The impact of group identity on the interaction between collective memory and collective future thinking negativity: Evidence from a Turkish sample

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Abstract

Although several studies have addressed the relationship between memories and future projections regarding personal events, only a few studies exist on collective past and future events, almost all with North American samples. In two studies with Turkish samples, we investigated the relationship between sociopolitical identity and collective past and future representations. In Study 1, we compared the most important past and future collective events generated by voters of the ruling and the main opposition parties. Participants reported the two most important public events in the last 70 years and two in the next 70 years for Turkey, and rated events' valence, centrality, and transitional impact. Past events were dominated by national political events whereas future events' themes were more varied. Past events were also more negative than future events, with the negativity of future events decreasing as their temporal distance from the present increased. Opposition voters rated both the past and the future events more negatively than ruling party voters. In Study 2, we tested whether the negativity for future events may be due to perceived sociopolitical status of ruling party voters. Participants reported events from Turkey's future and provided ratings of status and privilege. We replicated the reduced negativity of distant compared to near future projections, but subjective sense of privilege was not related to events' valence. Overall, we demonstrated that in highly polarized societies, sociopolitical identity can impact the perceived valence of collective mental time travel outputs, diverging from findings of similar responses among Democrats and Republicans in the USA context.

Keywords Memory · Collective future thinking · Collective memory

Introduction

People engage in mental time travel, which enables them to recollect their past and make projections about their future (Atance & O'Neill, 2001; D'Argembeau & Van Der Linden, 2004; Perrin & Michaelian, 2017; Schacter et al., 2007, 2008; Szpunar & McDermott, 2008). Research has shown that the neural mechanisms supporting episodic memory and future thinking are similar (e.g., Okuda et al., 2003; Schacter et al., 2007; Szpunar et al., 2007),

but more importantly memories and future thoughts are also conceptually intertwined, with events retrieved from the past possibly shaping the (re)construction of the future (Hassabis & Maguire, 2007). Specifically, Schacter and Addis (2007) argued that episodic memory's one important function is to guide future cognitions. In recent years, a small group of researchers have begun to debate whether collective memory and collective future thinking may be similarly intertwined as episodic past and future, arguing that an approach emphasizing mental time travel would be promising for understanding these collective phenomena (de Saint-Laurent, 2018; Merck et al., 2016; Michaelian & Sutton, 2017).

We approach collective memory from a psychological lens and base our investigations around two broad questions: (1) how are processes supporting collective memory similar to those supporting individual remembering; (2) how does collective remembering contribute to the formation of social

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identities (Roediger & Wertsch, 2008; Wertsch & Roediger, 2018). Critically, we extend this psychological perspective to collective future thought processes that are characterized by "the act of imagining an event that has yet to transpire on behalf of, or by, a group" (p. 378, Szpunar & Szpunar, 2016). Over the last few years, there have been a number of papers outlining the conceptual foundations of collective mental time travel, arguing that remembering the collective past and imagining/simulating the collective future may be linked (e.g., de Saint-Laurent, 2018; Merck et al., 2016; Szpunar & Szpunar, 2016). Nevertheless, there has been very limited empirical research investigating the similarities between collective memory and collective future thoughts (but see Öner & Gülgöz, 2020). The present research adds to this literature by providing data from a context characterized by political turmoil and sharp divides, investigating the generalizability of previous findings and directly addressing the link between sociopolitical identity and collective mental time traveling processes.

To our knowledge there has been limited work that has directly addressed the characteristics of events in collective past and future (e.g., Topcu & Hirst, 2020) by comparing their centrality, phenomenology, valence, and perceived agency. Despite providing a comprehensive account of similarities and differences between collective memory and future thoughts, the Topcu and Hirst paper relied exclusively on US data, and in that regard, we believe that it may be limited in generalizability. In a related vein, based on data from a large young and highly educated Turkish sample, Öner and Gülgöz (2020) reported that public memory and collective future simulations are similarly negative in valence and what gets reported for past and future is driven by one's expectancy of what others would report – a collective script. However, in that study, they did not directly investigate the link between social identity and collective mental time travel.

We argue that the empirical data we present on collective mental time travel from Turkish samples has the potential to broaden the understanding in this area due to two major reasons. One, collective mental time travel processes and products cannot be understood independent of social identities; in fact, collective mental time travel processes are functional in creating and maintaining social identities (Paez & Liu, 2011; Szpunar & Szpunar, 2016). Data from a context like Turkey that has been historically characterized by much sharper sociopolitical divides than the USA may provide additional insights regarding collective mental time travel products. Specifically, in recent years, work from our laboratory has revealed that the representational network of public events varied across voters of different political parties and selectively changed following key events (Mutlutürk, Tekcan & Boduroglu, in press; Mutlutürk, Tekcan & Boduroglu, under review); these differences emerged even when groups were asked to identify the top two most important events from Turkey's past (Mutlutürk, Boduroglu, & Tekcan, 2018). A second key characteristic of the Turkish sociopolitical context that stands out is how the last 80 years of the Turkish Republic has been filled with numerous events: political coups, coup attempts, political assassinations, terror attacks and a large number of the world's deadliest earthquakes (e.g., Öner & Gülgöz, 2020). The relatively regular occurrence of high-impact events has been thought to possibly prevent the consolidation of some important public events into collective memory, minimizing the retrieval bump for public events in the Turkish context (Öner & Gülgöz, 2020; Tekcan, Boduroglu, Mutlutürk & Aktan-Erciyes, 2017; also see Koppel, 2013; Koppel & Berntsen, 2019).The frequency of high-impact events may also determine which events earn a salient and central status across different sociopolitical groups; this possibility is in line with evidence demonstrating reports of unique events constituting the memories of different groups (e.g., Griffin, 2004; Schuman, Vinitzky-Seroussi, & Vinokur, 2003). Taking these cultural and contextual differences into consideration, in the first study we investigated whether sociopolitical identity moderated collective memory and future thoughts by looking at the similarity and differences between reported events and their characteristics across groups and time-points (past vs. future). One key dimension we focused on was the relative negativity of collective past and collective future events. In this regard, we wanted to further extend the findings on the heightened negativity observed in both the past and future Turkish collective by using a different cueing technique (Öner & Gülgöz, 2020). In the second study, we further explored the possible reasons behind the differences in collective future thinking across sociopolitical identity.

Collective memory, future thoughts, and sociopolitical identity

Numerous studies have discussed the link between social and national identities and collective memory. Some memory researchers, through adapting the perspective of an "extended mind" have argued that the defining feature of collective memories is that they are shared responses among individuals, that may or may not have any direct relevance for social identity (for reviews, see Hirst, Yamashiro & Koman, 2018; Wertsch & Roediger, 2008). On the other hand, Hirst and colleagues have argued that *shared* memories are "collective" memories only if they are related to social identities (Brown et al., 2012; Coman et al., 2009; Hirst & Manier, 2008; see Stone & Jay, 2019, for a recent review). Similarly, others assert that belonging to a social group requires having a shared representation of the past (Olick & Robbins, 1998; Zerubavel, 1996). Thus, it comes as no surprise that collective memory research has focused

on how collective memories vary across groups with different social identities, including one defined around nationality (e.g., Curci et al., 2001; Liu et al., 2009; Roediger & Wertsch, 2008), sociopolitical identity (Mutlutürk, Boduroglu, & Tekcan, 2018; Mutlutürk, Tekcan & Boduroglu, in press) and generations (Schuman & Scott, 1989; Schuman, Vinitzky-Seroussi & Vinokur, 2003; Tekcan, Boduroglu, Mutlutürk, & Aktan Erciyes, 2017). Furthermore, recent research has shown how people "overclaim" the importance of past events relevant to their own social identity over other highly significant events (Churchill et al., 2019; Ross et al., 2020).

Despite the wealth of literature linking social identities to collective memories, there has been no empirical research directly investigating the relationship between social identity and collective future thoughts yet.[1] This may be partly due to the newly emerging nature of collective mental time travel research. Nevertheless, it is surprising that social identity-based questions have not been a primary focus considering how closely collective memory and future thinking processes have been conceptualized. Given the evidence for the link between identity and collective memory, one of the primary goals of the present research was to demonstrate how social identity impacts collective future thoughts. As in collective memories, we believe collective future thoughts may be influenced by social identity. This expectation is based on conceptual arguments outlining how collective memories might inform collective future representations and vice versa (Szpunar & Szpunar, 2016), and arguments that representations of collective past and future are bound together via individuals' generalized theories about the world, i.e., personal world philosophies (de Saint-Laurent, 2018). Recently, Yamashiro and Roediger (2019) demonstrated how "national narratives" (Wertsch, 2008) influenced the emotional characteristics of both collective memories and future thoughts, further highlighting shared themes between past and future.

