

Personality of People Using Chat: An On-Line Research

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ABSTRACT

Conflicting claims have been presented in the literature about on-line management of personal relationships. The current research, carried out in a substantially descriptive design, aimed to consider psychological and social features of a particular electronic environment, the Chat room. One hundred fifty-eight participants filled out an on-line questionnaire set, designed to investigate the personality traits and the prevailing interpersonal values of those participants who set up interpersonal relationships on-line. The Web research showed that, if sampling control and validity assessment were provided, it could be a valid alternative to a more traditional paper-based procedure. The results highlighted that Chat users were not an homogenous group, but were composed of different personality types. Basically, however, this specific virtual environment proved to be crowded with rather close individuals, who were looking for independence but who needed also to be supported and encouraged. They created deep on-line relationships, but these remained limited to the virtual world.

INTRODUCTION

STARTING AS AN ARCAINE DEVICE of communication, today the Internet represents a social device: not only does it enable almost every human activity, but it also gives its users psychological support and guarantees an important sense of belonging.¹ This net of global communications, by changing the existing relationship between users and computer technologies, has allowed the birth of a new environment, "computer-mediated communication" (CMC).

Studies carried out by social scientists about CMC are greatly increasing, and these consist of two distinct modalities: the asynchronous and the synchronous.² We speak of an asynchronous CMC when communication is not contemporaneous among users, while we can speak of synchronous CMC when two or more actors are present on the Net at the same time during the interaction. Such is the case with Chat.

To analyse the personality of those individuals who establish relationships in Chat, first of all it was useful to understand what kind of relationships they develop in this environment, considering the different theories proposed so far. Several studies that analyze on-line interpersonal relationships suggest that these types of relationships are more limited compared to face-to-face relationships.³ From a different perspective, Joinson,⁴ in examining the importance of disclosure, argues that, at the beginning of relationships, disclosing oneself to a new person causes a sensation of trust that enables the interlocutor to disclose in turn. This process happens independently from the content of what one reveals and can occur in virtual conditions, increasing the chance of developing deep on-line relationships. Suler⁵ speaks of the on-line "disinhibition effect."

Another important issue concerns the importance of anonymity. Sproull and Kiesler,⁶ theorists of reduced social cues (RSC), argue that in on-line communication the communicative patterns become

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more free and impersonal due to the speed of the electronic medium, as well as to the absence of the norms that manage the contingent interaction. The processes of de-individuation and anonymity of actors may push them to antisocial and extreme behaviors, generating the "flaming" phenomenon. Conversely, McCown⁷ pointed out that chat room users tend to be sincere and socially competent, showing strong verbal skills and liking of others, as well as avoiding being stiff and passive in their interactions.

The current study tried to approach these topics without prejudice, which often leads to superficial and not very useful points of view. Furthermore, the study aimed to reach valid results in a substantially descriptive design, with respect to some aspects of personality of individuals who used Chat as a device to build new relationships.

A basic question concerned whether there was a prevailing personality type and a predominant value that drove the behaviors of individuals using Chat as a means to develop on-line relationships. To investigate both traits of personality and interpersonal values that characterize Chat users, the present research referred to relevant studies in this field.

The personality traits taken into consideration were those proposed by Eysenck,⁸ who classifies them in three basic dimensions: Psychoticism (P), Extraversion (E), and Neuroticism (N). The interpersonal values taken into account were those proposed by Gordon,⁹ who considered them to be a directory for individuals to develop their interests and behaviors. Specifically, Gordon focused on Support, Conformity, Recognition, Independence, Benevolence, and Leadership as guidelines for organization of experience.

Recent studies have suggested that the most suitable tests to be applied on the web are those that use the questionnaire format.¹⁰ This method offers useful advantages in research design in psychology^{11,12} such as saving from an economic and a temporal point of view, thus decreasing the restrictions that are standard in the traditional experimental approach in psychological research. Furthermore, the wide accessibility of a heterogeneous experimental group and the repeatability of experiments may increase the generalizability of results.

