

REDUCING PREJUDICE
THROUGH IMAGINED SOCIAL CONTACT

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SANEM KÜÇÜKKÖMÜRLER

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Prof. Dr. Meliha Altunışık
Director

I certify that this thesis satisfies all the requirements as a thesis for the degree of Master of Science.

Prof. Dr. Tülin Gençöz
Head of Department

This is to certify that we have read this thesis and that in our opinion it is fully adequate, in scope and quality, as a thesis for the degree of Master of Science.

Prof. Dr. Nuray Sakallı-Uğurlu
Advisor

Examining Committee Members

Assistant Prof. Dr. Banu Cingöz-Ulu (METU, PSY) _____

Prof. Dr. Nuray Sakallı-Uğurlu (METU, PSY) _____

PhD Aslı Bahar İnan (Atılım Uni., PSY) _____

I hereby declare that all information in this document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results that are not original to this work.

Name, Last name: Sanem Küçükkömürler

Signature :

ABSTRACT

REDUCING PREJUDICE THROUGH IMAGINED SOCIAL CONTACT

Küçükkömürler, Sanem
M.S., Department of Psychology
Advisor: Prof. Dr. Nuray Sakallı-Uğurlu

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Imagined Contact Theory is studied to examine whether there is an individual difference and remaining effect of imagined contact; and to determine more effective manipulation technique. Imagined Contact Theory suggests that imagining an out-group member in a contact situation leads to an improvement in attitudes toward that out-group (Turner, Crisp, & Lambert, 2007). Individual differences, as using imagination more in daily life, may facilitate the prejudice decreasing effect of imagined contact. In the first study, FRP (fantasy role playing) gamers were selected to examine individual differences and it is

expected to find enhanced imagined contact effect because of their practicing of imagination (Study 1a) and long term effect of imagined contact is examined (Study 1b). In the second study, more effective manipulation technique is inspected and two manipulation techniques are compared depending on the literature which are detailed imagination and different exemplars imagination. It is expected to explore underlying cognitive working principles via comparing two techniques whether detail or different exemplar imagination is more effective for human thinking style. Results showed that, though imagined contact effect on attitudes toward homosexuals was found, being FRP player did not foster this effect. Secondly, effect of imagined contact on homosexual attitude did not change in the long run. Lastly, difference between manipulations could not be found. Results were discussed.

Keywords: Imagined Contact Theory, Long-term effect, Individual difference in imagined contact, Detailed imagination effect, Exemplar imagination effect.

ÖZ

HAYALİ SOSYAL TEMAS ARACILIĞI İLE ÖN YARGIYI AZALTMAK

Sanem Küçükkömürler

Yüksek Lisans, Psikoloji Bölümü

Tez Yöneticisi: Prof. Dr. Nuray Sakallı-Uğurlu

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Hayali Temas Kuramı bireysel farklılık, uzun süreli etki, ve en etkili manipülasyon yöntemi açılarından incelendi. Hayali Temas Kuramına göre diğer gruptan bir kişi ile temasa geçtiğimizi hayal etmemiz, o gruba dair tutumumuzu iyileştirir (Turner, Crisp ve Lambert, 2007). Günlük hayatta fazla hayal kurma alışkanlığının, bireysel farklılık olarak, hayali temas etkisini arttırması beklenmiştir. Birinci çalışmada FRP (fantastik rol yapma oyunu) oyuncularından oluşan bir örneklem bireysel farklılığı örneklemek için oluşturulmuştur (Study 1a). FRP oyuncularının hayal kurma pratikleri sebebiyle hayali temasda bulunan etkileri daha güçlü göstermeleri beklenmektedir. Ayrıca hayali temasın uzun süreli etkisi araştırılmıştır (Study 1b). İkinci çalışmada literatürde uygulanan iki farklı manipülasyon tekniği olan detaylı hayal kurma ve farklı örnekler hayal etme teknikleri en etkili tekniği bulmak için karşılaştırılmıştır. Bu çalışma ile manipülasyon tekniklerini

karşılaştırarak hayal etme ve düşünme sistemlerinin altında yatan mekanizmanın bulunması amaçlanmaktadır. Sonuçlar göstermiştir ki; hayali temas ön yargıyı azaltma konusunda etkilidir ama bu etki FRP oyuncularında bulunmamıştır. Ayrıca hayali temas etkisi bir ay sürmektedir. Fakat manipülasyon teknikleri arasında fark bulunamamıştır. Bulgular tartışılmıştır.

Anahtar Kelimeler: Hayali Temas Teorisi, Uzun süreli etki, Hayali temasta bireysel farklılık, Detaylı hayal kurmanın etkisi, farklı örnekler hayal etmenin etkisi.

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CHAPTER 1

INTRODUCTION

What is reality? Do we take all information from our environment without distortion? Do you think we perceive or remember people or events we are in contact as they are? What about imagination? How could responses of imagination be similar with actual responses? If they are so similar, can we gain advantage of imagination either for practical usage or for theoretical knowledge gathering?

In the literature, it is known that reality is an inner construction of human mind (e.g., Rock, 1995). It means we do not take a picture of reality; instead we create it into our mind. Think about illusions; we perceive objects differently than in reality. Even if we know that it is an illusion, we continue to perceive it illusionary. Therefore it can be stated that we do not process reality but we create it into our mind. Imagination is an inner construction too. There are studies which show power of imagination and similarities of it with perception. If our mind works in that way, can we state that we perceive our social environment as in reality? Or is there any effect of imagination on human psychology?

Allport defined working area of social psychology in 1968 as;

Social psychologists regard their discipline as an attempt to understand and explain how thought, feeling and behavior of individual are influenced by the actual, imagined or implied presence of other human beings (p.3)

As seen in Allport's definition (1968), imagination is a part of social psychology too, but it has a less studied literature. One topic in imagination literature in social psychology is Imagined Contact Theory which is proposed by Turner, Crisp, and Lambert (2007). In this theory imagination is a tool to deal with intergroup problems like prejudice. As prejudice and discrimination

is an important problem all over the world, using imagination is practical and comfortable for both practitioners and target group. It also has an aperture to get deeper understanding for psychological mechanisms of human mind. However, before deeper information about Imagined Contact Theory, it is needed to look for previous theories which led imagined contact theory to emerge.

There are many theories concerning ways to lead positive relations with out-groups. One branch among these theories is contact theories. First proposed contact theory is Intergroup Contact Theory (ICT) of Allport in 1954. As mentioned by Pettigrew (1998) Allport stated that contact with an out-group member decreases prejudice toward this out-group if some conditions are satisfied. Later two other contact theories were proposed; extended contact (Wright, Aron, McLaughlin-Volpe, & Ropp, 1997) and imagined contact (Turner, Crisp, & Lambert, 2007) theories. These two theories include indirect contact to decrease prejudice (Turner & Crisp, 2010).

Aforementioned, Imagined Contact Theory aimed to create facilitative out-group attitudes via imagination. Through this thesis, Imagined Contact Theory is studied. Three studies related with Imagined Contact Theory are conducted. It is aimed to find individual difference (Study 1a) and long term effect (Study 1b) of imagined contact if there are. Differences in imagination habit as quantitative discrepancy among subjects is explored as being individual difference. To find whether there is an effect of difference in imagination habit on imagined contact, Fantasy Role Playing (FRP) gamers participated to Study 1a. As FRP gamers are using imagination in their games, they are making a kind of imagination practice. Secondly, long term effect is examined because it is the vital point to propose Imagined Contact Theory for improved intergroup attitudes (Study 1b). If there is not a long lasting effect of imagined contact, it means this theory just gives an opportunity to momentary attitude change. Lastly, effective manipulation technique in imagined contact will be examined (Study 2) by comparing two facilitative manipulation

techniques used in the literature. Findings in the Study 2 may serve a chance to interpret human psychology from imagination perspective by lighting working principles of mind. Depending on the results of these three studies; practical (with Study 1a and Study1b) and theoretical (with Study 2) impacts of Imagined Contact Theory are aimed to be inferred.

The thesis will start with general information about literature including intergroup contact theory, extended contact theory and Imagined Contact Theory. As intergroup theory and extended contact theory are proposed before and related with Imagined Contact Theory, there will be brief information about these theories. Later, detailed information about imagined contact literature and the current studies in the thesis will be introduced.

1.1 Intergroup Contact Theory

Allport suggested Intergroup Contact Theory (ICT) in 1954. According to Allport's hypothesis (1954), there is a prejudice decreasing effect of intergroup contact under proper conditions. The first condition is equal status. It was stated that equal status is needed during social contact, or "within the situation". Second condition is goal sharing. Goal sharing is needed to be with 'active and goal oriented effort' to be effective. Third condition is cooperation between groups rather than competition. Fourth and the last condition is support from authorities about acceptance of out-group. Wilner, Walkley, and Cook (1955) stated, that these conditions help to provide 'contact and perceived social climate' which in turn increases positive and decreases negative behaviors between groups.

ICT was defined as including "most influential" hypothesis to deal with prejudice by defining critical conditions (Pettigrew, 1998). Therefore literature includes a lot of studies about ICT. To get deeper understanding, it may be better to look at recent meta-analysis about ICT. Pettigrew and Tropp (2006) conducted a meta-analysis with 515 studies which includes 713 independent samples. According to their results; (1) in ninety-four percent of the samples

show ICT has a prejudice decreasing effect; (2) Allport's conditions are not 'essential' but they facilitate positive attitudes toward out-group; (3) conditions are interrelated rather than independent; (4) generalization effect occurs especially for immediate contact; and (5) larger effect is available for sexual orientation and physically disabled groups; average effect for race, ethnicity and mentally disabled groups.

In another meta-analysis of Pettigrew and Tropp (2008) including the same 515 studies; 3 common mediators of ICT in the literature were tested. First mediator is knowledge depending on Allport's claim in 1954. According to Allport, contact leads to increase in knowledge about out-group, and this increase leads to decrease in prejudice. Second mediator mentioned in literature is anxiety. As mentioned by Pettigrew and Tropp (2008), this mediator claim depends on Stephan and Stephan's (1985) statement. Stephan and Stephan (1985) stated that contact leads to decrease in anxiety and inter-group threat, and this decrease brings a decrease in prejudice. Lastly, third common mediator is empathy and perspective taking. It is claimed that contact increases empathy and perspective taking toward out-group, and then prejudice decreases (especially in close inter-group relation). Pettigrew and Tropp (2008) showed that change in affective indicators (anxiety and empathy) are more effective than cognitive indicators (knowledge) in prejudice change. It is also found that anxiety is negatively correlated with empathy and knowledge. Therefore there may be a causal sequence between mediators; decreased anxiety via contact may lead to an increase in empathy and knowledge about out-group, and this causal sequence may bring decreased prejudice level toward out-group members (Pettigrew & Tropp, 2008).

Although effectiveness of ICT is shown via results of these studies; ICT is not always a proper strategy to deal with intergroup problems. There are limitations of ICT. Firstly, there may not be an opportunity for a contact situation. Moreover, intergroup contact theory needs a real contact but individuals do not always have opportunity to get in a real contact with some

out-group members (e.g., Turner, Hewstone, Voci, & Vonafakou, 2008). Brown and Hewstone (2005) stated that there is a meaningful interaction problem in many problematic cases of intergroup contact. Secondly, in the study in which direction of causal sequence in ‘contact and prejudice’ relations is asked, it is found that both directions are possible (Binder et al., 2009). It means that both contact decreases prejudice and prejudice decreases contact between individuals from different groups. Therefore, there is a problem in the first step; stereotypes may block getting into contact. Thirdly, social contact may lead to even negative results. For example, Husnu and Mertan (2008) found that long term effect of social contact may increase negative attitudes toward out-group. In their study they investigated North Cyprus participants’ attitudes toward South Cyprus whether it changes while contact possibility increased after partially opening of country borders between North and South Cyprus. North Cyprus participants showed same level of positive attitudes though they showed increased level of negative attitudes after 10 years passed. Therefore, sometimes contact can even increase negative attitudes.

So, do we need real contact to get prejudice decrease? There may be a problem of face-to-face contact. Some researchers continued with this question and created an interest to line of studies to predict more positive out-group attitudes by following intergroup contact theory but without face-to-face contact (Turner & Crisp, 2010). The first theory derived from intergroup contact theory is extended contact theory in which there is not an actual contact experience.

1.2 Extended Contact Theory

One of the considerable progresses in the contact studies is that perceiver does not need to experience a contact situation with someone from out-group to get more positive attitudes toward that out-group (Turner & Crisp, 2010). Wright, Aron, McLaughlin-Volpe, and Ropp (1997) claimed that just the knowledge of contact between in-group and out-group members can improve

intergroup attitudes. According to Wright et al. (1997) knowing an in-group member who is in contact with an out-group member has a prejudice decreasing effect even when real contact does not exist. Therefore, extended contact deals with anxiety which can occur during actual contact (Wright et al., 1997). Wright et al. (1997) stated that effect of extended contact is a result of re-categorization process in which individuals accept others within their self-concepts. Also; Turner, Hewstone, Voci, and Vonofakou (2008) defined mediators of extended contact as; intergroup anxiety, perceived in/out group norms and inclusion of others into self.

Extended contact theory solves problems related with opportunity to contact in intergroup contact theory (Turner & Crisp, 2010). Aforementioned intergroup contact theory needs a real contact to decrease prejudice; but with extended contact, this necessity (which can be problem for some out-groups living in different places) disappears. Because it implies a real contact between in-group and out-group members, it is very useful way to deal with prejudice especially when there is not any opportunity for real contact (Turner & Crisp, 2010).

On the other hand, extended contact has some limitations too. As mentioned by Crisp and Turner (2009), sometimes people do not have any opportunity for even an extended contact. For example they may live in a segregated place, and in this case they may lack of extended contact too; they may not even know any person who has friend from a specific out-group within their social network (Crisp & Turner, 2009). In this kind of inopportunity cases, imagined (or simulated) contact theory, in which imagination a contact situation with an out-group member is needed, appears to be a better option to deal with intergroup problems.

1.3 Imagined (Simulated) Contact Theory

Turner, Crisp, and Lambert (2007) proposed Imagined Contact Theory to create positive attitudes between groups via using imagined interactions. Blair,

Ma, and Lenton (2001) stated that mental imagery is “conscious and intentional act of creating a mental representation of a person, object or event by seeing it with mind’s eye” (p.828). Also imagined contact is defined by Crisp and Turner as “the mental simulation of a social interaction with a member or members of an out-group category” (2009, p.234). In imagined contact literature experimenters ask participants to imagine a contact situation with someone from out-group. It is stated that imagined (or simulated) contact contains imagination, including an out-group member in contact, reduces prejudice toward out-group members (Crisp & Turner, 2009). It is “*mental articulation of contact experience*” (Crisp, Husnu, Meleady, Stathi, & Turner, 2010, p. 189). Effect of Imagined Contact Theory is defined as ‘improved out-group attitudes and reduced stereotyping’ (Crisp & Turner, 2009).

Crisp and Turner (2009) stated that there are multiple benefits of using imagined contact instead of other contact strategies. Firstly, it is good for people who have less opportunity to get in contact which is the problem of real contact and, sometimes, of extended contact. As mentioned before, in more segregated places, people have no opportunity even for extended contact (Crisp & Turner, 2009). Imagined contact serves a chance to reach these people as it contains only imagination of a contact situation. Secondly, imagined contact is good for dealing with contact anxiety. In some studies, it is found that anxiety reduction function of contact is a mediator on relation of contact and out-group attitudes (e.g., Pettigrew & Tropp, 2008; Turner & Crisp, 2010). In imagined contact manipulation, anxiety reduction is easier to get because there is not a real contact (Crisp & Turner, 2009). Thirdly, imagined contact is “*a pre-contact tool*” in which people became encouraged to get in future contact and prepared to get in contact ‘with an open mind’ (Crisp et al., 2010; Crisp & Turner, 2009; Turner & Crisp, 2010). Especially because of the last benefit, imagined contact may help as “*a critical first step needed to kick-start an interest in engaging positively with outgroups*” when there is unrealized opportunity for intergroup contact (Crisp et al., 2010, p. 189). Lastly, imagined

contact is a simple way for practitioners to deal with intergroup problems as it leads to create a hypothetical contact situation which cannot be gained when there is not even an extended contact.

To sum up, imagined contact is an effective way to deal with intergroup problems. This positive impact of imagined contact which is also found in intergroup contact may result from similarity between imagination and perception. To get deeper understanding about effect of imagined contact, I believe, it is needed to look for similarities between imagination and perception.

