japan. As concluded by Voronov and Singer (2002) perhaps a reductionist view of cultures pertaining to either a collectivist or individualist framework is simply inadequate.

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A third possibility is that our operationalization of individualistic versus collectivistic characteristics (such as the distinction between individual versus social selves) was not sufficiently sensitive to capture actual cultural differences. This possibility is supported by the fact that the UK participants did deviate from the Turkish and Serbian groups on a number of dimensions, as shown in Table 1.

Related to this, it is possible that Hofstede's (1980) classifications of Turkey and Serbia as collectivist cultures are not reflected in our samples. Following Hofstede's seminal study, researchers interested in the individualistic/collectivistic orientations in different cultures arrived at findings irreconcilable with the original conceptualization of individualism/collectivism as a uni-dimensional, bi-polar construct (e.g. Oyserman, Koon & Kimmelmeier, 2002; Imamoglu, 1998; 2003). For instance, Imamoglu (1998; 2003) showed that university students who predominantly come from better-educated, upper-middle class in Turkey showed an orientation towards individuation without an accompanying decrease in interrelatedness. Thus, she argued that individualism and collectivism are not opposite poles of a uni-dimensional continuum; rather, they are distinct, yet complementary, attributes. The Turkish sample recruited for the present study came from one of the most prestigious and competitive universities in Turkey. In addition, in terms of its education system and student culture, this particular Turkish university endorses the American system. Thus, it is possible that our Turkish sample endorsed Western values and lifestyles, were more inclined towards individuation, and thus were more focused on self-improvement in comparison with other segments of the Turkish society. Related to this idea, a fourth explanation is that the individualism/collectivism orientation no longer works as proposed 36 years ago in 1980. As several generations in Turkey and Serbia have grown up heavily exposed to Western culture, it is to be expected that these young adults would be more similar to individuals from a typical Western country than to young adults from more traditional cultures. Advances in

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communication technologies that have become widely available over the last 20 years have enabled young, educated, urban populations to be exposed to a vast range of information and influences. This factor may explain the cross-cultural similarities in our study, compared to what might have been expected 36 years ago.

The second aim was to compare the phenomenological features of possible selves across cultures. In contrast to predictions, there was no difference across cultures between the proportion of possible selves that featured the self alone (i.e. less social images of the self in the future). However, there were significant cross-cultural differences in the ratings for vividness, positivity, and rehearsal. For example, although all participants rated their possible selves in a broadly positive light (at least 8/10 for positivity) demonstrating an optimistic view of their own future (e.g. Sedikides & Gregg, 2008) the Serbian sample's possible selves were rated as more positive compared to the British and Turkish samples. The Serbian participants also rated their possible selves as more vivid (compared to the British participants), and the Turkish participants rated their possible selves as more frequently rehearsed (compared to the British participants). In support of our prediction, all participants dated their possible selves as emerging at a mean of six to eight years from the present. This replicates previous studies by Chessell et al. (2014) and Rathbone et al. (2011) and suggests that young adults may only focus on the relatively near future when considering the type of person they are likely to become in the future. This finding broadly echoes results from Conway et al. (2005), who showed that whilst the reminiscence bump occurs at approximately the same age across cultures, the content of the memories within the reminiscence bump is subject to cross-cultural variation. In a similar way, although we found a number of broad similarities between cultures (such as proportion of social compared to specific statements and the age at which possible selves are dated), we also found a number of fine-grained cross-cultural differences (e.g. differences in the frequencies of particular

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categories of possible selves, such as ‘happiness’, and ratings of the positivity and vividness of possible selves).

Our third aim was to compare the phenomenological features of specific and abstract possible selves. We were particularly motivated to examine the features of these two types of future cognition as specific possible selves are considered to be more goal-related and, consequently, potentially more likely to influence behaviour (e.g. Hoppmann et al., 2007; Hoyle & Sherrill, 2006; Oyserman et al., 2006). We predicted that specific possible selves would be more vivid, more rehearsed, and dated closer to the present, compared to abstract possible selves. These predictions were partially supported, with specific possible selves rated as more vivid than abstract possible selves. This was unsurprising, as specific possible selves (associated with roles such as parenthood and occupation, or containing specific details such as ‘working with animals’) are likely to be associated with clearer and more vivid images than abstract possible selves (which, by definition, are not associated with specific details, but instead with emotional states or traits).

There were no differences in rehearsal ratings. In contrast to predictions, specific possible selves were dated further from the present, compared to abstract possible selves. Although this result appears counter to construal level theory, which posits that events closer to the present will be more specific than those that are distant (Trope & Liberman, 2010), this finding may be explained by the content of specific and abstract possible selves. Specific possible selves tended to map onto culturally normative events, such as marriage and parenthood – events that are highly goal-relevant. Demblon and D’Argembeau (2014) found that thoughts about the distant future tended to be more organised around personal goals than thoughts about the near future. This is in keeping with our finding that specific possible selves (predominantly reflecting long-term personal goals about relationships and occupations) are projected further into the future than abstract (trait-linked) possible selves.