Negativity of collective future thoughts

A secondary goal of the present study was to investigate whether collective future events, as collective memories, are disproportionately negative and whether group identity moderates this negativity. One major finding in the collective memory literature is that people typically list negative events when asked to provide either the most important or any public events from the past (e.g., Liu et al., 2009; Öner & Gülgöz, 2020; Schuman & Scott, 1989; Tekcan et al.,

2017; Topcu & Hirst, 2020). This has led researchers to test whether representations of collective futures share this negativity bias (Shrikanth et al., 2018; Topcu & Hirst, 2020; Yamashiro & Roediger, 2019). Shrikanth et al. (2018) and Yamashiro and Roediger (2019) used the future fluency task (e.g., MacLeod et al., 1993) in which they asked participants to list as many events as possible that they were either excited (positive event probe) or worried (negative event probe) about in their country's future, within a 1-min period. They found that like collective memories, rapidly retrieved collective future thoughts were mostly negative. Shrikanth et al. (2018) suggested that this may have been due to wider media coverage of negative public events, which in turn impacts future projections. Öner and Gülgöz (2020) used a different approach and instead of using a fluency task, they directly asked participants to report six public events from one's lifetime and six public events from the future. Both past and future events were characterized by negative valence. They argued that this heightened negativity reported may have been driven by the nature of the recently experienced events in Turkey. Specifically, their data was collected following a period of increased turmoil in Turkey (2015–2016), during which there had been numerous deadly terror attacks and a highly consequential coup attempt. Other research also highlighted that these events lead to changes in the clustering of political event representations in the Turkish collective (Mutlutürk, Tekcan, & Boduroglu, under review). Taking a different perspective, Yamashiro and Roediger (2019) instead argued that this negativity bias was observed because people relied on a national narrative of decline while conceptualizing their nation's history and future.

Interestingly, Topcu and Hirst (2020) found that collective future thoughts were more positive than collective memories and this difference was moderated by participants' perception of their own and their nation's control in their country's future. But, unlike the other two earlier studies, Topcu and Hirst did not manipulate the emotional valence of the cue used to elicit events but asked participants to provide 15 events that might happen in their country's future. Moreover, responses were not generated under time restriction. These methodological differences between the earlier mentioned studies and Topcu and Hirst (2020) may be partly responsible for the contradictory findings on the negativity of collective future thoughts. For instance, people might list negative collective future events with greater ease in a short time interval due to higher accessibility, but they might try to balance positive and negative events when they are required to list a given number of events without any particular probing by valence or time restriction. Therefore, negative collective future events might be more accessible in general but people may come up with positive events as well when given enough time to think. The inconsistent findings

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[1] Small number of studies have investigated the relationship between collective future thoughts and social well-being (Sani, Bowe & Herrera, 2008), current intentions (Bain, Hornsey, Bongiorno, Kashima & Crimston, 2013) and intergroup relations (Wohl, Squires & Caouette, 2012),

regarding the valence of collective future thoughts, necessitates future research. Also, we believe that it is critical to compare past and future events with similar prompts. That's why in our study, we prompt our participants by asking them to report both the most important past and future events to test the extent of the negativity effect.

It is possible that any negativity for collective memories and collective future thoughts are moderated by group identity. Indirect evidence for this possibility comes from research on the link between social identity and episodic future thinking. For instance, Moore (2003) demonstrated that young Israeli Palestinians reported lower likelihood of experiencing positive future events like marriage and owning a house compared to age-matched young Jews. This group difference remained even after controlling for income, gender and religiosity. Greater negativity in Israeli Palestinian responses were associated with higher personal feelings of deprivation, a factor that was mediated by their lower scores on perceived sense of control. On the collective realm, to our knowledge there are no studies that examine the intricate relationship between social identity, sense of deprivation, control and negativity of future thoughts. At most, studies carried out in the States have explored differences between Republican and Democrat voters and in none of these studies was there an effect of political affiliation on the emotional valence of reported future events (Shrikanth et al., 2018; Topcu & Hirst, 2020; Yamashiro & Roediger, 2019). It is possible that in the American context, Republicans and Democrats feel similar levels of control and neither group may feel a strong sense of deprivation. It must also be kept in mind that the MTurk samples in all these studies may not be truly representative and that there might have limited/restricted the range of ideologies represented in these samples. Specifically, MTurk workers were shown to be more liberal on many social issues compared to the American population (e.g., Berinsky, Huber & Lenz, 2012; DeSoto, 2016; also see Levay et al., 2016). Furthermore, the samples were disproportionately Democratic in alliance.

We believe that the Turkish context could provide a unique testing ground for whether sociopolitical identity may impact negativity of collective memories and future thoughts. For one thing, the power dynamics between the ruling Justice and Development Party (AKP) and the main-opposition Republican People's Party (CHP) is much less balanced compared to the power dynamics between Republicans and Democrats in the US (e.g., Özbudun, 2015; Yilmaz & Bashirov, 2018). Such imbalanced power dynamics reflect on people's attitudes as well. For instance, CHP voters reported worrying about being imprisoned because of their opinions and not being treated justly much more than AKP voters (KONDA, 2017); in a similar vein, CHP voters reported lower levels of trust in the Turkish parliament and government than AKP voters (Ertan et al., 2019). These concerns among CHP voters may be partly due to the fact that CHP has not been in power in a long time. Turkey has been ruled solely by right-wing parties since 1950, with the exception of intermittent 13 years in which the center-left Republican People's (CHP) and Democratic Left (DSP) parties formed coalition governments with right-wing parties. More critically, for the last 20 years, the right-wing AKP has been the ruling party. This is in stark contrast to the frequent switch of the US presidency between Democrats and Republicans since the early 1900s. Therefore, it is possible that within the Turkish political context, the supporters of the center-left parties may feel less politically privileged, and this might impact the content and characteristics of their collective memories and future thoughts.

Present study

In our first study, we compared the characteristics of the most important past and future events in Turkey's history, generated by voters of the ruling (AKP) and the main opposition party (CHP). We particularly focused on voters of these two groups because both historically and around the time of data collection, these represented the dominant central-right and central-left groups in Turkish politics. In line with this, the March 2019 mayoral elections revealed that 44% and 30% of the population voted for candidates backed up by AKP and CHP, respectively. The candidates from the many remaining parties got at most 7.5% of votes.

We chose to ask for the most important past and future events instead of the more frequently used fluency tasks because our main questions of interests pertained to certain event characteristics rather than immediate accessibility (also see Öner & Gülgöz, 2020). Specifically, we wanted to identify how past and future events and their characteristics differed for supporters of ruling and opposition parties and whether collective memory shaped collective future projections.

We expected the supporters of the main opposition party to identify more negative events from the past and future compared to supporters of the ruling party. For all events, in addition to valence, participants also rated centrality of the event for their identity and the event's transitional impact. Furthermore, due to their politically disadvantaged status, it is possible that the supporters of the opposition party might have been subjected to discriminatory events, which might have changed their daily fabric of life (Svob et al., 2014). Thus, we expected supporters of the opposition party to report events that are characterized by greater material and psychological impact.

Table 1 Demographic information

	AKP	CHP	d
N	166	145	NA
Age	21.32 (1.87)	21.21 (1.99)	NA
Party affiliation	4.98 (2.50)	4.06 (2.49)	0.37
Left–right*	6.88 (1.63)	3.99 (1.27)	2.23
Conservatism*	7.15 (1.76)	3.08 (2.09)	2.20
Nationalism*	6.43 (2.58)	3.55 (2.38)	0.76
Religiosity*	7.66 (1.46)	3.86 (2.49)	1.89
Media following	6.87 (2.42)	6.31 (2.38)	0.23

Means (standard deviations) can be seen in the table. All ratings were out of 10. Ratings in which AKP and CHP voters differed from each other were represented with an asterisk. Party affiliation: How affiliated do you feel with the political party you voted for? Left–Right: Where would you place yourself in the political spectrum? (1: Far left, 10: Far right). Conservatism, nationalism, and religiosity: (1: Not conservative/nationalist/religious at all, 10: Very conservative / nationalist / religious). Media following: How often do you follow the news? (1: Never, 10: Very often)

Study 1

Method

Participants Undergraduate students from Boğaziçi (n = 217; 137 women and 76 men) and İstanbul Şehir Universities[2] (n = 332; 195 women and 127 men) completed the questionnaire in March 2019 (a year before the onset of the COVID-19 pandemic) in return for course credit. We chose to collect data from these two universities to ensure greater sample size and representation of sociopolitical identities. The majority of participants voted for the ruling Justice and Development Party (AKP, 34.4%) or the main opposition party, the Republican People's Party (CHP, 30.1%), in the last general elections held in June 2018 (see Table 1).[3] Given our primary motivation was to investigate collective memory and future projections across groups with different sociopolitical identities, we focused solely on responses made by those voting for the ruling and main opposition party. The remaining participants voted for four different parties, with

each one of the parties receiving at least 3.5% and/at most 9.1% of the votes.

The study was independently approved by both the Bogazici University and Istanbul Şehir University Institutional Review Boards and all participants provided consent before participating.

