

AUTOBIOGRAPHICAL MEMORY IN BILINGUALS:
SELF MEMORY SYSTEM IN A KURDISH-TURKISH SAMPLE

by

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AUTOBIOGRAPHICAL MEMORY IN BILINGUALS:
SELF MEMORY SYSTEM IN A KURDISH-TURKISH SAMPLE

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ABSTRACT

AUTOBIOGRAPHICAL MEMORY IN BILINGUALS: SELF MEMORY SYSTEM IN A KURDISH-TURKISH SAMPLE

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Keywords: autobiographical memory, bilingualism, Kurdish-Turkish, phenomenological characteristics of memories

The present study explored how language and self influence retrieval of autobiographical memories among bilinguals. More specifically, the present study is aimed primarily at examining the emerging differences in characteristics of autobiographical memories mediated by the relationship between the language they use and the self associated with the language.

To explore this dynamic relationship Conway's and Pleydell-Pearce's (2000) Self Memory System framework was adapted. 41 Kurdish-Turkish bilinguals whose ages ranged between 18 and 59 were asked to provide three memories from different points in time in response to cue-words. Interviews were conducted in two sessions; in either Kurdish or Turkish with a gap of two weeks. Time points were determined to be as 1 week ago, 1 year ago, and 10-15 years ago. In addition, participants were asked to retrieve their earliest childhood memories

In each session participants were asked to rate their memories in various phenomenological properties. These properties included relieving, auditory imagery, vividness, vantage, remember-know, remembering in sentences in addition to intensity, rehearsal, consequentiality and accessibility of the memories. The findings revealed that the qualitative characteristics of the memories differed when the participants were speaking Kurdish or Turkish during the interviews.

ÖZET

ÇİFTDİLLİLERDE OTOBİYOGRAFİK BELLEK:

KÜRTÇE-TÜRKÇE ÖRNEKLEMİ

by

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Bu çalışmanın amacı anıların fenomenolojik kalitesinin kullanılan dil ve kendilik arasındaki ilişki tarafından nasıl kontrol edildiğini gözlemlemektir. Bu amaçla dilin ve benlik algısının çiftdilli katılımcılarda olayların hatırlanmasını nasıl etkilediği gözlemiştir. Yaşları 18 ile 59 arasında değişen 41 Kürtçe-Türkçe konuşabilen çiftdilli katılımcıdan belirli kelimelere karşılık olarak hayatlarının üç farklı dönemine denk gelen üç adet anı anlatmaları istenmiştir.

Kendilik, bellek ve dil arasındaki bu üçlü dinamik ilişkiye araştırmak amacıyla Conway ve Pleydell-Pearce'in (2000) Kendilik Hafıza Sistemi çerçevesi kullanılmıştır. Türkçe ve Kürtçe olan görüşmeler iki ayrı zaman diliminde iki hafta ara ile yapılmıştır.

Her iki görüşme sonrasında katılımcılardan kendi anılarını çeşitli fenomenolojik özellikleri bakımından değerlendirmeleri istenmiştir. Zaman dilimleri 1 hafta önce, 1 sene önce ve 10-15 sene önce olarak belirlenmiştir. Bunun yanında katılımcılardan en erken çocukluk anılarını anlatmaları istenmiştir. Katılımcılardan değerlendirmeleri istenilen özellikler şunlardır: yaşıtlama, işitme, canlılık, anının perspektifi, cümlelerle hatırlama; ve ek olarak yoğunluk, tekrarlama, önem ve ulaşılabilirlik. Çalışmanın sonuçları anının fenomenolojik özelliklerinin görüşme dilinin Kürtçe veya Türkçe olmasına bağlı olarak değiştigini göstermektedir.

to people dedicated to preserve Kurdish....

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1. INTRODUCTION

The main purpose of the present study was to explore the dynamic relationship between autobiographical memory, language and self. More specifically, the present study is aimed at understanding the influence of language on autobiographical memory and its relationship with present self. For this aim, phenomenological characteristics of autobiographical memories were studied through bilingual participants.

1.1 Autobiographical Memories

As autobiographical memory is researched in many areas of psychology there is a variety of definition of the term. A general definition of autobiographical memory is the episodic memory that belongs to an individual's past (Rubin, 2005). Before introducing some approaches to autobiographical memories I will briefly describe episodic memory-semantic memory distinction and its relation to autobiographical memories.

According to Tulving's (1972, 1985) influential model autobiographical memory is mediated by episodic and semantic memory systems. Episodic memory is an extension of semantic memory (Tulving, Markowitsch, 1998). Semantic memory refers to general information that is independent of time and context. In other words, semantic memory refers to knowledge about facts and experiences. Episodic memory was initially defined as retrieval of events presented at a particular time and space (Tulving, 1972). However later definitions of episodic memory include recollection of personal experiences including specific details about time and space. Clayton and Dickinson (1998) put that episodic memory is about what, where and when features of events. Episodic memory differentiates from semantic memory in that it is about the experiences rather than events, and it includes "mental time travel" in past- so called "autonoetic consciousness" (Tulving, 1993). Nelson (1997) describes "autonoetic consciousness" as "self in time" that provides a sense of continuity. Reflecting in time and gathering information about past experiences is done through episodic memory (Tulving, 1983). Tulving (2002) states three features of episodic memory as: sense of subjective self, autonoetic consciousness and the self through which travelling in time becomes possible. In later formulations Tulving (2002) emphasized the importance of consciousness of self as traveling in time that includes expectations about future as well as recollection of past. Episodic memory is evaluation of past in relation to present. Conway, Meares and Standard (2004) put that; a significant function of episodic

memory is to keep visual/sensory images that are very crucial for goals and motivations. Autobiographical memory is often used interchangeably with episodic memory as it shares common properties. However Nelson (1993) indicates that not all episodic memories will become autobiographical memories in time. The example she gives makes it easier to differentiate: "What I ate for lunch is a part of my episodic memory however it may not become part of my autobiographical memory". In other words, although they have many shared features autobiographical memories are specific, personal experiences that usually have importance for the self. Fivush and Nelson (2004) interlink emergence of "sense of self in time" with the development of language skills which in turn foster development of autobiographical memory skills. In other words, with the child-mother interaction children gain the ability to construct the subjective "self in time" and in relation to other.

In sum, although not all episodic memories are autobiographical memories the episodic memories that have personal importance can be reconstructed and become a part of self in time.

Before proceeding with phenomenology of autobiographical memories I will mention some approaches to autobiographical memories. For example, Conway and Rubin (1993) indicate that autobiographical memories represent memories that carry personal importance for self. Emphasizing the transitory and dynamic feature Conway and Pleydell-Pearce (2000) define autobiographical memories as mental constructions stemming from an underlying knowledge base of the individual. They put that autobiographical memory are in a bidirectional relationship with the current self and are reconstructive (2000).

Adopting a socio-cultural developmental approach Nelson (1993) indicates that autobiographical memories are specific, long-lasting personal events with significance to self that become one's life story. Fivush and Nelson (2004) indicate that the emergence of autobiographical memories is parallel with emergence of linguistic references to self in past and that parent-child reminiscing style influences development of autobiographical memory skills. In this sense, Conway and Pleydell-Pearce (2000) and Fivush and Nelson (2004) investigate autobiographical memory in terms of its role in organization of one's sense of self.

In addition to these cognitive motivational and socio-cultural approaches to autobiographical memory there are also understudied functional approaches. Bluck,

Alea, Habermas, and Rubin (2005) indicate that the primary reason to take a functional approach is to examine retrieval of that specific memory instead of others. Results of their study in which they directly asked participants what they use autobiographical memory for, supported initial findings of directive, self and social functions of autobiographical memories. Nelson (1993) emphasizes the importance of autobiographical memory in providing sense of continuity. She puts that autobiographical memory is an imaginative reconstructive process that is compatible with possible future needs and serves as glue for cultural groups through shared narratives.

In a similar vein Addis, Wong, and Schacter (2007) relates retrieval of autobiographical memory to possible future needs and scenarios. Thus, according to these functional approaches autobiographical memory provides an evolutionary adaptive role to possible future needs of the individual. Recent literature on autobiographical memory and future projection of self is expanding and can be interpreted from a functional approach.

In addition to these overlapping approaches there are some common methods used to elicit autobiographical memories. Giving participants some predefined cue-words and then asking them to bring memories associated with the cue-words is a common method used in autobiographical memory studies. An example of this method is Matsumoto and Stanny's (2006) study. Another common method used is asking participants to bring memories from different periods of their life. An example for this type could be Demiray, Gülgöz and Bluck's (2009) study.

In the following section we will start with the question of “why to study phenomenology” and then continue with the phenomenological properties of autobiographical memories.

1.1.1 Phenomenology of Autobiographical Memories

Phenomenological experience has become a central concern in the psychological research of autobiographical memory. Research shows that phenomenology is the crucial aspect of autobiographical memory that provides this “self in time” process. One of the reasons is that our personally meaningful experiences are characterized by their phenomenology. These personally important memories are recollected and become

influential in monitoring our goals and motivations through their phenomenological properties. Tulving (2002) indicates that phenomenological characteristics of an event provide a “self in past”; and, conscious experience that is associated with remembering the past instead of simply knowing it occurred (Tulving, 1985). In addition this recollection of sensory experience is mainly important as it guides our goals and actions. Sutin and Robins (2007) indicate that phenomenology research provides us with the tools to examine the dynamic relationship between memory and other psychological features. More specifically, phenomenology provides us with the features of true and false memories; second phenomenology gives us a generic account of clinical disorders such as depression, and third phenomenology helps us to predict goal attainment knowledge of the self. One of the important phenomenological characteristics of memories is recollection.

Recollection is usually associated with a sense of reliving the experience in the present; in other words travelling back in time. According to Brewer (1986), Conway (1996) and Rubin (2005) a descriptive feature of autobiographical memory is recollection. Tulving (2002) describes recollection as “conscious awareness of what happened in the past”.

For example one common method to assess recollection is through cue-word method. Rubin, Schrauf and Greenberg (2003) using cue-word method asked participants to retrieve memories and then rate them on their phenomenological properties on scales including reliving of the event.

Auditory imagery is accepted as one of the measures of recollection. However while there is vast research on visual imagery, there are not more than a couple of studies on auditory imagery (e.g. Reisberg, Smith, Baxter and Sonenshine, 1989). Recently, Rubin et al. (2003) assessed auditory imagery by asking participants “whether they are talking in the memory”, and “whether the memory comes in words”. In line with previous studies results indicated that auditory imagery was predictive of recollection. The results are in line with previous studies that showed the association between recollection and auditory imagery.

Another characteristic of memory is defined by remember-know paradigm that reflects a subjective state of awareness. According to this paradigm when there is a conscious recollection, participants are asked to categorize that memory as a remember

response, and categorize it as a know response when there is no conscious recollection accompanying the event.

Gardiner (1988) operationally defines remembering as conscious awareness about some aspects of the event or the experience; and knowing as recognition without conscious recollection about the event or the experience. Remember-know distinction reflects episodic-semantic memory distinction in Tulving's theory (1985), episodic memory being characterized by autonoetic consciousness and semantic memory being characterized by the absence of self experience in it.

One issue discussed about remember-know paradigm is whether participants make confidence judgments. Gardiner and Java (1990) put that remember-know judgments do not reflect confidence ratings for accuracy. On the other hand, Rubin et al. (2003) and Rubin and Siegler (2004) indicate that remember-know judgments seem to be closely related to the belief in accuracy of the memory rather than to relieving experience.

Lemogne, Bergouignan, Piolino, Jouvent, Allilaire, and Fossati (2009) assessed association between cognitive avoidance of intrusive memories and phenomenological properties of autobiographical memories among healthy individuals. Participants were given a task in which their entire life span was covered and was divided into up-to five periods. They were asked to recall and describe positive and negative events from each period. Following retrieval, state of consciousness was assessed by remember/know procedure (Gardiner, 2001). In this procedure participants had the option to choose guess responses additionally. Results show negative correlation of remember responses and specificity with cognitive avoidance of intrusive memories. In other words cognitive avoidance is associated with over-general memory and also less "remembering" but more "knowing" the events.

One of the strength of this study is eliminating the probability of confidence judgement. To allow the participants reporting the "guessing" adds a continuum to the dichotomy of remember-know and increases the accuracy of their judgments.

There are studies concerning the correlation between remember-know scores and viewpoint as another aspect of recollective experiences (discussed in the next section in detail). For example, Crawly and French (2005) asked participants to bring three memories of events that happened before the age of ten from each of the following three

categories: Remember, Know, Uncertain. Then participants were asked to rate them on their phenomenological properties. One week later, at the second session participants were reminded of the memories they retrieved, but without the categories they belonged. Participants were asked to report their rehearsal since the first session in addition to original rating. Results indicated an association between remember- field scores and know-observer scores.

Similar to Lemogne et al. (2009) this study also used the “uncertain” category to eliminate the source attribution probability. However, uncertain category had intermediate ratings which is evaluated as a possible product of “viewpoint”.

Autonoetic consciousness central to remembered events is associated with the sensory details that provide the reliving of the memories. Supportive findings for the role of sensory information on remembered events are also shown in recognition memory tasks. Karaiyanni and Gardiner (2003) showed that even minimal distinctive information is enough for events to be retrieved with remembering perspective while know responses are based on process fluency with little distinctive information. Results suggest that contrary to the widely-accepted remember-know paradigm there can be a transfer of perceptual effects from know to remember.

Another characteristic of autobiographical memory is defined by vantage point taken. Also referred to point of view or memory perspective, vantage point is an aspect of visual experience and refers to whether the memory is recollected from the original field perspective or the observer perspective.

Nigro and Neisser (1983) are the first scholars that empirically studied the visual perspective taken to remember the events. The two forms of remembering are referred to as “field” and “observer” memories. Field memories refer to memories that are retrieved from the original viewpoint and the observer memories are those retrieved as if from an observer’s eye.

Nigro and Neisser (1983) reported that recent memories are more likely to be reported from field perspective and older memories from an observer perspective and that those events that involve high levels of self awareness are more likely to be retrieved with an observer perspective. In addition they reported that observer memories include less emotional arousal than field memories do, and this has been replicated by

many researchers (Berntsen and Rubin 2006, Crawly and French 2005, Libby, Eibach, and Gilovich (2005) Mc Isaac Eich 2004). Important for the purpose of our study Nigro and Neisser (1983) reported that some of the participants could switch their perspectives.

Similarly in another important study, Robinson and Swanson (1993) examined this flexibility and its affective impact by assessing the ability to change perspectives. In the first session participants were asked to retrieve remember / know / uncertain responses from different life time periods. In the second session they retrieved the memories with a visual perspective specified by the experimenter. Similar to Nigro and Neisser (1983) they reported that visual perspective was related to the age of the memory; recent memories were associated with field memories and older memories were associated with observer memories. In addition, although memory age and imagery can produce a detrimental effect on changing perspectives; it was possible in all the life-time periods given.

In other words, memory age and imagery were associated with ability to change the perspectives. The ability to change perspectives from any period of participants' lives gives us an opinion about memory flexibility. The ability to change perspectives for older memories was harder which could be related to frequency of rehearsal in older memories. In fact it would be hard to change a way of remembering that has been retrieved in a certain way for years.

