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Structured and unstructured intergroup contact in the digital age

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ABSTRACT

Intergroup conflicts are a major scourge across the world, leading to death, injury and pain as well as a huge societal and economic impact. One of the leading theories advocated for conflict resolution and prevention is the Contact Hypothesis (Allport, 1954). According to this theory, contact under certain conditions will create a positive intergroup encounter, which in turn, will reduce prejudice and discrimination, and bring about an improvement in intergroup relations. Although the Internet has become an accessible and pivotal medium of communication there are surprisingly few projects that make use of its potential for bridging between groups in conflict. This article explains how the Internet's unique qualities may help overcome the major obstacles inherent in the Contact Hypothesis. In doing so, it differentiates between structured and unstructured online intergroup contact, and provides an analysis of some of the leading online intergroup contact platforms, both past and present. The paper concludes with suggestions for future research in this field.

1. Introduction

Intergroup conflict is one of the most serious challenges facing the world today. Hostile disputes between opposing ethnic, religious, and political factions have led to battles, genocide, terrorism, and human rights violations (Woolf & Hulsizer, 2004), claiming thousands of lives each year. Even in the absence of aggression, post-conflict societies are characterized by continued distrust, hatred and blame (Cairns & Darby, 1998; Hewstone et al., 2014).

Counteracting the causes of intergroup conflict is complex, and is most effective when carried out on several spheres, ranging from the societal level, through the intergroup and individual levels (USAID, 2013). Changes in the societal sphere usually occur through efforts of policy makers and mass media. These frequently include legislation, the creation of economic opportunities, shaping of the media and educational systems, and redesigning the structure and function of institutions and work organizations. On the intergroup and individual level, many social psychologists have attempted to understand the multi-layered phenomenon of intergroup conflict, and to provide solutions to end it.

This paper addresses the critical psychological components of intergroup bias, which are responsible for the emergence and perpetuation of intergroup conflict. It will describe the Contact Hypothesis (Allport, 1954), one of the leading theories advocated for the resolution and prevention of intergroup conflict. Since its origin in the 1950s, the contact theory has received considerable empirical support in a variety of contexts (for a review, see Al Ramiah & Hewstone, 2013). However, there are several obstacles inherent in the Contact Hypothesis that may hinder the creation of positive intergroup encounters, especially if such contact interventions are limited to face-to-face (FtF) meetings (Amichai-Hamburger, 2008a,b). This paper will explain how online interactions between members of opposing groups may overcome these hindrances. Our focus is on the unique characteristics that the Internet provides in facilitating positive intergroup encounters, in particular on the most widely used Internet applications for establishing and conducting intergroup contact, including Facebook, email, and (anonymous) chat. The paper concludes with a description of selected online intergroup contact projects, and looks forward to newly emerging modes of intergroup contact in the digital age.

2. Intergroup conflict and bias

People have a tendency to exhibit stereotypes, prejudice and discrimination, which respectively reflect their cognitive, affective, and behavioral reaction toward people from other groups (Fiske, 1998).

2.1. Psychological components of intergroup bias

2.1.1. Cognitive components

People generally believe that their ingroup is a heterogeneous group, whereas the outgroup is perceived as relatively homogenous

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(Linville, Fischer, & Salovey, 1989). This kind of reasoning leads to a tendency to stereotype members of the outgroup, and to generalize that they are all, for example, hostile, liars, or lazy. In addition, outgroup members are often perceived as being different from one's ingroup (Dion, 1973; Wilson & Kayatani, 1968). This "us versus them" perception serves to enhance the stereotypical, oftentimes negative perception of outgroup members regarding a variety of traits, physical characteristics, and expected behavior. Frequently, stereotyping occurs automatically and unintentionally (Devine, 1989). Conscious effort and training are required in order to overcome the activation of stereotypes within intergroup encounters (Kawakami, Dovidio, Moll, Hermsen, & Russin, 2000; Sassenberg & Moskowitz, 2005).

2.1.2. Affective components

Intergroup relations are often characterized by the perception that the outgroup poses an actual or imagined threat to ingroup interests or survival. Intergroup anxiety may be augmented when there are negative stereotypes and prejudice toward the outgroup, and a history of protracted conflict (Stephan & Stephan, 1984). Prejudice against members of the outgroup can simultaneously increase positive affect, sympathy, and trust toward other members of the ingroup. People consequently show greater attachment to, and preference for, their ingroup than toward the outgroup (Brewer, 1999; Otten & Moskowitz, 2000). Since people are mostly unaware of their attitudes, attempting to change outgroup prejudices poses particular challenges (Amichai-Hamburger, 2008a,b).