Materials We asked participants to report the two most important events or changes from Turkey's past (Schuman & Rodgers, 2004; Tekcan et al., 2017) by asking the following question: "In the last 70 years (1940s and onwards) there have been many events and changes in Turkey. Please identify two that you find particularly important in the order you retrieved them." We wanted participants to particularly focus on this period because we were concerned that any mention of the Republic's founder Ataturk's death (1938) would veil the frequency of mention of other high impact public events that has happened since.[4] For each event, participants rated the events' emotional valence on a 7-point scale (-3 = very negative, + 3 = very positive). They also evaluated how relevant each event has been to their identity by responding to two items from the Centrality of Event Scale ("I feel that this event has become a part of my identity" and "This event has become a reference point for the way I understand myself and the world.") on a 5-point scale (1 = definitely not, 5 = definitely yes) (Berntsen & Rubin, 2006). We also assessed the degree to which the events resulted in psychological and material transitions in participants' lives by using the Transitional Impact Scale (Svob et al., 2014). The scale consists of 12 items participants rate using a 5-point scale (1 = definitely not, 5 = definitely yes).

The participants also reported two of the most important events that might happen in the next 70 years in Turkey; they also rated the future event's emotional valence, relevance to their identity, transitional impact and provided the date these events are expected to happen in an open-ended format (MM/YYYY).

In addition to these questions, the same participants also reported the happiest, saddest, most proud, most fearful, and most shameful public events from Turkey's past and rated these events' relevance for their identity. Furthermore, they rated the perceptual characteristics (e.g., vividness, visual details) and their belief in official narratives regarding the most important past events they reported. Then, in case they left out some events they deemed important in the previous questions because they were only asked to provide two,

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[2] The university was unexpectedly shut down with a presidential executive order in June 2020: https://en.wikipedia.org/wiki/Istanbul_%C5%9Eehir_University

[3] Turkey has a young population (median age = 31.5 years), and nationally representative studies have shown that young people are not less politically engaged than older counterparts, with more than 75% of the young population (between the ages of 18 and 28 years) reporting always participating in national elections (Erdogan & Uyan-Semerci, 2017; KONDA, 2016).

[4] Ataturk is Turkey's founder and his legacy is still standing; he remains to this day a highly revered figure in society. Every year, his death is commemorated by millions; hundreds of thousands still visit his mausoleum. It is commonplace to see mentions of his death year 1938 converted to 193∞ as a sign of his infinite influence on the nation.

they were given the option to list five more important public events from Turkey's past. Concerning the future events, the participants rated the frequency with which they will think and talk about the events as well as how important these events will be for Turkey's goals and values on a 5-point scale. Finally, they completed a set of questions regarding their socioeconomic status and sociopolitical attitudes. Since the primary question of interest was on the similarities and differences between collective memory and future thoughts across the two ruling and main opposition party supporters, in this paper we focus only on the two most important past and future events and their characteristics. The full questionnaire is presented in Appendix A.

Procedure Participants completed the questionnaires in classrooms in groups of five to 20. All participants provided informed consent before filling out the questionnaire. There were two versions of the main questionnaire; half of the participants first reported collective memory and the other half first reported the collective future events. After participants reported two most important events from Turkey's past, they rated the events' emotional valence. Then, they reported the happiest, saddest, most proud, most fearful, and most shameful events and proceeded to rate each events' relevance to their identity. Afterwards, for the most important events they reported, they evaluated perceptual characteristics, transitional impact, and their belief in the official narrative around these events. Before evaluating each characteristic, we asked participants to rewrite the event they reported to make sure that they consider the same event in all evaluations. Then, they were given the option to list five more events. For the future task, after they reported the events, they rated the events' emotional valence, relevance to their identity, and transitional impact. Then, they estimated the frequency of which they will think and talk about the events, the events' importance for Turkey's goals and values, and the events' temporal distance. They always filled the demographic form at the end of the questionnaire. The procedure lasted approximately 30 min.

Coding We first categorized past and future events into general categories, adopting the Topcu and Hirst (2020) categories and adding two new categories "Disasters" and "Refugee Crisis," to account for common themes reported in participants' responses (see Appendix B). All past events were coded for both specific content (e.g., Coup Attempt in 2016) and general category (e.g., National political events). Future events were only coded for general categories, given their lack in specificity. For past events, two coders independently coded for specific contents ($\kappa = 0.95$). Then, two separate coders independently matched each of these specific contents (e.g., Marmara Earthquake) with general categories (e.g., Disasters) ($\kappa = 0.86$). All disagreements were resolved

through discussion. For future events, five coders independently coded 20% of future events for general categories (e.g., Social). Then, another coder recoded one-third of each coders' events. Inter-rater agreement was strong for each pair of coders (κ values were between 0.83 and 0.89). Disagreements were resolved through discussion.

Results

We present our main results in two sections. First, we discuss how sociopolitical identity – as measured by reported voting behavior – affected the events considered to be part of Turkish collective memory as well as perceived characteristics of these events such as emotional valence, centrality and transitional impact. Second, given that the events are not comparable for past and future, we provide separate analyses of how sociopolitical identity affected events projected to occur in the future. Potential differences in emotional valence and distance are also addressed.

Before moving onto the main results, we would like to note that there was no task order effect on valence ratings either for the past ($U = 150,883$, $z = 1.57$, $p = 0.12$) or the future ($U = 141,398.5$, $z = 0.58$, $p = 0.56$) events. Frequency of mention of event categories (National politics, social, economic, war, international politics, and science/technology space) was also unaffected by the task orders except that, participants were more likely to mention past events that belonged to the science/technology/space category when they started with the future task ($n = 23$, 4.2%), compared to the past task ($n = 5$, 1%).

Collective memory

Most frequently mentioned events In tabulation of the most important events, both the first and second events were collapsed (e.g., Schuman et al., 1998). The frequencies reported are based on 614 public events because eight participants provided only one public event. A large majority of past events fell under the category of *national political* events for both CHP (70.9%) and AKP voters (77.5%). The most frequently mentioned specific public events (with overall frequency of mention in parentheses) were the *Coup Attempt in 2016* (22%), *Military Coup in 1980* (11.9%), *AKP Rule* since 2002 (9.3%), and *Gezi Protests* in 2013 (6.5%) (Table 2). No other categories were mentioned by more than 5% of participants (Descriptions of the events can be found in Appendix C). We restricted our analyses to these four events to ensure we had sufficient sample size to compare the two sociopolitical groups. It must be noted that these four events were not reported equally frequently by the two groups: In particular, the 2016 Coup Attempt was mentioned almost twice as often

Table 2 Most frequently mentioned past events' percentage of mention and comparisons of voter groups' ratings

Events	Percentage of mention		Valence (-3 to +3)	Centrality (max 10)				Material transitional impact (max 30)				Psychological transitional impact (max 30)			
	CHP	AKP	χ2	CHP	AKP	t	d	CHP	AKP	t	d	CHP	AKP	t	d
Coup Attempt 2016	15.9	27.4	4.88	4.91 (2.23)	7.45 (2.27)	**-6.06**	**1.13**	14.31 (6.94)	10.73 (4.60)	**3.12**	**0.61**	19.42 (5.79)	21.95 (4.86)	-2.65	0.47
Military Coup 1980	15.2	8.9	1.38	4.40 (1.89)	5.52 (1.53)	-2.49	0.65	11.71 (4.78)	10.88 (4.99)	0.67	0.17	18.41 (6.35)	19.23 (5.33)	-0.54	0.14
AKP Rule	10	8.6	**45**	5.96 (2.34)	6.63 (2.39)	-0.98	0.28	20.11 (5.96)	17.50 (6.97)	1.5	0.4	21.89 (6.58)	18.07 (5.93)	2.28	0.61
Gezi Protests	10	3.4	**14.42**	7.50 (1.50)	4.55 (2.21)	**4.08**	**1.56**	11.37 (3.77)	10.80 (4.83)	0.38	0.13	24.54 (3.28)	18.22 (4.32)	**4.59**	**1.65**

Note. Mean (Standard deviation) of valence, centrality and transitional impact ratings. For the *Coup Attempt 2016*, *Military Coup 1980*, and *AKP Rule's* emotional valence, at least one of the groups' (i.e., CHP or AKP voters) ratings were restricted in range. Significant differences ($p < 0.003$, Bonferroni corrected) are marked by bold.

by AKP voters than CHP voters; in contrast the Gezi protests and the 1980 Military Coup were reported more often by CHP than AKP voters. Both groups mentioned AKP's coming to power in 2002 at similar rates. Critically though, it must be noted that this pattern where four events dominate responses suggest that there may be a core set of events that characterize Turkish collective memory (for similar results, see Öner & Gülgöz, 2020). In this regard, the Turkish collective memory may be different than the collective memory of other nations where there may be much less convergence within the society (e.g., for the Danish collective memory see Koppel & Bernsten, 2014; but also see Schuman & Rodgers, 2004 for the American case).

One important thing to note here is that three out of the four most frequently reported events (i.e., all events except for the *1980 Military Coup*) by both groups of participants were events from within their lifespans. One might wonder whether this observed recency effect is a function of the young university sample recruited. While our data do not allow us to directly rule out a recency-based retrieval strategy, we argue that responses may not have been a function of age per se for a number of reasons. First, in our earlier work where we had a nationally representative sample, our comparison of the top 15 events across younger and older participants revealed a convergence in responses for all but two events (see Supplemental Table 2 in Mutlutürk, Tekcan & Boduroglu, 2021). In a similar vein, our inspection of life-span retrieval curves for public events from data gathered from participants 40 years and older had also revealed a strong recency effect for emotional-cue probed events as well as for all but the top two most important events (the *1980 Military Coup* and the *1999 Marmara Earthquake*) (see Figs. 6–8 in Tekcan et al., 2017). Thus, we argue that the events listed by our younger adult sample may nevertheless be representative of what is publicly commemorated and rehearsed across larger segments of society. This interpretation is consistent with Koppel and Bernsten (2014), who highlight that event characteristics may be more important than age-effects for public event memories. Also, more detailed inspection of Table 2 in the present study would reveal that the vicariously experienced *1980 Military Coup* was not systematically rated differently than the personally experienced events.