This study shows that rehearsal can transfer field memories into observer memories. D'Argembeau, and Van der Linden (2004)'s study supports the findings.

Another debated issue is the relationship between shifting vantage point and associated emotions. Berntsen and Rubin (2006) in examination of relationship between vantage point and emotions assigned participants to two conditions; in the first condition participants were told to retrieve their memories from the field or observer perspective that are associated with a specific emotional state. In the second condition participants were instructed to choose two of their previously recorded memories and reverse their initial perspective. After each session participants were asked to fill in a questionnaire about memory characteristics. Berntsen and Rubin (2006) found that shifting from a field to observer perspective led to reduced emotional and sensory information and, compared with observer memories, field memories are evaluated as

more emotional. Also similar to Robinson and Swanson (1993) they failed to find any effects when shifting from the observer to field perspective (changing from observer to field was not accompanied by increased reliving).

On the other hand, McIsaac and Eich (2002)'s study is one of the studies that show a significant influence of directed perspective change on field or observer memories. In the forced conditions participants were made to recall a task -shaping clay- that they made before from the perspective that the experimenter required. Results indicated that forced field memories included affective reactions physical sensations, and other psychological experiences; whereas forced observer memories included information about physical appearance, actions, and the locations of things. Unlike the other studies this study shows symmetrical result on influence of instructed perspective on both on field and observer perspectives. The results revealed the importance of perspective on the content of the memories retrieved.

One important point to make in here is the difference of the methodologies between Berntsen and Rubin (2006) and McIsaac and Eich (2002). While in Berntsen and Rubin (2006) study the participants are made to remember psychologically intense emotions in McIsaac and Eich (2002) participants are asked to remember psychologically neutral events which makes the ability to manipulate easier than the task that is emotionally challenging to manipulate.

As a phenomenological feature Vantage point is one line of research that is researched among clinical studies. Berntsen and Rubin (2006) suggest that observer memories are usually used for emotionally negative events, on the hand for intrusive memories the results may not change across field or observer memories. For example, in an examination of vantage perspective taken during naturally occurring intrusive memories Williams and Moulds (2007b) used a non-clinical sample to investigate the relationship between vantage point and associated distress with intrusive autobiographical memory. Comparisons yielded that observer memories were associated with cognitive avoidance however contrary to the hypothesis there was no indication that field memories were associated with more distress than observer memories. Although several studies support the evidence for the emotional intensity distinction between field and observer memories this study did not reveal different results across field and observer memories for intrusive memories. Indifferent rating of

field and observer memories might be related to the nature of intrusive memories that can be experienced as field memories by the participants as Williams and Moulds (2007b) suggest. Moreover, distinction between rating for the spontaneously recalled intrusive memories and intentionally retrieved AM can be an explanation for these results.

These studies show that avoidance of intrusive memories can be related to vantage point as well as overgenerality. In fact, Kuyken and Moulds, (2009) and William and Moulds (2007) found that an observer perspective can reflect an avoidant coping style. Recently Lemogne et al. (2009) indicate an association between avoidance and a decrease in all components of autobiographical memory even among the healthy individuals. Participants were asked to recollect one positive and one negative specific personal event from their entire life span within up to five life-periods. Results show that cognitive avoidance is negatively associated with specificity, reduced autonoetic consciousness, and field scores for negative memories. Overall results replicate those of Williams et al. (2007).

While most of the studies on this distinction are made among psychologically healthy individuals there are some studies that explore how the distinction can bring insights to clinical disorders such as PTSD and depression. McIsaac and Eich (2004) instructed 51 participants who were diagnosed with PTSD to recollect their traumatic experiences from observer or field vantage point depending on their general to use each of them. Then subjects were asked to complete a post recall questionnaire that aimed to reveal the differences between field and observer memories. Analyses of two types of recollections revealed that observer memories included more information about participants' physical appearance and details that are not directly related to trauma whereas field memories contained information about affective reactions, physical sensations, and psychological situations that they felt during the traumatic event. As McIsaac and Eich (2004) puts it, flattering of emotions, less anxiety, and fear associated with observer memories, might be an indication of avoidance strategy.

Another study that included clinical participants was carried out by Kuyken, Moulds (2009). Examining the relation between the vantage point perspective taken in retrieval of autobiographical memories and depression with a focus on cognitive mechanisms associated with observer memories Kuyken and Moulds (2009) found that observer memories are more frequently rehearsed, older and less vivid. 123 patients

with depression diagnosis were asked to complete autobiographical memory questionnaire and other self report measures including rumination questionnaire and avoidance scale. Supporting previous studies, the use of observer memories was positively associated with avoidance. (Cognitive avoidance is widely used to explain the impact of vantage perspective in depression.) Unlike the results of Wiliams and Moulds (2007) study there was no relation between rumination and observer memories. The results of this study are in accordance with D'Argembeau and Van der Linden (2008) who demonstrate the relationship between vantage point and rehearsal.

However these studies do not allow us to make causal inferences. In addition those studies that ask participants to choose between the categories of field and observer memories can lead participants to evaluate their not sure or guessing responses as field. This can decrease the accuracy in the responses. Instead of asking participants to choose between dichotomies, a field-observer continuum can increase the accuracy of the responses with different varieties.

Vividness, often described as the clarity of sensory and perceptual details of memory is considered as the most essential component process of autobiographical memory (Brewer, 1996, Rubin, 1998). A'Argembeau and Linden (2006) put that individuals who have more vivid visual imagery also provided more details from other sensory modalities.

Rubin, Burt, and Fifield (2003) put that visual imagery is very central to relieving, remembering and accuracy of the event. In an experimental variation of visual input at encoding setting, Rubin, Burt, and Fifield (2003) tried to examine the influence of visual imagery on recollection and belief. Through a couple of experiments that were directed for variation of visual input at encoding researchers tried to observe the outcomes in retrieval. They assessed visual imagery in terms of descriptive imagery and spatial imagery. Scales concerning whether the event was seen in mind assessed descriptive imagery and scales concerning setting of the event assessed spatial imagery. Findings indicate that as the amount of visual input increases in encoding so do the phenomenological properties of the events including visual imagery, recollection, belief, and narrative coherence. The results are evaluated in the light of visual imagery as a central component process and ratings of recollection and belief as meta-cognitive judgments.

Janssen, Rubin, and Jacques (2011) in an examination of reminiscence bump asked participants to retrieve specific personal memories in response to some cue-words. After retrieving, the event participants were asked to date and rate the memories in terms of either relieving or vividness. Findings indicate influence of the age of the event and age of the participants on vividness ratings instead of reminiscence bump. To be more specific recent events were rated as more vivid. In addition, older adults had higher ratings of vividness.

In sum, listed above are the most common characteristics of phenomenology that are studied in literature. As it is clear from the above studies those properties are usually in association with each other and combination of those properties can make retrieval of process easier.

1.1.2. Other properties of Autobiographical Memories

In addition to phenomenological properties listed above there are some other features of autobiographical memory that are directly related to phenomenology. Assessment of these features can be important as they are in a bidirectional relationship with the encoding and retrieval process.

In the influential Self- Memory System account Conway and Pleydell-Pearce (2000) predict that the goals of the working self are influential in accessibility of memories. That is, the memories that are in accordance with the goals of the working self are highly accessible both in terms of encoding and retrieval. With the same reasoning, memories that are not related to the current goals may not be accessible for encoding and retrieval. As it is widely accepted, self tries to protect its organization via exerting self relevant information that is consistent with self construal.

Brewer (1988) in an experimental design found that events related to participant's life goals had higher recognition rates than did events that had low recognition ratings. In addition Robinson and Swanson (1993) indicate that AM that are related with the goals should be more accessible to than the memories that are not directly related to goals.

Moberly and Mac Leod (2006) used cuing paradigm to examine directly the relationship between goal relevant information and accessibility of autobiographical memory. Goals relevant to university students were selected from goal taxonomies (e.g,

Chulef, Read, and Walsh, 2001) and cues were generated by summarizing each goal. Then participants were asked to choose the ones they were pursuing. In addition three random cues that were unrelated to goals were selected by the experimenter. Then participants were instructed to recall a personal memory in response to cues. Retrieval latencies to cues were measured. Results revealed that event specific knowledge that is related to goals was more accessible than event specific knowledge unrelated to goals. Supporting SMS model goal related cues prompted faster retrieval than non-goal cues. While study 1 showed that goal related ESK is more accessible than non-goal cues; in the second study they focused on accessibility of general event knowledge. Similar to the first study the second study shows that general knowledge related to goals is more accessible than general knowledge unrelated to goals. In addition to that, results indicate that general event knowledge is more related to goals and self construal than event specific knowledge. Moberly and Mac Leod (2006) argue that general event knowledge is more related to self concept than event specific knowledge.

In a motivational model experiment, Sanitioso and Niedenthal (2006) induced participants to believe that introversion leads to success or failure. In the second experiment they were asked to bring behaviors related to introversion. The findings supported that the introversion-success group had more accessibility to introversion behaviors than did the introversion-failure group. Although it is possible to interpret the findings in the light of ease of accessibility, it might be possible that participants were just introducing themselves as introverts.

Another study was more about the methodology. Dijkstra, and Kaup (2005) compared the retrieval process with the life time period method with young and old participants. Participants were asked to retrieve vivid several memories either from a life time period or without a life time period. After the retrieval participants were asked to date and rate the memories on several properties. In addition cue-words were used in life time period too. Findings supported their hypothesis that the response time with life time period was shorter than that without life time period condition. However, interestingly there was no difference between the two conditions for the cue-word memories. This is interpreted as the restriction that cue-word leads in life time period condition.

Given the literature that provides support for the reciprocal relationship between self and memory it can be inferred that goals that are in accordance with the self should have more accessibility to retrieval. However, in addition to the goals of self another influential factor of accessibility can be explained through "encoding specificity hypothesis".

For example in a similar vein with Tulving and Thomson's (1973) context dependent memory hypothesis Marian and Neisser (2000) showed that language of retrieval influences accessibility of the AM supporting language dependent recall hypothesis. Using cue-word technique proficient Russian-English bilinguals were asked to bring stories from their lives in English and in Russian in another session. Findings revealed supported the encoding specificity hypothesis. Memories of bilingual participants were more accessible when the language of encoding and language of retrieval were the same.

One explanation for the ease of accessibility is that cue-words used for retrieval may have actually been used during the encoding, and an association between two occurrences just might have caused the accessibility. Another explanation is that the overall "language mode" is created by the ambience of interview language (Grosjean, 2001). To explore these possibilities in the second experiment cue-words did not correspond to the interview language. Findings indicated the main effects for both of the conditions which support the language mode hypothesis.

Williams, Barnhofer, Crane, Herman, Raes, Watkins, Dalgleish (2007) review overgeneral memory adopting Conway and Pleydell-Pearce's Self Memory System model. The general finding from the studies show that overgeneral memory is associated with depressive symptoms and PTSD. According to Conway's model since individuals have the control over accessibility on the level of specificity of the memories those showing overgeneral memory might be having functional avoidance both during encoding and retrieval. Especially if the event specific knowledge (ESK) is not in accordance with the goals of working self then retrieval of the memory will be harder.

In sum, accessibility of memories can depend on different factors including the language of interview and goals of the current self.

Another common characteristic studied is the intensity of emotions associated with autobiographical memories. Talarico, Labar, Rubin (2004) in a series of experiments asked participants to retrieve and then describe memories associated with 20 different emotions. After retrieval participants rated the property of the memories. Findings indicate that emotional intensity of the memories influence accessibility, vividness and also a sense of recollection. In addition, intensity is a better predictor of vividness, accessibility and recollection than the age of memory. Also intensity had greater and more consistent effects than the valence.

Levine (1997) found a reconstruction process in emotional intensity, in other words retrieval of past events more in the light of current emotional intensity. The results are indicative of reconstruction during the retrieval process which supports the notion that current appraisal of the events shapes memories for emotional responses.

Intensity of emotions is also explored in terms of collectivism-individualism extend through the measure of language especially among bilinguals. Marian and Kaushanskaya (2004) using cue-words asked English-Russian bilinguals to retrieve their memories in the appropriate language to the interview. Design was 2 by 3 repeated measure factorial design with Language of Interview (Russian, English) and Language of encoding (Russian, English, and mixed) being within subject variables. Findings indicated no main effect of language at encoding or language at retrieval, but there was a significant interaction effect of two. Post-hoc analysis revealed that the intensity of memories increased when the language of encoding and language of retrieval were the same. Findings are interpreted from a cross-cultural approach as the self construal being reconstructed through the language that one speaks at the time. In other words, self-construal being a dynamic process is reconstructed in the individualistic extend when speaking English (a language associated with individualistic culture), and in the collectivistic extend when speaking in Russian (a language associated with collectivist culture).

Many studies show that memories with high intensity are rehearsed more often than memories with low intensity (Berntsen, 1996). Rubin (1995) states that rehearsal improves the retrieval. Sharing memories with other people is one way of rehearsal. Telling others one's autobiographical memories has both personal and social functions (Alea, Bluck, 2003). For example, Mac Lean (2005) asked 185 participants to bring three self defining memories. Then participants were asked several question including

how many people they shared the memory with. Results are supportive of sharing's effect on increased intimacy with people.

Conway (1992) indicates that memories are stable at each retrieval, since they are accessed from the same hierarchy. On the other hand, because of the reconstruction process and situation demands what is retrieved can be slightly different. Similarly Mandler (1994) argues that elaboration of memories through linkages provides more cues for later retrieval. In other words, more recall attempts will lead to increased information about the memory.

Bluck and Li (2001) asked participants an announcement related to a murder trial. Participants were asked to retrieve the event three times in a single session. During the breaks between each session it was emphasized to recall more information. Results indicate that positive emotions were related to rehearsal but negative emotions were not.

In addition to properties listed there are studies concerning importance of the memory Pillemer (1998) and Rubin et al. (2003). General finding from those studies is that as the importance of the event for the person increases so the retrieval of the memories.

Still another characteristic important for the purpose of our study is internal languages of retrieval. For example, Shrauf and Rubin (1998) while examining reminiscence bump in bilingual immigrants with the help of cue-words, asked 12 Spanish-English immigrants to retrieve memories in the proper language of the day. Retrieval of the memories was timed by the experimenter. After retrieval participants were asked if they experienced any of the memories in the other language. Results indicated that 20% of the memories were in the other language. In addition inner speech of language for Spanish was greater in the first periods of life and inner speech of language for English was greater in the later period of time. On the other hand, some of the memories that were cued with English words were "thought in Spanish" and some of the words that were cued with Spanish were "thought in English". It can be explained by the setting, the place that the event took place in, or as the researcher names it "the unintentional mental code-switches caused by the content of the memory". Another possibility might be that internal language of retrieval just might be a byproduct of experimental manipulation itself.