Such a method has been developing for some years; though, we do have to point out that there are some limits.¹³

MATERIALS AND METHODS

Participants

All participants were directly recruited in Chat or by e-mail messages and paper messages posted

in the main Universities of Milan and by advertisement of the site in the most important Italian searchers. All voluntarily chose to participate. The sample was composed of 158 participants, of whom 86 were females (54.40%) and 72 males (46.60%). Age ranged from 12 to 62 years; 59.50% of participants belonged to the range of 12–20 years. The questionnaire was completed directly on-line, and the participants were instructed to think about the deepest relationships that they had established on-line.

Questionnaire

The questionnaire, presented in electronic version, was composed of four sections. Section one focused on conventional socio-demographic variables of the participants and their employment of Internet and Chat in terms of time. Section two analyzed the level of development of on-line relationships. For this purpose, a specific instrument, DOR, created by Parks and Floyd,¹⁴ was used. This questionnaire, composed of 43 Likert 1–7 scaled items, aimed to investigate the main dimensions that could be observed in relationships starting in a Newsgroup and was adapted by Villani¹⁵ for the current study on Chat. In particular, four dimensions were identified: "intensity of relationship" (that is, the degree of trust and comprehension among the participants and about the wideness of the contents of their communication), "commitment in relationship" (that is, the employment of special language or nonverbal signals to communicate with the interlocutor, as well as the appraisal of this relationship as an important experience), "share friends and activities" (that is, the trend of sharing friends and activities in on- and off-line life), and "dependence" (that is, the degree of acquiescence concerning what the interlocutor says and the practice of introducing him or her to friends or relatives).

Section three of the questionnaire was formed by the Eysenck Personality Inventory (EPI) by Eysenck,⁸ which aimed to examine some personality traits of the participants. According to Eysenck, traits are the basic aspects of personality, they are universal, and they show a hereditary component. The traits herein taken into consideration are "Psychoticism" (P), "Extroversion" (E), and "Neuroticism" (N). High scores in P are typical of impulsive, hostile, and creative people. Extraverts are known to be cheerful, sociable, and active, whereas introverts are reserved, quiet, and submissive. People with high scores in N are shy, anxious, and depressed. The Italian version of EPI was adapted by Sibour et al.,¹⁶ and it is composed of 69 yes/no items.

Section four of the questionnaire aimed to assess the most important clusters of values through the Survey of Interpersonal Values (SIV) by Gordon,⁹ adapted by Meschieri and Stellato¹⁷ for the Italian version. Specifically, six values were considered: "support" (i.e., the need of participants to be supported and encouraged); "conformity" (i.e., the importance ascribed to compliance and agreement); "recognition" (i.e., the need of participants to be considered important and outstanding); "independence" (i.e., the demand to be free, autonomous, not dependent); "benevolence" (i.e., the importance ascribed to kindness and generosity towards other persons); and "leadership" (i.e., the need to have control and responsibility towards others). SIV was composed of 30 items, each of which was composed of three short phrases describing three different situations. Each participant was asked to choose the alternative that he or she personally considered less important.

The combination of these four sections provided a wide survey concerning the people that used Chat to establish new relationships.

Procedure

A website was constructed to carry out the present research on-line (www.psico-comunicazione.net/test/chat/questionario.asp). This site was developed in HTML format by using the FRONT PAGE 2000 editor, and the server of the Centre of Study and Research of the Catholic University of Milan was used to publish it.

In this way, a recruitment of a large number of participant who actually were using Chat was fairly easy. After filling out the questionnaire on the Web directly, they sent the data immediately to a database, avoiding both the expense—in terms of time—of inserting manually data and the effect of the researcher's presence. A factor analysis, an analysis of variance, and correlations were carried out using SPSS 10.1 for Windows.

RESULTS

Internet and Chat use

Time spent weekly on the Internet varied between "0–2 hours" (29.10%) and "more than 10 hours" (26.60%). Such differing results were likely due to the different availability of spare time or to other factors related to participants' habits, which were not questioned. On average, most participants spent up to 5 hours a week in Chat (75.90%),

suggesting that such an activity should be considered more occasional than regular.