1.3.1 Similarities of Imagination and Perception

From literature it is known that reality is an inner construction of mind; it means we do not take a picture of reality; instead we create it into our mind (e.g., Rock, 1995). We also create our imagination in our mind too. Though images are *“fainter, sketchier and more effortful to maintain”*, people report that their imaginations are more similar to their perceptions (Farah, 1989, p. 963). There are studies which show similarities between imagination and perception in social psychology literature.

These studies include similarities on cognitive, behavioral and emotional manifestations of imagination and perception. For example; Blair, Ma, and Lenton (2001) found that when participants imagined a counter-stereotypic out-group member (e.g., strong women) they showed less negative attitudes in implicit measures compared to natural imagination and not-imagination groups. After proving effect of mental imagery on stereotypes with different measures in five experiments, they stated that stereotypes are changeable if “controlled processes like mental imagery” are used at the beginning or end of stereotype development. Also, mental imagery has an important role in behaviors too like in action selection, rehearsal preparation and planning (Marks, 1999). For example, bystander effect can be observed by imagination including others. Garcia, Weaver, Moskowitz, and Darley (2012) found that if

participants imagine themselves in a meal with ten people, they tend to show helping behavior less on a different task than participants who imagined a meal with one person. It means people show similar response found in bystander effect although they are just imagining a crowd, and the contribution of others in helping behavior is impossible. Lastly, affective manifestations can be examined via imagined social comparison as a self-enhancement strategy. For instance; Lobel and Taylor (1989) found that there is a tendency among cancer patients to use downward comparison with imagined others who are less fortunate. Therefore affective manifestation of this imagined comparison become positive (Lobel & Taylor, 1989).

Because imagination and perception –therefore memory- are similar, people sometimes became confused. They need to evaluate information related with experience to confirm if it is real or imagined. For example; Johnson, Foley, Suengas, and Raye (1988) asked participants to explain how they decide whether a memory is imagined or actual (Study 2). They found that people give attention to (a) memory as its perceptual, temporal and location data and emotional response toward it; (b) related evidences like tickets for a concert; and (c) assumptions depending on real life. According to the results of Johnson et al. (1988) it is possible to think that details about and related to a memory are more important at decision about its source; on the other hand details tend to be lost in times. Therefore it is possible to confuse imagination and perception as they are so similar.

These similarities may depend on similarities in neurological and psychological processes. Neurological studies showed that perception and imagination uses similar neurological activities in brain (Farah, 1989; Kosslyn, Granis, & Thompson, 2001). As mentioned by Kosslyn et al. (2001), autonomic nervous system, such as heart rate and breathing, and amygdala activation can be found when emotional events are imagined too. Kosslyn et al. (2001) stated that this is the evidence that imagination creates same responses on the human body as seen in perception. Also some studies showed that

people with brain damage in perceptual areas cannot use these areas in their imagination too (see Levine, Warach, & Farah, 1985). Therefore, imagination and perception activates same neurological activities and may lead to same physical responses (Kosslyn et al., 2001).

In addition to similarities in neurological processes, imagination and perception are also alike in psychological processes. For example; Edwards, Honeycutt, and Zagacki (1988) studied imagined interactions in interpersonal level and defined imagined interaction as social cognitive process in which there is imagination and indirect experiencing (Zagacki, Edwards, & Honeycutt, 1992) of a communication with significant others including conversational figuration in cognitive system. Edwards et al. (1988) stated that imagined interactions may have a power to generate or enable scripts in individuals' cognitive system; in turn, their possessed scripts become partially gained scripts via imagination. They claimed that these scripts may be functional or dysfunctional but they help to collect related information for future script generation or alteration. In one experiment, Honeycutt, Zagacki, and Edwards (1990) found that people have tendency to use imagined interaction more frequently before an actual interaction rather than after an actual interaction. They stated that this shows that imagined interaction has a rehearsal and planning function for an upcoming interaction because people use it to prepare. But there is also evaluative function of imagined interaction after an event. Honeycutt et al. (1990) stated that aim of this evaluative function can also be a preparative function (or planning) for possible future interaction. Also Honeycutt (1989) explained functions of imagined interaction as (a) planning and measuring social activity, (b) rehearsing and maybe discovering variables in situation, and (c) practicing for possible future conversation. Depending on this information, it can be said that imagination can be a useful tool to deal with intergroup problems too.

Under the light of this information, effect of imagined contact is not surprising until effect of real contact is obvious depending on the literature.

However it is needed to look for experiments and results of imagined contact studies to realize its real impact.

1.3.2 Imagined Intergroup Contact Theory in the Literature

Imagined Contact Theory is a new theory; thus theoreticians have been trying to identify its effect and underlying mechanisms with several studies. Studies started with effects of imagined contact as effectiveness is needed to be found before looking for working principles. That's why I will start with the literature showing effectiveness of Imagined Contact Theory.

1.3.2.1 Impact of Imagined Contact

Imagined contact studies in which facilitative effects were studied can be explained under two categories; out-group attitude change and increase in future intention. Out-group attitude change includes both implicit and explicit changes; and cover different attitude responses like stereotypes and in-group favoritism.

1.3.2.1.1 *Out-group Attitudes*

Out-group evaluation studies in imagined contact literature studied decrease in in-group bias, self-trait projection, stereotype change, generalization from member to group, decrease in self-stereotyping, and effect on implicit attitudes. Effective area of the imagined contact becomes visible with these studies' findings.

Firstly, Turner, Crisp, and Lambert (2007) investigated imagined contact effect on ingroup bias. They found that when young participants imagined a contact situation with an elderly, they reported less intergroup bias when compared to participants who imagined an outdoor activity (Study 1) and compared to participants who just "thought about elderly people" (Study 2). They also used heterosexual men as participants and asked to imagine a contact situation with an homosexual man, and their out-group evaluation became

positive and more heterogeneous compared to control group; and their reduced prejudice mediated via decreased intergroup anxiety (Study 3).

Secondly, Stathi and Crisp (2008) also showed that out-group evaluation change can be examined in self-trait projection to out-group. Self-trait projection is important for out-group attitudes, as it leads to in-group favoritism (see Robbins & Krueger, 2005). Clement and Krueger (2002) stated that positive self-trait projection tends to occur more for in-group members rather than out-group members. Stathi and Crisp (2008) found positive self-trait projection via imagined contact. Also, more overlap among positive self and out-group traits is found (a) within ethnically majority group than minority group in Mexico (Study 1); (b) for people who have less national identification than who have high national identification (Study 2); and (c) when self is salient rather than group before positive imagined contact manipulation (Study 3). Therefore, positive trait projection can be found via imagined contact, even magnitude of imagined contact effect change depending on some issues found in studies of Stathi and Crisp (2008). These results do not mean that imagined contact is not a successful way for some people (e.g., high identifiers); rather, it means effect of imagined contact may vary for different people, and different strategies in imagined contact leads positive attitudes (e.g., shifting focus of high identifiers from collective self to personal self) (Crisp, Stathi, Turner, & Husnu, 2008; Stathi & Crisp, 2008).

Thirdly, Brambilla, Ravenna, and Hewstone (2012) looked from perspective of Stereotype Content Model and conducted an experiment to explore whether imagined contact effect is examined for different groups as out-group evaluation varied among two dimensions; namely warmth and competence. Stereotype Content Model (SCM) states that our out-group evaluation depends on perceived warmth and competence level of that group (Fiske, Cuddy, Glick, & Xu, 2002). Brambilla et al. (2012) looked for three different out-groups proposed by SCM as dehumanized, envied, and

paternalized groups; and they found that imagined contact effect is available for all out-groups.

Fourthly, generalization of positivity in imagined contact from a member to whole group was studied by Stathi, Crisp, and Hogg (2011). They stated that, if imagined contact has a preparatory function, it must engage people to get in contact via feeling of confidence to interact with outgroup members and ability to generate gained benefits of imagined contact to all members of that out-group. To demonstrate this hypothesis, they conducted three studies and asked participants to imagine a positive contact. It is found that these participants reported confidence in their intention for future contact with the members of out-group in general (Study 1), this generalization effect was higher when information about group was salient (Study 2) and when the imagined out-group member was a typical person for that out-group (Study 3). In another study, Harwood, Paolini, Joyce, Rubin, and Arroyo (2010) showed that similarity between in-group and out-group increases even generalization tendency of participants to another group (secondary transfer) after an imagined contact situation.

Fifthly, stereotype changing effect of imagined contact is also available for self-stereotyping attitude. For example; groups, who are under risk of accepting negative stereotypical information as true for them, are studied in imagined contact studies. Abrams, Crisp, Marques, Fagg, Bedford, and Provias (2008) conducted an experiment to older people who were aged over 60 and tested effect of imagined intergenerational contact on sustaining older people's math performance when older people are under stereotype threat (see also Crisp & Abrams, 2008). Specifically, they asked older participants to imagine a social contact with a young person. They found that imagined contact has a positive impact on performance sustain through decreasing anxiety level when there is age-related stereotype threat. It is stated that this kind of performance (like defeating stereotype threat in a situation) may lead to an increase for latter performances and intention to future contact; and to a decrease in tendency of

self-stereotyping. It means imagined contact has another function to “free individuals” from self-stereotyping threat (Crisp & Abrams, 2008).

Lastly, beside findings of explicit out-group evaluation in imagined contact, implicit evaluation change studied in the literature too. Turner and Crisp (2010) conducted two imagined contact studies and measured prejudice via implicit association test. In the first study, they found that young participants who thought a conversation with an elderly person in imagined contact condition exhibited more positive implicit evaluation toward whole out-group which was elderly people. In the second study Turner and Crisp (2010) investigated non-Muslim participants implicit attitudes toward Muslim people and results showed that non-Muslim people showed more positive evaluation toward Muslims in implicit measurement. Therefore, it can be concluded that imagined contact is effective even in implicit attitudes.

However change in out-group attitudes becomes more efficient if it leads to a tendency for future behavior. To explore whether effect of imagined contact predicts future behavior, researchers conducted experiments on the topic of future contact intention and behavior.

1.3.2.1.2 Intention and Behavior for Future Contact

Aforementioned, imagined contact was defined as a tool before a real contact situation which encourages and prepares people to get in future contact with broad-mindedly (Crisp & Turner, 2009; Crisp et al., 2010; Turner & Crisp, 2010). Thus, it is stated that imagined contact may become “a critical first step needed to kick-start an interest in engaging positively with outgroups” when there is unrealized opportunity for intergroup contact (Crisp et al., 2010; Turner & Crisp, 2010). Depending on these assumptions, some experiments were conducted to explore future contact intention and behavior just before the real contact.

Firstly, studies interested in if imagined contact creates an intention to get a future contact. Husnu and Crisp (2011, 2010a) conducted some

experiments and explored whether there is an increase on future intention to get in contact under imagined contact manipulation. Husnu and Crisp (2011, 2010a) also stated that concrete and specific imagination leads people to perceive an action as attainable, so they manipulated vividness of an imagined contact via detailed imagination and closed eyes to examine whether there is an impact on future intention. To create this effect, they asked participants to imagine a contact situation elaborately with “when” and “where” questions in instruction to create detailed imagination (Husnu & Crisp, 2011, Study 1; Husnu & Crisp, 2010a, Study 2). They found that (a) participants in imagined contact condition showed higher future intention for contact (Husnu & Crisp, 2010a, Study 1); (b) elaborated imagination is more powerful than classical manipulation on future contact intention (Husnu & Crisp, 2010a, Study 2), and they showed higher number of future acquaintances estimation for elderly people (Husnu & Crisp, 2011, Study 1); (c) participants in closed-eye condition showed greater future intention when compared with participant in open-eye condition (Husnu & Crisp, 2011, Study 2); and (d) elaborated imagined condition created and availability heuristic which is easier to recall after one day delay (Husnu & Crisp, 2010a, Study 3). Therefore, these studies show that enhancing vividness in imagination, no matter how it is created, increases future contact expectation and intention (Husnu & Crisp, 2011).

Mediators of future intention were studied additionally in the literature. In the article of Crisp et al. (2010); and Husnu and Crisp (2010a), researchers proposed that there are mediator effects of cognitive and affective routes (cognitive scripts and anxiety) on relation of imagined contact and intention for future contact. They defined cognitive route as script availability including “more vivid, cue rich, and accessible behavioral scripts” (Crisp et al., 2010, p.215). Availability of behavioral scripts was indicated as having a mediator role on relation of imagined contact effect with intention and behavior for future actual contact. The existence of that behavioral script was also shown in previous studies such as found by Husnu and Crisp (2010a) with availability

heuristic which was found with one day delay; and by Crisp and Husnu (2011) with increased intention via dispositional positive out-group attitudes (Crisp et al., 2010). Affective route, on the other hand, was defined as related with reduced anxiety level. Researchers found that decrease in anxiety level has a moderator effect on relation of imagined contact and future intention (Husnu & Crisp, 2010a). Crisp et al. (2010) also stated that there may be other routes such as empathy, perspective taking and inclusion of others into self.

Secondly, Turner and West (2011) looked for behavioral consequences of imagined contact. They asked participants to imagine a positive contact either with an obese person (Study 1) or with a Muslim person (Study 2). Then, they stated that the participant who imagined an interaction will be a part of a discussion with someone (who are either obese or Muslim), and needs to set two chairs in the discussion room. Turner and West (2011) measured the distance between chairs arranged by participants and they found that participants who imagined an interaction with an out group member, set chairs as being closer to each other when compared with chair arrangement of participants who are in the control condition. Researchers stated that this result proves practical importance of imagined contact, and its preparatory being for real contact.

1.3.2.2 Mechanisms of Imagined Contact

As mentioned so far, imagined contact is an important tool to deal with intergroup problems. It also gives opportunity to understand human psychology with its underlying mechanisms. However, to take advantage from imagined contact, in which conditions it works better and the underlying mechanisms should be known.

1.3.2.2.1 Proper Manipulation Conditions

To use imagined contact as a tool for enhanced intergroup relations, we need to know proper imagination conditions which include “contact” and

“positivity” in instructions, making imagined group salience rather than person and asking for “focus on affect” during imagination.

Turner and Crisp (2010) defined proper conditions in imagination; imagined contact should include “interaction” with an out-group member to get its prejudice decreasing effect and to differentiate it from out-group priming (e.g., imagining out group category) which may activate out-group stereotypes (Crisp et al., 2008; Turner & Crisp, 2010). As mentioned by Turner, Crisp, and Lambert (2007), imagined contact is different than priming stereotype category which will activate and lead negative attitudes as seen in experiment of Bargh, Chen, and Burrows (1996) (see also Crisp and Turner, 2009). Bargh et al. (1996) found that participants who asked to “think about out-group category” showed negative attitudes and behaviors toward out-group (Turner, Crisp, & Lambert, 2007). However, Turner et al. (2007) stated that thinking about out-group category (out-group priming) and imagining a contact are not the same; instead, imagining contact requires thinking about “interaction itself”. People need to think reciprocal conversation and behaviors as similar in real contact. To prove that imagined contact is different than priming, Turner et al. (2007) conducted an experiment and compared results of participants who imagined a contact situation and who thought about category (elderly people) (Study 2). They found that people in imagined contact situation showed less intergroup bias than people in priming condition.

Secondly, there needs to be “positivity” in imagination. It is stated that including positivity in imagination instruction (e.g., asking participants to imagine that s/he finds something positive in imagined contact) is an important part (Crisp et al., 2008; Turner & Crisp, 2010). Although prejudice decreasing effect of imagined contact was found in some studies even when there is natural instruction instead of positive one (e.g., Abrams et al., 2008; Husnu & Crisp, 2010b; Stathi & Crisp, 2008; Turner & Crisp, 2010, Experiment 1); West, Holmes, and Hewstone (2011) showed that using imagination about natural contact may lead to “detrimental effect” for some out-groups. In their

first experiment, West et al. (2011) compared positive and natural imagined contact situations with a person with schizophrenia. They found that there was not a difference in attitude level between positive and natural imagination; also there was an increase in intergroup anxiety level, and participants reported their imagined contact experience as overall negative in imagination condition (Experiment 1). Because people have tendency to expect and interpret coming information with prior knowledge (Darley & Gross, 1983), people may continue their attitudes in imagination with these kinds of previous expectations (West et al., 2011). This explanation can be acceptable if people have problems even to think about a positive situation with an out-group member. West et al. (2011) found that giving participants previous information including positive counter-stereotypical information about schizophrenic people also did not help to create positive attitudes; intergroup anxiety level increased in this manipulation too, because people may accept this counter-stereotypical person as sub-typical (Experiment 2). They concluded that to deal with these kinds of problems, explicitly mentioning and integrating positivity into imagined task via such as giving the whole scenario can create better results for some out-groups (West et al., 2011). These results show that individuals may give different response to slight differences in imagined task. Therefore; underlying mechanism may change depending on slight differences and to create correct facilitative effect, imagination conditions should be carefully selected.