Larsen, Schrauf, Fromholt, Rubin (2002) studied with 20 old native speakers of Polish who immigrated to Denmark. There were early and later immigrants who were defined by their age of immigration. Using cue-word technique participants were asked to retrieve a memory associated with the cue-word. After retrieval, participants were asked about the internal language of retrieval; that is if the memory comes to them in Danish or in Polish or if they weren't sure. To assess the proficiency researchers used self reports of the participants. Additionally participants were asked several questions assessing the relative use of each language associated with inner speech. Findings show that both later immigrants and early immigrants choose Polish as internal language of retrieval for the events that occurred before immigration. In other words, autobiographical memories come to them in Polish for the memories that occurred before immigration while for post-immigration events, memories are mostly in Danish.. Another important finding of this study is that early immigrants show more Danish inner speech compared to late immigrants, which shows that immigration is a landmark which changes the social and cognitive habits of the participants.

As it can be noted from above studies the participants are selected among the immigrants who grew up in another country and immigrate to another at the age of earliest being 14, being exposed to immigration corresponding to a rapid change which may not be always the case especially among mono-cultural bilinguals.

Results are in line with Shrauf and Rubin's (1998) and Marian and Neisser's (2000) study that support language dependent encoding of the memories.

As it can be seen from above studies the studies, assessment of internal languages of retrieval is done among bilinguals as they are assumed to have more than one internal language of retrieval. The results of these studies are generally in line with encoding specificity hypothesis that I'll cover in the language and autobiographical memory section.

1.2. Self and Autobiographical Memory

The present section will discuss the scarce number of theories/models in the field that provides a framework of the relationship between the concept of self and autobiographical memories.

1.2.1 A model on the relationship of AM and Self: Self Memory System

Conway and Pleydell-Pearce (2000) proposed Self-Memory System model that is basically about the relationship between autobiographical memory and the self. Autobiographical memories are defined as transitory mental constructions of the knowledge base. According to Conway and Pleydell-Pearce (2000) autobiographical memories are generated by the interlinked relationship between two basic components of autobiographical memory; “autobiographical knowledge base” and “working self”. In other words, autobiographical memory that are generated from underlying knowledge base enter into consciousness through their integration to currently active goals of the working self.

According to Self Memory System (SMS), retrieval of specific memories is accessed through a top down process and access to memories can be controlled at a very abstract level depending on the current motivations of the self. SMS draws a distinction between three levels of autobiographical knowledge: Event-specific knowledge (ESK) is general events and lifetime periods. Events specific knowledge is central to AM that is virtually always in the form of visual images of specific, vivid, detailed information about events. The links between ESK and general events are rapidly lost unless they are rehearsed (Burt, Kemp, Grady, Conway, 2000). Retrieval of ESK is generally associated with memory vividness. ESK are virtually in the form of visual images that do not have a particular order when they are retrieved, instead they simply come to mind. ESK is central to autobiographical memory since it contains information about sensory perceptual details that distinguish experienced memories from imagined memories (Johnson, Foley, Suengas, and Raye, 1988). General events include repeated or single events that are organized around a theme representing significant goal-attainment knowledge for self. General events contain important information for goals and are more likely to be important for self perception than ESK (Klein and Loftus, Sherman, 1993) which might be related to the fact that they are mostly about the vivid memories of success or failure. Singer and Moffit (1992) indicate that self-defining memories are typically general memories. Lifetime periods are thematic and temporal knowledge about a period in one’s life time. They can include important others, contexts and goals that are associated with that period. Lifetime periods represent the abstract level of autobiographical knowledge whereas ESK is the most concrete and

detailed knowledge level of the system. These knowledge levels are often connected to each other and together they provide retrieval of autobiographical memory.

Working memory is controlled by central processes that coordinate retrieval and encoding of the memories. These processes are the goals of the working self which are organized hierarchically motivating cognition, emotion, and behavior for goal-attainment and are grounded in autobiographical memory. Activated aspects of working self may lead cognitive resources to retrieve autobiographical memory that are concurrent with current goals and motivations of that specific aspect of self. The model suggests that to secure self coherence, the working self will recollect the memories in parallel with the present moment. That is, during retrieval of the memories people reconstruct their earlier experiences on the basis of current goals, beliefs, and motivations rather than merely remembering what happened exactly. That means through mediating access to autobiographical memory information, working memory controls the consistency between self image and autobiographical memory.

Working self organizes retrieval and encoding of autobiographical memory through employing currently active goals, and motivations and includes a hierarchy of goals with different levels of activation. Through mediating access to autobiographical memory information controls the consistency between self image and autobiographical memory. Working self aims to reduce the gap between desired attributes (or desired state of goal completion) and current state. Activated goals of the working self control the retrieval and encoding processes of autobiographical memory.

In his recent account of SMS, Conway (2005) puts primary function of episodic memory as keeping the track of experience for compatibility to working self. While episodic memory is not durable for prolonged times when it is connected to current goals and motivations of working self, it will have the chance to be represented for longer time. In addition Conway (2005) indicates that active goals of self are influenced by conceptual self in addition to working self structure.

Goals are unconscious processes that cannot be accessed directly. Instead, they can be observed through verbal statements, affect and actions (Conway, Singer, and Tagini 2004). Conway, Meares, and Standard (2004) argue that mental images being close to actions are interlinked with goals.

Being the first study that applies Conway and Pleydell-Pierce's (2000) self memory system account to accessibility of goal related memories Moberly and Mac Leod (2006)'s study support the hypothesis that memories that are related to pursued goals are more accessible in memory than memories not related to current goals. Results are interpreted in the light of interlink between autobiographical memory and self which leads accessibility of self-concordant memories goals. One limitation of this study is using a set of predetermined goals instead of choosing participants with more or less shared goals.

Supporting this argument many scholars interlink general memories with self defining memories. Similarly Brunot and Sanitioso (2004) in a motivated self perception task induced the participants either to introversion-success or to extraversion success groups. In turn, participants revealed general autobiographical memory about themselves that was a success related attribute.

Another supportive study is about the influence of political involvement (that could be evaluated as a goal-motivation in SMS theory) on phenomenological properties of autobiographical memory. Berntsen and Thomsen (2005) compared different groups in terms of responses given to a historically important event, invasion of Denmark by Germany 50 years ago. In the study designed to measure memory accuracy after several decades, individual responses were compared with historical data. Study involved 145 older Danes who experienced the invasion and 65 control groups who did not experience it. Participants were asked to retrieve where they were and what they were doing when they first learned the news. Participants were instructed to bring as many memories as possible and then to rate their memories on several phenomenological properties including vividness, emotional intensity and valence. Comparisons were made across age and historical data. Results indicated that older participants with strong political ties provided more accurate and vivid answers than younger participants without strong political ties on context related knowledge.

In sum, SMS theory suggest that there is bidirectional interaction between self and autobiographical memory; while goals of self are influential in reconstruction, retrieval, encoding of AM and on current self; working self is shaped by current goals. "How self is represented in a particular context, which aspects of self is active and accessible may determine which memories and which aspects of memoires are likely to be accessed (Wang, 2008). Activated aspects of working self may lead cognitive resources

to retrieve autobiographical memory that are concurrent with current goals and motivations of that specific aspect of self (Conway and Pleydell-Pearce, 2000).

1.2.2. Cross-Cultural Studies

It is a widely accepted notion in psychology that self and autobiographical memory are strongly linked and that socio-cultural context in which memories are shaped affects the retrieval of memories and self-construal.

Cross cultural studies show that autobiographical memory and self descriptions can be culture specific self constructs. Language that carries cultural beliefs, values, and diversities mediates self and in turn affects cognitive styles and the self (Marian, and Kaushanskaya (2004; for more details see autobiographical memory chapter).

Much of the cross-cultural studies show that European American retrieves more childhood memories than East Asians. For example, Wang, Conway, and Hou (2004) asked participants to retrieve memories before the age of five. US participants recalled a greater number of events followed by British and then Chinese. Wang (2009a) similarly finds that not only childhood memories but recent AM are recalled to a greater extend by European Americans than Asian Americans.

Open ended technique is an effective way for uncovering cultural differences in self description. For example, Wang (2004) in an open ended free narrative method examined self-descriptions of European American and Chinese children whose ages differed between 3 and 8 years. Following self-descriptions in response to open ended questions children were asked to complete sentences starting with I am_. Results indicated that phenomenological properties and self description variables were distinctively different in European American and Chinese children; compared with Chinese children European American children's memories were longer, detailed and rich in terms of emotional expressions. On the other hand Chinese children's memory narratives were usually about social interactions, groups and were fewer in terms of emotional expressions. Results are in line with Ross, Wilson (2002) and Marian and Neisser's (2000) study.

Wang and Conway (2004) demonstrate that the situation is similar among European American and Chinese adults aged between 38 and 60 years. Participants were instructed to think and then write down 20 specific personal memories. Following

this they rated their memories on a 5 point scale on the basis of rehearsal, vividness, personal importance and emotional intensity. European Americans retrieved memories that were specific, with a self focus on individual and personal feelings while Chinese participants retrieved more general memories, with a focus on social events and other's roles in relationships. In addition autobiographical memory were rated as more important and emotionally intense by European Americans compared to Chinese participants which might be related to importance attributed to AM in terms of their self-defining values as Wang and Conway suggest (2004).

Adopting a functional approach to autobiographical memory Wang and Conway (2007) indicate that devaluation of personal autobiographical memory might provide Chinese people with integration into society which is valued in Asian cultures, whereas emphasis on self expression in narratives might provide individuation and autonomy in Western society.

It follows from these studies that individual and socialization agents play a dynamic role in construction of the self and culture is an important agent on both content and structure of AM and self concept even at the age of 3 or 4.

As Wang and Conway (2004) puts it when drawing conclusions from cultural effects on self construal and AM research, one should be attentive to the dichotomy of memory representation versus memory narratives as the second can lead to a tendency to behave/narrate according to the cultural norms that might not be related to the actual representation of the memory.

Kemmelmeir and Cheng (2004) in a closed-ended self description task examined language priming effect on cultural self construal. 126 Hong Kong Chinese students (64 men, 64 women) completed Singelis's (1994) independent and interdependent self-construal scale. Results indicated that only women's self-construal was mediated by language priming. The results in this study are different from many other studies that obtain language priming effect on both men and women.

Since it does not require language production closed-ended task is more sensitive to language priming as researcher suggest. Therefore contrary to open ended task, or cue-word technique, priming effect must be salient enough to occur in a closed-ended task. Such as Marian and Kaushanskaya (2004) included gender as a possible influential

factor for priming effect and in fact they found a main effect of gender however man were responsive to language priming as well. In a within group comparison of bicultural Russian-English bilinguals (23 males and 23 females) using cue words participants were asked to retrieve an event from their life in response to cue. Narratives were examined on the basis of individualism/collectivism extend and in terms of emotion. Findings revealed that participants' narratives were more self oriented, including more personal pronouns when speaking English and more other oriented, including more group pronouns when speaking Russian. These findings are significant since they demonstrate the diversity in self construal within the individual in addition to cross-cultural comparisons.

As Marian and Kaushanskaya (2004) suggest an attempt to separate the influence of culture and language by controlling culture such as by focusing on monocultural-bilinguals would be a future direction. Although controlling cultural differences completely is impossible, to observe the influence of language on autobiographical memory without a salient cultural difference would be a strong indicator.

Motivation to maintain a positive self image can influence the content of retrieved memories. Many researchers indicate that motivation for consistency of the self through time leads individuals to recall autobiographical memory that are compatible with their current self. On the other hand, Wilson and Ross (2003) examining reciprocal relationship between autobiographical memory and self argue that motives and cognitive processes influences retrieval process but in addition to consistency, perception of change and improvement also can influence the retrieval process. Accordingly, this perception of improvement in a devalued past can be motivating for the present self.

A supportive study with this line of research comes from Brunot and Sanitoso (2004). Researchers demonstrated that participants who were made to believe introversion leads to success retrieved general memories related to introversion, whereas participants made to believe that extraversion leads to success retrieved memories related to extraversion.

In a cultural priming experiment Wang (2008) manipulated the priming condition through sentence completion task. While 5 of the sentences were priming Asian self-views the other five were priming American self-views. Half of the participants were

assigned to Asian self view priming and the others were assigned to American self-view priming. After this sentence completion task participants were instructed to retrieve two memories that were significant for them. Coding was based on content of each memory with a focus on individual autonomy and social interaction. Results of the experiment show that participants whose American self-view was made salient showed a tendency to present individual experiences in which they were the focus; while participants whose Asian self was made salient recalled memories that included social interaction and important others.

This finding supports SMS model as it shows the relationship between current motivations of working self and retrieved autobiographical memory. Similarly, Wang (2008) suggest that salient aspect of self may emphasize the autobiographical memories that are in accordance with current goals and motivations.

1.3 Earliest Memories

The theoretical connection between self and Autobiographical memory suggest that self moderates encoding, organization and retrieval of autobiographical memory, and retrieval of AM is significant for development and maintenance of a dynamic self concept. Displaying the emergence of autobiographical self earliest childhood memories are important as they provide an important tool to investigate the relation between memory and self. Studies concerning the age of earliest childhood memories indicate that average age is somewhere between 3 and 4 years (Bruce and Phillip, 2000, Matsumoto and Stanny, 2006, Wang, 2001).

One common method used to determine the earliest age at which adults can report personal memories is to ask participants to describe and date their earliest childhood memories. Mullen (1994) published the first research comparing age of earliest memories across cultures. Adopting a “linguistic socialization perspective” on recollection of autobiographical memory, Mullen conducted four studies with 768 American and Korean graduate students. The result of all the studies show that earliest childhood memory was earlier for Americans. The average for Americans was 40.3 months and the average for Korean students was 55.5 months. In addition to the difference in age there were differences in content of memories with Americans reflecting more self-focused themes and Asians reflecting more interdependence like family relations.

Wang (2001) required 137 Chinese and 119 American participants to recall their earliest childhood memory and describe it as specific as possible in their own language. Following the retrieval, participants were asked about their age, their emotions and extend to which they rehearsed the event. Then they were asked to complete some sentences that allow participants to describe themselves. Volume of the memories was coded according to the criteria defined by Fivush, Haden and Adam (1995) and content was coded according to the classification scheme defined by Waldfogel (1948). In addition memory emotionality, memory specificity and self-other ratio were also coded. Culture×Gender analysis of variance were performed with birth order being covariate factor. Results showed that the average age for earliest childhood memory was 3.5 and 4.1 for Americans and Chinese respectively. Indicating a significant culture effect memories reported by Americans were more voluminous, more elaborative and detailed, more emotional with the self at the center of the event. Whereas there was no gender effect among Americans for memory volume, there was significant gender×culture interaction. That means only Chinese women showed significant gender differences in memory volume.

Another supportive study for the interaction effect of culture and gender in earliest childhood memories comes from Mac Donald et al. (2000). 96 participants from three cultural backgrounds were asked to describe and date their earliest childhood memories. Results showed that Asian participants reported significantly later memories than European participants. The post-hoc t-test analysis revealed that the only significant gender effect in the age of earliest memories occurred for the Asian participants. More specifically Asian females reported their earliest memories as 73.3 months while Asian males reported as 42.4 months. Extreme late age of earliest memory reported by Asian women made researchers design another study. For eliminating the possible individual differences due to the fluency in English in the second study participants had the option the option of responding in their native language. However, results indicated no significant effect of language on age of earliest childhood memory. In addition, there were no significant age of earliest memory difference between Asian male adults and Pakeha adults. The results are interpreted in the light of individual differences in parent-child interaction in addition to culture and gender socialization.