2.1.3. Behavioral components

Intergroup bias is behaviorally manifested in overt or covert discrimination against the outgroup. This may occur intentionally or unintentionally. People are generally more helpful toward ingroup members than toward outgroup members (Dovidio et al., 1997), and work harder for their ingroup in the presence of an outgroup (Worchel, Rothgerber, Day, Hart, & Butemeyer, 1998). Furthermore, there is a strong tendency for people to treat outgroup members in line with their preconceived perceptions of them, while disregarding the way in which they actually behave. This is likely to cause outgroup members to respond in accordance with their expected, stereotypical behavior, which in turn provides confirming evidence that the initial negative stereotypes held against them were correct. This self-fulfilling prophecy creates a closed cycle of negative conduct from which it is hard to break out (Word, Zanna, & Cooper, 1974).

3. The Contact Hypothesis

The Contact Hypothesis (Allport, 1954) has been described as one of the most successful ideas in the history of social psychology (Brown, 2000). The work by Allport (1954) and later Stephan and Stephan (1984), demonstrated that mere contact between groups is insufficient, and that a set of key conditions, specified by the Contact Hypothesis, needs to be in place in order to reduce intergroup bias and improve the relations between rival groups. According to the Contact Hypothesis, in order for intergroup contact to be successful, members from both groups must reflect an equal social status and to collaborate on a task, which is of significant importance for both groups. In order to succeed, this task must be carried out in a context that allows both sides to learn about each other, and this joint venture must have the support of the relevant authorities from both sides.

Allport's (1954) formulation of the Contact Hypothesis has proved extremely influential and has inspired considerable research that tested and extended its basic principles (Brown & Hewstone, 2005). Research has shown that contact between groups usually reduces intergroup bias (prejudice, stereotypes, and discrimination) through cognitive, affective, and behavioral mediators, mainly by enhancing knowledge and empathy toward the outgroup and by reducing anxiety about the intergroup contact itself (Pettigrew & Tropp, 2006).

However, the creation of a positive, beneficial intergroup contact constitutes a demanding and challenging task, which may not always prove feasible. Cross-group interactions can potentially lead to negative outcomes, such as increased prejudice (Pettigrew, 2008), and lowered expectations regarding the possibility of positive social change (Saguy, Dovidio, & Pratto, 2008). In addition, Amichai-Hamburger and McKenna (2006) suggest that the traditional conditions for FtF contact (as laid down by Allport and others), create obstacles, which lessen the feasibility and the efficacy of the intergroup contact. These pertain to the practicality of organizing such a contact, significant levels of anxiety among participants, and the challenge of generalization from the contact to the groups as a whole.

3.1. Possible impediments to effective face-to-face intergroup contact

3.1.1. Practicality

Organizing a meeting between members of different groups may be hard to achieve due to geographical, financial and logistical limitations. Even when members of both groups receive logistical and financial support from their respective authorities, they may well encounter practical obstacles. In many cases, it may be challenging to establish mutually convenient locations for those who live far from one another or in segregated areas. In addition, the conditions stipulated by the contact hypothesis for a contact to be successful, such as equal status, cooperation toward superordinate goals and institutional support are not easy to attain. Moreover, organized FtF encounters, in some cases may be difficult or dangerous to arrange – particularly in areas of protracted, violent conflict. These practical issues may also result in the reduction or cessation of successful intergroup contacts, which as well as lowering the potential for future achievements, may also weaken present successes. This, because once the contact project is finished and participants return to their familiar environments, the effects of a successful contact may diminish, and this may well harm the ability of group members to generalize from the contact itself.

3.1.2. Anxiety

Intergroup anxiety is the result of the anticipation of negative reactions during the intergroup encounter (Stephan & Stephan, 1996; Stephan & Stephan, 2001). When an individual is anxious, he or she is more likely to use heuristics, and since intergroup contacts may well produce significant levels of anxiety in the individual or individuals involved, they are more likely to apply stereotypes to the outgroup (Bodenhausen, 1990; Bodenhausen & Wyer, 1985), and less likely to learn or feel empathy toward outgroup members (Pettigrew & Tropp, 2006). Wilder (1993) pointed out that in a state of anxiety, group members are likely to ignore any disconfirming information supplied in the contact context. Under such conditions, when a member of the outgroup behaves in a positive manner that contradicts the expectations of the other side, participants do not alter their opinions and only recall the outgroup as behaving in a manner consistent with their negative perception. In such a case, the contact between these members is unlikely to bring about any change in the group stereotype (Wilder & Shapiro, 1989).

Amichai-Hamburger and McKenna (2006) suggested that the Internet may provide an environment that enables participants to manage these challenges more effectively (see also Amichai-Hamburger, 2008a,b; Amichai-Hamburger & Hayat, 2013; Harwood, Hewstone, Amichai-Hamburger, & Tausch, 2013).