Thirdly, out-group salience in instruction is important especially for generalizing positive changed attitudes toward out-group. Pagotto, Visintin, De Iorio, and Voci (2012) conducted a study to examine effect of group/person salience in imagination on attitudes and cooperative intentions. They found that participants who imagined talking with a Muslim stranger about intergroup issues (e.g., values and religion) showed higher positive attitudes and cooperation intention with the out-group, when compared with responses of participants who imagined talking with a Muslim stranger about personal

issues (e.g., hobbies). Pagotto et al. (2012) suggests practitioners to manipulation covering out-group salience to create more powerful effect.

Lastly, turning attention toward affect during imagination has a facilitative effect. Although it is not a requisite as a manipulation, in some studies it can be helpful. Kuchenbrandt and Eyssel (2011) asked participants to focus on either feelings or thoughts of their own during imagining a positive or natural contact condition. They found that German participants in positive imagination condition reported their attitudes as more positive toward Turks than in natural condition. It was also stated that participants who focused their affect during imagination showed more positive attitudes when compared to participants who focused their cognition. Thus, theoreticians suggested practitioners an alternative way to get improved imagined contact effect via encouraging participants to focus on their feelings during imagination.

In conclusion; literature suggests that contact and positivity in instruction to be included; also, out-group salience and sometimes focus toward affect can be requested from participants to create more powerful effect. However, knowing and selecting the appropriate imagination task is not sufficient to create facilitative effect and to understand underlying mechanisms. There are different studies in which effectiveness of different strategies were found. In the next part, studies which aimed to create facilitative effects will be covered by looking at two perspectives in the literature under two titles; detailed imagination and exemplar creation in imagination.

1.3.2.2.2 Detailed Imagination; *Elaborated Imagination and Source Confusion*

Detailed imagination strategies generally aimed to increase detail or vividness in imagination. Some researchers manipulated detail in imagination by asking participants to imagine when and where the imagined contact was happened during imagination of a positive contact with an out-group member (e.g., Husnu & Crisp, 2010a; Husnu & Crisp, 2010b; Husnu & Crisp, 2011). Other researchers asked more details including imagined scenario and the

participant's feelings and thoughts (e.g., Frye & Lord, 2009; Fry, Lord, & Brady, 2012; McIntyre, Lord, Lewis, & Frye, 2004).

The first group of studies, as mentioned above, used when and where questions. This manipulation called elaborated imagination manipulation (e.g., Husnu & Crisp, 2010a; Husnu & Crisp, 2010b; Husnu & Crisp, 2011). These strategies were used to increase impact of imagined contact. For example; Husnu and Crisp (2010a) used "elaboration" manipulation by asking participants to imagine a contact with an out-group member including when and where this situation happened. They stated that when and where questions lead participants to imagine "elaborately" than imagination without questions. When they compared results of elaborated imagination and classical imagination, it was found that elaborated imagination condition was more effective in future contact intention. This effect is attributed to both decrease in anxiety level and vividness of imagined scenarios (Husnu & Crisp, 2010a). It is also found that elaborative imagination creates availability heuristic. Husnu and Crisp (2010a) found that participants in elaborative imagination condition (including when and where questions in the instruction to create detailed imagination) reported their imagined scenarios one day after as easier and quicker to remember than participants in classical imagination condition.

In another study, Husnu and Crisp (2011) tried to manipulate vividness of imagined scenario. They stated that making event detailed in mind such as imagining them with concrete and specific forms, leads people to believe some action as more attainable. Also, as they mentioned, there are studies in which it is found that people show tendency to believe occurring possibility of hypothetical events they imagined (e.g., Gregory, Cialdini, & Carpenter, 1982; Pham & Taylor, 1999). Husnu and Crisp (2011) showed impact of vividness of scenarios on imagined contact effect via two studies. In first study, they compared classical/standard imagination condition with elaborated imagined condition (including when and where questions in instruction). It is stated that elaborated condition would lead more detailed, "cue-rich" and vivid scenario

as available in their mind. They found that participants in elaborated imagination condition showed higher future intention to contact. In the second study, to increase vividness, they asked subjects to imagine a contact with a strange elder person using standard instruction but with either open or closed eyes. Results showed that participants in the close-eye condition showed greater future intention to contact compared to participants in the open-eye condition. Therefore, they stated that increasing vividness via either detail or closed-eye manipulations in imagination leads to an increase in future contact intent.

Other researchers tried to manipulate details via asking more detail in imagination like more specific detail in imagined scenario and participant's cognitive and affective responses about that imagination (e.g., Frye & Lord, 2009; Fry et al., 2012; McIntyre et al., 2004). These researchers stated that if details in imagination lead to source confusion and if individuals think that imagined action happened, and then their actual response may stem from their wrong remembered memories.

In the literature, there is a role of past actions on current attitudes (e.g., self-perception theory of Bem, 1967; cognitive dissonance theory of Festinger, 1957). It means that sometimes people need to look at their previous actions to evaluate current attitude. However; McIntyre et al. (2004) asked that what if our attitude determining memories are the memories which were imagined and never happened before? It is stated that false memory (through source monitoring confusion) may lead to change in evaluation of the current attitude (Frye et al., 2012; McIntyre et al., 2004) (for source monitoring confusion, see also Johnson, 2006).

It is found that errors in source monitoring have an impact on attitudes (Frye & Lord, 2009; McIntyre et al., 2004). Studies about imagined action, which was defined as previously denied but positive action toward a member of out-group, sometimes leads to report as those actions happened (Frye & Lord, 2009; Fry et al., 2012; McIntyre et al., 2004). In the study of McIntyre et

al. (2004), three sessions were used to collect data. In the first session participants were asked to report their attitudes toward different out-groups, and indicate actions taken in the past toward these different out-groups. After two weeks, in the second section they introduced participants as it is another separate study, and asked participants to write hypothetical stories including positive actions which never happened before toward different gay men (Study 1). These actions were chosen from first experiment in which participants were rated as never happened. As details in imagination found as an indicator for false memory in the literature (e.g., Johnson, Foley Suengas, & Raye, 1988); researchers asked participants to write their scenarios as detailed, from first person perspective and including positive actions to create source confusion. Lastly, in the third session they asked participants to report their attitudes via questionnaire used in the first session, but sequence of questions were changed. It is found that participants with more memory confusion reported more change in their attitudes, and this result was only significant when imagination included the subject as actor rather than a different person. Also, Frye and Lord (2009) showed that amount of detail in imagined scenarios has an impact on both amount of errors in memory and extent of out-group evaluation change.

In another study of Frye et al. (2012) attitude change after persuasive speech and after imagined action were compared. They found that number of errors in source monitoring can be examined in both imagined action and persuasive speech conditions which were found as same as effective for attitude change (Study 1). However number of error rate was larger and its relation with attitude change was significant only in imagined action condition. Moreover, attitude change was found as significantly more positive in three weeks delay after manipulation than immediate responses; and attitude change did not predict memory errors in immediate attitude measuring, but errors in memory predicted the change in attitudes significantly.

In these studies it was found that detail in imagination enhances the imagined contact effect. This enhanced effect may open an aperture to realize underlying mechanism of human psychology from imagination literature. Depending on the result of the “detailed imagination” studies, it can be stated that trace or detail in memory with wrong remembering and source confusion after imagination may create its effect (e.g., Frye & Lord, 2009; Fry et al., 2012; McIntyre et al., 2004). However, there is another perspective in the literature which shows effect of having exemplar in imagination.

1.3.2.2.3 Exemplar Creation in Imagination: *Social Learning Paradigm*

In another study of Husnu and Crisp (2010b), social learning paradigm of Bandura and Menlove in 1968 was mentioned. Bandura and Menlove (1968) used either broader sampling of modeling or single modeling to deal with a child’s fear of dog. In the broader sampling group, the child watched different people interested with different dogs; but in the single modeling group the child watched one person with a dog. They found that broader sampling helps to overcome fear of dog and enabled child to join interaction with dogs when compared with single-modeling. Depending on study of Bandura and Menlove (1968); Husnu and Crisp (2010b) divided experimental group into two categories as homogeneous and diverse conditions. They requested from participants to make three imaginations one by one. In homogeneous condition; Turkish Cypriot participants were asked, after first imagination, to imagine “another Greek Cypriot stranger at the same time and place” for second and third imagination. In the diverse condition; they asked to imagine “another Greek Cypriot stranger at a different time and place” for second and third imagination. In the control condition, participants were asked to imagine an outdoor scene. It is found that participants in both diverse and homogenous conditions showed higher intention to future contact; however, difference between control condition and homogenous condition was only marginally significant. Thus; Husnu, & Crisp (2010b) stated that “repeated imagined

contact in different contexts enhances intention to engage future contact more clearly than repeatedly imagining elaborated contact in contextually homogeneous settings” (p.104).

Therefore, the underlying mechanism may be that imagination of getting into contact with a member of out-group lead us to accept the imagined member as “exemplar”. This is second possible explanation for mechanism of imagined contact.

Under the light of this information, there are two different enhancement strategies and two possible explanations for underlying mechanism of imagined contact. However there is not a study in the literature in which comparison between these manipulation techniques were conducted, and there is not any finding which shows higher power of one of the manipulations and possible underlying mechanism. Depending on the literature mentioned above, I believe that finding the most effective manipulation technique can be a gateway to understand human cognitive system from social psychology perspective, as it shows which imagination or thinking style is important for human cognitive system. Therefore, one of my purposes in the thesis is to explore whether there is a difference between these manipulations and whether one of them is more powerful.

1.4 Aims of the current research:

In this thesis, two studies were conducted related with Imagined Contact Theory. In all studies I am interested in effects of Imagined Contact Theory on prejudice. However; in the first study, my aim was to find practical implications; and in the second study, my aim was to find theoretical implications of imagined contact on understanding of human psychology. In the first study, imagination habit is examined as an individual difference to explore whether there is a facilitative effect of this habit (Study 1a). Specifically I wondered if participants who use imagination more in daily life than other people show more decrease in prejudice level after imagination

manipulation when compared with participants who do not use imagination frequently. Also, long term effect of imagined contact is investigated (Study 1b). In this study, long lasting effect of imagined contact is sought among participants who are using imagination more in daily life and who are not. Therefore, in these two studies (Study 1a and Study 1b), I expected to examine whether daily application of imagined contact is an effective way to deal with prejudice. If it is; for example, people in social services may lead people to use imagination as an out-group attitude enhancing tool in especially more segregated places in which contact between groups is impossible or difficult. In the second study, manipulation techniques used in literature was compared to explore which one is more effective. These techniques were detailed imagination and exemplar imagination manipulations which were introduced before. Though both of these manipulation techniques were found as effective, which one is more powerful is an unknown question. Depending on the results of the second study, more effective manipulation technique and thinking habit for human cognitive system can be examined by using imagination as a tool. Hypothesis and detailed information about studies is given in next two chapters. Later there is a general discussion and conclusion about these studies in the fourth chapter.

CHAPTER 2

STUDY 1

2.1 Hypotheses of the Study 1a

In the Study 1a, I examined an individual difference to explore whether there is a facilitative effect of this individual difference on imagined contact. As an individual difference, I wondered the impact of imagination habit if there is. For example; people who use imagination more in daily life than others may show facilitative prejudice decreasing effect after an imagined contact manipulation. To test individual difference, I collected data from Fantasy Role Playing (FRP) gamers who use imagination in their games and not-FRP players to examine individual difference in the Study 1a.

Petterson (2006) defined roleplaying as “*roleplaying is the art of experience, and making a roleplaying game means creating experiences*” (p.101). Depending on this definition, it can be thought that roleplaying gamers gain new experiences via imagination, and they tend to use imagination to “create experiences” (Petterson, 2006, p.101). Thus, they are an appropriate population to examine individual differences in Imagined Contact Theory. However there are different kinds of role-playing games and it is needed to decide which one is proper to Study 1a.

Some of the different kinds of role-playing games are table-top, live-action, single player digital and multi-player online roleplaying games (Hitchens & Drachen, 2009). Though single player digital and multi-player online roleplaying games limit imagination by giving visual cues, live-action and table-top games do not. Also, live-action roleplaying is not proper because it may use different processes too when compared with imagined contact manipulation. However, imagination procedure in table-top roleplaying games is more similar with imagined contact manipulation. Therefore, table-top roleplaying gamers were decided to be used as participants.

Depending on definition of table-top roleplaying games of Hitchens and Drachen (2009), there are two basic roles in that roleplaying; game master and players. Generally one person gets responsibility to be the game master and defines world of the game. Other players get responsibility of their own characters. The game includes definition of characters' action or descriptions of the world of game verbally. Although there are limitations in games (e.g., power or personality of the character; or limited directions of the game master), people are still free to choose their imagined action.

Depending on this knowledge, especially because FRP gamers need to use imagination while playing, FRP players (especially who play FRP frequently), may show enhanced imagined contact effect on their prejudice levels.

Therefore; I conducted 2 (FRP gamer vs. not-player) X 2 (imagination vs. no-imagination) ANCOVA; controlling the effects of intergroup anxiety and previous contact. In this study, attitude toward homosexuals was investigated since it was found as most effective in Intergroup Contact Theory (ICT) studies (Pettigrew & Tropp, 2006). I accepted intergroup anxiety and previous contact as covariates depending on the literature. For example; Crisp et al. (2010) and Husnu and Crisp (2010a) found that intergroup anxiety is one of the mediator in imagined contact effect. Also studies in the literature it was stated that real contact can be more effective when compared with imagined contact (Turner et al., 2007). Thus it is possible that people who have previous contact may show their attitudes depending on their real contact experience, but not on imagined contact experience.

Following hypotheses (H) were tested in the Study 1a;

H1: There will be a main effect of imagined contact on *attitudes toward homosexuals* when intergroup anxiety and previous contact variables are controlled. Thus; in imagination condition, all participants will show more positive *attitudes toward homosexuals* when compared with participants in no-

imagination condition when impact of covariates, which are intergroup anxiety and previous contact, on attitudes toward homosexuals are controlled.

H2: There will be an interaction effect of imagined contact and FRP on *attitudes toward homosexuals* when intergroup anxiety and previous contact variables are controlled. Thus; FRP players' attitudes toward homosexuals in imagined contact condition become more positive when compared with attitudes of not-players in imagination condition.

H3: There will not be a main effect of imagined contact on *attitudes toward homosexuals* when intergroup anxiety and *previous contact quality* variables are controlled for whom has previous contact.

H4: There will be a main effect of imagined contact and interaction effect of imagined contact and FRP on *future contact intent* when intergroup anxiety and previous contact variables are controlled.

2.1.1 Method

2.1.1.1 Participants

One-hundred-twenty-seven participants participated to this study. Participants selected from different departments of 10 different universities. Majority of the participants were from METU and Gazi University (84 and 27 subjects respectively). Participants were allowed withdrawing from the experiment at any time; only one of the participants left the experiment, and stated that the withdrawing reason is religious.

There were 5 people reported their sexual orientation as bisexual, 1 person reported his/her sexual orientation as homosexual, and 5 people did not report his/her sexual orientation. These subjects were excluded from the analysis because aim of the study is to see out-group evaluation which was specifically homosexuals' evaluation. Also, 7 subjects were excluded as they imagined a negative contact. In the literature, it is mentioned that imagining a 'positive contact' is important (Crisp, Stathi, Turner, & Husnu, 2008; Turner & Crisp, 2010); and instruction without direction to positive contact may even

lead to increase negative attitudes (e.g., West, Holmes & Hewstone, 2011). Therefore, these subjects who did not report their sexual orientation and who imagined a negative contact situation were excluded from the analysis. Lastly, one subject was excluded as he/she was both univariate and multivariate outlier. Thus, analysis was conducted to 107 participants. Lastly, normality and linearity assumptions were checked before conducting statistical analyses.

In the analysis, there were 47 FRP-player and 60 not-FRP-player subjects. Their age range 17 to 33 and 18 to 38 respectively. There were 36 men and 11 women who are FRP-player; and 21 men and 39 women who are not-FRP-player. Both FRP players and not-FRP players took either imagination manipulation or did not imagine anything before completing the questionnaire. Detailed demographic information can be found in the Table 1.

2.1.1.2 Instruments

A package of questionnaire was prepared including different scales; demographic information sheet, attitudes toward homosexuals scale, quality of previous contact scale, future intent scale, and intergroup anxiety scale.