Valence, centrality, and transitional impact by voting behavior Next, we investigated whether emotional valence, centrality, transitional (material and psychological) impact ratings for the most frequently mentioned events were different across the two voter groups. The valence ratings were very skewed for both groups; around 70% of participants from both groups rated the 2016 Coup Attempt and the 1980 Military Coup as highly negative (-3, the highest possible point on the scale). Therefore, instead of moving across different

statistical analyses for different events, we opted to use chi-square analysis to determine the relationship between voting behavior (AKP vs CHP) and valence (positive vs. negative, where ratings of -2 and -3 were categorized as negative and ratings of 2 and 3 were categorized as positive). For the remaining variables, we conducted independent samples t-tests. Since we conducted a total of 16 analyses, we adjusted the critical p value to 0.003.

As can be seen in Table 2, of the four events, the two coup-related events were rated similarly negative by both groups of participants, *Coup Attempt in 2016*: $\chi^2(1, n=117) = 4.88$, $p=0.03$; *Military Coup in 1980*: $\chi^2(1, n=59) = 1.38$, $p=0.24$). Valence of the remaining two events varied by sociopolitical identity: 86.2% of CHP voters rated the AKP rule as negative in contrast to only 3.6% of AKP voters, $\chi^2(1, n=45) = 45.00$, $p<0.001$); the Gezi protest showed the opposite pattern, $\chi^2(1, n=28) = 14.42$, $p<0.001$.

With regard to centrality and transitional impact, only the Coup Attempt in 2016 and Gezi Protests were evaluated differently by the groups. AKP voters ($M=7.45$, $SD=2.27$, $n=84$) rated the 2016 Coup Attempt (against the AKP rule) as more central to their identity than CHP voters ($M=4.91$, $SD=2.23$, $n=44$), $t(126) = -6.06$, $p<0.001$, $d=1.13$; CHP voters ($M=14.31$, $SD=6.94$, $n=45$) reported experiencing more material impact of this event than AKP voters ($M=10.73$, $SD=4.60$, $n=84$), $t(65.23) = 3.12$, $p=0.003$, $d=0.61$. Second, Gezi protests was an event that differed in centrality to identity and impact as well, with CHP voters rating this event as more central to their identities ($t(13.81) = 4.08$, $p=0.001$, $d=1.56$) and having greater psychological impact ($t(33) = 4.59$, $p<0.001$, $d=1.65$). No other differences were observed between voter groups ($ps > 0.003$). The valence and rating differences that emerged among the frequently mentioned events suggests that sociopolitical identity impacts perceived characteristics of key public events constituting collective memory.

Collective future thinking

Contents of collective future thoughts As with collective past events, we collapsed the first and the second collective future events. Nine participants reported only one event, therefore the analyses are based on 613 collective future events in total. As we did for past events, we focused on the most frequently mentioned events (reported at least by 5% or more of the whole sample) and compared the events generated by the two groups and their respective ratings. The top categories of future events can be seen in Table 3. Compared to events in collective memory, collective future event responses were less specific and spanned over a wider range of event categories. Critically though, the two groups were

Table 3 Percentage of mentions in future event categories in Study 1

| Category	Overall %	CHP voters %	AKP voters %
National Politics	26.1	31.5	21.3
Social	20.2	19.7	20.7
Economic	15.8	15.6	16
War	8.3	8.3	8.3
International Politics	10.0	6.9	12.7
Science/Technology/ Space	5.7	3.1	8

All frequencies are based on combination of first and second most important events. The list includes the event categories that were mentioned by at least 5% of the participants.

similar in the top four most frequently mentioned categories; AKP voters reported more events linked to international politics and developments in science, technology and space than CHP voters (International Politics: $\chi^2(1) = 5.203$, $p=0.023$ and Science/Tech/Space: $\chi^2(1) = 6.516$, $p=0.011$, respectively). These responses may reflect AKP's portrayal of Turkey as a global player in world affairs as well as projects like building a national car, plane, and more recently a moon mission (e.g., McKernan, 2021; TRT World, 2020). In contrast, CHP voters mentioned slightly more events about national politics than AKP voters (31.5% vs. 21.3%). These findings might be considered two sides of the same coin. On the one hand, CHP voters focus on national political issues on which the governing party might be criticized and therefore a means by which their goal of coming to power. It is equally meaningful from a self-enhancement perspective that the ruling party voters would focus on issues that would reflect on events that could be viewed as political successes.

Valence, centrality, transitional impact, and temporal distance by voting behavior We compared emotional valence, centrality, temporal distance, and material and psychological transitional impact of six most frequent future event categories (see Table 3). We used an independent samples t-test whenever assumptions were met; otherwise, we conducted chi-square test to compare the groups. Below, we report only the significant group differences that emerged for any one of the ratings (with an adjusted alpha level of 0.002).

The one domain in which the groups varied substantially in their ratings was future events related to economic developments. CHP voters rated majority of *economy-related* future events' emotional valence as "-3" (82.2%) whereas AKP voters rated only 42.3% of these events as "-3". ($\chi^2(1, n=92) = 23.40$, $p<0.001$). AKP voters dated *such economic* future events further in the future ($M=12.47$ years, $SD=9.89$) than CHP voters ($M=3.83$ years, $SD=3.13$), $t(55.37) = -5.60$, 95% CI [-11.72, -5.55], $p<0.001$, $d=1.18$. Moreover, CHP voters expected economy-related future
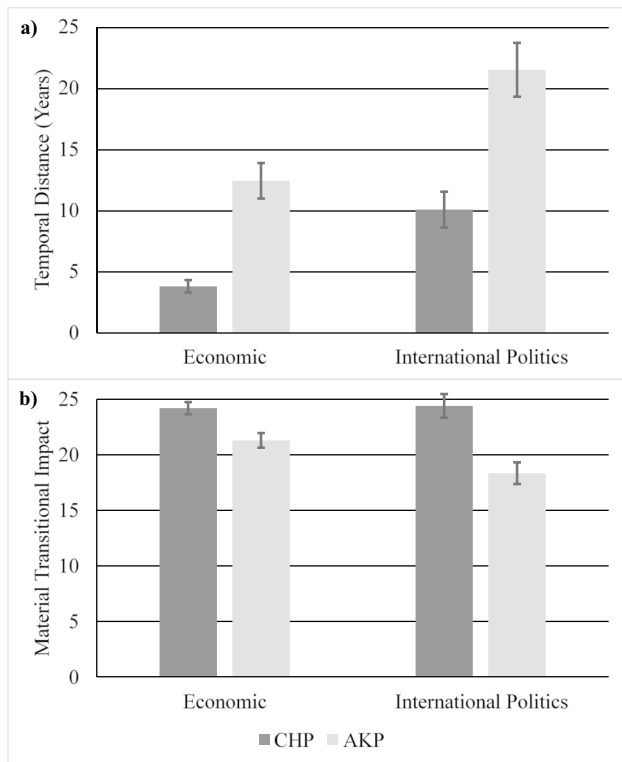
Fig. 1 Mean temporal distance (**a**) and material transitional impact (**b**) ratings for economic and international political future events for CHP and AKP voters

events ($M = 24.21$, $SD = 3.58$) to have higher material impact compared to AKP voters ($M = 21.31$, $SD = 4.73$), $t(92) = 3.29$, 95% CI [1.15, 4.64], $p = 0.001$, $d = 0.69$.

Another domain in which the two groups differed in their collective future thoughts was in events related to international politics. While the AKP voters reported such events almost twice as often as CHP voters, the valence ratings of these events did not vary across groups. Critically though, AKP voters dated these events as happening further in the future ($M = 21.56$ years, $SD = 14.07$) than CHP voters ($M = 10.11$ years, $SD = 6.22$), $t(56.97) = -4.33$, 95% CI [-16.74, -6.16], $p < 0.001$, $d = 1.05$. Furthermore, CHP voters expected these events pertaining to international politics to have higher material impact ($M = 24.42$, $SD = 4.68$) compared to AKP voters ($M = 18.35$, $SD = 6.13$), $t(57) = 3.82$, 95% CI [2.88, 9.26], $p < 0.001$, $d = 1.11$ (Fig. 1).