Şahin and Mebert (2013) asked Turkish and American participants to report their earliest childhood memory. Participants were then asked a number of questions

concerning memory properties. Results support previous studies that show the significant main effect of culture on the age of earliest memory (3.66 for US participants and 4.15 for Turkish participants). In addition, culture had a main effect on specificity, volume and level of the details about the earliest memory. American had higher specificity and volume, and Turkish participants had more level of details in their account.

Another commonly used method is giving cue-words to individuals and asking them to bring their earliest childhood memories that those cue-words remind them. For example, Wang (2006) compared earliest recollection of self and others among Euro-American and Taiwanese-Chinese background. Participants were given cue-words and required to retrieve earliest childhood memories that the cue-words reminded them. Memories were coded for age, specificity and content according to a previously used coding scheme (Wang, 2001, 2004). Results of the study show that although there was no significant difference in the volume across cultures, Euro-American recall earlier first memories than Taiwanese (5.63, 6.81 respectively). The age of earliest memories was higher in this study than in previous studies. This is interpreted by the author that the use of cue-words may have required participants to bring coherent episodes instead of isolated fragments.

Matsumoto, and Stanny (2006), presented Japanese-English bilinguals and US monolinguals with some cue-words. The Japanese sample consisted of 18 students (4 men, 14 women), and US students consisted of 15 students (2 men, 13 women). For measuring English proficiency participants were asked about their score on TOEFL, their age when they began to study English, number of years spent studying English, their current use of English, and nationality of their current friends. In addition self reports of their perceived competence in English were asked by ratings of speaking, writing, reading and understanding. Results of the study showed that the content of Japanese bilinguals' memories were larger and the age of earliest memories were earlier when they were presented with Japanese cue-words than when cued with English words. In addition in line with language specificity hypothesis Japanese cue-words were more likely to elicit more memories when at the time memory took place the language of speaking was Japanese. A limitation of the study is the unbalanced gender properties of the sample. The high frequency of the women in the sample could have influenced the characteristics of the sample as it is known that women score high in most of

phenomenological properties. This study supports the findings reported by Marian and Neisser (2000) on language dependent encoding of the autobiographical memory.

Some researchers try to bring explanation for these cross-cultural differences. For example Socio-cultural approach to autobiographical memories demonstrates how parent's reminiscing style in individualist and collectivist cultures can have developmental outcomes on children's recollection skills (Fivush, Haden, Reese, 2006)A great body of research shows cultural differences in reminiscing styles of mothers. The findings show that western mothers are more elaborate when talking about past events than non-Western mothers (Hayne and MacDonald, 2003, Leichtman, Wang, and Pillemer, 2003, Wang, 2001). Fivush and Nelson (2004) indicate that retrieval of autobiographical memories changes as a function of individual culture interaction and that; main function of autobiographical memories is social and cultural. To be more clear, autobiographical memories create a shared past in society which in turn helps the individual build a sense of self in relation to others. The researchers conceptualize emergence of autobiographical memories with the interaction between mother-child narratives, development of language and understanding of self which can differentiate across culture and gender.

Most studies concerning cross-cultural differences take US participants as a sample for individualist cultures and Asian participants as a sample for collectivist cultures. On the other hand not all of the cultures fit in these poles. While many studies focus on the conceptualization of collectivism-individualism extend to study cross-cultural effects on retrieval of autobiographical memories; there are studies indicating that there could be variation among cultures.

For example, Fitzgerald (2010)'s study indicates that there can be variation among the members of population depending on whether they are from an individualistic or collectivistic culture. Fitzgerald (2010) asked black and white American participants to retrieve their earliest childhood memories. Surprisingly, results show that there were no significant main effects of gender and culture. On the other hand culture \times gender effect was significant. Interaction was interpreted as moderation of culture on the effect of gender on age at first memory. These results are parallel to Mc Donald et al. (2000) that support an interaction effect between culture and gender for age at first memory. These

findings are important as they could apply to cultures that are not in the strict poles of collectivism and individualism.

1.4. Autobiographical Memory and Language

Well known Sapir-Whorf hypothesis (1956) indicates that language we speak influences our perception of world around us. Accordingly, language we speak plays a significant role in shaping cognitive processes and cognitive processes may change across languages we speak. Marian and Kaushanskaya (2004) put that “the language we speak influences not only the way we see the world around us but also the way we see and think about ourselves, our self-perception, identity, autobiographical life narrative, in sum our self”. In other words, literature indicates the influential impact of language on memory through narrative.

Language dependent access to autobiographical memories is often explained through encoding-specificity principle. Previous research suggests that memory for information learned in a particular environment is improved when the retrieval context is similar to the original encoding context (see Tulving and Thomson, 1973, for a review). This *encoding-specificity principle* was later extended to linguistic context when it was found that bilinguals’ autobiographical memory was facilitated by a match between encoding and retrieval language (Marian and Neisser, 2000).

Studies show that, language used can influence accessibility of memories and of their emotional qualities (for a review, see Schrauf, 2000). For example, bilinguals were found to exhibit more intense emotions when the language at retrieval matched the language at encoding than when the two did not match (Marian and Kaushanskaya, 2004), and to spontaneously switch languages more often when describing events that happened in the other language. To account for such differences, Marian and Neisser (2000) proposed the *language-dependent memory hypothesis*. Based on the encoding specificity principle (Tulving and Thomson, 1973), the *language-dependent memory hypothesis* suggests that accessibility of memories is influenced by the match between languages of encoding and retrieval, so that memories become more accessible when the language of retrieval corresponds to the language in which the memories were originally encoded.

Language specificity may be manifested in terms of differences in the number of memories retrieved or differences in the time of life when the remembered events occurred. Encoding specificity is supported by many researcher studying different groups: Spanish -English (Schrauf and Rubin, 1998, 2000), Polish-Danish (Larsen, Schrauf, Fromholt, and Rubin, 2002), and Russian-English (Marian and Neisser, 2000).

1.4.1. Bilingual Autobiographical Memory

Much of the research on bilingual brain has attempted to determine whether the two languages of the bilingual are stored independently or whether some system of shared, interdependent storage is used. Although some studies have supported the independence hypothesis (e.g., Kolars, 1963), most researchers have taken the position that the bilingual maintains a single linguistic system -a single storage system with two methods of access to that storage (Dalrymple-Alford, 1968).

Interdependent storage model assumes that there is a shared memory structure for both languages. Supporting evidence for the interdependence model comes from interlingual interference in the Stroop color-naming task and free recall experiments (Preston and Lambert, 1969). This evidence is generally interpreted in terms of a common storage system for the two languages of the bilingual.

Independent storage hypothesis suggests that bilingual storage system consists of two separate memories. In other words each language has a distinct memory system, and interaction between this storages might not be accessible anytime (Kolars, 1963). Supportive evidence for independent storage comes from free-recall experiments. For example, Tulving, and Colotla (1970) in a free-recall study found that multilingual participants found lists that were unmixed easier than lists that were mixed. This was interpreted as a reflection of differences in accessibility to each storage system.

Kolars (1966) indicates that bilingual have neither independent nor shared memories. He puts that some information is processed with the language of encoding while some is accessible to both systems. In addition, Paradis (1981) proposed a three-step model. Accordingly bilinguals have two memory stores one for each language and a conceptual store that is responsible for the representation of events.

For bilinguals' autobiographical memory, research has revealed different patterns of memory retrieval depending upon the language in which memories are being

accessed (Larsen, Schrauf, Fromholt, and Rubin, 2002; Marian and Neisser, 2000; Schrauf, 2000; Schrauf, and Rubin, 1998, 2000; Marian, and Kaushanskaya, 2004).

Bugelski (1977) found that when Spanish-English bilingual immigrants were cued with Spanish words, 45% of their thoughts concerned events from their childhood. On the other hand, when they were cued with English words, 70% of their thoughts were related to events from their lives after immigration.

Similarly, Marian and Neisser (2000) also reported language-specific access to autobiographical memories. They found that Russian-English bilinguals remembered more events from the Russian-speaking period of their lives when they responded in Russian and more experiences from the English-speaking period of their lives when they responded in English. Language-dependent access was demonstrated through increased access to memories encoded in the same language as that used during the interview.

On the other hand, in Schrauf and Rubin's study (1998) first language cue-words did not elicit earlier memories than second language cue-words. The researchers reported similar levels of access to autobiographical memory based on language of the prompt for 12 elderly immigrants. The mean age of events recalled when these respondents were cued with Spanish words (39.8 years) was not significantly different from the mean age of events recalled when cued with English words (40.6 years). However, when memories were grouped on the basis of the language participants reported using when they thought about the memory, the mean age of memories retrieved in response to Spanish cues (29.7 years) was significantly earlier than the mean age of memories retrieved to English cues (46.5 years). Thus, although these participants were able to access their personal memories equally well in their first and second languages, they appeared to have preferential access to earlier (Spanish-only) autobiographical memories when the language of internal thought and the language used to cue the memories were taken into account.

Matsumoto and Stanny (2006) suggest that language-dependent access to autobiographical memory may change as a person becomes more fluent in the second language. Participants were 18 Japanese-English bilinguals and 15 American monolinguals. Participants were asked to retrieve memories associated with 20 Japanese and 20 English cue-words. Results support the previous studies that are in line with

encoding specificity hypothesis. Findings indicated that Japanese bilinguals retrieved greater and earlier memories when the cue-words used were Japanese. One important implication of the study is that, proficiency in the second language was found to moderate the retrieval of autobiographical memories. It was shown that as the competence in the second language increased their retrieval potential also increased. On the other hand, Japanese cue-words continued to elicit mostly Japanese memories. Researchers infer that “it might be possible that language dependent access to autobiographical memories might decrease as the competence in the second language increases”.

The specific language skills available at the time of an experience affect what can subsequently be verbally recalled about it (see Bauer, and Wewerka, 1995, and Peterson, and Rideout, 1998, for similar results). While Matsumoto and Stanny (2006) assessed language proficiency by self reports Marian and Fausey (2006) applied a detailed questionnaire (LEAP-Q Marian et al. 2005) to assess language proficiency. Depending on the results participants were divided into two groups as balanced and unbalanced bilinguals. Participants were presented with four stories in each of the language and then were asked questions about the stories. Participants' response accuracy, latency, and error rates were compared across conditions. Results of this study indicate that highly proficient bilinguals are more susceptible to language dependent memory compared to unbalanced bilinguals. In other words as the proficiency in language increased so the language-dependent memory also increased. Researchers interpreted this result as ‘in the absence of any other difference the only difference becomes language’. This means that as the proficiency increase so the dependence in linguistic cues and language dependent memory also increases. Together, these studies claim that bilinguals have easier access to their memories, especially memories from childhood, when there is a match between language of encoding and language of retrieval.

Cross-cultural studies show that language can shape autobiographical memories through the path it provides to proper cultural self-construal. For example, Wang, Shao, and Li (2010) examined retrieval of autobiographical memory and their relation to interdependent and independent self construal among Hong Kong Chinese children. Chinese-English bilinguals were asked about four memories that were representing themes including a recent memory that was fun, a recent memory that involved

argument, a recent memory that was related with success and the last; their earliest childhood memory. After memory retrieval open ended questions were asked to assess self descriptions of children. In addition to self description tasks children were asked to choose between 20 pairs of opposing statements. Results indicated that when the language of interview was English were more in line with independent self-descriptions, and when the language of interview was Chinese their responses were more in line with interdependent self descriptions. This study supports that notion that language can shape self concept and AM by associating with specific cultural beliefs. When the cultural distinctiveness is as salient as in Western and Eastern self conceptions recent literature demonstrates that self conceptions are mediated by language which triggers cultural self construal.

Another differentiating feature for bilingual is emotion associated with language. Bilingual people are reported to use each language in different context in clinical situations. For example, Marcos (1976) argues that bilingual patients are more emotionally withdrawn in therapeutic settings when they use their second language than when they use their native language. He puts that second language is mostly used for intellectual function isolated from emotion, whereas first language is mostly used for the expression of emotions. Schrauf (2000), and Schrauf and Rubin (2003) also describe clinical cases in which choice of language was related to clients' access to emotions, access to early personal memories relevant to the therapeutic process, or use of strategies for coping with the experience of emotion during therapy.

The studies about bilingual memory indicate language dependent access to autobiographical memories. This dependency is manifested through phenomenological characteristics of memories. The language used during retrieval and encoding is very much closely related to the quality of the phenomenology during retrieval. In addition cross cultural studies strongly show the impact of language on autobiographical memory retrieval and in turn self-construal. Hence, these studies show us that bilinguals are one of the suitable samples to examine the relationship between language, memory and self construal. In sum, the present study has so far given the findings that phenomenological properties of autobiographical memories are in a bidirectional relationship with self-construal and language.

The Present Study

To sum up; the present study adapts Conway and Pleydell-Pearce's (2000) model that suggests that goals of the working self increase retrieval of autobiographical memories that are relevant to these goals. To be more explicit, the purpose of this study is to investigate several questions regarding role of language in priming working self and in retrieval of autobiographical memory. For this, the effects of language on retrieval of autobiographical memories were examined. In the present study, it is suggested that language as a carrier of cultural self construal can be a pathway to elicit goals and phenomenological properties of autobiographical memory. More explicitly, it was expected that Kurdish would increase phenomenological properties of the retrieved memories as it is assumed to be in relation with participants' self-construal.

Main hypothesis of the present study is that; to the extent that speaking Kurdish is going to accentuate the Kurdish aspect of working self, it should increase the phenomenological and contextual properties of autobiographical memory and this relationship may possibly be mediated by the relationship between self and autobiographical memories. In other words, Kurdish self-construal *will become more salient through* speaking Kurdish and this will show itself in the different properties of autobiographical memories attached to Kurdish and Turkish language.

Theoretically we will adapt Conway and Pleydell-Pearce's (2000) SMS framework to explore the extent to which context, being language influences retrieval of autobiographical memory.

The question we ask is whether phenomenological characteristics of memories retrieved by means of Kurdish are higher than phenomenological properties of memories retrieved by means of Turkish. To be more explicit; we hypothesize that;

Participants will be more likely to relieve the event when the language of interview is in Kurdish than Turkish.

Participants will be more likely to hear the event when the language of interview is in Kurdish than Turkish.

Participants will be more likely to remember the sentences in the event when the language of interview is in Kurdish than Turkish.

Participants will be more likely to remember the event- not just know that it had happened- when the language of interview is in Kurdish than Turkish.

Participants will be more likely to feel like “as an actor” rather than “observer” during retrieval of the event when the language of interview is in Kurdish than Turkish.

Participants’ ratings of vividness of the event will be higher when the language of interview is in Kurdish than in Turkish.

In addition to these phenomenological properties we added some other commonly studied characteristics that are often associated with each other and can illuminate studies on both language and self. Our hypotheses are similar,

Participants will be more likely to bring memories that important when the language of interview is in Kurdish rather than Turkish.

Participants will be more likely to have rehearsed the memories in Kurdish than in Turkish.

Participants’ ratings of intensity will be higher when the language of interview is in Kurdish than Turkish.

Accessibility will be easier when the language of interview is in Kurdish than Turkish.