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Another possibility is that trait-linked, abstract possible selves comprised more stable – and potentially already present – aspects of identity. Although participants were instructed not to generate any possible selves that described themselves at present, it is possible that there was some degree of overlap between how participants imagined themselves in the future and how they perceived themselves in the present. Such stable or overlapping selves would be more likely to be dated as emerging in the near future. To examine this possibility we suggest that future studies incorporate a rating scale of overlap between future self and current self.

An alternative explanation for the nearness of abstract compared to specific possible selves may be found in temporal self-appraisal theory (e.g. Ross and Wilson, 2002).

Temporal self-appraisal theory posits that events that cast the self in a positive light tend to be dated closer to the present, in contrast to events that involve more negative self-appraisal, and that this bias exists to enhance a positive view of the self. As 93% of the abstract possible selves concerned self-improvement, it is possible that motivation to enhance the present self (as predicted by temporal self-appraisal theory) caused these overly positive identities to be dated closer to the present (although note that there was no significant difference in the positivity ratings for abstract compared to specific possible selves). Finally, it is possible that the coding of specific and abstract possible selves does not map well onto the idea of specific and abstract construals, as operationalised in construal level theory.

One of the more specific aims of this research was to generate a possible selves coding scheme that could be used in future studies to explore commonalities and differences in the ways people think about themselves in the future. As discussed above, cases where there were similarities across cultures may have reflected the homogenous nature of young, university educated participants, as well as a blurring of collectivist/individualist boundaries across the cultures sampled. These results may also reflect the stage in life our participants

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were at. Thus, it would be fruitful to compare the norms generated in the present study with the possible selves of older adults in each culture. For example, it is possible that ‘self-improvement’ was a central goal for young adults in this study as they were all engaged with university study, presumably with the aims of becoming better educated and more employable. Furthermore, it would be interesting to compare these possible selves norms with the possible selves of young and old adults in more traditionally collectivist cultures such as China. This may reveal a wider range of cross-cultural differences than found in the present study. It is important to note that the present study used categories derived from the coding process to analyse the data in this study. As there are psychometric limitations in taking this approach, we acknowledge that the full benefits of this coding scheme will be recognized when applying it to new data sets in future studies, such as those outlined above. Finally, future work could explore the robustness of the distribution of possible selves found in the present study and in previous work (e.g. Chessell et al., 2014; Rathbone et al., 2011). Whilst young adults have a tendency to date possible selves as developing 6-8 years in the future, Chessell et al. (2014) found that older adults dated possible selves closer to the present (a mean of 2.6 years in the future). We know little about the mechanism behind the dating of possible selves; it may reflect differences in cultural life scripts for different age groups or it may be a function of age-related changes in future time perspective (Spreng & Levine, 2006). Future work with adults of different ages will elucidate how the temporal distribution of possible selves might change with age.

In conclusion, this study explored the way young adults from different cultures think about who they might become in the future. Although all participants tended to picture themselves in the future using a similar time frame and through reference to specific, positive, culturally normative categories, we found a small number of differences in the content and phenomenological features of possible selves between cultures.

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Table 1: Content of possible selves by nationality

Category	Turkey		Serbia		United Kingdom	
	Count	%	Count	%	Count	%
Self-improvement	141	32.27	133	29.04	129	24.76
Job-specific	79	18.08	82	17.90	42	8.06
Parenthood	32	7.32	45	9.83	48	9.21
Marriage	20	4.58	31	6.77	46	8.83
Happy	20	4.58	21	4.59	44	8.45
Job-general	14	3.20	24	5.24	34	6.53
Finance self-improvement	19	4.35	12	2.62	26	4.99
Successful	12	2.75	20	4.37	22	4.22
Activities	8	1.83	16	3.49	23	4.41
Other	18	4.12	11	2.40	5	0.96
Health	9	2.06	10	2.18	15	2.88
Family	9	2.06	10	2.18	14	2.69
Skill development	9	2.06	7	1.53	8	1.54
Move	4	0.92	3	0.66	15	2.88
Friendship	9	2.06	5	1.09	5	0.96
Physical appearance	4	0.92	9	1.97	4	0.77
Trait - general	9	2.06	3	0.66	4	0.77
Fall in love	2	0.46	6	1.31	4	0.77
Acquiring property	1	0.23	0	0.00	11	2.11
Education - University	3	0.69	3	0.66	5	0.96

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Learn languages	7	1.60	2	0.44	2	0.38
Aging	0	0.00	1	0.22	6	1.15
Possessions	4	0.92	2	0.44	0	0.00
Relationship	1	0.23	0	0.00	4	0.77
Busy	0	0.00	0	0.00	4	0.77
Grandchildren	1	0.23	2	0.44	1	0.19
Military	2	0.46	0	0.00	0	0.00