2.1.1.2.1 Demographic Information Sheet

Demographic information sheet consists of eleven questions. In these questions, information about gender, age, university, department, socio-economic status, religious view, dependency to religious view and to tradition, political view, and living places were asked (see Appendix A).

Table 1: Demographic information for Study 1a

		FRP *	Not Player	Total
Imagination Condition		28	29	57
No-imagination (Control) Condition		19	31	50
Sex	Men	36	21	57
	Women	11	39	50
Age	Min.	17	18	
	Max.	33	38	
	M	23.28	21.82	22.46
	SD	3.67	2.98	3.36
Religious	Mode	Other	Muslim	Muslim
	M	2.72	3.43	3.12
Faith to religious view**	SD	2.08	1.94	2.03
	3 Big Cities	40	36	76
Maximum-lived-city	Other Cities	7	21	28
	Town	0	3	3
Political view***	M	3.28	3.45	3.37
	SD	0.90	1.32	1.15
Socioeconomic status****	M	4.45	4.50	4.48
	SD	1.04	1.55	.98

*FRP = Fantasy Role Playing Game

**7-point scale; 1 indicates totally not-faith and 7 indicates totally faith to religious view

***7-point scale; 1 indicates radical left-wing and 7 indicates radical right-wing

****7-point scale; 1 indicates lowest SES and 7 indicates highest SES

2.1.1.2.2 Attitudes toward Homosexuals Scale

Attitudes toward homosexuals scale of Hudson and Ricketts (1980) was translated to Turkish by Sakallı & Uğurlu and used in different studies related with prejudice against homosexuals in Turkey (e.g., Sakallı & Uğurlu, 2001; Sakallı & Uğurlu, 2002). There are 25 items in its original form, but one item in Hudson and Ricketts' scale in which "walking comfortably through gay section of town" was excluded in scale of Sakallı-Uğurlu, because there is not a section, in which gays are living predominantly, in Ankara (Sakallı & Uğurlu, 2001). Also, another item including "I would feel uncomfortable if I learned

that my spouse or partner was attracted to a member of his/her gender” was excluded as it implies being unfaithful of one’s partner and it implies a bisexual partner in contact.

In this 23-item scale, there were 12 reverse items and participants were asked to choose their agreement/disagreement level on 7-point scale in which 1 point refers to total disagreement and 7 point refers to total agreement with the items. Higher scores indicate positive attitudes and lower scores indicate negative attitudes toward homosexuals. Cronbach’s alpha for this scale was .96 and explained variance was 52.83 with 12.15 eigenvalue in this study (see Appendix B).

2.1.1.2.3 Quality of Previous Contact Scale

The quality of previous contact scale was adapted depending on previous contact and quality of previous contact questionnaires used in Husnu & Crisp (2010a). It is found that there is an effect of actual previous contact on future contact intention (Husnu & Crisp, 2010a); therefore it is decided to use this scale to control effect of previous contact.

In this scale; sexual orientation of participant, and previous contact with homosexual(s) were asked. Previous contact questions were; “Is there any homosexual person you know?”, “How many homosexual people do you know”, and “How much time do you spend with that /those homosexual person/people”. To determine quality of previous contact, question was used as; “Describe your relation with that/those homosexual person/people with given adjectives”. In this part, four adjective pairs were given as, superficial-deep, natural –forced, unpleasant-pleasant, intimate-distant. Participants were asked to rate each pair of adjectives on 7-point scale (for superficial-deep pair; 1 = shallow, 7= deep) (see Appendix C). In this scale high scores indicated high quality of previous contact; and low score indicated low quality of previous contact ($\alpha = .77$; eigenvalue =2.44; explained variance = 61.06).

2.1.1.2.4 Future Intent Scale

The future intent scale was taken from questions used in Husnu and Crisp (2010a) in which researchers adapted them from measure of behavioral intentions of Ratcliff, Czuchry, Scarberry, Thomas, Dansereau, and Lord (1999). In this future intent scale; six questions of Husnu and Crisp (2010a) were adapted and also one more question was added to find intention for future contact with a homosexual person. Because studies showed that facilitative out-group attitudes can be seen via future intention to get in contact with an out-group member (e.g., Husnu & Crisp, 2010a; 2011); this scale was included into Study 1a to confirm hypothesis via future intention responses too.

In this scale, 7 questions were “Do you have intention to get in social contact with a homosexual person in the future?”, “Can you join to a conversation within a group including homosexuals?”, “Do you think you will spend time to learn more about homosexuals in the future?”, “Do you think it would be good to be in social contact with an homosexual?”, “How important for you getting into contact with homosexuals is?”, “Do you think that you can join an occasion including large number of homosexual people?”, and “What is the possibility to get in a conversation with an homosexual stranger?” (Last question was added). 7-point scale was used (1= not at all and 7= very much). High scores indicated high intention and low scores indicated low intention for future social contact with a homosexual person ($\alpha = .85$; eigenvalue = 3.91; explained variance = 55.92) (see Appendix D).

2.1.1.2.5 Intergroup Anxiety Scale

Intergroup anxiety scale was adapted from questions used in Husnu and Crisp (2010a). Questions were adapted from intergroup anxiety questions of Stephan and Stephan (1985) in the article of Husnu and Crisp (2010a). As it is stated that anxiety reduction has a mediator effect on relation of imagined contact and out-group attitudes in the literature (e.g., Husnu & Crisp, 2010a;

Pettigrew & Tropp, 2008; Turner & Crisp, 2010), variation in intergroup anxiety level was decided to be examined.

In this scale, adjectives were given to participants to rate how they feel during a possible contact situation. Eight adjectives was used by Husnu and Crisp (2010a) like awkward, suspicious, calm, angry, embarrassed, annoyed, frustrated and anxious. Participants were asked to rate each adjectives in 7-point scale (1= extremely unlikely I feel; 7= extremely likely I feel). High scores indicated high intergroup anxiety and low scores indicated low intergroup anxiety. Cronbach's alpha was .92; total eigenvalue was 5.64; and explained variance was 62.70 for this sample (see Appendix E).

2.1.1.3 Procedure

To collect participants into this study, different strategies were followed as course credit and announcements. There were students from "Introduction to Psychology" and "Understanding Social Behaviors" courses which are given to students other than psychology department. These students who are mostly non-players took extra course credit to join this study. On the other hand, to get FRP players into this study, announcements were posted on Faculty of Art and Science building, FRP club room in METU, and shared via Facebook page of METU FRP page. Also data collected from FRP players came from different universities in an organization of FRP players called METUcon (METU convention) in METU.

At the beginning of the experiment, inform consents were given to all participants. The Aim of the study was defined as "finding relation between memory and imagination through attitudes". It is aimed to decrease all possible impact of expectation in the study before manipulation. Debriefing also was not given after Study 1a because participants were planned to participate in the Study 1b too.

Fifty-nine participants (22 FRP gamers and 37 not-players) did not take any manipulation, but just questionnaire including four different scales. These

participants' data were collected as control group data to examine baseline for prejudice level in this sample. 67 participants (30 FRP gamers and 37 not-players) took imagined contact manipulation. In the manipulation groups (for both FRP gamers and not-players) participants were asked to imagine a scenario including a homosexual in a contact situation. A similar instruction in the literature (e.g., Brambilla, Ravenna, & Hewstone, 2012; Husnu, & Crisp, 2010a; Husnu & Crisp, 2011) was given as follows;

“I would like you to imagine a scenario for one minute. In this scenario, please imagine that you are meeting with a homosexual person for the first time; and through your conversation, you find something positive, interesting or unexpected in that person”.

Participants in manipulation groups took one minute for imagination. Then, it was asked to write down their imagined scenarios. Writing imagined scenario is used in the imagined contact studies to “reinforce instructions” (Crisp et al., 2008, p.6). Because aim of the study was to explore whether there is an effect of individual difference on imagination, it was aimed to make participants free to give any detail they want without strict time limitation. After manipulation part, all participants in imagination conditions took questionnaire which was same with what participants took in the no-imagination (control) condition.

2.1.2 Results of the Study 1a

Firstly, I conducted a 2 (imagination vs. no-imagination) X 2 (FRP-gamer vs. not-gamer) between subjects analysis of covariance (ANCOVA) to discover if there is a significant effect of imagined contact and being a FRP gamer on *attitudes toward homosexuals*. Independent variables were imagination and being FRP-gamer or not; dependent variable was attitudes toward homosexuals; and covariates were previous contact (knowing at least one homosexual person or not) and intergroup anxiety. Results showed that there was a main effect of imagined conditions. It means; scores in attitudes

toward homosexuals were significantly different in imagination condition when compared with no-imagination condition ($F(1,101) = 4.00, p = .05, \eta = 0.04$) when previous contact and intergroup anxiety were controlled. Participants in imagination condition ($M = 5.43, SD = 1.13$) showed more positive attitudes toward homosexuals than participants in no-imagination (control) condition ($M = 4.45, SD = 1.68$). Also main effect for FRP game on homosexual attitude was significant ($F(1,101) = 5.36, p < .05, \eta = 0.05$). Homosexual attitudes were more positive among FRP players ($M = 5.62, SD = .87$) than subjects who are not FRP players ($M = 4.47, SD = 1.68$) (see Table 2). However, interaction of imagination manipulation and FRP was not significant ($F(1,101) = 2.82, ns.$). FRP players scores on homosexual attitude scale did not differ significantly in imagination condition ($M = 5.69, SD = .91$) than no-imagination condition ($M = 5.09, SD = .80$); but homosexual attitudes of not-FRP players changed significantly in imagination condition ($M = 5.18, SD = 1.29$) than in no-imagination condition ($M = 3.81, SD = 1.75$) when previous contact and intergroup anxiety were controlled (see also Table 3 and Figure 1).

Secondly, I conducted another ANCOVA in order to find whether imagined contact increased the positive attitudes toward homosexuals of subjects who have previous contact. In this analysis, attitude toward homosexuals was examined depending on imagination manipulation and FRP, when *quality of previous contact* and intergroup contact was controlled. In order to control quality of previous contact, participants who have a previous contact were selected to conduct this analysis. Thus, data of 76 subjects (44 FRP players and 32 not-FRP players) who reported that they have a previous contact with at least one homosexual person were used. Results showed that attitude toward homosexuals of whom has previous contact did not significantly change neither via imagination manipulation ($F(1, 70) = .51$); via (or without) FRP player being ($F(1, 70) = 3.29$); nor via interaction of FRP and manipulation ($F(1, 70) = .97$) when quality of previous contact and intergroup anxiety were controlled (see Table 4).

Table 2: Descriptive statistics for homosexual attitudes in Study 1a

Source	FRP Player *				Not-FRP Player				Total	
	<u>M</u>	<u>SD</u>	<u>Adj.</u>	<u>SE</u>	<u>M</u>	<u>SD</u>	<u>Adj.</u>	<u>SE</u>	<u>M</u>	<u>SD</u>
			<u>M</u>				<u>M</u>			
Imagined	5.69	.91	5.29	.19	5.18	1.29	5.12	.18	5.43	1.13
Contact										
Control	5.50	.80	5.22	.22	3.81	1.75	4.41	.18	4.45	1.68
Total	5.62	.87	5.25	.15	4.47	1.68	4.77	.13	4.97	1.49

* FRP = Fantasy Role Play

Table 3: ANCOVA results for homosexual attitudes in Study 1a

Source	SS	<i>df</i>	MS	<i>F</i>	<i>p</i>	Partial η^2
Previous contact (CV)	4.61	1	4.61	5.08	.03	.05
Intergroup Anxiety (CV)	54.22	1	54.22	59.73	.00	.37
Imagination manipulation	3.63	1	3.63	4.00	.05	.04
FRP *	4.86	1	4.86	5.36	.02	.05
Interaction	2.56	1	2.56	2.82	.10	.03
Error	91.68	101	.91			
Total	235.62	106				

* FRP = Fantasy Role Play

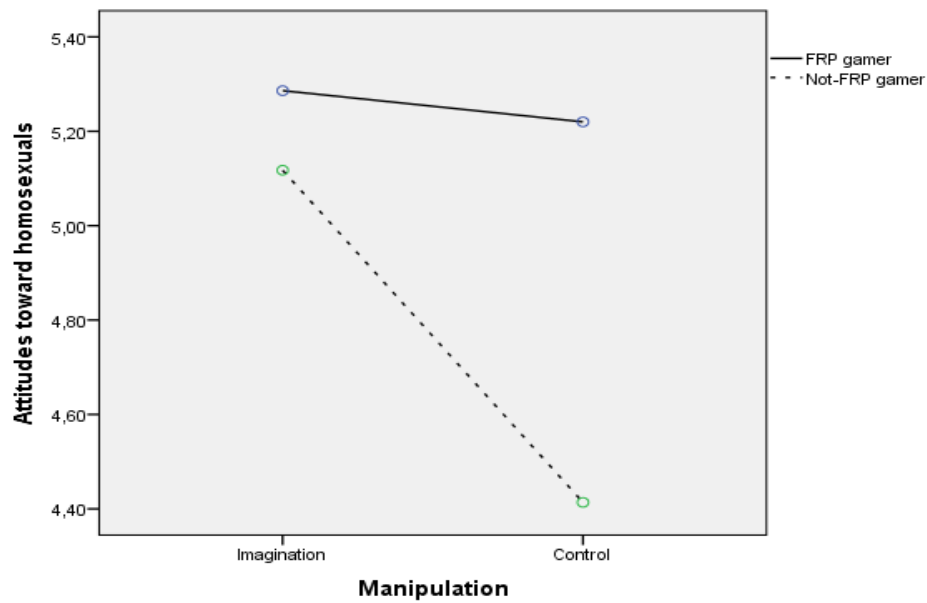


Figure 1: Attitudes toward homosexuals among FRP (Fantasy Role Play) players and not-FRP players in imagination and control conditions.*

(*Adjusted means are demonstrated)

Table 4: ANCOVA results for homosexual attitudes of who has previous contact in Study 1a

Source	SS	df	MS	F	p	Partial η^2
Quality of Previous Contact (CV)	5.33	1	5.33	6.24	.01	.08
Intergroup Anxiety (CV)	16.80	1	16.80	19.67	.00	.22
Imagination manipulation	.44	1	.44	.51	.48	.01
FRP *	2.81	1	2.81	3.29	.07	.04
Interaction	.00	1	.00	.00	.97	.00
Error	59.79	70	.85			
Total	2482.51	76				

* FRP = Fantasy Role Play

Lastly, I conducted another ANCOVA to explore effect of imagined contact and FRP on *future intent to get contact with a homosexual* when intergroup anxiety and previous contact scores were controlled. Results showed that there was not a main effect of imagined contact ($F(1,101) = 0.49$); main effect of FRP ($F(1,101) = 0.15$) and interaction effect ($F(1, 101) = 1.49$) on future contact intent; though participants' future contact intent was higher in imagination condition ($M = 5.02$, $SD = .13$) than in control condition ($M = 4.88$, $SD = .15$) (see Table 5).

Table 5: ANCOVA results for future intent to get in contact with homosexual people in Study 1a

Source	SS	df	MS	F	p	Partial η^2
Previous contact (CV)	2.06	1	2.06	2.08	.152	.02
Intergroup Anxiety (CV)	57.81	1	57.81	58.24	.00	.37
Imagination manipulation	.48	1	.48	.49	.49	.01
FRP *	.15	1	.15	.15	.70	.00
Interaction	1.49	1	1.49	1.50	.22	.01
Error	100.26	101	.99			
Total	2823.31	107				

* FRP = Fantasy Role Play

2.2.3 Discussion of the Study 1a

Throughout the Study 1a, I tried to explore answers of my four hypotheses. First hypothesis was that there will be a main effect of imagined contact on attitudes toward homosexuals when impact of previous contact and intergroup anxiety are controlled. It is found that participants in imagination

condition showed higher positive attitudes toward homosexuals than participants in control condition. This result showed that imagined contact is effective even when effect of intergroup anxiety and real contact is controlled. This result supports my first hypothesis and the literature in which imagined contact is found as effective (e.g., Abrams et al., 2008; Brambilla et al., 2012; Turner et al., 2007; Turner & Crisp, 2010; Stathi & Crisp, 2008; Stathi et al., 2011) (for detail, see topic numbered 1.3.2.1.1).

In the second hypothesis, I expected to find enhanced imagined contact effect of FRP players (because of their imagination habit) on homosexual attitudes. Results showed that (a) there is a significant main effect of being FRP player on homosexual attitudes; but (b) this effect disappears in interaction of FRP with imagined contact. It means FRP players have more positive attitudes toward homosexuals but this effect on attitude is independent from imagined contact manipulation. So, my second hypothesis is not supported in this sample.