2. METHOD

2.1. Participants

A total of 46 Kurdish-Turkish bilinguals aged between 18 and 59 were recruited through convenience sampling method. Participants were native speakers of Kurdish who learned Turkish mostly successively after learning Kurdish. Only 2 participants reported that they started learning Turkish by 0. 1 participant reported 13 as learning Turkish. Available data came 41 from participants. Out of 46, 5 participants did not attend to the second session. Their data were excluded from analysis. Out of 41, 5 participants were women and 36 participants were men. Due to our selection criteria of highly functioning bilinguals we could not attain a gender balanced sample.

Participants filled out a language background questionnaire that assessed reading, writing, speaking capability, repertoire of words and general language capacity. A series of questions were asked to assess proficiency of both languages and current use of Kurdish. Mac Namara (1967) indicates that these reports can be valid. At the end in addition to the self reports of language proficiency the context of current language use

and giving a percentage of for their use of Kurdish in a day (Table1). Self report is a frequently used method in literature for the assessment of language proficiency. For example, Larsen et al. (2002) and Matsumoto and Stanny (2006) use self report for assessing proficiency in bilingual groups and Fishman and Cooper (1969), Dornic and Ekehammar, (1988) suggest that self report can reflect language proficiency. Another reason for using self report in this study is related to the lack of previous studies and measurement devices in Kurdish language. In addition, since we required participants to indicate their frequency of Kurdish in their daily routine we tried to eliminate the possibility of reports of exaggerated Kurdish proficiency.

Table 1

A summary of the Sample Demographics

	<u>M</u>	<u>SD</u>	<u>min</u>	<u>max</u>	<u>n</u>
Age	31.2	(7.12)	19.8	59.5	41
Earliest Memory Age	5.30	(1.44)	2	7	45
Kurdish use	56.8	(21.3)	15	99	41
Age Turkish Acquired	6.49	(2.3)	0	13	41
Kurdish Proficiency	3.25	(.748)	1.25	4	41
Turkish Proficiency	3.45	(.515)	2.5	4	41

Descriptive data regarding participants were summarized in Table1. The average age of participants was 31.2 years ($SD = 7.12$).

Kurdish proficiency: Participants' judgment of their Kurdish proficiency was high. Aggregated version of four dimensions (reading-writing, speaking, general ability and vocabulary knowledge) was 3.25 for Kurdish with a range of 1.25 to 4 on a 4-point scale.

Kurdish Use: To assure that our sample is highly proficient in daily Kurdish use in addition to language proficiency, scales based on self reports we also asked participants

to report their use of Kurdish percentage in a daily base. The mean percent for Kurdish use was 56.8.

Turkish Proficiency: Same questions assessing the competence in Turkish were asked. Participants' judgment of their Turkish proficiency was slightly higher than Kurdish ($m= 3.45$ with a range of 2.5 and 4 on a 4-point scale).

Age Turkish Acquired: Participants' Turkish acquisition ages were usually late; $M= 6.49$. Table-2 presents the data. One participant had the latest acquisition as being 13. Median for age Turkish acquired was 7.

Participants in the present study were well educated and high-functioning bilinguals. Of all the participants had at least high school education, they were quite active in participating arts, theatre, literature and political movements. All of the participants but one was right handed.

2.2. Design and Procedure

A within measure design was used in which language of interview was within subject variable. Autobiographical memories were the main between subject dependent variables.

All participants were tested individually in a publishing house. We tried to keep the environment quite, but it wasn't always possible. They were first given the informed consent forms. The forms briefly summarized what they were expected to do in the present study. It was reminded that collected data would be kept anonymous. Participants were also informed that they were free to quit whenever they feel discomfort. Participants were told that the study was about how people remember their experiences. They were told that this was not a language proficiency test; there were no right or wrong answers. In addition it was emphasized that they could mention whichever subject they want to. After the brief introduction participants were given the demographic information form that assesses ethnicity, their networks of language use, frequency of Kurdish use, and language proficiency based on self reports.

All interviews were tape-recorded. For each individual there were two interviews one in Kurdish and one in Turkish with a time interval of two weeks. Due to time

limitations the order of language session could not be counterbalanced which stands as a limitation in our study.

Each interview included two sections including three questions from different life periods and one question about earliest childhood memory. In the first page of each section there were instructions adopted from Levine, Svoboda, Hay, Winocur and Moscovitch's (2002) study.

For each specific memory excluding earliest childhood memory participants were presented with a cue-word. The order of presentation of cue-word was randomized. The cue-words were namely: window, door, fish, school, and book, sea for Turkish and aircraft, water, house, milk, gold, and sound for Kurdish.

Participants were instructed to recall a specific event that the cue-word reminds them. If the participant gave too much focus on the cue-word and could not bring an event, they were reminded that they were free to pick any event and it was not very necessary to mention on the specific cue-word.

The cue-words were selected from a previous study of Turkish word norms (Tekcan, Göz, 2005). Among the most frequent ones we chose the words with high concreteness and imaginability rates. In addition, among those words with high concreteness and imaginability the words that have sound similarity between the two languages were eliminated due to our interest in observing salient effect of language on memory retrieval.

In our study in addition to cue-words we asked participants to bring the memories from a certain period of time. Participants were told that the event did not have to strictly include the cue-word in it. This combination of two methodologies is also used by Addis et al. (2007).

Participants read that they would be given a word and asked to bring three personal events (that the word associates) from the past that occurred at different time points: last week, last year, last 10-15 years. Also, they were asked to bring their earliest childhood memory. They were instructed that each recalled event should be of a specific one-time event that took place at a particular time and place and did not last more than a day. Specific examples were provided. Participants were told to recall the events as if they were experiencing it now and bring as much specific details as they

can. The order of past and first memory was counterbalanced. The temporal direction of past events was also counterbalanced. That is, some participants recalled an event from 10 to 15 years ago first, and other participants started out by recalling an event from last week or so.

Most of the first sessions were done in Turkish. Participants were given instructions to recall three specific personal events that occurred at different time points: last week, last year, last 10-15 years and also their earliest childhood memory. They were instructed that each recalled event should/must be a specific, one-time event that took place at a particular time and place and did not last more than a day. Specific examples were provided. The experimenter and the participant communicated in the language appropriate for that session; the participant were explicitly instructed to not to switch into the other language. For each retrieval participants were given three minutes and time was monitored by the experimenter. After each recall participants were ensured to bring any other specific details if they recall.

After reporting each event participants were asked to rate them on a number of phenomenological properties. Autobiographical Memory Questionnaire developed by Rubin et al. (2013) was adopted. Participants were also asked to indicate language used at the time of each event, the internal language of retrieval, that is; to indicate whether the memory come to them in Turkish, Kurdish or both languages. In addition, participants were asked to report the encoding language of each event, that is, the language being spoken during the reported event at the end of sessions.

After two weeks of interval second session were done in Kurdish. Participants were told to speak only in Kurdish, and they were reminded that the aim was not to test their proficiency in Kurdish. It was indicated that they were free to recall whichever events they wanted. After each report participants were given the same AMQ that was translated to Kurdish by a native speaker of Kurdish who is also an instructor of the language. The phenomenological properties that the participants were given to rate were as follows:

Recollection (Relieving) Ratings: The participants were asked to rate relieving experience on a 7-point scale ranging from 1 “not at all to”, 7 “as clearly as if it were happening right now”.

Visual Imagery (Vividness) Ratings: Scale concerning vividness was on a 5-point scale ranging from 1, “not vivid at all” to as 5, “as if experiencing it now.

Remember-know and field-observer scales were also on 5-point scales ranging from 1“not at all”, to 5“*clearly*”. For categorizing Remember-Know and Field-Observer measures participants were given detailed instructions. After the instruction they were required to classify the events as “not at all” to “*clearly*”. Rather than creating a dichotomy between field-observer and remember-know responses participants were given a range for more correct responses.

Auditory Imagery (Hear) Ratings: Participants were asked to rate their reports on auditory imagery on a 5-point scale ranging from 1“not at all”, to 5“*clearly*”.

Rehearsal Ratings: Participants were asked to rate how frequently they have talked or thought about the event on a 5-point scale ranging from 1 “not at all”, to 5 “very often”.

Accessibility Ratings: Participants were asked to rate ease of accessing the event on a 5-point scale ranging from 1; “This memory just sprang to my mind when I heard the word”, to 5; “I really had to search my “memory bank” for this experience”.

Importance (Consequentiality) Ratings: Participants were asked to rate perceived importance of the event now on a 5-point scale ranging from 1 “it is not important for me”, to 5 “ it is very important for me”.

Intensity Ratings: In addition to those phenomenological properties participants were asked to rate intensity of their current emotions on a 5-point scale ranging from 1 “not intense at all”, to 5 “very intense”.

Assessment of Internal Languages of Retrieval: For assessing internal languages of retrieval participants were asked to report whether the event comes in Kurdish, in Turkish, both or none. In addition, to see if our participants were judging their internal language of retrieval on the basis of the encoding language we asked their language at the time the event took place.

Participants were asked to rate their reports in both Kurdish session and Turkish session. Completion of each interview approximately took 45 minutes to 1 hour.

3. RESULTS

Using combination of cue-word technique and life dimension method a total of 246 memories were collected. In addition, each participant retrieved their earliest memories. Results are presented in four sections. The first section covers the findings from participants' demographic variables including earliest memory. The second section covers properties of autobiographical memories across languages. The third section covers ratings of phenomenological properties of autobiographical memories across time as for 1 week ago, 1 year ago and, 10-15 years ago. The fourth section covers other characteristics of autobiographical memories as emotion, rehearsal, consequentiality and accessibility.

3.1. Earliest Memory

Earliest memories were taken from 45 subjects. Every participant retrieved one earliest memory. Results of descriptive statistics show that the mean age of earliest memory was higher ($M=5.3$, $SD=1.44$) for our participants than earlier studies that reported 4.15 for Turkish participants (Sahin and Mebert, 2013). Valid data were taken from all of the participants who attended to the first session.

Although, our initial purpose was to make an analysis across languages, comparison could not be made since we did not counterbalance the sessions and most of the earliest memories were taken in Turkish. While there were two participants who reported age of 2 for earliest memory, 15 participants reported 5 for their earliest memory and a relatively high proportion of 13 participants also reported age of 7. The results remain as descriptive statistics about earliest memories of Kurdish-Turkish bilinguals. Most of the participants (41) reported their earliest memories in Turkish, and the rest of them (4) reported in Kurdish. Table 1 provides the mean, standard deviation, and other information on earliest memories.

For more information regarding the frequency and proportion of earliest memories Table 2 presents frequency and percentages corresponding to each reported age of earliest memory. As it can clearly be seen 5 and 7 are two frequent ages reported for earliest memories. In addition, it is clear that percentage of memories reported after the age of 5 is higher than the percentage of memories reported before the age of 5.

Table 2

Frequencies of earliest memories corresponding to ages

<u>Age</u>	<u>Frequency</u>
2	2
3	4
4	5
5	15
6	7
7	13
Total	46

3.2. Analysis of Phenomenological Characteristics of Autobiographical Memories Across Language

The findings of the study were in line with our hypothesis that phenomenological properties of the memories differ across languages. Previous studies that were covered in the introduction part were indicative of a significant difference in terms of memory characteristics depending on two languages of bilingual. The results of this study are in line with these works. Participants' memory characteristics differed significantly depending on the language that they used. Means and standard deviations of aggregated ratings of all three time points can be examined in the Table 3.

Table 3

Phenomenological characteristics of memories in all time-points

	<u>Turkish</u>	<u>Kurdish</u>
Relieve	4.77 (.97)	5.50 (.81)*
Hear	3.73 (.70)	4.32 (.60)*
Sentences	3.70 (.79)	4.15 (.64)*
Rehearsal	2.93 (.77)	3.33 (.93)*
Vantage	4.01 (.62)	4.44 (.43)*
Emotion	3.52 (.74)	4.08 (.60)*
Vividness	3.70 (.60)	4.16 (.52)*
Access	2.40 (.82)	1.93 (.78)*

*P<.05.

Relieve is measured on a 7-point scale, rest are measured on a 5-point scale.

Relieve ratings of memories retrieved in Kurdish were significantly different than relieve scores of memories retrieved in Turkish $t(40) = 3.9$, $p < .05$. In other words, participants' ratings of their autobiographical memories indicate that their memories are more likely to be relieved when the language of interview is Kurdish than Turkish. Hear ratings were significantly different at $t(40) = 4.68$, $p < .05$ meaning speaking Kurdish participants were more likely to hear the memories. Remembering in sentences ratings were significantly different at $t(40) = 3.42$, $p < .05$ meaning participants were more likely to remember the sentences related with the event that took place. Rehearsal ratings were significantly different at $t(40) = 2.72$, $p < .05$. Participants reported to have rehearsed the memories more in Kurdish than in Turkish. Vantage ratings were significantly different at $t(40) = 4.5$, $p < .05$. That means, more field memories were reported in Kurdish compared to Turkish. Intensity ratings were significantly different at $t(40) = 4.9$, $p < .05$ and vividness ratings were significantly different at $t(40) = 5.7$, $p < .05$ meaning more intensity and vividness associated with memories when language of interview is Kurdish. Access ratings were significantly different at $t(40) = 28$, $p < .05$. Access ratings were significantly higher in Turkish sessions than Kurdish sessions. Therefore hypothesis was rejected for access scores.

3.3. Analysis of Phenomenological Properties of Autobiographical Memories Across Time and Language

Our main objective was to explore the differential retrieval of autobiographical memories across languages. More specifically, our hypothesis was that phenomenological characteristics of memories while talking in Kurdish would differ than while memory characteristics while talking in Turkish. Participants' memories in response to cue-words were analyzed. Through pair sampled t-test in which session language was a within subject factor and autobiographical memories were between subject factor; ratings of memory properties were observed across time. Results indicate that vividness, hear and emotion scores are significant across all three time dimensions.

3.4. Phenomenological Characteristics: 1 Week Ago

Paired t-test analysis was conducted in order to see if the listed properties differ across Kurdish and Turkish sessions. Findings suggest that only three phenomenological characteristics were significantly different across languages for events that happened 1 week ago. These properties are relieve, hear and vividness scores. Although there was a tendency for Kurdish to show higher scores on other properties the difference was not significant. Table 4 displays means and standard deviations differences across languages.

Relieve ratings were significantly different in Turkish and Kurdish sessions at $t(40) = 3.57$, $p = .001$. Hear ratings were significantly different at $t(40) = 3.169$, $p = .003$. Vividness ratings were also significantly different at $t(40) = 1.21$, $p = .001$. Participants were more likely to report that they were reliving and hearing the event when the language of interview was Kurdish than when it was Turkish. In addition participants were more likely to rate the event as more vivid when the language of interview was Kurdish. It can be seen in Table 4 that there was no qualitative difference observed in ratings of remembering in sentences, vantage and remember-know. On the other hand, it can be seen that there is a trend that mean ratings of Kurdish sessions are still higher.