4. Seven factors for successful online intergroup contact

Amichai-Hamburger and Hayat (2013) pointed out seven online characteristics that together create a unique protecting and enabling psychological environment. These characteristics are anonymity, control over the physical exposure, control over the interaction, ease of finding similar others, universal and constant availability and accessibility of the Internet, equality, and fun. It is our belief that these factors play a pivotal role in promoting the efficacy of intergroup contacts held online. Our assessment will deal with structured and unstructured online intergroup contact. Structured contact refers to contact projects for which participants are selected, with each group usually comprising the same number of members. In addition, the contact is supervised and monitored, and runs according to clear rules concerning participants' behavior. Online meetings are scheduled and their content guided by a supervisor. In contrast, wholly unstructured online contact is usually held on an open access website, where participants come and go freely, with very few rules or structures in place. Most Facebook groups that are dedicated to intergroup contact fit this definition.

4.1. Anonymity

Online anonymity refers to the perception of the user that he or she can browse websites (e.g., read social media content), publish information (e.g., anonymous comments to blog posts), and interact with others (e.g., in anonymous chat programs or online games) without disclosing information that might lead others to identify him or her.

Hamburger and Ben-Artzi (2000) pointed out that introverts may use the Internet to compensate for social needs that are not fulfilled in the offline environment. It seems that the anonymous environment helps people to step out of their social persona and recreate themselves as they wish (Amichai-Hamburger, 2005). On the Internet anonymity is very much part of many chat rooms, blogs, and games, while Facebook users are usually identifiable. When it comes to intergroup online contact, anonymity is likely to encourage people to challenge their social persona and be more willing to volunteer to participate in a contact. Pettigrew and Tropp (2008) point out that when people volunteer to participate in a contact project and do not receive payment, this is likely to create cognitive dissonance, which can bring people to change their opinion on the outgroup members through the contact. Anonymous online contact is also likely to prevent formal institutions raising objections to the contact, since it will not be perceived as a threat to the status quo as offline contact may be. Institutions are much more likely to object explicitly to an online contact in the case of a contact held on Facebook or another social network where people are identifiable and physically exposed.

Anonymity in online intergroup contact can be very significant in lowering levels of anxiety (Amichai-Hamburger & McKenna, 2006). It seems that especially in the context of violent conflict where anxiety is likely to arise when personal details are exposed, anonymity might be the key to reduce anxiety. However, anonymity can be a double edge sword since it can release people from their inhibitions and bring about aggression in the form of online flaming (Johnson, Cooper, & Chin, 2009). In an online intergroup contact, this type of behavior is likely to sabotage the project (Amichai-Hamburger, 2008a,b). It seems clear that structured online contact may provide a good means to prevent flaming; first, because of its selective acceptance for participation, which is likely to minimize the possibility of unsuitable participants joining the groups. Second, structured online contact brings with it strict rules about language use and the possibility of sanctions against aggressive participants. These may range from a warning all the way to rejecting the antagonist from the group. This contrasts with unstructured online contact projects, which have hardly any mechanism to protect flaming, and this seems to be the main reason why many of them tend to fail. An anonymous aggressor can harm an unstructured online contact project with ease. It is also the case that many participants in an unstructured contact project will feel no personal responsibility, and will not take it upon themselves as individuals to stand up to an aggressor (Amichai-Hamburger, 2008a,b).

4.2. Control over physical exposure

FtF communication is rich in visual and nonverbal cues, which disclose people's physical characteristics (e.g., race, gender, height, weight or physical stigmata). Many online interactions do not reveal any physical and social cues. Thus, they provide a higher level of control over physical self-disclosure. This frees people from social labeling and stereotypes. This freedom allows people to express themselves in ways that offline may condemn them to a situation where they are limited by their stereotype. Hence, they cannot for example, be accused of being insufficiently experienced or knowledgeable, or not belonging to the "right" gender, race, or political group in order to contribute to a discussion; something that could easily happen offline. It is noteworthy that even in online environments where people are required to reveal their physical appearance, they usually go to tremendous lengths to control the impression they make, that is, to make sure that the way they are presented will fit the image they want to reflect (Amichai-Hamburger & Hayat, 2013). This is the case, for example, with Facebook where people take significant care as to the photos they display, in order to ensure that they fit the image they want to reflect (Mehdizadeh, 2010). When it comes to online intergroup contact, the ability to control physical exposure can serve as a great tool to play with group salience. This is very important when one or both groups are defined by physical characteristics, which serve immediately to activate the stereotype. Lack of physical exposure will help to support a positive contact situation, although it is likely to be on an interpersonal level. Once there is an affirmative relationship between the two sides, it may well be possible to expose the physical characteristics of the participants, and at this stage it is less likely to harm the positive impression already established. Hence, it is advisable in a structured contact project to first establish a positive contact situation, and only later to progress to physical exposure at an intergroup level (Amichai-Hamburger, 2008a,b). Such a gradual process of exposure is much more likely to be possible in a structured online environment where the supervisor has control over the contact process and has a program to follow. In an unstructured environment like Facebook, the stages of exposure are undefined, and participants are expected to display their photographs from the first stage. Moreover, in such a situation, participants who do not display a photograph on their profile page are likely to be treated with suspicion.