There can be possible explanations for this unexpected result. Firstly, one possible reason is that it is found that most of the FRP players in my sample had reported their religious view either as other (indecisive, pantheist, pluralist, agnostic and deist) (20 of 47 participants) or as not-a-believer (19 of 47 participants). However people who are not FRP players reported their religious view as Muslim (41 of 60 participants). There may be a difference among FRP and not-FRP player participants' attitudes because of this difference in their religious view. As there are studies in the attitude literature which shows that religious view is an important determinant at attitudes toward homosexuals (e.g., McFarland, 1989), the difference between these groups may rise from the religious difference. Secondly; in control condition, FRP players' attitudes toward homosexuals was found as significantly more positive than not-FRP players' attitudes. Petterson (2006) stated that FRP players "create experience" in their games. Hence, they may be open to idea of variety of human being and may have positive attitudes already. Imagined contact may become less

effective to enhance positive attitudes to more positive attitudes. On the other hand, it is possible that, as FRP players use “fantastic” imagination (such as; fighting against dragons with swords), they may have a tendency not-to adapt their imagined scenarios in daily life. Therefore; this tendency may block the effect of imagined contact. There are possible solutions for these results. In future studies; it is possible to (a) create a sample including FRP and not-FRP players whose religious views are similar, and (b) take roleplaying gamers (or another variable which may lead to increase imagination habit) who did not imagine a “fantastic world” into future experiments.

In the third hypothesis, I investigated whether imagine contact has an impact for people who have previous contact when impacts of *quality of previous contact* and intergroup anxiety were controlled. I discovered in this sample that imagined contact is not effective on attitudes for people who have previous contact when I controlled previous contact quality and intergroup anxiety. This result shows that real contact and its quality is more effective and resists to be effected from imagined contact. It is consistent with the literature; for example, Crisp and Turner (2009, 2010) stated that it is unlikely if impact of imagined contact is more powerful and long lasting when compared to real contact. Thus, appropriate sample in imagine contact may include people who have not previous contact as suggested in the literature.

Lastly, I expected to find positive impact of imagined contact and being FRP player on future intent to get in contact with a homosexual person, when effect of previous contact and intergroup anxiety is controlled. In my sample, imagined contact and playing FRP did not predict future intent, when previous contact (knowing at least one person or not) and intergroup anxiety were controlled for. Results showed that neither main effects nor interaction were significant. This result does not support my third hypothesis. As an explanation, it is possible that especially intergroup anxiety is more powerful and effective variable for future contact (see Table 5). Although literature (see topic numbered 1.3.2.1.2) showed that decreased anxiety is a moderator on the

imagined contact for out-group evaluation (e.g., Turner, Crisp, & Lambert, 2007) and for future intent (e.g., Husnu & Crisp, 2010a; Husnu & Crisp, 2010b); imagined contact did not lead to future contact intent in this sample. This is an interesting result, because participants changed their attitudes in imagined contact manipulation significantly, but they did not change their intent for future contact. Stathi, Crisp and Hogg (2011) stated that, there is a preparatory function of imagined contact for future interaction, but it is not available in my sample. The difference between results of the current study and Husnu and Crisp's (2010a; 2010b) studies may come from differences in manipulation. In both of the Husnu and Crisp's studies (2010a; 2010b), "elaboration" manipulation was used by asking participants to imagine "when" and "where" the imagined contact is happening. Also; in the study Husnu and Crisp (2010b) asked participants to imagine three different out-group member. Because I did not examined the effects of different imagination techniques in this study, I did not include different instructions. It is possible that these manipulations may lead to increase future contact intent; however, as I did not include it to discover imagined contact effect independent from imagination instruction, I could not find this effect on future intent. For future studies, proper manipulation instruction for different dependent variables (either out-group evaluation or future contact intent) can be investigated.

As a result, I found imagined contact effect on attitudes toward homosexuals though there was not an interaction effect of imagined contact and imagination habit which was FRP sample in this study. However, it is needed to know if this effect of imagined contact lasts for long term or not. In the Study 1b, I examined long term effect of imagined contact.

2.2 Hypotheses of the Study 1b

In the Study 1b, long term effect of imagined contact was examined to explore whether there is a remaining effect of imagined contact after one month. As mentioned before, Imagined Contact Theory can be a better strategy

to deal with prejudice for both practitioners who strive to find solutions for prejudice and for target group who are prejudiced. However, if its effect is not persistent, the advantage being of imagined contact can be questioned.

Also, Turner et al. (2007) mentioned that some researchers stated that direct experiences are more powerful for attitudes when compared with indirect experiences; and there are some studies which show that direct contact (ICT) has stronger effect on prejudice than extended contact (e.g., Paolini, Hewstone, Cairns, & Voci, 2004). Therefore, effect of imagination is expected as weaker in the long term (Turner et al., 2007).

However there is a study in the literature in which enduring effect of imagined contact was found in children samples. Vezzali, Capozza, Giovannini, and Stathi (2011) asked children to imagine a contact with an immigrant child into different scenerios with 3 week intervention. After one week than three-week-imagined-contact-intervention, they found that children who imagined an interaction with immigrant peer displayed more positive implicit attitudes toward immigrant children. Therefore, they stated that imagined contact effect lasts for one week.

In the study of Vezzali et al. (2011), long term effect of imagined contact tested in one week duration and with children. In this current study, there will be a comparison for imagined contact in the long run with one month delay and with adult sample; and there is not an intervention period, participant made just one imagination in first participation. Thus, it is decided to compare two results of imagined contact and control conditions scores collected with one month delay to explore if imagined contact effect is still significantly different than no-imagination (control) condition after one month delay.

In the second study, same FRP gamers and not-gamers in the Study 1a were used, and they were asked to complete the same questionnaire used in the first study after one month delay. In the second study, attitudes toward homosexuals will be investigated again, as it was used in the first study. Thus,

between-subjects design is used. Following hypotheses (H) are planned to be tested in the Study 1b;

H1: There will be a remaining effect of imagined contact for homosexual attitudes after one month delay in imagination condition when compared with no imagination (control) condition.

H2: In imagination condition; attitudes toward homosexuals of FRP gamers will be more positive after one month delay when compared with scores of not-players.

H3: Because effect of future intent cannot be found in Study 1a, there will not be an effect of imagined contact on future intent in the second study too.

2.2.1 Method

2.2.1.1 Participants

Fifty-four participants in Study 1a (Trial 1) also joined to Study 1b (Trial 2). In the analysis, there were 19 FRP-player and 35 not-FRP-player subjects. Their age range was 17 to 29 for FRP-player ($M = 22.89$; $SD = 3.75$) and 18 to 38 for not-FRP-players ($M = 21.83$; $SD = 3.70$). There were 15 men and 4 women who are FRP-player; and 13 men and 22 women who are not-FRP-player. Both FRP players and not-FRP players took either imagination manipulation or do not imagined anything before completing the questionnaire in the first participation (in Study 1a). There were 32 participants in imagined contact condition (13 FRP and 19 not-FRP players) and 22 participants in no-imagination (control) condition (6 FRP and 16 not-FRP players). After about 31 day ($M = 31.13$; $SD = 1.63$) all of them completed the same questionnaire in their second participation. Detailed demographic information can be found in the Table 6.

Table 6: Demographic information for Study 1b

		FRP *	Not Player	Total
Imagination Condition (N)		13	19	32
No-imagination (control) Condition (N)		6	16	22
Sex	Men	15	13	28
	Women	4	22	26
	Min.	17	18	
Age	Max.	29	38	22.20
	M	22.89	21.83	3.72
	SD	3.75	3.70	
Religion	Mode	Other	Muslim	Muslim
Faith to religious view**	M	3.05	3.11	3.09
	SD	2.07	1.98	1.99
Maximum-lived-city	3 Big Cities	18	27	45
	Other Cities	1	8	9
	Town			
Political view***	Mode	Neutral	Close to left	Neutral
	M	3.47	3.34	3.39
	SD	1.07	1.30	1.22
Socioeconomic status****	M	4.68	4.57	4.61
	SD	1.11	1.04	1.05

* FRP = Fantasy Role Play

**7-point scale; 1 indicates totally not-faith and 7 indicates totally faith to religious view

***7-point scale; 1 indicates radical left-wing and 7 indicates radical right-wing

****7-point scale; 1 indicates lowest SES and 7 indicates highest SES

2.2.1.2 Instruments

The same package of questionnaire used in the Study 1a was given to participants to explore if there is a long term effect. Scales in the questionnaire package were demographic information sheet (see Appendix A), attitudes toward homosexuals scale (see Appendix B), quality of previous contact scale (see Appendix C), future intent scale (see Appendix D), and intergroup anxiety scale (see Appendix E). Detailed information about questionnaires can be found in instruments section of the Study 1a.

2.2.1.3 Procedure

Subjects in the Study 1a (Trial 1) were asked to participate in the Study 1b (Trial 2) after their first study completed, and participants' reminder cards were given including participant's and researcher's information; and second participation date with a one-month (30 days) delay. After 29 days, participants took a cell phone message as a reminder for one day later participations. Then, 30th day after first study, the package of questionnaire was sent to participants via email.

2.2.2 Results

As a follow up analysis, I conducted 2 (imagination vs. not-imagination) X 2 (FRP vs. not FRP player) ANCOVA on attitude toward homosexuals in Trial 2 and I controlled impact of previous contact and intergroup anxiety scores in Trial 2. Results showed that there is a main effect of imagined contact on attitudes ($F(1,48) = 9.38; p < .05; \eta = .16$). It means, homosexual attitude was significantly different in imagination condition; participants had more positive attitudes in imagination condition ($M = 5.57, SD = 1.02$) than in no-imagination condition ($M = 4.55, SD = 1.32s$). However, main effect of FRP ($F(1,48) = .04$) and its interaction with manipulation ($F(1,48) = .04$) did not create a difference on attitudes toward homosexuals, when impacts of previous contact (knowing at least one homosexual person) and intergroup anxiety variables were controlled (see Table 7, Table 8 and Figure 2).

In order to investigate effect of imagined contact and FRP on future contact intent in the Trial 2, I conducted another ANCOVA by controlling effects of previous contact and intergroup anxiety. ANCOVA results showed that there was not a significant effect of imagined contact ($F(1,48) = 3.01$), FRP ($F(1,48) = 1.15$), and interaction ($F(1,48) = .29$) on future contact intention (see Table 9). Participants in imagination condition ($M = 5.43, SD = 1.00$) showed more positive attitudes toward homosexuals when compared with

participants in no-imagination (control condition) ($M = 4.76$, $SD = 1.25$), but this difference was not significant (see Table 7, Figure 3).

Table 7: Descriptive statistics of Study 1b

Source			<u>Trial 2</u>			
			<u>M</u>	<u>SD</u>	<u>Adj.</u>	<u>SE</u>
			<u>M</u>			
Attitudes Toward Homosexuals	Imagination	FRP *	5.58	.78	5.46	.24
		Not-FRP **	5.56	.90	5.47	.20
	Total	5.57	1.02	5.47	.15	
	Control	FRP *	5.11	.90	4.63	.36
		Not-FRP **	4.34	1.42	4.74	.22
		Total	4.55	1.32	4.69	.20
Future Contact Intent	Imagination	FRP *	5.13	.93	5.08	.24
		Not-FRP **	5.64	1.01	5.52	.20
		Total	5.43	1.00	5.30	.15
	Control	FRP *	5.14	.78	4.78	.20
		Not-FRP **	4.62	1.37	4.93	.22
		Total	4.76	1.25	4.86	.20

* FRP = Fantasy Role Play /being Fantasy Role Play player

** Not- FRP = being not Fantasy Role Play player

Table 8: ANCOVA results for homosexual attitudes of Trial 2 in Study 1b

Source	SS	df	MS	F	p	Partial η^2
Previous Contact (CV)	4.59	1	4.59	6.37	.01	.12
Intergroup Anxiety (CV)	22.78	1	22.78	31.64	.00	.40
Imagination manipulation	6.76	1	6.76	9.38	.00	.16
FRP *	.03	1	.03	.04	.84	.00
Interaction	.03	1	.03	.04	.85	.00
Error	34.56	48	1.34			
Total	1520.16	54				

* FRP = Fantasy Role Play

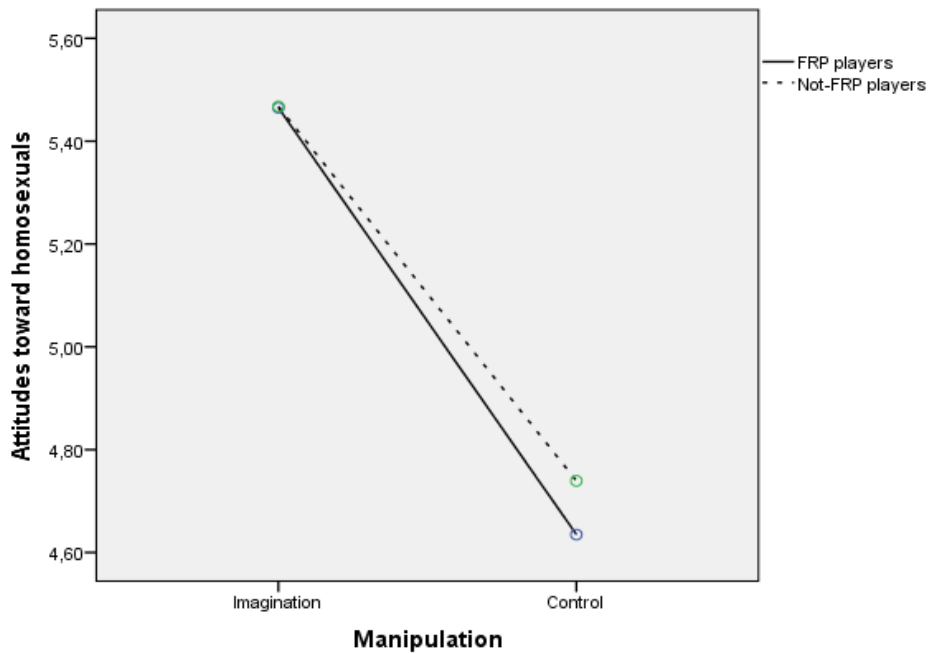


Figure 2: Attitudes toward homosexuals among FRP (Fantasy Role Play) players and not-FRP players in imagination and control conditions during Trial 2 of Study 1b.*

(*Adjusted means are demonstrated)

Table 9: ANCOVA results for *future intent* of *Trial 2* in *Study 1b*

Source	SS	df	MS	F	p	Partial η^2
Previous Contact (CV)	.87	1	.87	1.18	.28	.02
Intergroup Anxiety (CV)	21.96	1	21.96	29.92	.00	.38
Imagination manipulation	2.21	1	2.21	3.01	.09	.06
FRP *	.84	1	.84	1.15	.29	.02
Interaction	.22	1	.22	.29	.59	.01
Error	35.22	48	.73			
Total	1506.82	54				

* FRP = Fantasy Role Play

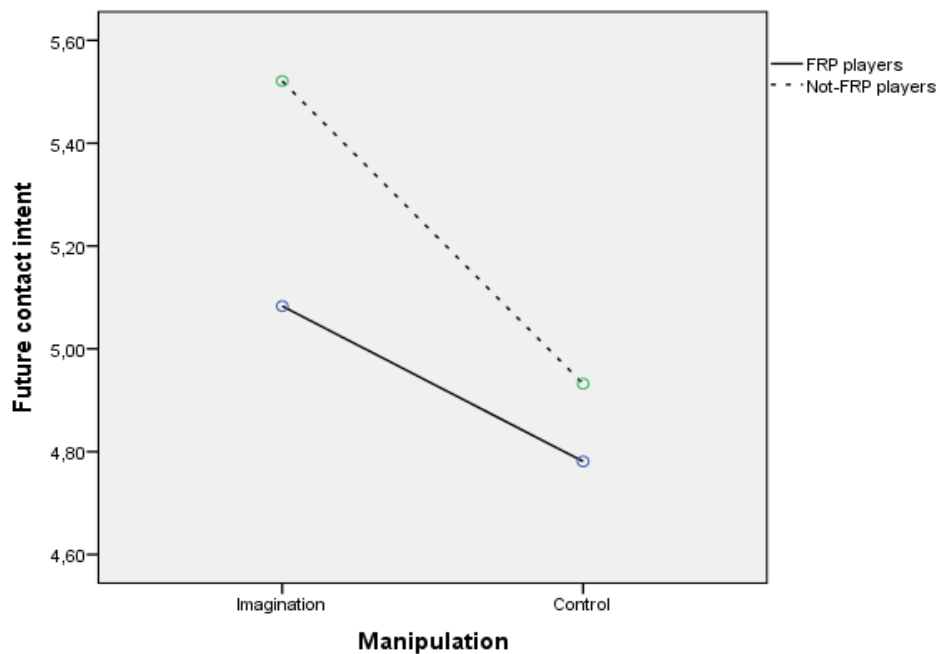


Figure 3: *Future contact intent* with a homosexual person among FRP (Fantasy Role Play) players and not-FRP players in imagination and control conditions during *Trial 2* of *Study 1b*. *

(*Adjusted means are demonstrated)

2.3 Discussion of the Study 1b

In the study 1b, I tested three hypothesis related with imagined contact in the long run. I expected to find (a) main effect of imagined contact, (b) main effect of FRP and its interaction with imagined contact on attitudes toward homosexuals, and (c) neither main effects of manipulation and FRP nor their interaction for future intent in Trial 2. To discover if these expectations are correct, I collected data from both FRP players and not-players in either imagined contact or control condition. I used imagined contact manipulation in first participation and, immediately after this manipulation, participants filled out a package of questionnaire. One month later, participants took the same package of questionnaire.