Comparison of collective past and future events The most apparent difference between the reported past and future events was the variability in themes. More specifically, for past events, no category other than national politics was mentioned by more than 5% of participants. On the other hand, six different themes (see Table 3) were mentioned by more than 5% of participants regarding Turkey' future.
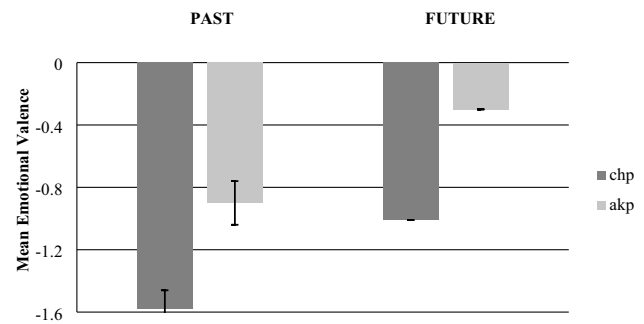

Fig. 2 Mean emotional valence ratings of CHP and AKP voters for past and future events

Emotional valence In order to assess whether collective memory and future thinking differ in terms of negativity bias, we compared mean emotional valence ratings of past ($M = -1.22$, $SD = 2.33$) and future events ($M = -0.64$, $SD = 2.50$). Since emotional valence ratings were not normally distributed for both past and future events, we conducted Wilcoxon signed-rank test to compare them. Participants rated past events as more negative than future events, $z = 4.51$, $p < 0.001$, $r = 0.13$.

Emotional valence and temporal distance To investigate the negativity bias observed in both past and future events further, we tested whether there was a relationship between temporal distance and valence. Only for future events, participants rated distant future events as more positive ($\tau_b = 0.14$, $p < 0.001$). For collective memories, there was no such relationship between valence and temporal distance ($\tau_b = 0.06$, $p = 0.09$).

Emotional valence and sociopolitical identity To determine whether sociopolitical identity impacted negativity bias, we compared mean emotional valence ratings of AKP and CHP voters for both past and future events. Results of a Mann–Whitney U test revealed that CHP voters rated emotional valence of both past ($M_{CHP} = -1.58$, $SD_{CHP} = 2.10$, $M_{AKP} = -0.90$, $SD_{AKP} = 2.48$) and future events ($M_{CHP} = -1.01$, $SD_{CHP} = 2.53$, $M_{AKP} = -0.30$, $SD_{AKP} = 2.43$) more negatively than AKP voters (For past: $U = 52,745$, $z = 3.14$, $p = 0.002$, $r = 0.13$; For future: $U = 54,932$, $z = 4.12$, $p < 0.001$, $r = 0.17$) (Fig. 2).

Transitional impact and sociopolitical identity CHP and AKP voters' material ($t(570) = -1.296$, $p = 0.196$) and psychological ($t(576) = -0.589$, $p = 0.556$) transitional impact ratings for past events did not significantly differ from each other. However, CHP voters expected the future events to have higher material ($M_{CHP} = 22.22$, $SD_{CHP} = 6.03$; $M_{AKP} = 19.67$, $SD_{AKP} = 6.14$; $t(608) = 5.176$, $p < 0.001$, $d = 0.419$) and psychological impact
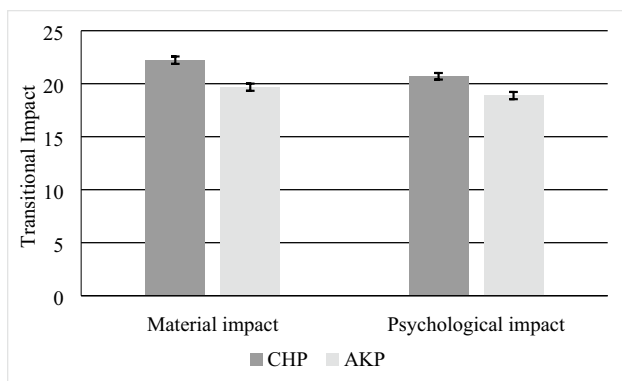
Fig. 3 CHP and AKP voters' transitional material and psychological impact ratings for reported future events

($M_{CHP} = 20.70$, $SD_{CHP} = 5.19$; $M_{AKP} = 18.88$, $SD_{AKP} = 6.08$; $t(604.445) = 3.988$, $p < 0.001$, $d = 0.322$) than AKP voters (see Fig. 3).

In sum, comparison of the most important events in collective memory and those in collective future suggest that past and future events may not be as closely linked because the past and future events vary in main themes. While previous research has demonstrated that the collective past and future responses may be correlated in terms of specificity phenomenology and valence (Topcu & Hirst, 2020), there is also evidence for reduced specificity of future projections, much like in the episodic future thinking research (Öner & Gülgöz, 2020; Topcu & Hirst, 2020).

Another key finding from Study 1 is that the most important future events were expected to be less negative than those in the past, with negativity decreasing as one projects further into the future (for a similar correlational finding, see Öner & Gülgöz, 2020). This finding that the collective future is brighter than the collective past may seem similar to what Topcu and Hirst (2020) reported. They report that for past events, valence ratings are disproportionately negative; however, future event ratings are actually rated neutral (see Table 3 in their paper). However, a closer inspection of our data in comparison to theirs reveal the following: In our data, we observe an overall negativity bias with emotional valence ratings for future events being significantly lower than 0 ($t(609) = -6.32$, $p < 0.001$). In other words, in our data we observe overall negativity for future events, but this negativity is reduced compared to ratings of negativity of past events. Critically, the negativity of the future is more pronounced among voters of the main opposition party. We believe that the discrepant findings between our work and that of Topcu and Hirst may be partly methodology-driven. Topcu and Hirst asked for 10 and 15 events from the past and future, this may have

led participants to report events that were less emotionally extreme, in particular less negative. In turn, this may have eliminated valence differences between past events and future projections in their data. In contrast, because we asked our participants to report two most important events from the past and future, the reported events may have been more negative. Research from our own lab and others have repeatedly shown that negatively infused themes involving wars and politics are dominant in collective memory, a finding verified in many parts of the globe (Liu et al., 2005, 2009; Schuman & Rodgers, 2004; Tekcan et al., 2017). While this does not mean that collective memories are exclusively negative, they tend to be disproportionately so. For instance, in earlier work when we asked participants to report positive collective memories (happiest, proudest, hopeful), participants had greater difficulty generating these events; the events reported based on such cues almost never overlapped with the events deemed as most important (Tekcan et al., 2017). In other words, in our data, because we asked only two most important events, these may have been predominantly negative. On the other hand, in Topcu and Hirst, the initially remembered events may have been more negative but after a substantial number of retrieval attempts, positive items may have been more likely to be reported. Finally, and most critically, Study 1 demonstrated that sociopolitical identity impacts both how most important public events are remembered from the past and also how they are imagined in the future. Voters of the main opposition party rated both past and future events as more negative. This is in contrast to reports of similarly valenced events across voter groups in the American context (i.e., Shrikanth et al., 2018; Topcu & Hirst, 2020; Yamashiro & Roediger, 2019). Sociopolitical identity also impacted the expected transitional impact of future events; voters of the main opposition party expected future events to have a larger material and psychological impact on them, despite no differences emerging for the impact of past events. While we do not have direct data on this issue, it is possible that the difference between the ruling and the other opposition parties in how they perceive the past and imagine the future may be even more pronounced; future research would benefit from having broader samples that would allow these comparisons.

Study 2

The first study demonstrated that in the Turkish context, sociopolitical identity is closely linked to collective past and future thoughts, shaping some of the content and

characteristics of events. Comparison of past and future events across groups also revealed that at least in the Turkish context, sociopolitical identity impacted/influenced the negativity of collective past and future thoughts. Specifically, we demonstrated that CHP voters rated both past and future events more negatively than AKP voters. This finding is in contrast to studies that reported no valence differences in collective memory and future thinking among Democrats and Republicans in the US data. One key characteristic is that in the Turkish context, AKP voters are affiliated with a party that has been in power for approximately 20 years. This may have led AKP voters to feel politically and socially more privileged than CHP voters, which in turn might have caused them to represent the past and future in a less negative light. For instance, supporters of a party that has had two decades of control in ruling a country (i.e., the AKP case) may manifest their collective narcissistic tendencies by selectively retrieving consequential and positive public events (e.g., Churchill et al., 2019; Yamashiro & Roediger, 2021). These more accessible memories in turn may correlate with collective future projections.

Based on this notion, in Study 2, we investigated whether one's subjective sense of sociopolitical privilege impacted valence of collective future thoughts. To test this possibility, we directly asked undergraduate participants how privileged they felt as a voter of their political party and how deprived they generally felt (for a similar approach, see Moore, 2003). Participants reported two most important events they expected would happen in the future and evaluated the key characteristics of these events like valence, centrality, and impact. We expected participants reporting higher levels of subjective privilege (and lower levels of deprivation) to report less negative future events.

A secondary goal of Study 2 was to test the replicability of the reduced negativity for distant future projections. To test this, we asked participants to report the most important events they expect to happen in the near (within 5 years) and distant future (20 years onwards). As in Experiment 1, participants rated the valence, centrality and transitional impact of these events.

Method

Participants We collected data from a total of 285 (180 women) Bogazici University undergraduates. Unlike the first study where we collected data from two separate settings, we could not continue data collection at Şehir University after it was closed by a presidential decree in July 2020 (see footnote 2); this limited the sociopolitical representation in our sample. We discuss these in greater detail in following sections.