Table 4

Phenomenological Characteristics: 1 Week Ago

	<u>Turkish</u>	<u>Kurdish</u>
Relieve	4.93 (1.23)	5.901 (.221)*
Hear	3.85 (1.06)	4.44 (.743)*
Sentences	3.85 (1.13)	4.20 (.928)
Remember-Know	4.44 (.867)	4.61 (.703)
Vantage	4.02 (1.21)	4.44 (.634)
Vividness	3.78 (.791)	4.39 (.703)*

*P<.05

3.5. Phenomenological Characteristics: 1 Year Ago

Results from the events happened 1 year ago yielded significantly higher ratings in Kurdish session on the phenomenological properties of hear, sentences, vantage and vividness scores. The results yielded no significant differences for relieve and remember-know properties. For a more detailed comparison Table 5 provides means and standard deviations of the self ratings for cued recall memories of Kurdish and Turkish sessions for 1 year ago. However, a significant difference of relieve ratings could not be found.

It can be seen clearly that reports of participants for “remembering the memories in sentences” is significantly higher for Kurdish session at $t(40) = 2.42, p = .020$ for the event has happened 1 year ago. Also vantage ratings are significantly different in Turkish ($M=4.02, SD=.851$) and Kurdish ($M=4.54, SD=.552$) conditions when participants are asked to bring events that happened 1 year ago; $t(40) = 3.11, p = .003$. Participants are more likely to retrieve the memories more from a field perspective when the language of interview is in Kurdish. However note that Turkish means are still high ($M=4.02$). Vantage ratings were 5-point scales and most of the participants had the tendency to rate their vantage point around 4 or 5. Therefore although there was a significant difference between Kurdish and Turkish ratings of vantage point, the results

does not imply observer memories for Turkish session. In fact, as we instructed participants to retrieve memories that were specific and that they were a part not just actors participants focused to bring memories that they were remembering. In other words, our instructions naturally led participants to bring more field memories.

Hear ratings were significantly different at $t(40) = 2.8$, $p = .009$. In other words participants were more likely to report that “they can hear the event” when the language of interview was in Kurdish than in Turkish for events that happened 1 year ago. Vividness ratings were also significantly different at $t(40) = 3.04$, $p = .027$.

Table 5

Phenomenological Characteristics: 1 Year Ago

	<u>Turkish</u>	<u>Kurdish</u>
Relieve	4.711(.504)	5.151(.256)
Hear	3.591(.095)	4.15(.853)*
Sentences	3.711(.055)	4.12(.872)*
Remember-Know	4.10(.889)	4.32(.820)
Vantage	4.02(.851)	4.54(.552)*
Vividness	3.68(.789)	4.12(.714)*

* $P < .05$.

3.6. Phenomenological Characteristics: 10-15 years Ago

All of the cued recall memories’ phenomenological properties except remember-know were significantly higher on Kurdish session than Turkish session. Table 6 presents the means, standard deviations and significance points of memories.

Table 6

Phenomenological Characteristics: 10-15 years ago

	<u>Turkish</u>	<u>Kurdish</u>
Relieve	4.681 (.507)	5.441(.226)*
Hear	3.781 (.107)	4.29(.814)*
Sentences	3.511 (.267)	4.071(.081)*
Remember-Know	4.10 (.889)	4.051(.048)
Vantage	4.00 (.949)	4.39(.802)*
Vividness	3.56 (.976)	3.95(.893)*

*P<.05.

Relieve ratings were significantly different at $t(40) = 2.73$, $p = .009$. Remembering in sentences ratings were significantly different at $t(40) = 2.34$, $p = .024$. Vantage ratings were significantly different at $t(40) = 2.24$, $p = .031$ meaning participants reported to retrieve memories more from a field perspective when language session was Kurdish than when it was Turkish. Hear ratings were significantly different at $t(40) = 2.7$, $p = .011$ and vividness ratings were significantly different at $t(40) = 2.34$, $p = .024$.

Table 7 gives a summary of the rating of cued recall memories across language and across time.

Table 7

A summary of phenomenological characteristics of autobiographical memories across time

	<u>1 week ago</u>		<u>1 year ago</u>		<u>10-15 years ago</u>	
	Turkish	Kurdish	Turkish	Kurdish	Turkish	Kurdish
Relieve	4.93	5.90*	4.71	5.15	4.68	5.44*
Hear	3.85	4.44*	3.59	4.15*	3.78	4.29*
Sentences	3.85	4.20	3.71	4.12*	3.51	4.07*
Remember-Know	4.44	4.61	4.10	4.32	4.10	4.05
Vantage	4.02	4.44	4.02	4.54*	4.00	4.39*
Vividness	3.78	4.39*	3.68	4.12*	3.56	3.95*

P<.05

3.7. Consequentiality, Rehearsal, Intensity and Accessibility Ratings Associated with Autobiographical Memories

Consequentiality ratings yielded no significant differences across languages. Although participants judgments about the importance of their retrieved memories did not reveal any significance pertaining to the language of session as it can be seen in Table 8 there is a trend to evaluate the retrieved memories as more important as event memories get older. On the other hand, there were significant differences across languages on rehearsal intensity, and access ratings.

Rehearsal ratings were significantly higher for 10-15 years ago at $t(40) = -3.39$, $p = .002$ when the language of interview was Kurdish. On the other hand, for time points of 1 week ago and 1 year ago there was no significant language effect.

Intensity ratings were significantly different across languages at all three time points. In other words, participants reported higher intensity when the language of interview was Kurdish than when the language of interview was Turkish. This difference was constant for all three time dimensions. The ratings for 1 week ago were significant at $t(40) = 2.7$, $p = .011$, the ratings for 1 year ago were significant at $t(40) = 2.3$, $p = .027$ and the ratings for 10-15 years ago were significant at; $t(40) = 2.29$, $p = .028$.

Contrary to our hypothesis that Kurdish would ease the accessibility of memories, sessions in which Kurdish was the language of interview did not ease the accessibility of the memories for time dimensions of 1 week ago and 1 year ago. However, the difference was significant for events happened 10-15 years ago at $t(40) = 2.73$, $p = .009$. Surprisingly when the language of interview was Turkish accessibility reported to be higher. As it can be observed from Figure 6 although the relationship is not significant the trend can be observed in the other time dimensions also. Thus, one of our hypotheses that, accessibility would be easier in Kurdish language was not confirmed. In other words, bilinguals in our case did not have an ease of retrieval in Kurdish which was their first language.

Table 8

A summary of other properties of memories

	1 week ago		1 year ago		10-15 years ago	
	Turkish	Kurdish	Turkish	Kurdish	Turkish	Kurdish
Consequentiality	3.10(1.26)	2.95(1.46)	3.44(1.324)	3.51(1.306)	3.54(1.227)	3.83(.998)
Rehearsal	2.85(1.35)	2.95(1.35)	2.98(1.235)	3.24(1.338)	3.12(1.077)	3.80(1.077)*
Intensity	3.27(1.24)	3.85(1.06)*	3.54(1.247)	4.10 (.889)*	3.76(1.220)	4.27(.923)*
Access	2.12(1.14)	1.83(1.07)	2.32(1.171)	2.00(1.204)	2.78(1.333)*	2.12(1.144)

*p<.05.

3.8. Internal Languages of Retrieval

Internal languages of retrieval judgments were examined in terms of their percentages across languages. Table 9 shows the findings of Turkish session. Accordingly, 37.66 percent of the memories are judged to be internally retrieved from Kurdish.

Table 9

Frequency and Percentages of Recall Language in Turkish Session

	<u>Frequency</u>	<u>Percentage</u>
Kurdish	52	37.66
Turkish	49	35.53
Both	16	13.03
None	3	2.4
Others	3	2.43

Table 10

Frequency and Percentages of Recall Language in Kurdish Session

	<u>Frequency</u>	<u>Percentage</u>
Kurdish	76	55.06
Turkish	19	13.76
Both	4	2.9
None	22	15.9
Others	2	1.46

Also Table 10 shows percentages of judgments of internal language of retrieval. 55.06 percent of the memories are judged to be retrieved internally from Kurdish. Although analyses were not complete the findings indicate a trend toward judgments that more memories are retrieved internally with Kurdish whether the session language is Kurdish or Turkish.

Table11

Frequency and Percentages of Actual Language Spoken at the time during Turkish Session

	<u>Frequency</u>	<u>Percentage</u>
Kurdish	46	33.36
Turkish	48	34.8
Both	23	16.6
Others	5	3.63

Findings from Table 11 and Table 12 show the actual language participants were speaking at the time event took place. Table 11 shows that 33.36 percent of the memories took place in Kurdish while the language of interview was Turkish.

Table12

Frequency and Percentages of Actual Language Spoken at the time during Kurdish Session

	<u>Frequency</u>	<u>Percentage</u>
Kurdish	61	57.7
Turkish	23	18.7
Both	1	0.8
Others	2	1.6
Don't Remember	26	21.1

Table 12 shows that 57.7 percent of memories took place in Kurdish while the language of interview was Kurdish. On the basis of these findings it can indicated that there is a trend that participants are more likely to bring the events that they were speaking Kurdish when the language of session was Kurdish and they are less likely to bring events that they were talking in Kurdish when the language of interview was Turkish.

4. DISCUSSION

Our hypothesis was that autobiographical memories that are retrieved in Kurdish will have higher phenomenological properties compared to memories that are retrieved in Turkish. Our hypothesis was based on Conway's Self Memory System framework that emphasizes the self and autobiographical memory. Accordingly retrieval process of autobiographical memories is very much influenced by the current self-construal, goals and motivations.

Studies that are reviewed show that language has a strong effect on cognitive styles and self construal that bilinguals adapt. One of the common frameworks used in literature to explain the interplay between self and language is collectivism-individualism extend. With respect to collectivism-individualism studies show that depending on language of session or the language of the cue-words used the narratives that emerge are in line with the associated culture of that language. In other words

studies that adapt collectivism-individualism framework indicate that bilingual's language affect self construal so that when speaking a language associated with individualist culture they adapt a more individualistic self construal and when speaking a language associated with collectivistic culture they adapt a more collectivistic self-construal.

In this study we adapted Conway's SMS framework instead of a collectivism-individualism extends as we assumed this dichotomy would not be sufficient to explain the self construal of our Kurdish-Turkish bilingual sample. Although there are no studies to date, we assume that Kurdish and Turkish self construes are not two ends of a continuum and in fact as they share many commonalities there may not be a salient effect of self construal based on cross-cultural differences. Kurdish-Turkish sample that we worked in fact might be classified as monocultural bilinguals that are relatively understudied compared to bicultural bilinguals. As Marian and Kaushanskaya (2004) suggest the importance of separating the influence of culture and language by testing monocultural bilinguals we assume that our study provides suggested group.

Adaption of SMS framework provides us with the tools to explain the dynamic relationship between self, memory and language without creating a dichotomy between self construes. SMS framework emphasizes the importance of goals and motivations of current self in retrieval process. These goals and motivations are components of self construal. In this study Kurdish self construal that is a goal of the current self is the salient aspect of our sample. All of our participants were politically active and identified themselves as Kurdish which was salient aspect of their goals and current self. The language of session was manipulated in order to reveal this salient aspect of Kurdish self construal.

Mc Isaac and Eich's (2002) study on directed perspective change open new directions for the concept of memory as a flexible unit that can change content of relived memories depending on the vantage perspective taken. It is important to note flexibility of the perspective and that it can be possible to change the perspective for many events. This is an important implication for our study since it provides encapsulation of memory as a flexible unit that has the ability to change the perspectives as a function of different contextual factors. This is in accordance with Conway's SMS model that suggests a flexible reconstruction of memories based on autobiographical knowledge base and working self schemata. Therefore, it is possible that, language as a context associated with working schemas of self can also be an

influential factor on shifting perspectives. Parallel with this line of thought language can be a prime for it is a politically and culturally important dimension of Kurdish identity. For this, Kurdish aspect of working self was activated by using Kurdish language as a prime since it is assumed that language is a central dimension in the Kurdish identity.

Asking participants to retrieve memories from three different periods of their life gave us the ability to observe whether there were consistent patterns within ratings across time. As the results suggested some of the properties had an interaction effect with time, but emotion, hear and vividness ratings were consistently significantly different in spite of time modifications.

Our hypothesis was rejected for remember-know judgment ratings. Judgments of participants were not significantly different for two conditions. The results can be related with our clear instructions that participants must bring memories that they were remembering rather than the ones that they were told. Hence when participants were retrieving with the event they were already certain that the memory they retrieve is a remember judgment.

For vantage judgments there were no significant difference between conditions for events happened one week ago. This result can be attributed to recent date of the event meaning there has not enough time passed for the event to be integrated to self construe and actually become a memory.

Age of earliest childhood memories found ($M=5.3$) is high compared to other studies (e.g. Sahin and Mebert 2013, $M=4.15$). One explanation could be fact that we could not be able to counterbalance the order of session's languages. As a result most of the participants reported their earliest memories in Turkish. Taking into account that most of the participants have started to learn Turkish in primary school their earliest memories were shaped around Kurdish. Hence, the language os session being Turkish they were possibly not able to retrieve and verbalize their earliest memories. Future studies should counterbalance or examine Kurdish group's earliest memories in associated language.

The acquisition of second language is important in bilingualism. The age of second language acquisition can be influential on language competence. In addition where the language has been learned is also important. Ellis and Laporte (1997)

differentiate between language acquisition through education and through early childhood socialization among family members. Since their social and cultural environments were around Kurdish most of the participants were not able to command Turkish before the formal education. Participants' Turkish acquisition ages were usually late; $M= 6.49$. It is important to note here although Turkish is the second language of those participants, use of Turkish among Kurdish groups is very high especially in the Western cities. Actually, usually the dominant language used among Kurdish people is Turkish. Although our sample may not have passed through a dramatic change as immigrants; we assume highly possible first language deterioration in many cases. Those who prefer Kurdish in daily life are usually politically involved people who construe language as an important dimension of their Kurdish identity. For example one of our questions was about their mother tongue. All of the participants indicated Kurdish as their mother tongue. Taking into account that most of the education system is built on the notion that the only mother tongue is Turkish and there is no place for Kurdish language, this is a reflective response of political identity. Therefore, when we chose our sample we tried to find participants who used Kurdish in their daily lives to develop a balanced picture of current use of two languages. However our selection criteria were based on self reports of participants and our participants had a tendency to rate themselves as more competent in Kurdish. We assume that possibly most of our participants are more competent in Turkish than they are in Kurdish which can explain the accessibility ratings. Our hypothesis was rejected for the participants' judgments of accessibility of the memory. In fact for the memories of 10-15 years ago language of session being the Turkish accessibility of judged to be easier by the participants.

While encoding specificity principle suggest that access to phenomenological properties of autobiographical memory will increase when the language of retrieval matches language of encoding our results indicate an increase in phenomenological properties of autobiographical memories when the language of retrieval is Kurdish. One explanation for this could be current proportion of Kurdish use which may have activated Kurdish working self.

It was reviewed in the introduction that intensity of retrieved memories could differ depending on the language used during encoding and retrieval. A match between encoding language and retrieval language is found to be associated with greater emotional intensity. Our results on internal languages of retrieval remains as

demographic. We were not able complete the analysis. However there is a tendency that whether there is a match between two or not emotional intensity was higher for Kurdish speaking session. The results must be analysed and compared with the studies that support language dependent hypothesis. An important factor that might explain the results is that participants in our study are loaded politically and individually with the motivation of enhancement of Kurdish language. Most of them intentionally try to use Kurdish in their daily life. Kurdish language itself carries intense emotions associated with it. Therefore, it is possible that participants were prone to feel higher (more intense emotions) during the Kurdish interview to a great extend because of the perceived importance of Kurdish for them. It is possible that they were at the influence of their current emotions during retrieval of their memories. Actually, this would be more explicable in Conway's Self memory System framework which emphasizes the influence of current working self's goals and motivations on retrieval of memories.