In order to test my hypotheses, I conducted two ANCOVAs to discover whether there is an effect of imagined contact and FRP on homosexual attitudes (or on future contact intent with a homosexual person) in Trial 2. I found that there was a main effect of imagined contact, but neither FRP nor interaction on attitudes toward homosexuals. This result supports my first hypothesis but not my second hypothesis; imagined contact is effective even after one month delay, but FRP and its interaction is not effective for homosexual attitude.

The reason of unsupported results found in main effect of FRP and its interaction with imagined contact can be same as mentioned in the Study 1a. These were (a) differences in religious view, (b) having positive attitudes already which can be seen among FRP players in control condition, (c) possible tendency not to adapt imagination in daily life because of “fantasy” theme in their games (for details, see topic numbered 2.4). Also, in this sample, there may be a problem with sample sizes. Especially for FRP players there is a difference between sample sizes in imagined contact and control conditions; in control condition, there were 6 participants which is nearly half of the number of participants in imagined contact condition which was 13 (see Table 6). Because of the difference between sample sizes, effect of FRP and interaction can be found as insignificant.

On the other hand, participants in imagined contact condition, showed more positive attitudes toward homosexuals than control condition after one month delay. This result is consistent with the finding of Vezzali et al. (2011), in which long lasting effect of imagined contact was found in child sample. Vezzali et al. (2011) conducted their experiment for one week delay; but this study shows that it can last for one month. This result also fits with the expectation in the literature in which future contact intention was found (e.g., Husnu & Crisp, 2010a; 2010b) and in which preparatory function of imagine contact for future interaction is mentioned (e.g., Crisp et al., 2010; Crisp & Turner, 2009; Turner & Crisp, 2010). This long lasting result is an important finding as it shows that imagined contact is effective even after one month, and it can be used to create a more positive climate.

However; when I conducted an ANCOVA to investigate effect of imagined contact and FRP on future contact intent with controlling previous contact and intergroup anxiety, I found that there was not an effect of imagined contact, FRP, or interaction on future contact intent. As I expected not to find future intention in my third hypothesis, this result became a supporter for my third hypothesis in the Study 1b.

Some possible reasons for not to find future intent can be similar as mentioned in Study 1a. These possible reasons are (a) effect of intergroup anxiety, (b) difference in manipulation in the literature in which future intent was found (2010a; 2010b) (for details, see topic numbered 2.1.2).

Possible explanation for this consistency between two participations can be found in self-perception theory of Bem (1967). Bem (1967) states that individuals determine their attitudes by looking back to their previous behaviors. McIntyre et al. (2004) stated that imagined contact may lead to false memories and these false memories may lead people to think accordingly with these false memories. Participants whose attitudes are affected from imagined contact may want to be consistent after one month delay. It means they attribute their attitude not by looking at false-past memories, specifically by looking at affected-false memories because of manipulation. In either way,

This is one possible explanation for underlying mechanism, but there can be another explanation. People may accept data in imagined contact experience as an false memory data; or they may keep this data as an exemple data of a possible contact with an out-group member. In order to discover which explanation explains imagined contact theory more powerfully, I conducted Study 2 and compared these two explanations (manipulation techniques in the literature).

CHAPTER 3

STUDY 2

3.1 Hypotheses of the Study 2

In the second study, most effective manipulation technique was tried to examine by comparing two existing manipulation techniques which were found more effective when compared to classical manipulation technique in imagined contact literature. By conducting Study 2, I planned to find the most effective imagination manipulation technique. Explaining the most effective imagination manipulation may lead studies to realize most effective imagination habit for human cognitive system to get facilitative intergroup attitudes.

Aforementioned in the Chapter 1 (especially under the topic numbered as 1.3.2.2), researchers started with a classical manipulation technique. In this technique, they asked participants to imagine a positive social contact with an out-group member. Later two other manipulation techniques were proposed. These two different manipulation techniques in the literature are detailed imagination and exemplar imagination. On one hand; in the detailed imagination manipulations, researchers asked participants to imagine a contact situation with an out-group member with details. For example; Husnu and Crisp (2010a) asked to imagine a contact situation with when and where questions. Thus, they lead people to imagine contextual details and called this manipulation technique elaborative imagination. Also some other researchers asked participants to imagine both contextual detail and personal detail as thoughts and feelings during imagination (e.g., Frye & Lord, 2009; Fry et al., 2012; McIntyre et al., 2004). These researchers stated that detailed imagination leads to wrong remembering of imagined scenario as it happened, and this source confusion about memory leads to attitude change. On the other hand, in exemplar manipulation it is stated that imagining different contact situation in

different places with different out-group members leads to more facilitative out-group attitudes when compared with classical imagination (Husnu & Crisp, 2010b). In this study, participants were asked to imagine exemplars with when and where questions. Therefore, there is not a clear explanation about which manipulation technique is responsible for facilitated imagined contact effect and there is not a study which compares these manipulation techniques.

Through the Study 2, I compared these two manipulation techniques. Detailed imagination manipulation was divided into three categories as no detailed (similar with classical imagination), less detailed (similar with used by Husnu & Crisp, 2010a), and more detailed (similar with used by McIntyre et al., 2004) imagination manipulation. Also, exemplar manipulation was divided into two categories as one exemplar (similar with classical imagination) and three exemplar (as used by Husnu & Crisp, 2010b) imagination manipulations. In the Study 2, I expected to explore which manipulation is more effective either detailed imagination or exemplar imagination. To fulfill expectations of the Study 2; I conducted a 2 (exemplar; 1 vs. 3) X 3 (detail; no vs. less vs. more) ANCOVA and I controlled effects of previous contact and intergroup anxiety. There were 6 conditions in Study 2 and all participants took imagination manipulation. Dependent variable was attitude toward physical disabled people which is defined as second effective out-group in ICT (Pettigrew & Tropp, 2006). Imagination procedure in these conditions (C) was as follows;

C1: Imagining 1 exemplar and no detail (classical imagination manipulation).

C2: Imagining 1 exemplar and less detail with when and where questions (as in Husnu and Crisp, 2010a).

C3: Imagining 1 exemplar and more detail with when, where and physical details of the person in imagined scenario (as in McIntyre et al., 2004)

C4: Imagining 3 exemplars and no detail.

C5: Imagining 3 exemplars and less detail with when and where questions (as in Husnu and Crisp, 2010b).

C6: Imagining 3 exemplar and more detail with when, where and physical details of the person in imagined scenario.

I planned to test more effective technique within these conditions. Also, hypothesis (H) in the Study 2 was as follow;

H1: Maximum effect of imagined contact will be found in C6.

H2: Minimum effect of imagined contact is found in C1. As it is similar with the classical imagination manipulation, there will not be any fascilitative effect of manipulation.

H3: Second maximum effect will be found in either C3 or C4. If C3 will be found as stronger than C4, it means deep processing and details in one imagination is more important for human cognitive system. If C4 will be found stronger than C3, it means having different exemplar in imagination is more important.

3.2 Method

3.2.1 Participants

One-hundred-forty-eighth students (147 from METU and only 1 from Atilim University) who are studing in different departments participated to Study 2. 9 participants' data were deleted because of problems in imagination; 8 subjects wrote negative imagination and one subject wrote irrelevant imagination scenario as describing an event which is happening in nature without a contact with any other person. Also 2 subjects' data was omitted because they reported as having a physical disability. Because positivity in imagination and evaluating out-group are important aspects in imagined contact theory, these 11 were cases excluded from the analyses. Lastly, one subjects' data was omitted because he/she was a univariate outlier in three scale and also a multivariate outlier. After checking normality and linearity assumptions, analyses were conducted to 136 cases. There were 55 men and 81

women whose age range was 18 to 31 (M= 21.88, SD= 2.20). Detailed information about demographics in each condition was given in Table 10.

Table 10: Demographic information for Study 2

	Conditions:	Exemplar		Detail			Total
		1 Ex.	3 Ex.	No detail	Less detail	More detail	
Subjects		57	55	37	39	36	136
Sex	Men	21	33	12	17	15	55
	Women	36	32	25	22	21	81
Number of Words in Written Stories	Min.	26	28	28	26	53	
	Max.	435	542	194	542	393	
	<i>M</i>	134.05	13.87	96.08	156.82	151.19	134.95
	SD	86.99	80.76	35.15	109.50	74.03	83.61
Age	Min.	19	18	18	19	19	18
	Max.	27	31	24	31	28	31
	<i>M</i>	21.37	22.07	21.03	21.74	22.39	21.88
	SD	1.65	2.20	1.34	2.23	2.00	2.20
Religion	Mode	Muslim	Muslim	Muslim	Muslim	Muslim	Muslim
Faith to religious view*	<i>M</i>	3.07	3.71	3.27	3.33	3.56	3.35
	SD	1.88	1.83	1.94	1.74	1.99	1.83
Maximum-lived-city	3 Big Cities		29		23	19	
	Other Cities	35	20	22	10	14	81
	Town	15	3	11	4	1	42
	Village	4	3	2	2	2	7
Political view**	<i>M</i>	3.11	3.45	3.30	3.28	3.25	3.19
	SD	0.90	1.50	1.00	1.36	1.36	1.19
Socioeconomic Status***	<i>M</i>	4.33	4.31	4.30	4.21	4.47	4.42
	SD	0.97	1.10	1.02	1.20	0.84	1.01

*7-point scale; 1 indicates totally not-faith and 7 indicates totally faith to religious view

**7-point scale; 1 indicates radical left-wing and 7 indicates radical right-wing

***7-point scale; 1 indicates lowest SES and 7 indicates highest SES

3.2.2 Instruments

A package of questionnaire was prepared including different scales; as being similar with the Study 1a and Study 1b questionnaires. In this package of questionnaire, demographic information sheet, attitudes toward disabled people scale, quality of previous contact scale, future intent scale, and intergroup anxiety scale were prepared. Demographic information sheet was the same with sheet used in the Study 1a and Study 1b. Other scales, except attitudes toward disabled people scale, were adapted to Study 2 from Study 1a and Study 1b with a change on out-group category. Out-group in Study 2 was physically disabled people; thus, questions were arranged according to disabled people.

3.2.2.1 Demographic Information Sheet

Demographic information sheet was the same sheet consisting of the same eleven questions in the Study 1a. Information about gender, age, university, department, socio-economic status, religion, dependency to religious view and to tradition, political view, and living places were asked via demographic information sheet (see Appendix A).

3.2.2.2 Attitudes towards Disabled People Scale

Attitudes toward disabled people scale was developed by Koca-Atabey (2010). 13 items of this 19 item-scale were used. There were 10 reversed items, and 3 not-reversed items. Participants rated their agreement/disagreement level on 7-point scale (1=strongly disagree, 7= strongly agree). In this scale, attitude toward disabled people was investigated via questions like “I do not know how to behave when I need to help a disabled person”, and “I try to keep my contact with a disabled person short and I try to stop my conversation as soon as possible”. High scores indicated positive attitudes while low scores indicated negative attitudes toward disabled people. Cronbach’s alpha of this scale was .69; total eigenvalue was 4.27; and this scale explained 32.83 % of the variance (see Appendix F).

3.2.2.3 Quality of Previous Contact Scale

I adapted the quality of previous contact scale used in Study 1a to Study 2. It is arranged including disabled people evaluation as an out-group. As mentioned in Study 1a, literature shows impact of previous contact on imagined contact effect (Husnu & Crisp, 2010a). Thus, previous contact is decided to be used to control effect of previous contact. Cronbach's alpha for this sample was .78; total eigenvalue was 2.51; and explained variance was 62.76 % (see Appendix G).

3.2.2.4 Future Intention Scale

I adapted the future intention scale in Study 1a to Study 2, including disabled people as out-group. As mentioned in Study 1a, imagined contact effect can be found via future intention to get in contact (e.g., Husnu & Crisp, 2010a; 2011). Thus effect of imagined contact was expected to be examined on future intention too.

In this scale, questions such as "Do you have intention to get in social contact with a disabled person in the future?" and "Do you think that you can join an occasion including large number of disabled people?" included and rating all questions with 7-point scale was requested. High scores indicated high intention and low scores indicated low intention for future social contact with a homosexual person. For details about the future intention scale, see also Study 1a. Cronbach's alpha for this scale was .59; total eigenvalue was 2.52; and explained variance was 36.07 % (see Appendix H).

3.2.2.5 Intergroup Anxiety Scale

I adapted intergroup anxiety scale in Study 1a to Study 2 for disabled people as an out-group. As mentioned before, there is a mediator effect of anxiety reduction (e.g., Pettigrew & Tropp, 2008; Turner & Crisp, 2010). Therefore, variation in intergroup anxiety level was decided to be explored.

In this scale, eight adjectives like awkward, suspicious, calm, angry, embarrassed, annoyed, frustrated and anxious were used, and participants were

asked to rate 7-point scale for each adjectives (1= extremely unlikely I feel; 7= extremely likely I feel). High scores indicate high intergroup anxiety and low scores indicate low intergroup anxiety toward disabled people. For details, see Study 1a. Cronbach's alpha value was .86; total eigenvalue was 4.26; and explained variance was 47.30 % for this sample (see Appendix E).

3.2.3 Procedure

Same method in Study 1a was used to find subjects. Announcements and extra course credits were used. Some subjects who are taking "Introduction to Psychology" or "Understanding Social Behavior" courses from different departments rather than psychology were given course credits after participation. Some other subjects participated via announcements posted on different billboards around Faculty of Art and Science building.

Informed consent which is similar to what was used in the Study 1a was given. The same fake information about aim of the study was given. All participants took manipulation.

There were six different manipulation groups as mentioned in the aim of the study part. First condition (C1) included classical imaged contact instruction. It means one exemplar imagination without detail asked participants to imagine in instruction. Instruction was as;

"I would like you to imagine a scenario for one minute. In this scenario, please imagine that you are meeting with a physically disabled person for the first time; and through your conversation, you find something positive, interesting or unexpected in that person".

In the second condition (C2); one exemplar imagination with less detail was asked from participants. This manipulation was similar with the manipulation used by Husnu and Crisp (2010a). Therefore, less detail in the

instruction was when and where questions emphasized with italic. Instruction in the C2 was as;

“I would like you to imagine a scenario for one minute. In this scenario, please imagine that you are meeting with a physically disabled person for the first time. *Please try to imagine when and where this meeting happened.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person”.

In the third condition (C3), imagining one person with more detail is asked in the instruction as similar manipulation used in McIntyre, Lord, Lewis, and Frye (2004). In this manipulation, more detail was defined as when and where questions and also physical characteristics of the imagined person such as; eyes color, hair color, age and gender of the person emphasized with italic. Instruction was as;

“I would like you to imagine a scenario for one minute. In this scenario, please imagine that you are meeting with a physically disabled person for the first time. *Please try to imagine when and where this meeting happened; and what is the eye-color, hair-color, age and gender of that person.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person”.

In the fourth condition (C4); three imaginations including three different physically disabled people were asked from participants without detail request in the instruction. Instruction in the C4 was very similar to C1, but three different experience imaginations were expected from participants to imagine.

Also, to create different exemplars in imagination, imagining different people is asked in second and third imagination stages. Instruction in C4 was given as;

“I would like you to imagine a scenario for one minute. In this scenario, please imagine that you are meeting with a physically disabled person for the first time; and through your conversation, you find something positive, interesting or unexpected in that person”.

“I would like you to imagine one more scenario for one minute. In this scenario, please imagine that you are meeting with another physically disabled person for the first time; and through your conversation, you find something positive, interesting or unexpected things in that person. *Please try to imagine a different physically disabled person than you imagined before*”.