The first wave of data was collected in March – April 2020 ($n = 176$)[5]; the second wave of data was collected in April 2021. A more detailed comparison of the data collected in the first and second wave is provided in the Online Supplementary Materials (OSM). The current economic crisis and the upcoming presidential elections in 2023 predominated near future responses. For distant future, event distributions were similar across the two phases of data collection. Possibly as a reaction to the COVID-19 pandemic, the economic crisis, the collective future projections from the second-wave group were less negative.

Materials We asked participants to generate possible events that can happen in the near (5 years) and distant (5 – 20 years) future of Turkey with the following questions: "In the next 5 years (until 2025) / In the next 5 to 20 years from now (from 2025 to 2040) there will be many events and changes in Turkey. Please identify and type the event that you find the most important." The order of the time probes was counterbalanced across participants, so that participants reported an event for each time point. Participants rated each future event's emotional valence on a 7-point Likert-type scale ranging from -3 (very negative) to + 3 (very positive). As in Study 1, we used CES (Berntsen & Rubin, 2006) and TIS (Svob et al., 2014) to measure reported events' expected relevance and impact, respectively. Participants also estimated how frequently they will talk and think about the event in the future, how important the event will be for their and Turkey's goals and values (on 5-point scales), and the time in which the events might take place in the future (open-ended).[6]

All participants also responded to two items (i.e., one for each event they reported) aimed at checking whether they paid attention to the time probes. These items were placed randomly among items of the Transitional Impact Scale. For each participant, one of two items was congruent with the

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[5] The first-wave participants read one of two versions of a short fictitious text regarding the academic standing of Bogazici University. As part of another study, subsequent to reporting events from Turkey's past and future, participants also reported events expected Bogazici University's future. The content of the text had no impact on the events reported. The second-wave participants did not read any text prior to reporting the most important events. While the broader socioeconomic context is likely to have impacted events identified in the second phase for the near future, the distant event responses were similar in nature. Thus, we present the combined data from both waves. When analyses were run on the first-wave data only, the general pattern of findings were the same with the exception that the reduced negativity for distant projections were marginally significant due to limited power.

[6] Reported events' relevance to participants' identity, transitional impact, rehearsal rates, and importance were not directly relevant for our research question. Therefore, they were not reported in the results section but included in the Online Supplementary Materials.

time probes (i.e., "This event will take place in 5/20 years") whereas the other one was incongruent (i.e., "This event will take place 30 years later"). Participants indicated their agreement level with each item on a 5-point scale.

Participants provided demographic information such as gender, age, birthplace, socioeconomic status, and the political party they voted in the last general election. They evaluated their subjective sense of privilege as a voter of their party. Finally, we assessed their subjective sense of deprivation using three questions from Moore (2003). All of these questions were on a 5-point Likert scale, with higher values denoting higher sense of deprivation and higher perceived privilege (Appendix D).

Procedure We conducted the survey online using Google Forms. Participants accessed to the survey links through Bogazici University's online research participation system. The study was approved by the Institutional Ethics Board at Bogazici University. At the beginning of the session all participants provided consent. The study took approximately 30 min.

After reporting the most important future events, participants evaluated the events' emotional valence, relevance to their identity, transitional impact, expected rehearsal, importance, and temporal distance, in that order. Then, they completed the demographic form and rated their subjective sense of privilege and deprivation.[7]

Coding The coding scheme we employed to categorize the future events was identical to the one we used Study 1 with one exception: we added COVID-19 as a new event category.

To code the reported events in the first wave of data collection, we adopted a three-step coding procedure. In the first step, all events were distributed among ten coders so that each event was coded separately by two independent coders. Inter-rater agreement was substantial ($\kappa = 0.81$, $p < 0.001$). In the second step, for any pairs of coders whose agreements were below 85%, a third coder recoded all the disagreements. In 94% of reported future events, two of three coders agreed on the content categories (Fleiss' $\kappa = 0.18$, $p < 0.001$). We resolved the remaining conflicts (i.e., events that were not uniformly coded by at least two of three coders) by discussion in the third step.

To code the data collected in the second wave, all reported events were distributed among five coders so that each event was coded by two separate coders. Inter-rater agreement was

strong ($\kappa = 0.85$, $p < 0.001$). Conflicts were resolved through discussion.

Results

We present our findings in three parts. First, we present information regarding the data-cleaning protocol we followed based on participants' responses to attention check items. Then, we provided a brief description of events contents, and proceed to analyze how perceived social status (an index we created based on deprivation and privilege scores) impacted reported future events' emotional valence. Finally, to see if we replicate our findings from the previous study, we tested whether there was a difference in emotional valence ratings in near and distant future events.

Attention checks Participants responded to two attention check items in which they had to verify the temporal distance of the future events. If a participant was asked to report an event in the next 5/20 years but rated their agreement with the sentence "The event will take place in 5/20 years" (i.e., congruent item) as 1 (i.e., definitely not), we considered the response as wrong. If they rated their agreement with the sentence "The event will take place 30 years later" (i.e., incongruent item) as 5 (i.e., definitely yes), we also considered the response as wrong. We excluded data of 31 participants who provided wrong responses to one of two attention check items. We also excluded the data from one person who dated the future events outside the provided prompts, leaving us with data from 246 participants.

Content The most frequently mentioned future event categories can be seen in Table 4. The majority of reported events were related to national politics, but more so in the near (45.9%) than in the distant future (28.3%). Moreover, COVID-19 was more likely to be mentioned for the near future whereas themes related to technology, war, environment, and international politics were more likely to be mentioned for the distant future. Inspection of Table 4 reveals that the frequency of mention of uniquely themed events increased when participants projected into the distant future. Of these nine event categories, only two of them were mentioned by at least 10% of the participants for the near future; on the other hand, for distant events, there were four such categories. One might wonder why there were not more future projections relating to the COVID-19 pandemic, especially when at the time of data collection, the impact of the pandemic was strongly felt with ongoing lock-downs. We believe the infrequent mention of pandemic related outcomes might have been partly due to the unstable and eventful nature of the Turkish sociopolitical context. For instance, during February − March 2021, there were announcements

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[7] As part of the experimental study mentioned above or for exploratory reasons, participants also completed identification, entitativity, collective temporal orientation scales, and rated believability of the passage they read in the beginning of the experiment. Since these measures were not directly relevant to our research question here, we did not report or discuss their results.

Table 4 Most frequently mentioned categories for Turkey's near and distant future in Study 2

Categories	Turkey's near future			Turkey's distant future		
	Overall percentage	Low	High	Overall percentage	Low	High
National politics	45.9	51.3	40	28.3	28.4	28.4
Economic	21.7	20.5	22.6	13.9	15.5	12.9
Social	6.1	4.3	7	13.1	12.9	11.2
Science/Technology/Space	5.3	4.3	6.1	13.9	12.1	17.2
COVID-19	4.5	2.6	7	1.6	0.9	2.6
Disasters	4.5	4.3	5.2	4.1	5.2	3.4
War/Military	2.9	4.3	1.7	8.2	8.6	8.6
Environment	2.5	2.6	2.6	8.2	6.9	8.6
International politics	1.6	0.9	2.6	5.3	6.9	2.6

Table shows the overall percentage of mention as well as the percentages of mention for the low and high sociopolitical advantage groups. Only the categories that were mentioned by at least 5% of all participants for either the near or distant future were included in the table

regarding the Turkish Space Program; there was an ongoing cross-border military operation; the groundbreaking ceremony of Turkey's first nuclear power plant project despite major public opposition took place during these times. Also, within the same period, the government withdrew from the Istanbul Convention,[8] a decision that led to serious protests throughout the country. Almost all of these events were publicly discussed not in terms of the immediate impact but what they meant regarding the future of the country.

Perceived sociopolitical advantage and emotional valence There was a weak, yet significant correlation between ratings on the deprivation and the sociopolitical privilege questions ($\tau b = -0.141$, $p = 0.008$). We created an index of subjective sense of sociopolitical advantage by averaging these ratings (deprivation reverse coded) ($M = 2.27$, $Mdn = 2.17$, $SD = 0.73$) and we categorized participants into low and high sociopolitical advantage groups based on a median split. As in Study 1, future events' emotional valence ratings were not normally distributed. Therefore, we conducted nonparametric Mann–Whitney U tests to compare low and high advantage groups' emotional valence ratings for both near and distant future events. For neither near ($U = 6515.00$, $z = -0.66$, $p = 0.51$, $r = 0.043$) nor distant events ($U = 6694.50$, $z = -0.30$, $p = 0.77$, $r = 0.019$), did emotional valence ratings differ between the two advantage groups.

Contrary to our expectations, we found no effect of subjective sense of sociopolitical advantage on the valence of collective future events. This null finding should be

considered in caution. For one, most of the participants in the study reported low levels of subjective sense of sociopolitical advantage ($M = 1.65$, $Mdn = 1.00$, $SD = 0.97$) and unsurprisingly 57.1% reported having voted for the main opposition party in the last election. In contrast, there was a low number of AKP voters in our sample ($n = 14$), partly due to one data collection site becoming unavailable upon the closing of the university (see footnote 2). Thus, our sample may not have been sufficiently diverse to test the impact of privilege and deprivation on the negativity of collective future thoughts.