In addition, access to autobiographical memory may depend on part on the past and current contexts that each language is used. For example participants who currently use Kurdish with their family might have a differential access to autobiographical memory in family related issues in Kurdish rather than in Turkish. Future research may examine how phenomenological properties of autobiographical memories are mediated by the context each language is used. Also, future studies should look for the interaction effect of language proficiency on phenomenological properties.

Proficient and balanced Kurdish-turkish bilinguals are ideal to study autobiographical memory in bilinguals since they have not undergone migration and are familiar with comparable cultural backgrounds. Comparable cultural backgrounds of Turkish and Kurdish cultures minimizes cultural differences and let us to explore salient language influence on memory. It is certain that there are cultural differences at least stemming from political orientations. Future cross-cultural studies should reveal the influence of these cross-cultural differences on autobiographical memory.

Previous studies' findings show that recollection is predicted by imagery. While there are studies indicating the relationship between visual imagery and recollection, the auditory imagery as a predictor of recollection is understudied. Present study's findings are illuminating in terms of importance of auditory imagery for bilingual participants. Auditory imagery is important for the purpose of our study as we assumed that

bilingual's auditory imagery would help them to differentiate between languages of encoding. Language has a crucial role in retrieving autobiographical memories, and autobiographical memories often include cues related to auditory imagery. Results of our study show that auditory imagery was significantly higher for Kurdish session on all time dimensions. We assume that this could be an indication of cues drawn from auditory imagery during retrieval process for bilinguals.

One limitation of our study stems from absence of Kurdish word norms. Unfortunately there is no study concerning Kurdish word norms which made us to choose from Turkish word norms. During the interviews it was observed that the cue-words used to retrieve memories were leading to an additional cognitive load. For example some of the cue-words used were "deniz" and "balık" which mean "sea" and "fish" in English. A great proportion of the participants reported having difficulty retrieving any memories pertaining to "deniz" especially when it was from the periods of 10-15 years ago. Some of the participants interlinked the word with "dere" or "nehir" which means "river". Some of them indicated that they would be more comfortable to bring memories associated with "mountains". It is true that association is intrinsic to cue-words, but some of the cue-words may cause an excessive cognitive load on participants. Taking into account that participants are from Eastern Turkey that does not have a coast it is probable that they may have difficulties to retrieve memories associated with "sea", or "fish". Future studies can examine Kurdish word norms to create a research toolbox on autobiographical memories.

Another limitation of our study is that we were not able to balance gender. While it stands as a limitation it can also be a possible strength because we could get significant results in spite of most of our participants being male. Taking into account that it is the women reported to have more voluminous and emotional reports of memories we attained significant differences across languages among man who are reported to show less dramatic changes which possibly makes our results more salient.

One of objective of this study was to analyze the specificity of autobiographical memories across languages. For this, we required participants to retrieve memories from different time points of their life. Participants were given different cue-words and instructed to retrieve specific memories associated with cue-words. Specificity was important for the purpose of our study as it provides us with a tool for analyzing the

language effect on bilingual memory. To be more explicit our assumption was that language that the participants used would affect the details that they provide in their retrievals. Because of time limitations we could not be able to complete coding of specificity analysis in this study. On the other hand, our codings are ongoing along with volume, narrative and vividness analysis.

Marian and Kaushanskaya (2004) suggested that studying with bilingual-monoculturals would be a strong indicator of language's impact on autobiographical memory. Their suggestion that language could be influential without a strong cross cultural difference is supported by our findings. This study was an attempt to separate the effect of culture and language through a focus on Kurdish-Turkish bilinguals that are assumed to be monoculturals. Although there are no studies related to Kurdish-Turkish cultural similarities or differentiations the two are assumed to have no salient cultural differences. Even if they have some differentiations at least we can say that there are no major cross-cultural differences. This study is an indication of differential self views although there are no salient cultural differences associated with the languages. The language of retrieval being Kurdish, the mother tongue of the participants does have a strong priming effect on Kurdish self that is a politically loaded construct. One thing we can note here is that, most of the published research about the relationship between bilingual AM and self is dominated by East-West, collectivism-individualism dichotomy. This study emphasizes the current political orientations of participants as a self construct that influences memory retrieval and language.

In sum, proficient and balanced Kurdish-Turkish bilinguals are ideal to study autobiographical memory in bilinguals since they have not undergone migration and are familiar with comparable cultural backgrounds. Comparable cultural backgrounds of Turkish and Kurdish cultures minimizes cultural differences and let us more to explore salient language influence on memory. It is certain that there are cultural differences at least stemming from political orientations. Future cross-cultural studies should reveal the influence of these cross-cultural differences on autobiographical memory.

This study is to date the first study that we know to examine bilingual autobiographical memory in a Kurdish-Turkish bilingual sample. We had many difficulties concerning the lack of accumulated knowledge, literature, scales, word-norms and language proficiency tests. However, being the first study to dig up an intact

population; the study contributes to bilingual autobiographical memory research with the significant implications of mother tongue. During this process, missing scales and necessary tools that would benefit possible following researches were observed.

APENDIX A - KATILIMCI BİLGİ FORMU

Bilgilendirilmiş İzin Formu

Sayın katılımcı,

Sabancı Üniversitesi öğretim üyesi Çağla Aydın bellek alanında bir araştırma yürütmektedir. Bu araştırmanın amacı, iki dilli bireylerin olayları anlatış biçimlerini incelemektir. Sizi bu araştırmaya katılmaya davet etmemizin sebebi, birden fazla dili aktif olarak konuşabiliyor oluşunuzdur. Sizden, aşağıda listelediğimiz detayları dikkatlice okumanızı ve katılma kararınızı ona göre vermenizi rica ediyoruz.

Katılım: Bu araştırmaya katılmak tamamen istege bağlıdır. Katıldığınız takdirde çalışmanın herhangi bir aşamasında sebep göstermeden çalışmadan ayrılma hakkına sahipsiniz, bu durumun sizin açısından hiçbir yaptırımı olmayacağındır. Araştırmaya ilgili sorularınızı istedığınız zaman bize yöneltebilirsiniz.

Uygulama: Bu araştırmaya katılmaya karar verirseniz, sizden, yaşamınızdan kişisel olayları anımsamanızı ve gelecek olayları düşünmenizi isteyeceğiz. Ardından, bu olaylar hakkında derecelendirmeler yapmanızı isteyeceğiz. Araştırma, iki dillilik üzerine olduğu için, aynı adımları, konuştuğunuz diğer dilde tekrarlayacağımız bir buluşmayı da 2 hafta sonra gerçekleştirmek istiyoruz. Anlattığınız olayları daha sonra detaylı inceleyebilmek için, izniniz dahilinde, kayıt etmek istiyoruz. Bu kayıtlar, laboratuvara kilitli dolaplarda tutulacak; araştırmacı dışında erişime kapalı tutulacak; kesinlikle hiçbir yerde yayınlanmayacaktır.

Gizlilik ilkesi: Bu araştırma bilimsel bir amaçla yapılmaktadır, toplanan veriler bilimsel yayın amaçlı kullanılacaktır ve katılımcı bilgilerinin gizliliği esas tutulmaktadır. Adınız ve performansınız hiçbir şekilde eşleştirilmeyecektir.

İletişim: Bu araştırmanın yürütucusu Çağla Aydın'dır. Çalışma hakkında sorularınız olursa kendisine 0216- 483 9130 no'lu telefondan ya da arzugoncu@sabanciuniv.edu adresinden ulaşabilirsiniz. Eğer katılımcı olarak haklarınızla ilgili sorularınız olursa, Sabancı Üniversitesi Araştırma Etik Kurulu'na 0216- 483 966 no'lu telefondan ulaşabilirsiniz.

İzin Beyanı: Bu önemli çalışmada bize yardımcı olmak isterseniz, lütfen aşağıdaki “İzin Formu”nu doldurup imzalayınız. Eğer 18 yaşından küçük iseniz, lütfen bu formu velinize imzalatıp araştırmacıya teslim ediniz.

Çalışma hakkındaki bilgilendirmeyi okudum ve anladım. Sorularıma cevap aldım.

Çalışmaya katılmak istiyorum. Çalışmaya katılmak istemiyorum.

Velisi veya vasının adı, soyadı ve imzası:

(18 yaşından küçük katılımcılar için)

Bilgilendirilmiş İzin Formu’nun bir örneği tarafımı verildi.

Adı Soyadı:.....

İmzası:.....

Adresi:.....

Telefonu:

E-posta:

Tarih (gün/ay/yıl):/...../.....

Bu izin formu araştırmacı tarafından en az 5 yıl süreyle saklanacaktır. Bu çalışma Sabancı Üniversitesi Araştırma Etik Kurulu tarafından (*tarih*) ‘de onaylanmıştır.

DEMOGRAFİK BİLGİLER FORMU

Katılımcı Numarası:

Tarih

____/____/____

A) Kişisel Bilgiler

Bu anket dil durumunuzu daha iyi anlamak içindir. Bu ankette doğru ya da yanlış yanıt yoktur, sizin yanıtınız önemlidir. Adınız ve diğer kişisel bilgileriniz hiçbir yerde açıklanmayacak ve verdığınız yanıtlar sadece bu araştırmada kullanılacaktır. Herhangi bir soru sizin durumunuzu açıklamıyorsa lütfen boş bırakınız.

1. Doğum Tarihiniz (Gün / Ay / Yıl): ____/____/____

2. Cinsiyet: Kadın Erkek Diğer

3. Doğum Yeriniz:

4. Hangi eliniz baskın olarak kullanırsınız (daire içine alınız): Sağ Sol

B) Dilbilgisi Bilgileri

1. İlk öğrendiğiniz dil hangisidir?: Kürtçe Türkçe ikisi beraber

2. Kürtçe'yi ilk nerede öğrendiniz? Ailede Kursta Dışarıda
 Diğer(belirtiniz).....

3. Türkçe'yi ilk nerede öğrendiniz? Ailede Okulda Dışarıda
 Diğer(belirtiniz).....

4. Kürtçe'yi kaç yaşında öğrenmeye başladınız? _____

5. Türkçe'yi kaç yaşında öğrenmeye başladınız? _____

6) Hangisini anadiliniz olarak kabul ediyorsunuz? Kürtçe Türkçe

C) Dil Kullanımı Bilgileri Aşağıda dil durumunuz ve farklı insanlarla hangi dil(ler)de konuştuğunuz ile ilgili sorular bulunmaktadır. Lütfen tüm sorulara iyice düşünerek ve sizin durumunuzu en iyi açıklayan yanıtını veriniz. Bu ankette doğru ya da yanlış yanıt yoktur. Herhangi bir soru sizin durumunuzu açıklamıyorsa lütfen boş bırakınız.

Aşağıda belirtilen insanlarla konuşurken hangi dili kullanıyorsunuz?

	Her zaman Kürtçe	Daha çok Kürtçe	Her ikisini de	Daha çok Türkçe	Her zaman Türkçe
Ailenizle					
Arkadaşlarınızla					
Komşularınızla					

Günlük hayatınızda kürtçeyi kullanma sıklığınız nedir? Yüzde olarak belirtiniz %----

Aşağıdaki alanların her birinde Kürtçe dil becerinizi nasıl değerlendirirsiniz?

	Çok az	Orta	İyi	Çok iyi
Konuşma				
Kelime bilgisi				
Genel dil yeterliliği				
Okuma-Yazma				

Aşağıdaki alanların her birinde Türkçe dil becerinizi nasıl değerlendirirsiniz?

	Çok az	Orta	İyi	Çok iyi
Konuşma				
Kelime bilgisi				
Genel dil yeterliliği				
Okuma-yazma				

APENDIX B – YÖNERGELER

1.Türkçe Yönergeler

“En Erken Çocukluk Anınızı Anlatınız” Yönergesi

Biraz sonra sizden 3 dakikalık bir süre boyunca aklınıza gelen ilk çocukluk anınızı anlatmanızı isteyeceğim. İstediğiniz herhangi bir olayı seçebilirsiniz. Fakat her bir olayın, *başı sonu belli* bir süre içinde gerçekleşmiş olması ve içerisinde *bizzat yer aldığınız* bir olay olması gerekiyor. Lütfen başkalarından duyduğunuz olayları seçmeyin. Olayın geçtiği zamanı ve yeri net olarak hatırlıyor olmanız gerekiyor. Sizden istediğimiz “5 yaşındayken resim yapardım” veya “3 yaşındayken evcilik oynardım” gibi genel bir ifade değil, belirli bir zamanı ve yeri olan *en erken* resim yapma aktivitesinden veya evcilik oyunundan bahsetmeniz. Olay hakkında aklınıza gelen bütün detayları bana anlatmanızı istiyorum. Hangi olayı seçtiğiniz ile değil, daha çok bu olayı nasıl anlattığınız ile ilgileniyoruz. Son olarak anlattığınız olayla ilgili sorularım olacak, bu yüzden lütfen yeterince detay verebileceğiniz bir olay seçin.

“Bir Hafta Önce Yaşadığınız Bir Olay Anlatınız” Yönergesi

Biraz sonra size bazı kelimeler göstereceğim. 3 dakikalık bir süre boyunca bu kelime ile ilgili aklınıza gelen 1 hafta önce yaşadığınız bir olayı anlatmanızı rica ediyoruz. Bu kelimenin anlatacağınız olayın içinde mutlaka yer olması gerekmiyor, kelimeyi hatırlamanıza yardımcı olması için, çağrıım yapması için kullanmanız yeterli. İstediğiniz herhangi bir olayı seçebilirsiniz. Fakat olayın, *başı sonu belli* bir süre içinde gerçekleşmiş olması ve içerisinde *bizzat yer aldığınız* bir olay olması gerekiyor. Lütfen başkalarından duyduğunuz olayları seçmeyin. Olayın geçtiği zamanı ve yeri net olarak hatırlıyor olmanız gerekiyor. Sizden istediğimiz “lise yıllarında okulda resim yapardım” veya “ilkokulda evcilik oynardım” gibi genel bir ifade değil, *belirli bir zamanı ve yeri olan* resim yapma aktivitesinden veya evcilik oyunundan bahsetmeniz. Olay hakkında aklınıza gelen bütün detayları bana anlatmanızı istiyorum. Hangi olayı seçtiğiniz ile değil, daha çok bu olayı nasıl anlattığınız ile ilgileniyoruz. Son olarak anlattığınız olayla ilgili sorularım olacak, bu yüzden lütfen yeterince detay verebileceğiniz bir olay seçin.