“I would like you to imagine one more scenario for one minute. In this scenario, please imagine that you are meeting with another physically disabled person for the first time; and through your conversation, you find something positive, interesting or unexpected in that person. *Please try to imagine a different physically disabled person than you imagined before*”.

In the fifth condition (C5); imagining three scenario including three different physically disabled people were asked from participants with less detail (when and where questions) in the instruction. Manipulation in this condition is similar with the exemplar imagination manipulation of Husnu and Crisp (2010b). Instruction in C5 was;

“I would like you to imagine a scenario for one minute. In this scenario, please imagine that you are meeting with a physically disabled person for the first time. *Please try to imagine when and where this meeting happened.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person”.

“I would like you to imagine one more scenario for one minute. In this scenario, please imagine that you are meeting with another physically disabled person for the first time. *Please try to imagine when and where this meeting happened.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person. *Please try to imagine a different physically disabled person than you imagined before*”.

“I would like you to imagine one more scenario for one minute. In this scenario, please imagine that you are meeting with another physically disabled person for the first time. *Please try to imagine when and where this meeting happened.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person. *Please try to imagine a different physically disabled person than you imagined before*”.

In the sixth condition (C6); imagining three scenario including three different physically disabled people with more detail (when and where questions; and eye-color, hair-color, age and gender details) was request in the instruction. Again each imagination was asked one by one. Instruction in C6 was;

“I would like you to imagine a scenario for one minute. In this scenario, please imagine that you are meeting with a physically disabled person for the first time. *Please try to imagine when and where this meeting happened; and what is the eye-color, hair-color, age and gender of that person.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person”.

“I would like you to imagine one more scenario for one minute. In this scenario, please imagine that you are meeting with another physically disabled person for the first time. *Please try to imagine when and where this meeting happened; and what is the eye-color, hair-color, age and gender of that person.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person. *Please try to imagine a different physically disabled person than you imagined before*”.

“I would like you to imagine one more scenario for one minute. In this scenario, please imagine that you are meeting with another physically disabled person for the first time. *Please try to imagine when and where this meeting happened; and what is the eye-color, hair-color, age and gender of that person.* Also through your conversation, imagine you find something positive, interesting or unexpected in that person. *Please try to imagine a different physically disabled person than you imagined before*”.

In all conditions participants were asked to write their imagined scenarios immediately after imagination. For example; participants in the “three exemplar” conditions (C4, C5, and C6), wrote three scenarios and each of them soon after one minute imaginations. Also, there were no time or paper limitations as in Study 1a. Lastly; only in control condition, participants just completed questionnaire without imagination manipulation.

3.3 Results

Firstly, I conducted a 2 (1 vs. 3 exemplar imagination) X 3 (no vs. less vs. more detail) between-subjects ANCOVA to explore which manipulation technique is better than other to reduce prejudice against disabled people. Covariate variables were previous contact and intergroup anxiety. There were two kinds of manipulation in this study; exemplar manipulation (imagining 1 exemplar or 3 exemplar) and detail manipulation (no, less or more detail in imagination). ANCOVA results showed that there was not a significant difference in neither main effects of exemplar ($F(1,104) = .00$) and detail manipulation ($F(2,104) = .31$), nor interaction ($F(2,104) = .32$) (see Table 11, Table 12 and Figure 4).

Secondly, I conducted another 2 (1 vs. 3 exemplar imagination) X 3 (no vs. less vs. more detail) between-subjects ANCOVA in order to find if manipulation has an effect on future intent to get in contact when previous contact and intergroup anxiety were controlled. It was found that there was not a significant effect of imagination manipulation on future intent whether it is exemplar condition ($F(1,104) = .74$), detail condition ($F(2,104) = .05$) or interaction ($F(2,104) = .10$) (see Table 11, Table 12 and Figure 5).

Table 11: ANCOVA results for attitudes toward disabled people and future intent to contact in Study 2

Source		SS	<i>df</i>	MS	<i>F</i>	<i>p</i>	Partial η^2
Attitudes toward disabled people	Previous Contact	.00	1	.00	.01	.91	.00
	Intergroup Anxiety	25.32	1	25.32	60.42	.00	.37
	Exemplar	.00	1	.00	.00	.91	.00
	Imagination						
	Detail Imagination	.26	2	.13	.31	.73	.01
	Interaction	.26	2	.13	.32	.73	.01
	Error	43.59	104	.42			
	Total	2620.90					
			112				
Future intent to get contact	Previous Contact	.39	1	.39	.67	.41	.01
	Intergroup Anxiety	13.60	1	13.60	23.50	.00	.18
	Exemplar	.43	1	.43	.74	.39	.01
	Imagination						
	Detail Imagination	.06	2	.03	.05	.95	.00
	Interaction	.12	2	.06	.10	.90	.00
	Error	60.17	104	.58			
	Total	3410.49	112				

Table 12: Descriptive statistics for attitudes toward disabled people and future intent to contact in Study 2

Source	Attitudes Toward Disabled People				Future Contact Intent					
	M	SD	Adj. M	SE	M	SD	Adj. M	SE		
Detail	No detail	1 Exemplar	4.89	.69	4.79	.15	5.51	.87	5.46	.18
		3 Exemplar	4.70	.70	4.65	.15	5.54	.72	5.50	.18
		Total	4.80	.69	4.72	.11	5.52	.79	5.48	.13
	Less detail	1 Exemplar	4.65	.70	4.73	.14	5.27	.92	5.33	.17
		3 Exemplar	4.95	.80	4.78	.16	5.67	.74	5.24	.18
		Total	4.79	.75	4.76	.11	5.46	.85	5.43	.12
	More detail	1 Exemplar	4.73	1.05	4.80	.15	5.35	1.00	5.40	.17
		3 Exemplar	4.72	.84	4.88	.15	5.42	.65	5.54	.18
		Total	4.72	.94	4.84	.11	5.39	.85	5.47	.13

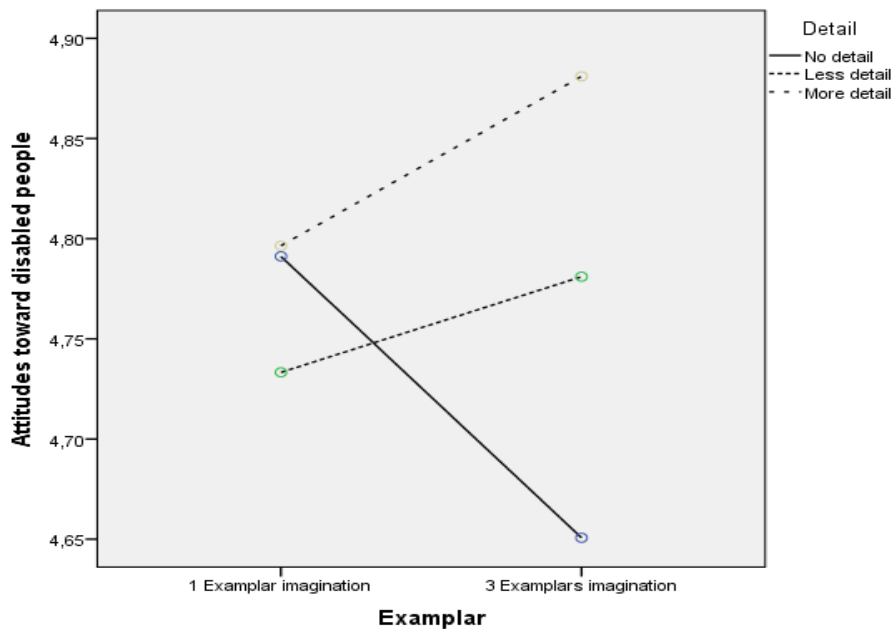


Figure 4: Attitudes toward disabled people in *exemplar* and *detail* conditions of Study 2.*

(*Adjusted means are demonstrated)

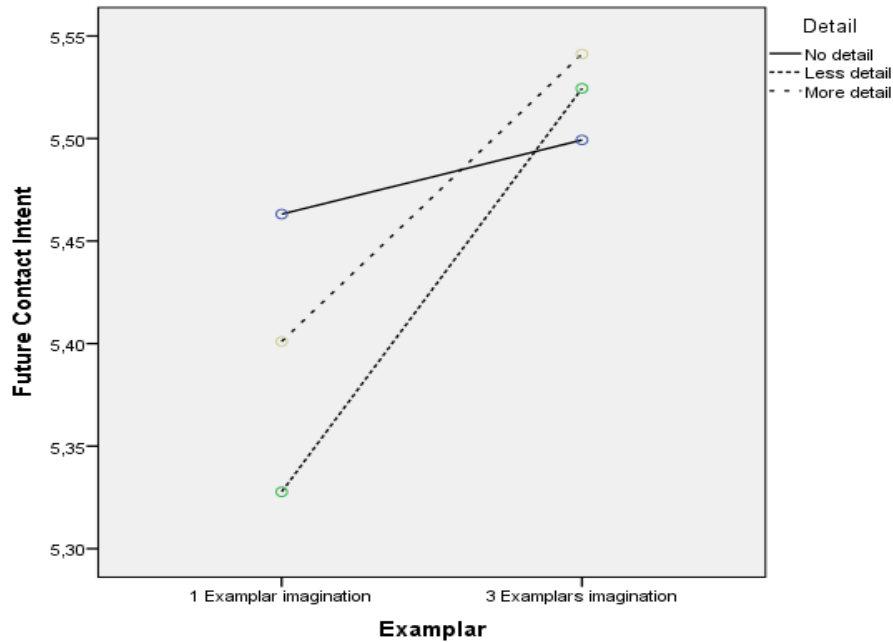


Figure 5: Future contact intention with disabled people in *exemplar* and *detail* conditions of Study 2. *
 (*Adjusted means are demonstrated)

3.4. Discussion

In the Study 2, I tried to discover which manipulation is more powerful. Depending on the literature, two manipulation techniques in Imagined Contact Theory which are exemplar imagination (Husnu & Crisp, 2010b) and detail imagination (e.g., Husnu & Crisp, 2010a; McIntyre et al., 2004) were used to explore most effective manipulation technique. There were three hypotheses in the Study 2 and I planned to discover effect of which manipulation condition is (a) maximum, (b) minimum, and (c) second maximum. Throughout these results, I expected to find which imagination technique is important for individuals.

I conducted two different between-subjects ANCOVAs to explore which manipulation technique is more powerful to increase positive attitudes and

future intention toward disabled people when previous contact and intergroup anxiety were controlled. I found that neither main effects of exemplar and detail conditions nor their interaction was significant for both disabled people attitude and future intent. It means, I did not find enhancer effect of any manipulation techniques in my sample. This result does not support my hypotheses as none of the effects in ANCOVAs were significant.

There are possible explanations for these insignificant results. Firstly, there may be a problem with attitude toward disabled people scale. Its cronbach's alpha was .69 and explained 32.83% of the variance. Therefore a better fit attitude scale may create better results. Secondly, there may be a problem with target group; disabled people. It is possible that attitudes toward disabled people have a different structure than attitudes toward other out-groups such as homosexuals. In an article, West et al. (2011) showed that classical positive imagination may become inadequate to create positive attitudes; instead it can create more negative attitudes for some out-group members such as schizophrenic people. They stated that giving concretely presented scenarios can create better results (see topic numbered 1.3.2.2.1). Thus, dealing with attitudes toward physically disabled people may need a special instructional interest as conducted in the study of West et al. (2011).

CHAPTER 4

GENERAL DISCUSSION

4.1 Overview

Through the thesis, I conducted two main studies related with Imagined Contact Theory. Imagined Contact Theory suggests that simply imagining a contact with an out-group member leads to enhanced intergroup relations (Turner et al., 2007). Effect of imagined contact was found for out-group attitudes (e.g., Abrams et al., 2008; Brambilla et al., 2012; Crisp & Abrams, 2008; Paolini et al., 2010; Stathi & Crisp, 2008; Stathi et al., 2011; Turner et al., 2007; Turner & Crisp, 2010) and for future intent (e.g., Husnu & Crisp, 2010a; 2010b; 2011) (for details, see topic numbered 1.3.2). In this thesis, I tried to find individual difference (Study 1a), long term effect (Study 1b), and more effective manipulation technique (Study 2) in imagined contact by looking at both out-group attitudes and future intent. Aim in the Study 1a and Study 1b was to find practical consequences of imagined contact; and aim in the Study 2 was to discover theoretical background in the imagined contact.

In order to determine practical consequences; Study 1a and Study 1b were conducted to discover individual differences which facilitate imagined contact effect and long lasting property of imagined contact respectively. In the Study 1a, I wondered whether there is an enhancing effect of imagination habit on imagined contact. In daily life, some people imagine more than others, and this habit can be a kind of practicing. So, this individual difference may lead people to show more positive attitudes (or future intent) after imagined contact manipulation when compared with other people who use imagination relatively less in daily life. In order to explore this individual difference, I collected data from FRP (Fantasy Role Play) players who use imagination during their games and from not-FRP players to compare their results. In the analysis, homosexual

attitude (and future intent in the second analysis) was used as dependent variable and intergroup anxiety and previous contact scores were used as covariate variables. Results showed that main effects of both imagined contact and FRP were significantly related with homosexual attitudes; but not their interaction. Thus, as stated in the literature, imagined contact enhanced out-group attitude; but interaction of FRP and imagined contact, as opposed to my hypothesis, did not. It means, FRP players in imagined contact manipulation did not change their attitudes when compared with FRP players in control condition. Also, the effect of imagined contact manipulation has disappeared when I examined effects of imagined contact and FRP on future intent to get into contact. Possible explanations were mentioned in the discussion part of chapter 2 (topic numbered 2.1.2).

In order to discover impact of imagination habit, some other groups can be examined. For example; data can be collected from writers or students/professionals at departments of language literature. As writers imagining interactions to create their scenarios and students/professionals at departments of language literature deeply examine characters including their interaction in written materials. Therefore, they may be a better sample as they imagine/examine daily interactions which are more possible to adapt in daily life. Also, some findings can be borrowed from Imagined Interaction literature (Edwards, Honeycutt, & Zagacki, 1988). For instance; it is found that lonely people use imagined interaction more in daily life, but these imagined interactions tend not to fit with reality. It means lonely people imagine interactions more than not lonely people but these interactions are different than in reality, which happened after or before the imagined interaction (Honeycutt, Zagacki, & Edwards, 1990). These findings may help new studies about Imagined Contact Theory.

In the Study 1b; I examined for long lasting effect of imagined contact, if there is, when previous contact and intergroup anxiety were controlled. Some of the participants in the Study 1a (Trial 1) joined to Study 1b (Trial 2) and took same package of questionnaire used in Study 1a (Trial 1) one month later. So,

there were both FRP and not-FRP players who were either in imagined contact condition or in the control condition. Results showed that participants who imagined a contact in Trial 1 showed more positive attitudes toward homosexuals in the Trial 2. It shows that impact of imagined contact on homosexual attitude was still effective even after one month. Enhancer effect of imagined contact was not found for future intent and for both FRP and not-FRP players (in both future contact analysis (Trial 1 and Trial 2)).

This result in the Study 1b is important for the literature, because it shows effectiveness of imagined contact in the long term. However it is still needed to show this lasting effect in different samples, and with different time durations such as 1 year delay. Also, its lasting effect can be compared with lasting effect of real contact. Turner et al. (2007) stated that long term effect of imagined contact is probably weaker than real contact. If long lasting effect disappears in time when compared with real contact, it may be suggested practitioners, who planned to conduct Imagined Contact Theory to deal with intergroup problems, to use imagined contact at the beginning, and then real contact.

Moreover, future contact intent was not found in both Study 1a and Study 1b. Thus, there must be different mechanisms under future intent and out-group attitudes. It is needed to be defined from future studies that which manipulation or mediators are related with which dependent variables. Therefore, these findings may lead us to create different strategies to different intergroup problem solution strategies.

Lastly, I believe that imagined contact can be a gate to discover human cognitive system as perception and imagination are found as so similar (e.g., Kosslyn et al., 2001). In order to discover cognitive system, I wondered whether most effective imagination style shows the important imagination or thinking style for human beings. In the Study 2, manipulation strategies which are found as enhancing the effect of imagined contact were compared to see which one is more powerful. I used exemplar imagination technique -with imagination instruction either 1 physically disabled person or 3 different

people- and detailed imagination technique –with including no, less, or more detail in the instruction- to explore their effects on attitudes toward disabled people. Results showed that neither manipulation significantly differed from each other in my sample. This result does not support my hypothesis as all effects in analysis were not significant. Future studies are needed to explore this hypothesis in different samples and with different target out-groups.