Perceived sociopolitical advantage and transitional impact There was an impact of sociopolitical advantage on material impact of expected future events. Specifically, people who reported lower levels of sociopolitical advantage reported expected future events to have higher material impact ($M = 21.40$, $SE = 0.43$ vs. $M = 19.56$, $SE = 0.43$) for low and high sociopolitical advantage, $F(1, 227) = 9.29$, $p = 0.003$, $\eta_p^2 = 0.039$. No differences of sociopolitical advantage were observed for the expected psychological impact of future events, $F(1, 226) = 2.523$, $p = 0.11$.

Temporal distance and emotional valence To determine whether we replicated the findings from Study 1 about reduced negativity for distant future events, we tested whether participants rated temporally more distant events as less negative. As in Study 1, results of Wilcoxon signed rank test showed that distant events were rated as less negative (*mean rank* = 75.47) than near events (*mean rank* = 85.44), $z = 2.98$, $p = 0.003$, $r = 0.134$, suggesting a dampening of negativity in distant projections. As in Study 1, we report that the content of collective future thoughts is not dominated by a few categories; the variability of event categories increases with more temporally distant projections. However, our data also shows that unfolding sociopolitical

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[8] The Istanbul Convention is a human rights treaty of the Council of Europe against domestic violence and violence against women and children and domestic violence. The treaty aims to prevent violence and to ensure that perpetrators are justly prosecuted (https://en.wikipedia.org/wiki/Istanbul_Convention).

events can partially impact future projections; in the second wave of data there were greater mention of national political and economic crisis related events. However, one should be cautious to conclude that the current sociopolitical climate plays a causal role in future projections; after a year of living through the COVID-19 pandemic, very few responses (4.5% and 1.6% in near and distant future, respectively) were directly linked to the pandemic or its aftermath.

In Study 2, we also replicated the reduced negativity of distant compared to near future projections. Different from the first study, in the second study, we specified the temporal window from which the events should be reported from. While in the first study participants were allowed to report future events that extended form the present to 70 years into the future, in Study 2, they identified events that could happen in the near (within the next 5 years) and distant (at least 20 years from now) future. While one must take caution directly comparing the events across the two studies, the instructional differences does not seem to have changed the overall pattern of results, with reduced negativity observed for more distant future events. While the primary goal of Study 2 was to determine whether perceived sociopolitical advantage of one's group impacts how one imagines the collective future, we found no evidence of a link between perceived sociopolitical advantage and valence of future projections. Nevertheless, we found that those who report to having lower levels of sociopolitical advantage also expected greater material impact of future events. This is likely due to expected negative public events having the potential to negatively impact individuals' daily rubric of life.

We believe that our null findings regarding any link between perceived sociopolitical advantage and valence of future projections may have been partly driven by the nature of our sample. Our participants were young undergraduates, most of whom were voters of the main opposition party. Even though this group of participants may have been feeling somewhat disadvantaged as a function of their sociopolitical identity, it is unlikely that they were feeling extremely disadvantaged at the broader level: at the time of data collection, they were students at one of Turkey's most prestigious elite state universities, with more promising future prospects than many in their generation. Consequently, their feelings of being disadvantaged sociopolitically, might have been buffered by other contextual factors. As a result, this group may not have been ideal to test the effects of feelings of sociopolitical disadvantage. Instead, targeting individuals who affiliate with much weaker opposition parties may allow for a stronger test for our question of interest. Ideally, testing this question among a community sample, with middle-age adults who face various additional challenges to upkeep their responsibilities, may be more useful. In short, future research is necessary to resolve the link between feelings of deprivation and valence of collective future projections.

General discussion

Our findings from the two studies suggest that collective memories and collective future thoughts may not be as closely intertwined as anticipated on the basis of the episodic mental time travel research (Anderson & Dewhurst, 2009; D'Argembeau et al., 2008). When people were asked about the most important events from the collective past and collective future, reported future events had greater thematic variability; this tendency increased for events that were expected to happen in the distant as opposed to the near future. While the content of important collective memories was dominated by national political events (> 70%), there were additional themes that emerged for collective future thoughts – with only 26.8% related to national politics in Study 1. More critically, Study 2 demonstrated that as people project further into the future, the frequency of mention of national political events also decreased, from approximately 45% in the near to 28% in the distant future. It is important to exercise caution while making these content-based comparisons across the two studies: the specification of different time frames across Studies 1 and 2, may have contributed to the increased thematic variability in the latter. These findings suggest that the past may not be as strongly influential in shaping future thoughts at the collective level; a point in which collective mental time traveling might be diverging from episodic future thinking. This focus on national political events in collective memory is not surprising, and it replicates previous findings both locally (Tekcan et al., 2017) and globally (e.g., Brown, 1990). However, we believe that our work is novel in demonstrating the variability in themes for most important events expected in the collective future. Most prior work in collective future thinking has utilized future fluency tasks and responses were merely counted across conditions, without detailed analyses of content (e.g., Shrikanth et al., 2018). Our work also extends beyond Topcu and Hirst (2020), who report considerable variability in responses in both past and future collective events. Critically though, in both their studies they had prompted their participants to generate a large set of events from the collective past and future (15 in Study 1, 10 in Study 2). This approach may have facilitated thematic variability in both past and future responses. Our work differs in that we asked participants to report only the most important future events; the greater thematic variability we observed as people deviated from the past and the near future indicates that it is likely that there are other sources beside the collective past that shape these projections.

One of the main goals of the study was to explore how living in a, socially and politically volatile context with

deep societal divides impacts collective memory and collective future thoughts. While we presented some evidence that some events were mentioned equally frequently across two voter groups, the group differences in some of the ratings (i.e., centrality, impact, and valence) indicated that the events themselves were perceived quite differently. This was most apparent in how AKP's rule was perceived by the two groups, highlighting the link between public events and collective identities (for similar findings of sociopolitical and ethnic differences on collective memories see Corning, Gaidys, & Schuman, 2013; Griffin, 2004; Mutlutürk et al., in press).

Critically, we report a similar impact of sociopolitical identity in shaping collective future thoughts. In the first study we report that voters of the main opposition party report greater negativity for not only the past but also for the future events. We believe that this greater negativity cannot be explained merely by a response bias, especially given higher transitional impact expectancy by the same group of participants. In the second study, most of our participants were CHP voters, and they generally reported low levels of perceived sociopolitical advantage. Those who reported the lowest levels of perceived sociopolitical advantage also expected future events to have significantly higher material transitional impact. These findings coupled with the overall negativity of the events expected to happen in the future (e.g., highly negative economic developments), hints at concerns regarding disruptions in one's physical circumstances shaping collective future projections. In this regard, it is possible that voters of a party who has not ruled a country for decades may have a strong decline narrative and their future projections may selectively reflect that (Yamashiro & Roediger, 2020).

One critical finding from this study was that participants' expectations about the distant future was less negative than expectations for the near future; this replicated earlier findings from our laboratory (Hacıbektasoglu, Sorgun & Boduroglu, 2019). However, our results were in contrast with Shrikanth et al.'s (2018), who found no decrease in negativity bias for events happening in 10 years, compared to those happening the next week, or in the next year. There might have been several reasons for the inconsistency of findings between the two studies. First, they employed a future fluency task to compare relative availability of positive and negative expectations, which measures the number of positive and negative events that can be generated in 1 min. Therefore, it is possible that even when one projects into distant future, the first collective events that come to mind might have still been the negative ones. Second, they asked participants to project up to the next 10 years which is a shorter temporal distance than the one we employed in our study (i.e., 40 years in the first and 20 years in the second study). Perhaps, 10 years into the future may not

have been far enough to increase positive events' availability. Positive changes especially may take time; thus, reduced negativity for distant future responses may reflect realistic and plausible expectations. Nevertheless, our research was not designed to explore these possibilities.

The tendency to think more positively about one's group's distant future is also consistent with the findings from personal future projection studies (Grysman et al., 2013; Heller et al., 2011; Kanten & Teigen, 2008). Researchers argued that these findings reflected self-enhancement motivation in the sense that people wanted to see themselves improving over time and were motivated to predict that the upward trend will continue (but see Rasmussen & Berntsen, 2013; Salgado & Berntsen, 2019; Sharot et al., 2007). Thus, one can argue that self-enhancement motivations that drive people's episodic future thoughts might also be at play as they think about their groups' future. People might be motivated to view their group as improving over time which might lead them to be more optimistic about their groups' distant future. Future research is needed to further classify schematic narrative templates and determine the link between them and characteristics of collective future projections (Wertsch, 2002, Wertsch, 2008).

One limitation of both studies was that we used convenience undergraduate samples. We do not claim that the past and future events identified by our sample are representative of the broader Turkish collective. Turkey has a young, politically engaged population: median age around 31.5 years ("worldmeters") and studies have shown that 77% of individuals between the ages of 18 and 28 vote in national elections (Konda, 2016), a rate similar to overall voter turnover of around 80%. Therefore, based on voting behavior our sample may be considered representative. However, voting in elections does not guarantee that the sociopolitical identity of our participants is well established, especially in a context where the last few years led to the formation of new political parties and electoral outcomes have been somewhat impacted by strategic alliances (e.g., Bermek & Çevik, 2018). Also, it is possible that within the sociopolitically volatile context in Turkey, the public events individuals retrieve may be cued by more current events than past voting behavior. Thus, in future research it might be a better idea to ask participants to specify who they would be voting for if there was an upcoming election.