“Bir Sene Önce Yaşadığınız Bir Olay Anlatınız” Yönergesi

Biraz sonra size bazı kelimeler göstereceğim. 3 dakikalık bir süre boyunca bu kelime ile ilgili aklınıza gelen 1 sene önce yaşadığınız bir olayı anlatmanızı rica ediyoruz. Bu kelimenin anlatacağınız olayın içinde mutlaka yer olması gerekmıyor, kelimeyi hatırlamanıza yardımcı olması için, çağrıım yapması için kullanmanız yeterli. İstedığınız herhangi bir olayı seçebilirsiniz. Fakat olayın, *başı sonu belli* bir süre içinde gerçekleşmiş olması ve içerisinde *bizzat yer aldiğiniz* bir olay olması gerekiyor. Lütfen başkalarından duyduğunuz olayları seçmeyin. Olayın geçtiği zamanı ve yeri net olarak hatırlıyor olmanız gerekiyor. Sizden istedigimiz “lise yıllarında okulda resim yapardım” veya “ilkokulda evcilik oynardım” gibi genel bir ifade değil, *belirli bir zamanı ve yeri olan* resim yapma aktivitesinden veya evcilik oyunundan bahsetmeniz. Olay hakkında aklınıza gelen bütün detayları bana anlatmanızı istiyorum. Hangi olayı seçtiğiniz ile değil, daha çok bu olayları nasıl anlattığınız ile ilgileniyoruz. Son olarak anlattığınız olayla ilgili sorularım olacak, bu yüzden lütfen yeterince detay verebileceğinizbirolayseçin.

“10-15 Sene Önce Yaşadığınız Bir Olayı Anlatınız” Yönergesi

Biraz sonra size bazı kelimeler göstereceğim. 3 dakikalık bir süre boyunca bu kelime ile ilgili aklınıza gelen 10-15 sene önce yaşadığınız bir olayı anlatmanızı rica ediyoruz. Bu kelimenin anlatacağınız olayın içinde mutlaka yer olması gerekmıyor, kelimeyi hatırlamanıza yardımcı olması için, çağrıım yapması için kullanmanız yeterli. İstedığınız herhangi bir olayı seçebilirsiniz. Fakat olayın, *başı sonu belli* bir süre içinde gerçekleşmiş olması ve içerisinde *bizzat yer aldiğiniz* bir olay olması gerekiyor. Lütfen başkalarından duyduğunuz olayları seçmeyin. Olayın geçtiği zamanı ve yeri net olarak hatırlıyor olmanız gerekiyor. Sizden istedigimiz “lise yıllarında okulda resim yapardım” veya “ilkokulda evcilik oynardım” gibi genel bir ifade değil, *belirli bir zamanı ve yeri olan* resim yapma aktivitesinden veya evcilik oyunundan bahsetmeniz. Olay hakkında aklınıza gelen bütün detayları bana anlatmanızı istiyorum. Hangi olayı seçtiğiniz ile değil, daha çok bu olayı nasıl anlattığınız ile ilgileniyoruz. Son olarak anlattığınız olayla ilgili sorularım olacak, bu yüzden lütfen yeterince detay verebileceğinizbirolayseçin.

2. Kürtçe Yönergeler

“En Erken Çocukluk Anınızı Anlatınız” Yönergesi

Bîstek din ezê ji we bixwazim ku hûn di nav 3 deqeyan de bifikirin û di zarokatiya we de tiştê pêşî hatiye serê we hûn bi bîr bînin û qal bikin ji min re. Hûn kîjan bûyerê tînin ziman serbest in. Belê ez dixwazim ev bûyera ku hûn qal bikin bi serî û dawî be, yanî serî û dawiya wê diyar be. Ü a din jî, divê ev bûyer hatibe serê we bi xwe. Naxwazim ku tiştê hûn qal bikin we ji hinek kesên dinbihistibe. Divê tiştê ku hûn qal bikin, hûn zanibin kengî û li ku qewimiye. Tiştê em ji we dixwazin ne ev e ku hûn bêjin “Min di 5 saliya xwe de wêne çêdikir” an jî “di sê saliya xwe de me lîstika navmalî dilîst” divê hûn tevlî cih û zeman û tevlî naveroka bûyerê bînin ziman. Ez dixwazim li ser bûyera ku hûn qal bikin de çi bê bîra we hûn qal bikin û çi hebe hûn bînin ziman. Hûn bûyerek çawa tînin ziman ne mesele ye, mesele ew e ku hûn bûyerê çawa tînin ziman. A dawî jî ev e, piştî hûn bûyerê bînin ziman ezê çend pirsa ji we bikim, loma jî dixwazim bûyerên ku hûnê karibin baş qala wan bikin hilbijêrin.

“Bir Hafta Önce Yaşadığınız Bir Olay Anlatınız” Yönergesi

Ez ê hinek peyvan, yanî kelîmeyan bêjime we. Ez dixwazim hûn nav 3 deqqeyê da behsa tiştêkê (bûyer) ku ev pevy tîne bîra we ji min ra bêjin. Divê ew tişt hefteyek berê çêbibe, yanî hefteyek berê hatibe serê we. Ne hewce ye îlle ev peyy/kelîme nav tişa ku hûn ê bêjin de derbas bibe, bila tenê arî we bike ku ew tişt were bîra we. Hûn kîjan tiştê bixwazin bêjin, hûn serbest in. Lê belê divê ser û binê wê tiştê, cihê ku ew tişt derbas bibe bellî be, û divê hatibe serê we bi xwe an jî we bi çavêx we dîtibe. Mesela, ez naxwazim hûn bêjin “min resim çêdikir wexta ez lîseyê bûm” an jî “dema meytebê ez bi bebika dilîstîm”. Şûna wan, ez dixwazim hûn bi eşkereyî behsa wext û cihê resimçêkirinê an jî leyistîka bebikan bikin. Gerek e hûn behsa hemû detayê wê tiştê bikin. Ji bo min ferq nake hûn kîjan tiştê bêjin, ez dixwazim fehm bikin ka hûn çawa wê tiştê dibêjin. Ez ê paşî hinek pirsa ji we bikim derheqê wan de, loma tiştê hûn bêjin divê baş bê bîra we, yanî tiştê hûn bikarin behsa detayê wan bikin baştir in.

“Bir Sene Önce Yaşadığınız Bir Olay Anlatınız” Yönergesi

Ez ê hinek peyvan, yanî kelîmeyan bêjime we. Ez dixwazim hûn nav 3 deqqeyê da behsa tiştêkê (bûyer) ku ev pevy tîne bîra we ji min ra bêjin. Divê ew tişsalek berê çêbibe, yanî salekberê hatibe serê we. Ne hewce ye îlle ev peyv/kelîme nav tişta ku hûn ê bêjin de derbas bibe, bila tenê arî we bike ku ew tiş were bîra we. Hûn kîjan tiştê bixwazin bêjin, hûn serbest in. Lê belê divê ser û binê wê tiştê, cihê ku ew tiş derbas bibe bellî be, û divê hatibe serê we bi xwe an jî we bi çavêن xwe dîtibe. Mesela, ez naxwazim hûn bêjin “min resim çêdikir wexta ez lîseyê bûm” an jî “dema meytebê ez bi bebika dilîstîm”. Şûna wan, ez dixwazim hûn bi eşkereyî behsa wext û cihê resimçêkirinê an jî leyistîka bebikan bikin. Gerek e hûn behsa hemû detayên wê tiştê bikin. Ji bo min ferq nake hûn kîjan tiştê bêjin, ez dixwazim fehm bikin ka hûn çawa wê tiştê dibêjin. Ez ê paşî hinek pirsa ji we bikim derheqê wan de, loma tiştê hûn bêjin divê baş bê bîra we, yanî tiştê hûn bikarin behsa detayên wan bikin baştır in.

“10-15 Sene Önce Yaşadığınız Bir Olayı Anlatınız” Yönergesi

Ez ê hinek peyvan, yanî kelîmeyan bêjime we. Ez dixwazim hûn nav 3 deqqeyê da behsa tiştêkê (bûyer) ku ev pevy tîne bîra we ji min ra bêjin. Divê ew tişdeh-pazdeh sal berê çêbibe, yanî deh-pazdeh sal hatibe serê we. Ne hewce ye îlle ev peyv/kelîme nav tişta ku hûn ê bêjin de derbas bibe, bila tenê arî we bike ku ew tiş were bîra we. Hûn kîjan tiştê bixwazin bêjin, hûn serbest in. Lê belê divê ser û binê wê tiştê, cihê ku ew tiş derbas bibe bellî be, û divê hatibe serê we bi xwe an jî we bi çavêن xwe dîtibe. Mesela, ez naxwazim hûn bêjin “min resim çêdikir wexta ez lîseyê bûm” an jî “dema meytebê ez bi bebika dilîstîm”. Şûna wan, ez dixwazim hûn bi eşkereyî behsa wext û cihê resimçêkirinê an jî leyistîka bebikan bikin. Gerek e hûn behsa hemû detayên wê tiştê bikin. Ji bo min ferq nake hûn kîjan tiştê bêjin, ez dixwazim fehm bikin ka hûn çawa wê tiştê dibêjin. Ez ê paşî hinek pirsa ji we bikim derheqê wan de, loma tiştê hûn bêjin divê baş bê bîra we, yanî tiştê hûn bikarin behsa detayên wan bikin baştır in.

APENDIX C - ÖLÇEKLER

1. Türkçe Ölçek

1. Olayı hatırladığında, sanki o anı yeniden yeniden yaşıyormuş gibi hissediyorum.

1	2	3	4	5	6	7
Hiç		belirsiz		belirgin bir şekilde		Şimdi
						oluyormuş gibi belirgin bir şekilde

2. Hatırladığında, olayı zihnimde adeta ısıtıyorum.

1	2	3	4	5
Hiç		belirsiz		belirgin bir şekilde

3. Olayı konuşulanlarla, cümlelerle veya kelimelerle hatırlıyorum.

1	2	3	4	5
Hiç		belirsiz		belirgin bir şekilde

4. İnsanlar bazen geçmişte bir şeyi yaşadıklarını bilirler fakat olayı yeniden yaşıyormuş gibi canlı ve detaylı hatırlayamazlar. Bu olay hakkında düşündüğümde bu olayın gerçekleştiğini bilmenin ötesinde olayı net ve canlı olarak yaşadığımı hatırlayabiliyorum.

1	2	3	4	5
Hiç		belirsiz		belirgin bir şekilde

5. Bu olay sizin için kişisel olarak ne kadar önemli?

1. Hiç önemli değil
2. Pek önemli değil
3. Orta derecede önemli bir olay
4. Önemli bir olay
5. Çok önemli bir olay

6. Gerçekleştığınden bu yana bu olay hakkında konuştum veya düşündüm.

1 2

3

4

5

Hiç

Biraz

çok sık

7. Lütfen olayın tarihini hatırladığınız kadarıyla yazınız. Tam olarak emin değilseniz yakın bir tarihe dair tahminde bulunmaya çalışınız.

.....

8. Bu olayı hatırlarken dışardan izleyen bir gözlemci, bir film izleyicisinden çok, kendimi olayın içinde yer alan bir aktör gibi görüyor, olayı içерiden yaşıyormuş gibi hissediyorum.

1 2

3

4

5

Hiç

belirsiz

belirgin bir şekilde

9. Olayı anımsadığında hissettiğim duygular (1= hiç yoğun değil; 5= çok yoğun)

1 2

3

4

5

Hiç yoğun değil

çok yoğun

10. Bu olayı yaşadığınız an gözünüzde ne kadar canlı beliriyor?

1

2

3

4

5

hiç canlı değil

belli belirsiz

biraz canlı

çok canlı

şu an yaşıyormuşum gibi

11. Size uygun olan seçeneği işaretleyiniz.

1. Daha kelimeyi duyar duymaz bu olay aklıma geldi.

2. Bu olayı hatırlamak benim için kolaydı.

3. Bu olayı hatırlamak İçin normal derecede çaba sarfettim.

4. Bu olayı hatırlamak için biraz düşünmem gerekti.

5. Bu olayı hatırlamak için çok fazla çaba sarfettim.

12. Olayı ilk düşündüğünüzde size hangi dilde geliyor?

- Kürtçe
- Türkçe
- Her iki dilde de karışık olarak geliyor.
- Herhangi bir dilde gelmiyor

13. Anlattığınız bu olay gerçekleştiği sırada hangi dilde konuşuyordunuz?

- Kürtçe
- Türkçe
- Karışık
- Hatırlamıyorum

2. Kürtçe Ölçek

1. Dema ew tiştê bîra min, ez dibêjim wekî ku ev tiştê hêj taze hatiye serê min.

1	2	3	4	5	6	7
qet		baş nizanim		gelekî baş		gelekî baş wekî niha pêk hatiye

2. Dema ew tiştê bîra min, wekî ku di hişê xwe de seh dikim, yanî dibiñizim.

1	2	3	4	5
qet		baş nizanim		gelekî baş

3. Gava ew tiştê bîra min, ez bi gotin û axaftinan tînim bîra xwe, yanî ew tiştî bi axaftin, gotin û cimleyan tê bîra min.

1	2	3	4	5
qet		baş nizanim		gelekî baş

4. Mirov dizane wextekê hinek tiştî hatine serê wan, lê belê ya rastî nikarin wê tiştî gelekê baş bînin bîra xwe. Gava ez derheqê wê tiştî difikirim, ez tenê nabêjim tiştîkê wisa çêbûye, lê ew tiştî gelekê baş tê bîra min jî.

1	2	3	4	5
qet		baş nizanim		gelekî baş

5. Ev bîranîn ji bo nasnameya we ya wê rojê çiqas mûhîm e?

1. qet mûhîm nine

2. gelekî mûhîm nine

3. Piçekê mûhîm e

4. Mûhîm e

5. Gelekê mûhîm e

6. Pişti ew tişt qewimî heta niha min behsa wê kir an jî ez ser wê fikirîm.

1

2

3

4

5

Qet/Hîç

Piçekê/Hinekê

Gelekê

7. Ji kerama xwe wexta bîranîna xwe hingê bê bîra we binivîsinin. Hekê baş neyê bîra we, hûn dikarin wextekê nêzikê wê binivîsinin.

8. Gava ew tişt tê bîra min, ez dizanim ez jî di nav wê tiştê da bûm, perçekê wê bûm, yanî ne tenê min lê dinêriya, meyez dikir.

1

2

3

4

5

qet

baş nizanim

gelekî baş

9. Gava ew tişt tê bîra min, hîssên tênen bîra min

1

2

3

4

5

zêde nîne

pir zêde ye

10. Ev tişta ku hatiye serê we çiqas zelal tê ber çavê we?

1

2

3

4

5

gelek kêm

kêm zêde zelal

piçekê zelal

gelekê zelal

wekî niha tê

serê min

11. Kîjan ji bo we rast be, îşaretekê deynê ser.

1. Gava min ev peyv bihîstin, hat ber çavên min
2. Bîranîna wê ji bo min hêsan bû
3. Bîranîna wê ji bo min zehmet bû
4. Ji bo ku ev tişt were bîra min, ez piçekê fikirîm.
5. Ji bo ku ev tişt were bîra min, min gelekê xîret kir, yanî zorî da xwe.

12. Wexta hûn derheqê wê tiştê difikirin, ew tişt bi kîjan zimanê tê bîra we?

- Kurdi
- Tirkî
- Ti zimanekê da nayê
- Her du zimanan da jî nav hev da tê

13. Wexta ew tişt hate serê we, we bi kîjan zimanê diaxaft, yanî xeber dida?

- Kurdi
- Tirkî
- Nayê bîra min
- Nav hev da

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