Most participants asserted also that they had been using the Net for 1–5 years (72.10%), showing good experience. As far as personal relationships were concerned, women establish more relationships with men (81.40%) than with women, and vice versa (72.20%). The relationships developed within Chat (85.40%) were defined as friendly (86.10%) and, on average, lasted less than 1 year (62.00%).

Development of on-line relationships

A general description of the considered factors of DOR, measured by a 1–7 Likert scale, is first reported here. As to the factor "Intensity of relationship," the highest means were reached by items DOR 9 ("Our communication covers issues that go well beyond the topic of any one particular chat"; $M = 5.05$; $SD = 2.04$), DOR 10 ("Our communication ranges over a wide variety of topics"; $M = 5.42$; $SD = 1.99$), DOR 11 ("Once we get started we move easily from one topic to another"; $M = 5.16$; $SD = 2.23$), and DOR 13 ("I usually tell this person exactly how I feel"; $M = 5.13$; $SD = 2.02$). Item DOR 13 showed a good degree of trust in the interlocutor and the participants' attitude to reveal their personal news and emotions, while items DOR 9, DOR 10, and DOR 11 pointed out that the topics of communication among actors were rather wide.

With regard to factor "Commitment," the high mean of item DOR 32 ("I am very committed to maintaining this relationship"; $M = 4.62$; $SD = 2.04$) displayed that the participants were enough willing to do efforts to maintain the relationship. The "Share friends and activities" turned out to be rather unusual on the Chat population: as shown by items DOR 38 ("We have introduced—face-to-face or otherwise—each other to members of each other's circle of friends and family"; $M = 2.84$; $SD = 2.41$) and DOR 39 ("We have introduced—face-to-face or otherwise—each other to our work associates"; $M = 2.13$; $SD = 2.01$), participants did not need to introduce themselves either to each other or to their friends, relatives, or work colleagues. These data were supported also by the low mean of item DOR 1 ("The two of us depend on each other"; $M = 2.51$; $SD = 1.88$) related to the factor "Dependence." These data suggest that Chat users separate virtual and real life, and that relationships developed on-line stay confined in that world.

A wider experience and confidence on the Net (stemming from using it for a longer time) and on Chat (in terms of hours of use per week) were related to major intensity of the relationship.

TABLE 1. CORRELATIONS BETWEEN THE FACTOR "INTENSITY" AND INTERNET USE AND CHAT TIME

		<i>Hours in Internet</i>	<i>Hours in Chat</i>	<i>Use of the Internet</i>
Intensity of relationship	Pearson correlation	.13	.18*	-.24**
	Sig. (two-tailed)	.12	.02	.00
	<i>n</i>	158	158	158

* $p < .05$ ** $p < .01$

Examining the DOR factors through the analysis of variance, a significant difference between the means of intensity of relationship, based on how long participants used the Net, was observed ($F_{(1,54)} F 2,54; p < .05$). As a matter of fact, the highest mean ($M = 83.08; SD = 7.88$) was shown in the range of time corresponding to the use of more than 5 years, while the lowest mean ($M = 68.50; SD = 12.13$) was observed in the range of use of 0–3 months. This data trend was borne out also by the positive correlations existing between relationship intensity and use of the Internet ($r = .24; p < .001$) and time spent weekly on Chat ($r = .18; p < .05$), as shown in Table 1. Furthermore, intensity of relationship displayed a positive correlation with the factor "Dependence" ($r = .28; p < .05$); that is, participants felt free to disclose themselves, as well as to behave in an independent way.

Analysis of personality traits

The data showed that personality traits varied by age, as highlighted in Table 2. Specifically, older participants turned out to close to each other and to take less care of other people. The difference between the means of P, starting from 18.87 for the youngest and ending with 21.29 for the oldest, was significant ($F 4,78; p < .05$). Also, the correlation between P and age was significant ($r = .23; p < .05$). The same trend was observed for N, where the means increased monotonically and significantly with age ($F_{(2,44)} F 11,56; p < .001$). A positive correlation between these two variables supported such a trend ($r = .32; p < .05$).