Another important issue regarding our sample is their level of exposure to daily developments. Even though our sample reports moderate levels of media following (see Table 1), we do not have direct measures of their exposure to echo chambers and their counter-attitudinal content selection. Their media preferences may determine their exposure to polarized content this in turn would reduce the differences observed across groups (Wojcjeszak, Winter, & Xu, 2020). Also, our undergraduates from highly competitive universities, may

have higher propensity to engage in analytical reasoning, which in turn may reduce their susceptibility to partisan fake news (Pennycook & Rand, 2019). Consequently, the differences we report between voter groups, especially in valence, may actually be an underestimation. Future research has to more directly address whether reasoning styles moderate collective memory and future projection characteristics.

Another important limitation regarding our sample was the extent of sociopolitical representation. While we were able to reach greater sociopolitical representation in the first study, in the second study, our sample disproportionately consisted of voters of the main opposition party. This made it challenging to test our prediction on subjective feelings of privilege and deprivation and collective future thought content. Specifically, supporters of alternative and weaker opposition parties may actually experience or perceive experiencing greater disadvantages; consequently, their recollection of past and simulation of future events may in fact be even more negative that of the main opposition voters. Similarly, in the second study, our sample though voters of the main opposition party may feel less deprived compared to other opposition party voters. That is why we believe that future studies with more nationally representative samples is therefore necessary.

Nevertheless, we were able to show that for events represented as part of collective memory and collective future thought, Turkish voter groups differed significantly more than what has been reported in American samples. Despite our study's limitations, we believe that our findings are important as a demonstration of the sociocultural and sociopolitical context on collective future processes.

Appendix A

Questionnaire for Study 1

1) "In the last 70 years (1940s and onwards) there has been many events and changes in Turkey. Please identify two that you find particularly important in the order you retrieved them."

   First event/change:
   Second event/change:
   - Is the first/second event you reported above positive or negative? Please choose a number from the scale below.
     -3 (Very negative)
     -2 (Negative)
     -1 (Slightly negative)
     0 (Neither negative nor positive)
     1 (Slightly positive)
     2 (Positive)
     3 (Very positive)

2) When you considered Turkey's history from the 1940s onwards, we ask you to report one event that made you feel each emotion below.

   The happiest event:
   The saddest event:
   The proudest event:
   The most fearful:
   The most shameful event:

3) Please consider the event that you found the most/second most important while evaluating the following items. Please mark the number that suits you the most.

   The event (please rewrite):
   (1: I completely disagree, 3: I neither agree nor disagree, 5: I completely agree)
   I feel that this event became a part of my identity.
   This event became a reference point for the way I understand myself and the world

4) Please consider the happiest/saddest/proudest/most fearful/most shameful events while evaluating the following items. Please mark the number that suits you the most.

   The event (please rewrite):
   (1: I completely disagree, 3: I neither agree nor disagree, 5: I completely agree)
   I feel that this event became a part of my identity.
   This event became a reference point for the way I understand myself and the world.

5) Now, please evaluate your memories of the two most important events that you reported in the beginning.

   My memory of this event includes visual details (1: none, 5: a lot)
   My memory of this event includes sounds (1: none, 5: a lot)
   My memory of this event… (1: is blurry, 5: is vivid)
   When this event occurred, my emotions were (1: not intense at all, 5: very intense)
   I understand how to locate this event in Turkey's history (1: I completely disagree, 5: I completely agree)

6) Please consider the event that you found the most/second most important while evaluating the following items. Please mark the number that suits you the most.

   The event (please rewrite):
   (1: I completely disagree, 3: I neither agree nor disagree, 5: I completely agree)
   This event changed the places where I spend time.
   This event changed the things I own.

This event changed my material circumstances.
This event changed the activities I engage in.
This event changed the people I spend time with.
This event changed where I live.
This event changed my attitudes.
This event changed the way I think about things.
This event impacted my emotional responses.
This event changed my sense of self.
This event impacted me psychologically.
This event influenced my understanding of right and wrong.

7) Please consider the event that you found the most/second most important while evaluating the following items.

I think that the official narrative that is provided by the authorities mostly hides the facts about this event (1: I completely disagree, 5: I completely agree)

8) In the beginning of the questionnaire, we asked you to report the two most important events from Turkey's history. However, you might have excluded some events that you find important because of this limitation. If there are any other events from Turkey's 70-year history that you deem important, please list below (you can list up to 5 events)

9) Please write down the two most important events/ changes that might happen in Turkey's 70-year future, in the order that you retrieved them.

First most important event/change:
Second most important event/change:

– Will the first/second event you reported above be positive or negative? Please choose a number from the scale below.

-3 (Very negative)
-2 (Negative)
-1 (Slightly negative)
0 (Neither negative nor positive)
1 (Slightly positive)
2 (Positive)
3 (Very positive)

10) Please consider the event that you find the most/second most important while evaluating the items below. Please mark the number that suits you the most.

(1: I completely disagree, 3: I neither agree nor disagree, 5: I completely agree)
I feel that this event will become a part of my identity.
This event will become a reference point for the way I understand myself and the world

This event will change the places where I will spend time.
This event will change the things I will own.
This event will change my material circumstances.
This event will change the activities I will engage in.
This event will change the people I will spend time with.
This event will change where I will live.
This event will change my attitudes.
This event will change the way I will think about things.
This event will impact my emotional responses.
This event will change my sense of self.
This event will impact me psychologically.
This event will influence my understanding of right and wrong.

11) Please consider the event that you find the most/second most important while answering the questions below. Please mark the number that suits you the most.

How frequently you have thought about this event? (1: Never, 5: A lot)
How frequently you have talked about this event? (1: Never, 5: A lot)
How important is this event for Turkey's goals and values? (1: Not at all, 5: A lot)
In your opinion, when this event will take place?

Demographic questionnaire

1. Gender
2. Birthplace
3. Year of birth
4. Level of education:

a. Primary school
b. High school
c. Undergraduate
d. Graduate

5. If you evaluate in comparison with the average in Turkey, where would you place yourself?

a. Lower income
b. Lower-middle income
c. Middle income
d. Upper-middle income
e. Upper income

6. Which political party did you vote for in the last general elections?
7. How affiliated do you feel with this political party?

1	2	3	4	5	6	7	8	9	10

Far left   Far right

9. Where would you place yourself in the spectrum below?

1	2	3	4	5	6	7	8	9	10

Not nationalistic at all   Very nationalistic

10. Where would you place yourself in the spectrum below?

1	2	3	4	5	6	7	8	9	10

Not religious at all   Very religious

11. Where would you place yourself in the spectrum below?

1	2	3	4	5	6	7	8	9	10

Not conservative at all   Very conservative

12. How often do you follow the news?

1	2	3	4	5	6	7	8	9	10

Never   Very often

Appendix B

Future event categories and examples

1. Terror

   "There will be serious attempts to solve the terror problem in our eastern border."
2. Environment

   "Biological diversity will greatly diminish."
3. Disasters

   "A huge earthquake will occur in İstanbul."
4. Economic

   "Due to decreases in agricultural production, we will have to import the products that wecould produce ourselves. This will greatly weaken Turkey's economy."
5. National politics

   "We will see more women leaders in politics."
6. International politics

   "We will resolve the conflict in Syria."
7. War/Military

   "The war in Idlib will grow and there will be more casualties."
8. Human rights

   "Turkey will have to pay compensation because of its human rights violations."
9. Social

   "The polarization in the society will increase."
10. Refugee crisis

    "There will be an increase in the number of racist assaults as a result of the refugee crisis."
11. Science/Technology/Space

    "Robots will take over many people's jobs."
12. COVID-19

    "Vaccination for Coronavirus will be found."

Appendix C

Event descriptions

Coup attempt in 2016: On the night of July the 15th, there was a coup attempt by a small section of the Turkish Military. This coup attempt resulted in 248 deaths.

Military coup in 1980: On 12 September 1980, the military overthrew the civilian government. More than 500 people were sentenced to death; 50 were executed. Approximately 650,000 people were arrested.

AKP rule from 2002 onwards: After the 2002 elections, the Justice and Development Party (AKP), which is a conservative political party, came to power; they have been in power since then. Thus, this event is interpreted as more generally to as AKP's rule. Secularists have argued that the party harbors an Islamist agenda that could harm Turkey's secular foundation.

Gezi protests: A civil unrest began in Istanbul, Turkey, to initially protest an urban development plan for Gezi Park. These protests developed into wider anti-government demonstrations.

Appendix D

Items measuring advantageousness and deprivation

1. How advantaged do you feel as a voter of your political party compared to other parties' voters?

   1: I do not feel privileged at all, 5: I feel quite privileged

   2.When you compare yourself with others, what you receive in life is:

   a. Much more than I expect.
   b. More than I expect.
   c. About what I expect.
   d. Less than I expect.
   e. Much less than I expect.
   4.Do you sometimes feel that you are deprived?

   1: Never, 2: Very often.

   5.All in all, are you happy with your life?

   1: Totally unhappy, 2: Totally happy

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