4.3. Control over the interaction

The Internet allows its users to meet the world from within their own territory, giving them a sense of security, confidence (Amichai-Hamburger, 2005) and control over the interaction (Riva, 2002). An important part of this is that most Internet sites give users the ability to shape their messages, (e.g., seeing the message before sending it, and reshaping it as many times as they choose, until they are satisfied), and do this in the knowledge that they can stop the interaction whenever they choose to do so (McKenna, Green, & Gleason, 2002). As pointed out earlier, anxiety among participants is frequently prevalent during an intergroup contact (Stephan & Stephan, 1996; Stephan & Stephan, 2001).

Much of this anxiety stems from feelings of lack of control. In an online contact the fact that those taking part are not in the same physical vicinity as their opponents, but rather in their own protected environment, may well significantly reduce anxiety levels. While anonymity and lack of physical exposure are important in enhancing feelings of safety, it is the control over the interaction that plays a pivotal role in creating the feeling of security. When the contact is structured with strict rules, people feel more psychological control over the situation, which is likely to reduce feelings of anxiety. In contrast, an unstructured intergroup contact environment, with few rules, stages or supervision may well cause people to feel anxiety from the actual or potential threat of uncontrolled behavior from other participants.

When it comes to structured intergroup projects, the high control over the interaction allows the supervisors to play with levels of group salience and make the group identity more salient in the contact. This can help to generalize the contact from an interpersonal liking of another to an intergroup level of involvement, which is more likely to lead to a change in the stereotype. Increasing awareness or salience that a participant is in fact a representative of a national, racial, or religious outgroup can be achieved, for example, by arranging that the name of their group will appear each time they interact with one another. Another effective method is to exploit the fact that it is a supervised contact, and subtly begin to introduce intergroup issues into the discussion, thus, making the participants' group identities more salient. It is important that such interventions occur only after participants have adopted a positive perception of the members of their outgroup on the interpersonal level. When it comes to contact through Facebook, the usual practice is not to manipulate the personal or group salience. However, an advantage of Facebook is that when people enter the individual profiles of outgroup participants, they will in all likelihood, learn that they have interests and hobbies in common, and may even find that they have friends in common. There are some Facebook groups in which a group leader may attempt to manipulate salience in the encounter between the groups, for example, by asking members to post pictures of themselves that reveal their group identity, for example a religious ceremony. In a Facebook project launched by the Peace Factory, thousands of volunteers sent their photos in which they identify themselves as Israelis to have an individualized poster created under the slogan "Israel loves Iran" (http://thepeacefactory.org/israel-loves-iran/). This is very likely to help the generalization from the positive interpersonal contact to the way the outgroup is perceived as a whole.

4.4. Finding similar others

The Internet is visited by hundreds of millions of people – all of whom have varied interests. The ease with which it is possible for people to identify with and join groups based on mutual interests, makes it exceptionally effective as a means through which to discover like-minded others. The finding of similar others and becoming part of an online group is likely to enrich the individual identities of users significantly.

One of the problems of regular FtF contact is that because of its logistical costs, very few of such meetings are held, and in many areas of conflict there are no organized contact projects whatsoever. On the Internet, logistical challenges are minimal and it is possible to hold any number of contact projects repeatedly. Moreover, it is very easy for people to find them and participate.

Amichai-Hamburger and Hayat (2013) pointed out that this logistical advantage can also be utilized as an additional supplementary tool for traditional FtF contact, since it enables a successful contact project to maintain the dialogue even after the formal part finished. This is a particularly important point since the effects of many successful FtF contacts diminish over time due to the lack of contact between the groups. Clearly, online contact in its different forms may incur certain costs, while a Facebook group dedicated to an intergroup conflict issue will have no running costs at all.

4.5. High accessibility and availability

Today the Internet is easily accessed through a large variety of devices (e.g., portable computer, smart phone, pocket PC) and is available 24/7, allowing users to be online wherever they are. This greater accessibility to the Internet, leads many people to feel that it is omnipresent and well integrated into their everyday lives, and they routinely consume large amounts of information from various sources, such as news websites, blogs, or forums. There are many people who would like to take part in trying to alleviate local or global problems. However, life constraints prevent many of them from doing so. The Internet makes such volunteering easier than ever before (Amichai-Hamburger, 2008a,b). These important components of online contact are present in both structured and unstructured contact. However, in a structured contact, meetings are set ahead and invitees from around the globe are able to participate while staying in their own locale, while in unstructured intergroup contact projects participants enjoy the advantage of attendance at any time from anywhere.

4.6. Equality

Equality among participants is one of the most important preconditions of an effective contact (Allport, 1954), but is often difficult to establish in FtF meetings. People are sensitive to very subtle cues of status that are transmitted through nonverbal channels. These may include dress, body language, use of personal space, and seating positions (Amichai-Hamburger & McKenna, 2006). Many of the nonverbal and social context cues that are indicative of a person's status are typically not in evidence when people communicate online.

Another issue concerned with equality is the language used in a contact project. Amichai-Hamburger (2008b) pointed out that the language used in a contact situation in many cases reflects the status differences between the groups, since it is usually the language of the dominant group participating in the contact. This in turn may cause the lower status group not to perceive the contact as a means toward greater fairness and equality. It is also the case that lack of mastery of the contact language will harm the ability of the participants from the outgroup to express themselves properly, which may further hinder a change in the perception and stereotype that the higher status group holds on them. Amichai-Hamburger and Furnham (2007) suggested that in the future online contact may be conducted in the native language of each group, with messages being automatically translated by software. Although automatic translation software still needs to be improved, Google Translate is a step in the right direction. Such software will enhance the likelihood of achieving equality in the contact.

However, online equality is more than this; it is part of the ideology of the Internet almost from its inception. Tim Berners-Lee, one of the inventors of "www," has already defined the Internet as a collaborative medium (Richardson, 2010). Even more so since the advent of Web 2.0 technologies, the Internet has become a highly networked platform that allows its users to intermingle and cooperate with one another in a social media discussion, as inventors of user-generated content in a virtual community, etc. These developments have greatly advanced participation equality on the Internet in the recent years.

Hence, besides facilitating equality among participants during a given online intergroup encounter, online equality may encourage

individuals to initiate and organize their own intergroup contact projects. This is particularly true for unstructured intergroup contact, which is easier to set up and maintain. For example, a Web platform, such as Facebook, enables anyone who has access to the Internet to build an intergroup contact project. The most popular social network site nowadays is also the most common platform for launching intergroup contact initiatives (see https://www.facebook.com/peace/).

4.7. Fun

The Internet is entertaining and exciting. The fierce competition between websites over the surfers guarantees that user experience will improve and that the Internet will become ever more exciting. It has been argued that computer-mediated communication provides a unique form of casual leisure that involves play, active entertainment, and sociable conversations (Nimrod, 2010). Online leisure activities fulfill the same functions as many of those considered traditional; they provide relaxation, stimulation, escape, social interaction, and the development of self-identity and lifestyle. Intergroup online contact can build upon this and create a very attractive experience for its participants. A particularly attractive form of online contact is provided by interactive online games, which have great potential to engage players individually or in collaboration with others in role-play simulations of conflicts and their possible resolution (Kampf & Cuhadar, 2015).

Prejudice against different groups may be based on different types of negative affect; that is, different types of emotion—for example, anger, fear, guilt, envy, or disgust (Cottrell & Neuberg, 2005). These different types of affect result in different kinds of discrimination against the outgroup. For example, prejudice based on fear is likely to cause a defensive reaction in order to defend the ingroup status (Neuberg & Cottrell, 2002). Any attempt to reduce prejudice must tackle the relevant affect. Amichai-Hamburger and Hayat (2013) suggested that on the Internet, it is possible to create a fun experience that at the same time addresses the seriousness of an intergroup conflict and tackles the specific affect that is the basis for prejudice.

Since, by their very nature, structured contact projects need to be more organized and are more costly than unstructured projects, there is a danger that the project's creators will not put sufficient emphasis on the "fun" element of the content, and that the participants may perceive the venture as heavy and dull. This is less of an issue for unstructured contact, which can be organized more easily using existing social network sites, which put great emphasis on constantly improving the user experience.

5. Theoretical integration of the seven factors

The seven factors together create an environment that is both protective and empowering. These are important components in the effectiveness of a cooperative effort toward a superordinate goal, one of Allport's (1954) basic conditions for successful contact between opposing groups. A superordinate task helps to see the conflict between the involved groups in a new perspective. It also helps rival group members to discover similarities and so break the dichotomy between the groups (Harwood et al., 2013). When it comes to finding a superordinate goal that can be relevant to both groups, the Internet offers many potential volunteering projects and again it seems all seven factors are very relevant.

The constant availability and accessibility of the Internet makes it a great tool for cooperation. The general task or process toward the superordinate goal can be broken down into units that can be performed independently at any time allowing participants to perform their specific tasks at a time of their choosing. In terms of cooperating in a task group, the psychological equality mentioned before is likely to encourage people, who would not usually feel comfortable to cooperate in a group task, to do so when it is online. This can create a better synergy; in other words, a situation in which the whole is greater than the sum of its parts. Amichai-Hamburger and McKenna (2006) point out that these online projects have major advantages, among them, anonymity, command over physical exposure, and the feelings of control that allow people to redefine their own definition of self and help them to dive into new experiences, such as a helping project. The high accessibility of time and place enables people to participate more easily than ever before. Finding similar others is very relevant since on the net there are many prosocial projects where groups of volunteers help individuals and communities in need, in many different ways, one of which is likely to fit the needs of the potential volunteers. The fun factor can play an important role in smoothing things along. When people enjoy their activity, the likelihood that they will remain involved is enhanced. Online projects can range from helping to build an e-learning website to supporting children in their studies, or creating a website to fight AIDS in Africa. This type of online project, in which rival group members participate together toward a superordinate goal, is much easier to introduce as a stage in an ongoing intergroup contact. This is particularly true of an online contact, which is supervised and a program is implemented to enhance the likelihood of success. Amichai-Hamburger and Furnham (2007) suggested that cooperation over a superordinate goal should be introduced to the groups after group members have established the first phase and they already know each other well but before any issues of the conflict have been discussed. This is possible in a structured contact.

Although previously, the importance of control over the interaction has been emphasized as an important factor in the mitigation of anxiety, it is important to stress that all seven factors pay a part in the reduction of intergroup anxiety. Anonymity, control of our physical appearance and the feeling of control over the interaction are all very powerful factors in creating strong feelings of protection and so lessening anxiety. The possibility of finding similar others broadens the option to choose participants from rival groups who share some similarities, for example, nature lovers or sports fans. This immediately creates a situation of cross-cutting categories, the feeling that they (the outgroup) are not totally different and feelings of mutual respect, which can serve as a positive background to the contact. Finding similar others may have become even easier with the rise of Facebook, with its billion plus users. In addition, it may well be more straightforward than before to organize through Facebook, where a group can be created and marketed easily. The availability and accessibility of online contact means that people are more likely to take part; this in turn leads to a greater pool of potential participants and gives more options for projects. The fun factor may also play a significant positive role (Chua, Jung, Lwin, & Theng, 2013). As an experience is more fun, it is likely to reduce the negative anxiety. This means it is important that those organizing an intergroup contact should put the fun element high up in their considerations. This should not only help to reduce user anxiety, but also encourage greater numbers of people to participate in the contact. Equality is another factor likely to reduce anxiety, especially among the participants representing the lower status group. Feeling equal in status to the other side is likely to increase feelings of control, which in turn may well lead participants to be more open and more willing to consider altering their perceptions of the other side, which altogether is more likely to bring about a change in the stereotype. However, it is important to stress that while in an anonymous chat contact many of the traditional status symbols do not exist, when it comes to Facebook many of them may well play a part in the user's presentation.

6. Identification of the Seven Factors in Practical Online Contact Projects

In this section, we will analyze how the seven psychological factors of the Internet come into play through Internet projects aimed at reducing intergroup conflict through online contact. As all platforms are computer based, they share the same basic features: (1) Lack of physical exposure, being identified through first name basis; (2) Heightened sense of control while communicating: thinking, pausing and designing before sending an online message; (3) Being accessible and available where ever a computer is apparent. That being said, the chosen projects differ from one another in the platform used to create contact, design of the user interface, the tasks and activities that participants perform, as well as the extent to which the contact is structured or unstructured. After providing a brief description of each online contact project, we will highlight their respective advantages and disadvantages.

The peace factory (http://thepeacefactory.org/) is a non-political organization promoting peace in the Middle East by making connections between people, through the use of Facebook social network group encounters. This organization was initiated after the successful creation of a Facebook page named "Israel loves Iran" (https://www.facebook.com/israellovesiran), aiming to dissolve the physical boundaries between citizens of both nations. These online groups allow its members to communicate with one another, in the group and possibly later on through individual private one on one chats between its members. These platforms allow its members to communicate upon their daily life, as well as to discuss topics and articles revolving around the peace and conflict process. These groups main advantages manifest due to their use of the popular Facebook social network site, create maximal accessibility through the usage of computers, tablets and mobile phones, and also make their members identified by their personal, visual and psychological characteristics, creating an effortless way of finding similar others and advancing the possibility for joint offline friendships to develop.