Moreover, the data showed a significant difference between personality traits and gender of participants, as highlighted in Table 2. In particular, females turned out to have a higher value in P than males ($F_{(1,45)} F 5,28; p < .05$); conversely, males displayed a higher value in N than females ($F_{(1,54)} F 12,13; p < .005$). Also, the correlation between P and N was positive ($r = .24; p < .05$), while it was negative between N and E ($r = -.23; p < .05$). This

fact can reveal an important tendency related to the difference of gender in the examined environment: women users are closer and more emotionally stable than men, according to Peris and colleagues.¹⁸ The personality trait E deserves some comment. Such a trait appeared to be basically homogenous as to concern age and gender. Instead, the most extroverted participants used the Internet less in terms of hours ($F 4,48; p < .005$). In particular, the highest value of E ($M = 7.57; SD = 4.18$) was observed for the range of 1–2 h, while the lowest one ($M = 4.70; SD = 3.25$) was registered for the range of 6–9 h of Internet use. So, extroverted participants used Chat significantly less than introverted ones. The negative correlations between E and hours weekly spent in Chat ($r = -.16; p < .01$), as well as between E and relationship intensity ($r = -.28; p < .05$) corroborated the above mentioned trend.

TABLE 2. MEANS AND STANDARD DEVIATIONS OF PERSONALITY TRAITS FOR EPI

		<i>n</i>	<i>M</i>	<i>SD</i>
Psychoticism	12–20 years	94	18.87	3.80
	20–30 years	50	20.20	2.65
	30–62 years	14	21.29	1.73
	Female	72	18.83	3.82
	Male	86	20.07	2.93
	Total	158	19.51	3.41
Extroversion	12–20 years	94	6.41	3.89
	20–30 years	50	5.24	2.58
	30–62 years	14	7.29	4.34
	Female	72	5.93	3.70
	Male	86	6.28	3.54
	Total	158	6.12	3.60
Neuroticism	12–20 years	94	9.62	4.28
	20–30 years	50	11.76	4.44
	30–62 years	14	15.21	5.19
	Female	72	12.17	4.57
	Male	86	9.64	4.52
	Total	158	10.79	4.70

Importance of interpersonal values

Among values, no significant results emerged from the SIV questionnaire, apart from "Independence," which was the value that obtained the highest mean ($M = 22.22$; $SD = 2.19$). In particular, it was negatively correlated with the hours spent weekly by users in Internet ($r = -.17$; $p < .01$) and the period of Internet use ($r = -.19$; $p < .01$), confirming that these persons were also not dependent on the Internet. From the analysis of correlations between the values, we can see that the most independent subjects who frequent the Chat are anti-conformistic (Conformism: $r = -.21$; $p < .05$), not very generous and altruistic (Benevolence: $r = -.20$; $p < .05$). They are not interested in controlling other persons (Leadership: $r = -.23$; $p < .05$), but they do wish to be supported and encouraged (Support: $r = .45$; $p < .05$), and they need to be recognized (Recognition: $r = -.45$; $p < .05$). Chat users feel free to make decisions and do what they want, but at the same time they need to be understood, encouraged, and supported by the other person.

DISCUSSION

The purpose of the current research was to consider the social and psychological aspects of a special electronic environment, Chat, by examining the personality traits of its users. To achieve this purpose, an innovative procedure was used to apply a paper version test to the Web. Undoubtedly, such a procedure was not exempt from limits. First, the absence of a guarantee of the actual identification of participants may promote deceitful or pretend communication. One may mask his or her own identity and simulate situations, emotions, and beliefs that one does not have. Within this perspective, Chat room may look like to an enormous theatre where, on the stage, each time people can pretend to play different roles. However, the full condition of anonymity may have guaranteed the participants to reveal themselves without anxiety nor fear. Second, as participants we recruited via the Internet, they could discuss the study within the discussion forum and in such a way they might influence each other. Being open and free, the forum could have been consulted before filling out the questionnaire set. To prevent such a risk, a great effort was devoted to prepare the procedure and the setting of the current research, so that the task was as clear and simple as possible.

The efforts made were motivated by the awareness that the on-line research enables to obtain an important advantage: to improve the ecological

validity of the data, so that there is an increase of the chance of generalizing the results obtained to the entire population of those who use Chat as a mean to establish personal relationships.

From the obtained data a distinctive personality profile of the Chat users to manage personal relationships did not appear in agreement with what Peris and colleagues found in their research. Rather, they turned out to form a heterogeneous group of persons who showed some prevalent attitudes. The data, herein gained, put into evidence that Chat users were quite close, fairly introverted, basically nonconformist and independent, rather selfish and self-biased, needing of being supported and encouraged, although they, on the whole, did not reach pathological levels for any personality traits. With these features, they found in Chat a suitable room to disclose themselves and to develop personal relationships.

This data points us to conclusions similar to those obtained by Amichai-Hamburger et al.¹⁹ with respect to the "real me." "Real me" is an experimental situation that implies both the ability of expressing the real self in social interactions and the opportunity of receiving a social recognition for this with regard to constitutive traits of personality of the Chat users. According to these scholars, individuals who have a noticeable inclination toward introversion and neuroticism put their "real me" in the Internet, while extroverted ones put it in traditional face-to-face social interactions.

In general, Chat users seem to be people who constantly need support and approval. Within the Internet, through Chat, they may reach a high degree of disclosure, saying everything that they have in mind, without strict emotional control. For this intrinsically gratifying condition, they likely look for others who are similar to them, as Bonebrake²⁰ pointed out. According to this scholar, in opposition to the perspective of Mckenna and Bargh,³ anxiety and loneliness are not peculiar features of those who have the inclination to form on-line relationships. As a matter of fact, as highlighted by the data herein collected, individuals who form on-line relationships appear to be no less socially skilled than others.

It is worthwhile to underline that, different from the previous studies on Chat, in the current research the access age in Chat is remarkably low. It is likely that such a process is combined with the desire for independence, as well as with the need of support and encouragement, peculiar to teenagers who are looking for autonomy.

As hypothesis, the employment of Chat room may be explained referring to different psychological perspectives. Firstly, Chat could be considered a room in

which a user has the opportunity to speak to another person as if he or she speaks to him- or herself, since the interlocutor is virtual and, by principle, unknown, in any case physically absent. In such a condition the interlocutor acts as a mirror in which the user mirrors him/herself. As a consequence, he or she feels free to open disclosure and to tell any possible his or her secret, without the standard form of control. The absence of an immediate and on presence feedback seems to promote such a communicative pattern in the relationship management. Besides, in this format the anonymity is an actual guarantee, because the Chat user is aware that whatever he or she says does not have important consequences to real life. Anonymity is a sort of screen behind which he or she may conceal him- or herself. As such, it is also an important safeguard for saving self-image. This perspective is shared, for instance, by Reid²¹ and Turkle.²²

Conversely, Chat may be regarded not as a surrogate of the face-to-face interaction, but as a new way to communicate and an innovative opportunity to satisfy relational and social needs. In such a situation, the interlocutor acts as a catalyst, who, in any case, although with some delay, gives actual feedback. This perspective, assumed, for instance, by Peris and colleagues,¹⁸ allows to treat Chat room as a communicative environment added to face-to-face interaction, not in substitution of it. In this case, the issue arises as to whether relationships developed via Chat are confined to the virtual room, or if they may switch to a face-to-face interaction.

In conclusion, whether Chat is a good social aid, as in the case where on-line relationships foster off-line ones, or whether Chat develops relationships limited only to the virtual room cannot be said in a definite way after our research, though explicitly stated by Scealy et al.²³ and by Yuen and Lavin.²⁴ Further research is needed to deepen the nature and the thickness of the border between virtual (Chat) life and real life. Obviously, things are different if this border is a frontier that allows exchanges and movements between these two domains, or if it is a barrier that interrupts any kind of trade and traffic. In any case, we agree with what Joinson²⁵ recently highlighted: new technologies should be envisaged as opportunities to be optimized, and an innovative strategic use of different media should be encouraged.

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