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Table 2: Mean category prevalence score (for top 10 categories) by nationality

Category	Turkey		Serbia		United Kingdom		F	p	η^2
	Mean	SD	Mean	SD	Mean	SD			
Self-improvement	2.55	1.63	2.06	1.54	1.74	1.42	4.38	.01	.04
Job-specific	1.44	1.07	1.28	1.16	0.58	0.71	14.55	<.001	.13
Parenthood	0.58	0.50	0.70	0.46	0.66	0.48	0.96	.38	.01
Marriage	0.36	0.49	0.48	0.50	0.63	0.49	4.69	.01	.05
Happy	0.36	0.49	0.33	0.51	0.60	0.49	6.23	<.001	.06
Job-general	0.25	0.44	0.38	0.52	0.47	0.58	2.56	.08	.03
Finance self-improvement	0.35	0.48	0.19	0.39	0.36	0.48	2.80	.06	.03
Successful	0.22	0.42	0.31	0.47	0.30	0.46	0.76	.47	.01
Activities	0.15	0.40	0.25	0.44	0.32	0.57	1.92	.15	.02
Other	0.35	0.58	0.25	0.56	0.23	0.49	0.75	.47	.01

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Table 3: Mean phenomenological ratings and dates of possible selves by nationality

Scale	Turkey		Serbia		United Kingdom		F	p	η^2
	Mean	SD	Mean	SD	Mean	SD			
Vividness	7.90	1.17	7.96	1.07	7.04	1.59	10.53	<.001	.10
Positivity	8.27	1.00	8.90	1.03	8.07	1.59	7.77	<.001	.08
Rehearsal	7.24	1.59	7.01	1.33	6.42	1.63	5.03	.01	.05
Proportion Field	0.48	0.24	0.45	0.29	0.57	0.31	2.76	.07	.03
Proportion Alone	0.34	0.16	0.36	0.22	0.33	0.19	0.36	.70	.00
Distance from present	8.13	3.48	7.21	3.21	6.92	3.59	2.04	.13	.02

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Table 4: Mean phenomenological ratings and dates for specific and abstract possible selves

Scale	Specific		Abstract		t	p
	Mean	SD	Mean	SD		
Vividness	7.74	2.10	7.33	2.12	3.44	.001
Positivity	8.45	1.82	8.26	1.97	1.84	.066
Rehearsal	6.88	2.49	6.81	2.27	0.53	.598
Proportion field	.49	.50	.52	.50	-0.95	.341
Proportion alone	.31	.46	.45	.50	-5.15	<.001
Distance from present	7.85	5.66	6.70	8.06	2.78	.006

Appendix: Possible Self Coding Scheme

Category	Explanation & examples
Acquiring property	Home-owner etc
Activities	Gardener, traveller, charity volunteer (activities that do not require 'learning' – these would be classed as Skill Development)
Aging	Relating to getting older
Education - university	Relating to university, degrees, graduating
Fall in love	In love, fall in love
Family	Family used for being a daughter or son, aunt or uncle, or about family in general
Finance self-improvement	Relating to being wealthy, rich, well-paid, anything associated with money
Friendship	Relating to being friends
Grandchildren	Grandmother, grandfather, grandparent
Happy	Has own category (even though fits into trait –self-improvement – should be coded separately)
Health	To do with fitness, illness (mental and physical), health in general
Busy	Has own category as ≥ 2 occurrences.
Possessions	Anything owned that isn't property (which is coded as 'acquiring property') or job-related (e.g. 'the owner of a cafe' would be coded as job-specific).
Move	Relating to moving house or country
Job –general	If job is discussed in broad terms (e.g. do a job I enjoy, be good at my job)

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Job –specific	If specific details about job/occupation are given (e.g. be a psychologist, writer, doctor)
Learn languages	Although skill development this is a separate category to allow cross-cultural comparisons
Marriage	Partner, husband, wife, married
Military	Relates to military service
Other	Response does not fit into any other category
Parenthood	Father, mother, parent
Physical appearance	Relating to looks, weight, attractiveness
Relationship	Relationship used for boyfriend or girlfriend, if not explicitly about marriage (partner is classed as marriage)
Religion	Any mention of religion
Self-improvement	Abstract statements relating to being better in the future (e.g. clever, a better person, academic)
Skill development	Skill development if the future self involves learning (e.g. driving a car, cooking, dancing), but 'activity' if not (e.g. giving to charity, going travelling)
Successful	Has own category (even though fits into trait –self-improvement – should be coded separately)
Trait – general	If not associated with self-improvement (e.g. negative or neutral traits, such as lazy, stressed, different)

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Figure captions

Figure 1: Distribution of the distance of possible selves from present according to Specific and Abstract categories in the whole sample and within each cultural group

Figure 1