NIC (*Net Intergroup Contact*) (http://www.intergroupcontact.com/) is a Web based platform designated to help resolve intergroup conflicts, built as a model that implements each of Allport's (1954) conditions. This platform, which is not yet open to usage, aims to resolve conflicts by having different group members acquainted through online chat and a jointly created wiki data bank, which aims to enhance participants' knowledge on members from rival groups. Besides getting to know each other, both groups help and donate to a common worthwhile cause and all group encounters are planned to be supervised by a social psychologist whose role is to ensure that online encounters take place within acceptable boundaries of conducts and promote their efficacy (Amichai-Hamburger, 2008a,b). The platform's vision is to focus on intergroup meetings that gradually remove participants' anonymity by moving from online textual and filmed encounters to actual FtF encounters. Theses gradual stages of exposure are aimed at reducing levels of anxiety among participants (Amichai-Hamburger & Furnham, 2007).

IPSI (Israeli and Palestinian Student Interactions) was a research project conducted in the years 1994–1997 by Mollov (2006), designed to explore the ways in which computer-mediated communication can foster attitude change among Israeli and Palestinian students toward one another. The project begun by pairing participants from rival groups (Jewish and Arab) together, acquitting them firstly in a FtF meeting at the university, where the project was based, and later, continuing the correspondence between them through email. The idea was that this medium of interaction enabled both sides to feel a high sense of control and time to reflect on and if necessary redesign their messages. After the official email dialog ended, a few of the pairs remained in touch with one another, until the outbreak of the Intifada in the year 2000. The authors reported that both parties gained a significant understanding in comparison to the pre-test as to the understanding of the other's religious holidays and celebrations.

TOCE (Trust Building in Online Collaborative Environments) is an educational and cultural technological program that allows Jewish and Arab participants a consecutive and gradual platform where they can meet members from rival groups. In this program, participants are assigned to small groups, in which they work together, relating to one another by their first name, but not knowing one another visually. This project's main advantage is its ability to get young pupils from both sides to be acquainted, an event which would not occur in the current Israeli and Palestinian reality. As the program is part of the students' educational obligations, it creates a fertile ground for meeting similar others, which was seen as an unusual experience as opposed to other more ordinary academic demands (Hoter, Shonfeld, & Ganayem, 2012).

Dissolving Boundaries (http://www.dissolvingboundaries.org) is an online educational Web platform, established and managed since 2000 jointly by educational boards as well as several academic institutions of Northern Ireland and the Republic of Ireland. This project aims to engage pupils in collaborative, curriculum-based projects and promote mutual understanding on both sides of the border between different schools. This project uses online group interactions and video-conferencing, as well as password protected conferencing area, allowing pupils to communicate on forums and add pages, podcasts and blogs about their project work. The program's main advantages are its fun activities and its ability to create a gradual acquaintance leading to FtF encounters (Austin, Abbott, Mulkeen, & Metcalfe, 2003). Potential disadvantages of this and also the TOCE project is that since it is an educational project, participants do not volunteer to take part (they might not even have a choice), but their teacher decided that their class will participate.

Games for Peace (http://gamesforpeace.org/) is set around a community of people that organizes events and programs that encourage play, communication and collaboration in "virtual" game worlds, with the aim of promoting conflict resolution through the use of online games in tense regions throughout the world. The main advantage of this platform is its utilization of internationally well-known online games that are popular among specific age groups (with a focus on youth), exploiting their popularity to attract large numbers of players around joint communication and collaboration, enhancing the ability to find similar others and having fun. Another leading benefit of game-based online contact environments of this kind is their ability to allow rival groups to work toward a common superordinate goal, in an engaging and fun way. As the players communicate over text chat, their conversation can be automatically translated into their native language, which provides greater equality.

7. Future research

The field of online intergroup contact with all its complexity, raises the need for further and more in depth research. It seems clear that while the Internet online contact platforms have multiplied, there is a gap between this development and the degree of research in this field. One related challenge is the fact that a serious investigation of attitude change requires longitudinal studies. This is particularly important since change in attitudes may happen very slowly and gradually. Without very sensitive measurements to detect even slight changes, they may be missed and the contact project may mistakenly be labeled a failure (Hamburger, 1994). In addition, it is vital to follow-up on research projects that do

succeed, and assess their immediate results (see for example, Kampf, 2014; Mollov, 2006). It is also the case that in many intergroup online contact platforms, especially the unstructured ones it may seem exceptionally challenging to introduce the concept of research and there is a concern that participants may see it as a disturbance. There are, however, Internet projects that have been specifically devised by researchers, which means that the research will be integrated into the online intergroup project. A structured platform allows for the manipulation of variables, giving researchers the ability to better understand the effect that is being created. An excellent example of this, is the Dissolving Boundaries project in Ireland (Austin, 2006) or the TOCE project in Israel (Hoter et al., 2012).

In building the research, it is important to analyze what knowledge will help us to understand the field of online intergroup contact. It seems that the key to progress is in understanding specific groups of variables, including, (1) how much does the online intergroup project obey to the requirements of the classical Contact Hypothesis (Allport, 1954), (2) examining the personality of participants as it seems that personality is a very influential impact variable on people's online behavior (Amichai-Hamburger, 2002; Amichai-Hamburger, 2005; Amichai-Hamburger, Fine, & Goldstein, 2004), (3) studying how people perceive the outgroup participants, (4) studying the stereotype of the outgroup before and after the contact, (5) studying the anxiety levels of participants before and after the contact (Stephan and Stephan, 1985), and (6) studying the seven psychological factors of the Internet including their interdependence (Amichai-Hamburger, 2013). It is our belief that the study of these factors will provide a good understanding of the variables that are relevant to online contact and its success.

One common tool of contact research is questionnaires. These are straightforward to deliver in a structured online contact format, and they can be introduced as part of participants' requirements. The other tool is observation in real time while the contact is in progress. This again is straightforward when the researcher is responsible for the structured contact. Another important component is the analysis of the documentation of the contact (e.g., server log files or any other communication artifacts). Many unstructured social network sites, such as Facebook, contain important documentation to analyze. Observation and documentation open up the possibility of qualitative research, which provide important insights in addition to quantitative data analysis. A mix of quantitative and qualitative research appears to be best suited to further improve our understanding on how to best support online intergroup contact, both in a structured and unstructured way.

8. Final word

Online contact is becoming a significant tool in reducing intergroup conflict, and peacebuilders around the world have recognized the great importance of making use of technology to build peace, such as seen by the recent Peace Tech Lab launched by the United States Institute for Peace (http://www.usip.org/programs/projects/the-peacetech-lab), or online courses on how to integrate technology into peacebuilding programs offered by the Institute for Technology and Change (http://techchange.org), as well as international conferences that aim to bring together academics and practitioners to discuss the future of technology-enhanced conflict resolution (http://howtobuildpeace.org). Likewise, there is a call from the Human–Computer Interaction community to think about how to use technology to bridge between groups in conflict (Hourcade & Bullock-Rest, 2011).

This paper is in line with these trends by attempting to integrate models and theories of intergroup contact research with empirical findings on computer-mediated interactions. It has focused on two kinds of online environments, one a structured contact environment and the other an unstructured one. The benefits of each environment have been analyzed and it became clear that each of these environments has distinct advantages. It is important to understand that both kinds are necessary as each brings with it advantages and disadvantages and they serve different needs.

The seven psychological factors suggested by Amichai-Hamburger (2013) can also help us to understand how to build better online contact environments in the future. The seven factors make it clear that the highest priority for most participants, especially those coming from severe conflict areas, is the feeling of being protected. It seems that the factor of finding similar others is perhaps the most crucial benefit that the Internet provides. The numerous open groups and the ease of creating groups online makes it easier than ever before to open a discussion group where members have shared interests with the outgroup. This positive beginning is likely to enhance the chances of success (Amichai-Hamburger, 2013). The equality factor is likely to become more easily supported by Internet-based contact platforms due to the growing sophistication of translation software that will make it easier for rival groups to communicate and create equality between them from the earliest point of their online meeting. When it comes to the "fun factor," it is clear that this has an important role in the success of online contact projects, both in terms of sustaining the interest of participants and in terms of attracting new ones. As virtual reality technology is advancing, and soon will become an integrated part of the Internet experience, new possibilities for serious games are created (e.g., immersive role play and perspective-taking), as well as to enhance fun and entertainment.

Amichai-Hamburger and Furnham (2007) pointed out that online contact can move from anonymous through several stages toward FtF contact. Using this line of thinking, we can also perceive that structured online contact may be most suitable for groups in a state of serious conflict. Here the structured contact will provide a professional supervisor, a program to follow and protection from flaming. As relationships improve, an unstructured environment may well provide the last stage before FtF contact. When the stereotype is very mild and the conflict is not of an intense nature, an unstructured environment, such as an open Facebook group may be sufficient. It is also likely that people would like to choose more than one environment, and that preferences for certain types of online interactions depend on users' personalities and other personal variables. In the future, we are likely also to benefit from a networked virtual environment that will both enrich our own identity and enable us to build an identity without reference to an outgroup or the use of stereotypes (Amichai-Hamburger & Hayat, 2013). Online intergroup contact is far from complete, but it has come a long way and has tremendous potential to bring harmony to warring factions throughout the world.

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