4.2 Conclusions

In these three studies; practical and theoretical mechanisms under imagined contact were investigated. Especially for practical usage, as effect of imagined contact manipulation found in the immediate and delayed measurements, imagined contact can be selected as an effective tool to deal with intergroup problems. It is easy, relatively comfortable (does not need a face-to-face contact), effective to deal with out-group attitudes, and can be appropriate for segregated places. Therefore; it is possible to suggest social services' workers to use imagine contact as a tool to enhance intergroup attitudes especially in more segregated places in which contact between groups is impossible or difficult. Also, as impact of imagined contact on attitudes shown in children sample (e.g., Vezzali et al., 2011), it is possible to deal with intergroup problems such as prejudice in kindergartens. So, it can be suggested to kindergarten teachers to practice imagine contact with children.

On the other hand, results of this thesis serve theoretical contributions for the literature. Firstly, it shows that imagine contact is effective and this effect can last for one month. Long lasting effect of imagined contact was examined before with one week delay and with children (Vezzali et al., 2011). Vezzali et al. (2011) asked children to imagine an immigrant child in three intervention. One week after the third intervention, they found that children showed more positive attitudes toward immigrant children even in implicit measurement. On the other hand; in this thesis, it's found that this effect lasts one month for university students. Secondly, it is found that out-group attitudes and future

intent may work in different processes. There was not a study in the literature which analyses effect of imagined contact on both attitudes and future contact intent with the same manipulation. Therefore differences between effects of imagined contact on attitude and future contact intent is another finding for the literature. Thirdly, this thesis serves results in the sample of Turkey.

Lastly; there were some limitations in this thesis. Firstly, these were small and unequal sample sizes, especially in Study 1b. For example; in Study 1b, FRP player participant numbers in imagination and control conditions were 13 and 6 respectively. It means smaller sample sized cell (6 participants) was less two times than larger sample sized cell (13 participants). Secondly, I did not conduct a pre-test for attitudes (and for future intent). For example; McIntyre et al. (2004) conducted three sessions in their study and collected data about attitudes before and after an imagined contact manipulation. This kind of a strategy may create a better understanding for attitude change; however it is possible to lose participants through sessions. Therefore the results in my thesis do not explain within-subjects scores which can demonstrate attitude change better. Thirdly, it is possible that there was a problem with target out-group attitude or attitude scale in the Study 2. Thus, this problem may lead results in Study 2 to become nonsignificant. Future researches need to discover especially (a) variables which have an impact on relation of imagined contact and attitude or future intent, (b) proper manipulation condition for out-groups, and categorizing them depending on shared properties.

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APPENDICES

A. DEMOGRAPHIC INFORMATION SHEET

Lütfen aşağıdaki boşlukları doldurunuz:

Cinsiyetiniz: E () K ()

Yaşınız: _____

Okulunuz: _____

Bölümünüz: _____

Aşağıdaki sorularda kendinizi 1 ila 7 arası bir ölçekte tanımlamanız istenmektedir.

Lütfen her soruda sizin için uygun olan sayıyı işaretleyiniz.

1- Kendinizi, sosyo-ekonomik statü skalasında hangi konumda görüyorsunuz?

En alt statü 1 2 3 4 5 6 7 En üst statü

2- Aşağıdakilerden hangisi dini inancınızı en iyi şekilde ifade eder?

___ Müslüman ___ Hristiyan ___ Yahudi ___ İnanmıyorum ___ Diğer

Belirtiniz: ___

3- Kendinizi dini inanca ne kadar bağlı görüyorsunuz?

Hiç bağlı değilim 1 2 3 4 5 6 7 Çok bağlıyım.

4- Kendinizi geleneklere ne kadar bağlı görüyorsunuz?

Hiç bağlı değilim 1 2 3 4 5 6 7 Çok bağlıyım.

5- Kendinizi ne kadar tutucu / muhafazakâr görüyorsunuz?

Hiç muhafazakâr değilim 1 2 3 4 5 6 7 Çok muhafazakârim.

6- Hayatınızın en büyük kısmını aşağıdakilerden hangisinde geçirdiniz?

___ İstanbul/Ankara/İzmir ___ Diğer şehir merkezleri ___ Kasaba ___ Köy

7- Aşağıdakilerden hangisi siyasi görüşünüzü en iyi şekilde ifade eder?

Radikal Sol Sol Sola Yakın Tarafsız Sağa Yakın Sağ Radikal Sağ
1 2 3 4 5 6 7

B. ATTITUDES TOWARD HOMOSEXUALS SCALE

Aşağıda verilen ifadelerle hemfikir olup olmama derecenizi verilen ölçekteki uygun sayılardan birini ifadelerin yanındaki boşluğa yazarak belirtiniz.

- Hiç katılmıyorum 1 2 3 4 5 6 7 Tamamen katılıyorum
- _____ 1- Bir eşcinsel grubunun içinde olmaktan rahatsızlık duyarım.
- _____ 2- Kendi cinsimden birisi bana karşı cinsel ilgi gösterirse sinirlenirim.
- _____ 3- Çocuğumun eşcinsel olduğunu öğrenseydim hayal kırıklığına uğradım.
- _____ 4- Kardeşimin eşcinsel olduğunu öğrenseydim üzülürdüm.
- _____ 5- Eşcinsellerin katıldığı sosyal aktivitelere katılmaktan hoşlanırım.
- _____ 6- Kızımın öğretmeninin lezbiyen olduğunu öğrenmek beni rahatsız etmez.
- _____ 7- Kendi cinsimden birisi bana karşı cinsel ilgi gösterirse canım sıkılır.
- _____ 8- Bir partide bir eşcinselle rahatça konuşurum.
- _____ 9- Oğlumun erkek öğretmeninin eşcinsel olduğunu öğrenmek beni rahatsız eder.
- _____ 10- Erkek bir eşcinselle beraber çalışmak beni rahatsız etmez.
- _____ 11- Kendi cinsimden birisinin bana cinsel ilgi göstermesi beni rahatsız etmez.
- _____ 12- Çocuğumun eşcinsel olduğunu öğrenirsem iyi bir ebeveyn olmadığımı düşünürüm.
- _____ 13- Kendi cinsimden birisini çekici bulmaktan rahatsızlık duymam.
- _____ 14- Toplum içinde iki erkeğin elele tuttuğunu görmek beni iğrendirir.
- _____ 15- Doktorumun eşcinsel olduğunu öğrenmek beni rahatsız eder.
- _____ 16- Patronumun eşcinsel olduğunu öğrenmek beni rahatsız eder.
- _____ 17- Kendi cinsimden birisinin bana cinsel ilgi göstermesi beni gururlandırır.
- _____ 18- Bir kadın eşcinselle beraber çalışmak beni rahatsız etmez.
- _____ 19- Komşumun eşcinsel olduğunu öğrenmek beni rahatsız eder.
- _____ 20- Eşcinsellerin gitiği bir barda görülmek beni rahatsız eder.
- _____ 21- Mensubu olduğum dinin, din adamının eşcinsel olduğunu öğrenmek beni rahatsız etmez.
- _____ 22- Kendi cinsimden en iyi arkadaşımın eşcinsel olduğunu öğrenmek beni rahatsız etmez.
- _____ 23- Kendi cinsimden insanların beni çekici bulması beni rahatsız etmez.

C. QUALITY OF PREVIOUS CONTACT SCALE (for homosexual out-group)

Lütfen size uygun olan seçeneğe X koyunuz:

Cinsel tercihiniz: Eşcinsel () Heteroseksüel () Biseksüel ()

Tanıdığınız bir eşcinsel var mı? Evet () Hayır ()

Kaç eşcinsel tanıdığınız var? _____

Eşcinsel tanıdığınız var sa a) Bu tanıdığınız kişi(ler) ile ne kadar zaman geçiriyorsunuz? _____

b) Bu kişi(ler) ile ilişkinizin derecesini nasıl tanımlarsınız? Alltaki her bir sıfat çiftinin arasındaki çizgilerden birinin üzerine X işreti koyarak belirtiniz.

Yüzeysel	___	___	___	___	___	___	Derin
Doğal	___	___	___	___	___	___	Zorlanmış
Hoşa gitmeyen	___	___	___	___	___	___	Keyifli
Samimi	___	___	___	___	___	___	Uzak

D. FUTURE INTENTION SCALE (for homosexual out-group)

Lütfen aşağıdaki her bir soruyu size en uygun sayıyı seçerek cevaplandırınız.

1- Gelecekte eşcinseller ile sosyal temasta bulunmaya niyetiniz var mı?

Hiç niyetim yok 1 2 3 4 5 6 7 Niyetim var

2- Eşcinsellerinde bulunduğu bir grup sohbetine katılabilir misiniz?

Katılamam 1 2 3 4 5 6 7 Katılabilirim

3- Gelecekte eşcinseller hakkında daha fazla öğrenmek için zaman harcayacağınızı düşünüyor musunuz?

Hiç 1 2 3 4 5 6 7 Zaman
Zannetmiyorum Harcayacağım

4- Eşcinsel biri ile sosyal temasta bulunmayı hoş karşılar mısınız?

Hoş 1 2 3 4 5 6 7 Hoş
Karşılarım Karşılamam

5- Eşcinsellerle sosyal ilişki kurmak sizin için ne kadar önemlidir?

Hiç önemli değil 1 2 3 4 5 6 7 Çok önemli

6- Eşcinsellerin çokça bulunduğu sosyal bir ortama katılabileceğinizi düşünüyor musunuz?

Katılırım 1 2 3 4 5 6 7 Katılamam

7- Gelecekte (tanımadığınız) bir eşcinsel ile karşılaştığınızda onunla sohbet etme olasılığınız nedir?

Oldukça 1 2 3 4 5 6 7 Oldukça
Düşük Yüksek

E. INTERGROUP ANXIETY SCALE (for homosexual out-group)

Gelecekte bir eşcinsel kişi ile olası bir sosyal temasta hissedebileceğiniz nelerdir?
Lütfen her kelimenin yanındaki sayılardan birinin üzerine X işareti koyarak bu hislerinizi belirtiniz.

1-----2-----3-----4-----5-----6-----7

Kesinlikle
hissetmem

Kararsızım

Kesinlikle
hissederim

Garip	1	2	3	4	5	6	7
Şüpheli	1	2	3	4	5	6	7
Rahat	1	2	3	4	5	6	7
Öfkeli	1	2	3	4	5	6	7
Utanmış	1	2	3	4	5	6	7
Sakin	1	2	3	4	5	6	7
Keyfi kaçmış	1	2	3	4	5	6	7
Hayal kırıklığı	1	2	3	4	5	6	7
Endişeli	1	2	3	4	5	6	7

F. ATTITUDES TOWARD DISABLED PEOPLE SCALE

Aşağıda engellilik durumu ve engelli bireylerle ilgili genel ve özel ifadeler yer almaktadır. Lütfen her maddeyi dikkatle okuyarak ne derece katılıp katılmadığınızı gösteren şikkı ifadenin yanına yazınız.

1	2	3	4	5	6	7
Hiç	Oldukça	Biraz	Kararsızım	Biraz	Oldukça	Tamamen
Katılmıyorum	Katılmıyorum	Katılmıyorum		Katılıyorum	Katılıyorum	Katılıyorum

- ___ 1- Yardım etmem gerektiğinde engelli kişiye nasıl yaklaşmam gerektiğini bilemem.
- ___ 2- Engelli bir insanla bir arada olmak bana kendi korunmasızlığımı hatırlatır.
- ___ 3- Engelli bir kişi ile bir arada bulunmak böyle bir sorunum olmadığı için şükretmeme neden olur.
- ___ 4- Engelli biriyle evlenmem.
- ___ 5- Engellilerle bir arada bulununca kendimi gergin hissedirim ve gevşemekte zorlanırım.
- ___ 6- Engelli birey muhtaçtır.
- ___ 7- Engelli kişilere nasıl davranacağımı bilmediğimden kararsızlık hissedirim.
- ___ 8- Engelli birini görünce ona bakıp durmaktan kendimi alamam.
- ___ 9- Engelli kişi ile sıklıkla bir arada bulunduktan sonra engeli değil de kişiyi fark etmeye başlarım.
- ___ 10- Engelli kişinin yüzüne bakmaya çekinirim.
- ___ 11-Engelli olmak acınası bir durumdur.
- ___ 12- Engelli insanlarla irtibatımı kısa tutmaya ve görüşmelerimi mümkün olduğunca çabuk bitirmeye çalışırım.
- ___ 13- Bir gün engelli olabileceğim düşüncesi beni dehşete düşürür.

G. QUALITY OF PREVIOUS CONTACT SCALE (for disabled people out-group)

Lütfen size uygun olan seçeneğe X koyunuz:

Fiziksel bir engeliniz var mı?: Hayır () Evet () Belirtiniz: _____

Tanıdığımız bir engelli var mı? Evet () Hayır ()

Kaç engelli tanıdığımız var? _____

Engelli tanıdığımız var sa a) Bu tanıdığımız kişi(ler) ile ne kadar zaman geçiriyorsunuz? _____

b) Bu kişi(ler) ile ilişkinizin derecesini nasıl tanımlarsınız?

Alltaki her bir sıfat çiftinin arasındaki çizgilerden birinin üzerine X işreti koyarak belirtiniz.

Yüzeysel	___	___	___	___	___	___	___	Derin
Doğal	___	___	___	___	___	___	___	Zorlanmış
Hoşa gitmeyen	___	___	___	___	___	___	___	Keyifli
Samimi	___	___	___	___	___	___	___	Uzak

H. FUTURE INTENTION SCALE (for disabled people out-group)

Lütfen aşağıdaki her bir soruyu size en uygun sayıyı seçerek cevaplandırınız.

1- Gelecekte engelliler ile sosyal temasta bulunmaya niyetiniz var mı?

Hiç niyetim yok 1 2 3 4 5 6 7 Niyetim var

2- Engellilerinde bulunduğu bir grup sohbetine katılabilir misiniz?

Katılamam 1 2 3 4 5 6 7 Katılabilirim

3- Gelecekte engelliler hakkında daha fazla öğrenmek için zaman harcayacağınızı düşünüyor musunuz?

Hiç 1 2 3 4 5 6 7 Zaman
Zannetmiyorum Harcayacağım

4- Engelli biri ile sosyal temasta bulunmayı hoş karşılar mısınız?

Hoş 1 2 3 4 5 6 7 Hoş
Karşılarım Karşılamam

5- Engellilerle sosyal ilişki kurmak sizin için ne kadar önemlidir?

Hiç önemli değil 1 2 3 4 5 6 7 Çok önemli

6- Engellilerin çokça bulunduğu sosyal bir ortama katılabileceğinizi düşünüyor musunuz?

Katılırım 1 2 3 4 5 6 7 Katılamam

7- Gelecekte (tanımadığınız) bir engelli birey ile karşılaştığınızda onunla sohbet etme olasılığınız nedir?

Oldukça 1 2 3 4 5 6 7 Oldukça
Düşük Yüksek

I. INTERGROUP ANXIETY SCALE (for disabled people out-group)

Gelecekte bir engelli kiři ile olası bir sosyal temasta hissedebileceğiniz nelerdir?
Lütfen her kelimenin yanındaki sayılardan birinin üzerine X işareti koyarak bu hislerinizi belirtiniz.

1-----2-----3-----4-----5-----6-----7

Kesinlikle
hissetmem

Kararsızım

Kesinlikle
hissederim

Garip	1	2	3	4	5	6	7
Şüpheli	1	2	3	4	5	6	7
Rahat	1	2	3	4	5	6	7
Öfkeli	1	2	3	4	5	6	7
Utanmış	1	2	3	4	5	6	7
Sakin	1	2	3	4	5	6	7
Keyfi kaçmış	1	2	3	4	5	6	7
Hayal kırıklığına uğramış	1	2	3	4	5	6	7
Endişeli	1	2	3	4	5	6	7

J. TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü	<input type="checkbox"/>
Sosyal Bilimler Enstitüsü	<input checked="" type="checkbox"/>
Uygulamalı Matematik Enstitüsü	<input type="checkbox"/>
Enformatik Enstitüsü	<input type="checkbox"/>
Deniz Bilimleri Enstitüsü	<input type="checkbox"/>

YAZARIN

Soyadı : Küçükkömürler
Adı : Sanem
Bölümü : Psikoloji

TEZİN ADI (İngilizce) : Reducing Prejudice Through Imagined Social Contact

TEZİN TÜRÜ : Yüksek Lisans Doktora

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir.
3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz.

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: