Express your selves

Personality cards as a research tool to explore the user's real self and ideal self.

John Magnus Roos*, Thomas Nilsson**, Ellen Wheatley***

University of Gothenburg, Centre for Consumer Science and Veryday AB, Magnus.roos@veryday.com
*** Veryday AB, Thomas.nilsson@veryday.com*
****Veryday AB, Ellen.wheatley@veryday.com*

Abstract: In this paper we describe a non-verbal personality instrument, for user-centered design, that consists of 10 extreme characters. During explorative interviews the user is free to pick the personality characters that correspond to who he or she is at present when interacting with a certain product, service, system or environment. Additionally the user picks the characters that correspond to who he/she ideally would like to be when interacting with the same research object. Our experience, even if limited, is that this method increases the pleasure of participation and allows researchers to uncover aspects of use, tacit knowledge and latent needs that people are otherwise unwilling and/or unable to verbally express, especially regarding personal desires, needs and pleasures. The aim of the method is to provide insight into what design aspects may bridge the gap that resides in the mismatch between the individual's real and ideal self, thereby, according to humanistic psychology, facilitating wellbeing-driven design.

Key words: People-driven design, Wellbeing-driven design, user-centered design, personality, self, non-verbal method.

1. Introduction

Since around the middle of the 20th century, psychologists have developed numerous personality tests that measure who people are. These tests have mostly been used by recruiting agencies and Public Health Institutions in order to predict health problems and addictive behavior. More recently however, they are increasingly used in a business context to understand consumer behavior such as user experiences, shopping habits and users' interaction with different kind of technologies [28, 29, 31]. Personality tests usually consist of a large number of verbal statements, sometimes several pages, in which the user responds to what level he or she agrees or disagrees. So far, personality tests have not been associated with user-studies, simply because they have not been designed for such purposes. The present study argues that reshaping and adjusting these personality tests towards a user-study context might create new opportunities for user input in people-driven design, especially when the focus is on subjective wellbeing and personal growth.

2. Theoretical framework

2.1 People are different

According to Norman [21] designers can benefit from considering personality dimensions:

> Personality theorists divide people along such dimensions as extraversion, agreeableness, conscientiousness, emotional stability, and openness. To designers, this means that no single design will satisfy everyone (Norman, 2004, p. 39)

The theory Norman [21] refers to is the Big Five theory of personality (sometimes called the Five Factor Model or OCEAN). The Big Five is heavily endorsed by personality psychologists and is used in a variety of research designs and applied settings [17].

The Big Five was originally coined by Fiske [13]. During the 50s, 60s and 70s, several independent research teams took slightly different routes, all arriving at the same results - most human personalities can be boiled down into five broad dimensions of personality traits, regardless of language and culture [17]. The Big Five framework has been replicated in every decade since 1949, suggesting that the Big Five structure is also replicable over time. In scientific spheres, the Big Five is now the most widely accepted and used model of personality [16]. According to Larsen and Buss [17], key markers of the Big Five are as follows:

I.   **Openness (versus close-mindedness).** Open individuals are open for innovations, different cultures and emotions of other people, while closed individuals are more conservative and closed to emotions of other people.

II. **Conscientiousness (versus impulsivity).** Conscientious people are forward thinking and plan their lives, while impulsive people act on the spur of the moment.

III. **Extraversion (versus introversion).** Extrovert people have a greater impact on their social environment while introvert people tend to be more like wallflowers.

IV. **Agreeableness (versus antagonistic).** Agreeable people negotiate to resolve conflicts and strive for an agreement in which all get along, while antagonistic people assert their power to resolve social conflicts. Antagonistic people are aggressive and seem to get themselves into a lot of social conflicts.

V.   **Neuroticism (versus emotional stability).** Neurotic people have a variability of moods over time (swing up and down) and often feel anxious, tensed and stressed, while emotionally stable people are more composed and relaxed.

2.2 People like to change

It seems wellbeing is associated with recurrent shifts in stimuli and status. Both immediate changes induced upon our five senses and more long lasting personal changes; arousal, stimulation and consequently motivation [5, 9]. This present paper focuses on wellbeing related to the user´s ability to change over time in order to achieve his or her full potential, rather than temporarily evoked emotions and mood swings. According to Pine and Gilmore [23], the ultimate goal with a design (or business) solution is to bring the end-user through a life-transforming experience. As Addis and Holbrook [1] put it; "after the experience economy, the transformation economy will emerge (p. 63)". According to Dahlén [8], we do not only need to understand how users perceive themselves at the present moment when interacting with products and services, we also need to understand who they would like to be in the future. According to Arnould and Price [2], extraordinary experiences crystallize the persons' real self, giving the person meaning to his or her life and ultimately leading to personal transformation. Many products, from cars to after-shaves are bought because the person is trying to highlight or hide some aspects of the self [4, 7, 30] According to the humanistic approach in psychology, such self-expressive and self-extended functions are threatening and might therefore be denied from consciousness [24].

The central concepts in Roger´s theory of personality [24] are the real self (or self-concept) and the ideal self. The real self consists of all the ideas, perceptions and values that characterize "I" or "me"; it includes the awareness of "what I am". The ideal self is our conception of the kind of person we would like to be. Our perceived real and ideal selves very seldom match. The inevitable gap that this mismatch generates causes various degrees of negative affect and health problems [8, 24]. A greater understanding of what is at each end of this personal polarity, and extensively what bridges it, gives us new tools to design for subjective wellbeing. According to Roger [24], the closer the real self is to the ideal self, the more fulfilled and happy the individual becomes. A large discrepancy between the real self and the ideal self results in an unhappy and dissatisfied person.

A fundamental assumption among several personality theorists is that personality is set in early adult life (18-20 years) and is relatively stable over time and through various life events [10, 19]. Researchers [17, 18] argue to what degree this assumption is valid. Yet, at this point, this discussion will have to wait. For us, the primary focus is not who a person is, but rather we have a greater interest in who the person would like to be.

3. Development of non-verbal personality characters

Our ambition has been to create unisexual and multicultural characters, free from physical attributes and symbols (e.g. clothes and hairstyles). We have combined personality theories with knowledge regarding body languages and facial expressions [3, 11, 20, 22]. Different versions of the characters have been tested in several pilot studies (e.g. a group of 20 students) and continuously improved by graphic designers at Veryday, a design studio in Sweden. Figure 1 illustrates the first version of the extrovert character and the impulsive character. As you will see, they are not similar to the latest version that is presented in this paper. Through feedback from pilot studies and further reading regarding body language and facial expressions, we understood that the meaning of thumbs-up differs between cultures and that the impulsive character might benefit from a speed-line in order to

illustrate motion and thereby how hastily the character throw her- or himself into things (Figure 4). We also decided to make the characters more human-like, in order to facilitate easier identification.

Figure.1 An early version of personality characters.

Note. The characters are illustrated by Ricardo Sa Freire, graphic designer at Ergonomidesign [Veryday] 2011.

All together we have developed ten characters. The first five characters (e.g. closed, impulsive, extrovert, antagonistic and neurotic) have been validated versus 143 undergraduate Swedish students at the University of Gothenburg. The validation process of the first five characters has been presented at three international conferences [25, 26, 27]. Their counterparts (e.g. open, conscientious, introvert, agreeable, emotionally stable) have been validated versus 32 undergraduate Swedish students at the University of Gothenburg. We view the validation of the counterparts as a pilot study.

Each character has been validated through a tag cloud of top-of-mind words and versus a verbal scale measuring the Big Five, the HP5. The HP5 is especially complied for measuring personality traits related to wellbeing [14]. The shortest version of HP5 consists of 15 items; three items measuring each of the five factor, [Appendix, 14, 16]. The validation has been guided by the following principles:

i.   The tag cloud should correspond to previous research regarding the Big Five framework (e.g. content validity).

ii.   The average of the mean of the three items measuring a particular factor (Appendix) should be as high as possible (e.g. convergent validity of characters related to the HP5).

iii. The average of the mean of the three items (Appendix) should correspond more to the factor it is supposed to measure than to other factors. In other words, the factors should be mutually exclusive (e.g. discriminant validity).

4

We will illustrate the validation process through an example of the neurotic character (Appendix). The outcome of the content validity of the neurotic character is illustrated in Figure 2. As we can see, the tag cloud corresponds to neuroticism in the Big Five framework [17], which implies high content validity. Figure 3 illustrates the convergent and the discriminant validity. On average, respondents agree (M = 3.5) that the neurotic character corresponds to neuroticism in HP5. However, the respondents also perceived the neurotic character as agreeable (e.g. reverse antagonistic), which might question the discriminant validity of the character (Figure 3).

Figure.2 Tag cloud of the neurotic character.

Note. The tag cloud do not include words only mention by one respondent (n=143).
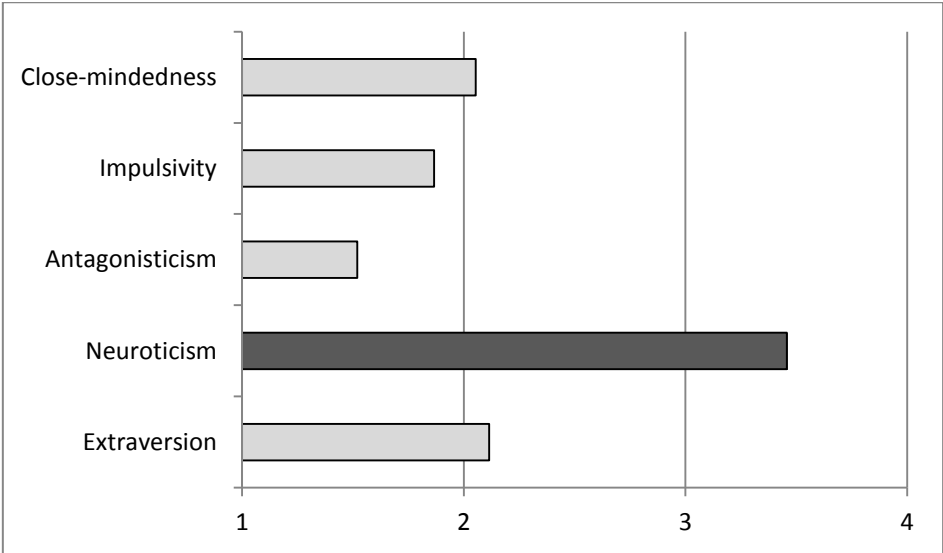
Figure.3 The HP5 dimensions of the neurotic character.

Note. 1 = completely disagree, 2 = partly disagree, 3 = partly agree, 4 = completely agree. (n=143).

4. Ten characters to express your selves

In total ten characters have been developed; one for each of the extreme personality traits and their counterparts, described in 2.1 (Figure 4).
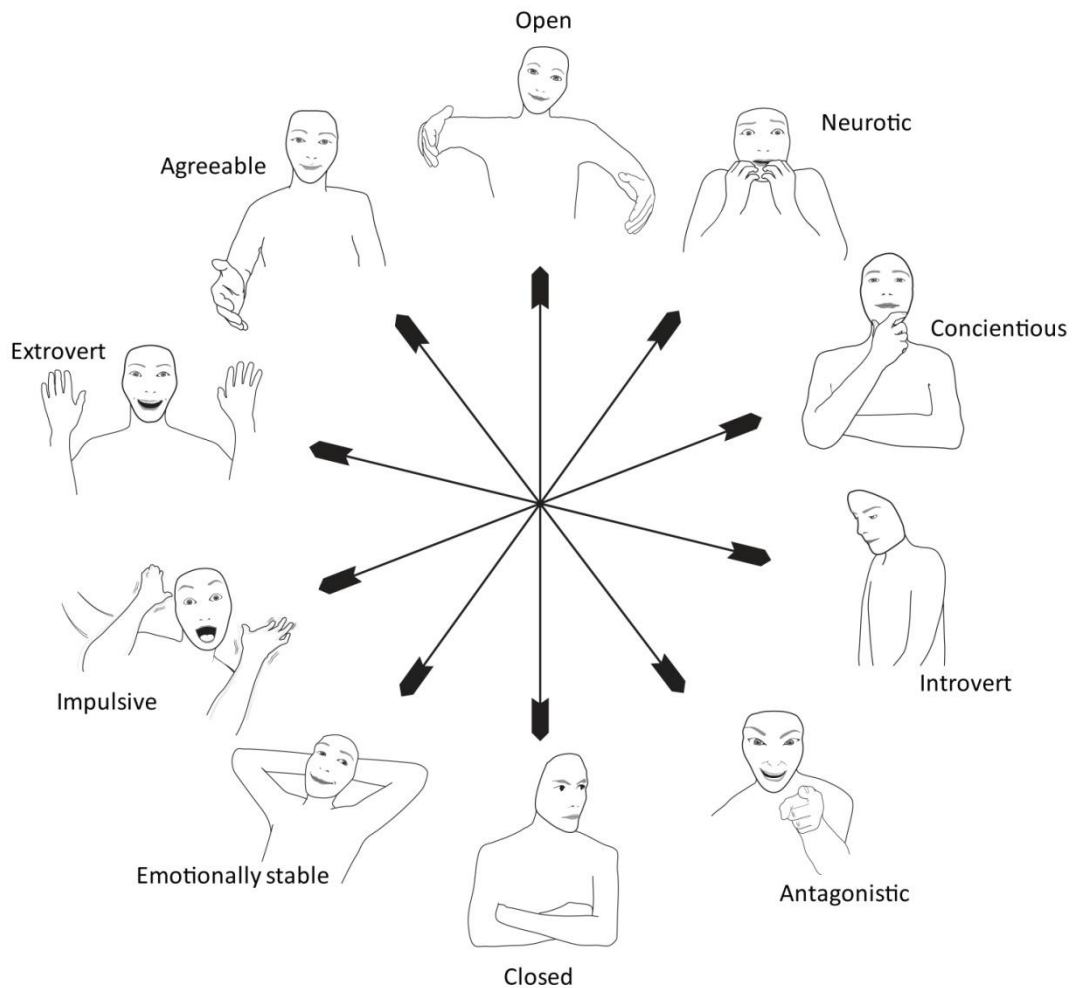

Figure.4 Ten non-verbal personality characters.

Note. The arrows illustrate the connection between each one of the Big five factors and their counterparts.

Otherwise, the placement of characters is not scientifically motivated.

The characters are illustrated by Henrik Olsson, graphic designer at Veryday 2013.

Generally, we are satisfied with the content- and convergent validity of the ten characters. What we find problematic is the low discriminant validity for some of the characters, especially between the open and agreeable.

Despite an ambitious validation effort, we are not searching for an ultimate truth shared by all individuals. We do not think that such truths exist either in verbal languages or in non-verbal languages (e.g. facial expressions and body languages). The advantages of using the characters are that they open up discussions in an interview context and help researchers interact and uncover aspects of use, tacit knowledge and latent needs that users are

otherwise unwilling and/or unable to verbally express. This is especially true when it comes to personal desires, needs and pleasures, and when it comes to anticipations of the future as opposed to reflections over the past [24, 32]. So far, the characters have been used as "personality cards", especially in explorative research settings, even if they might be used for verification and validation of concepts and solutions. The cards have been used in a limited extension and we hope we will have the opportunity to inform you more about their practical applications through our future research and experiences.

Figure 5 illustrates an example from a service design case for an airline company. As a traveler, the user expressed his real self by first selecting the neurotic card. After a few probing questions he told us a story about when he fall asleep during a long flight and that he felt too stupid to ask the flight attendant for food afterward. In his opinion it would have been great if they would have woken him up, in some way, when the meal was served. When we asked him what character best corresponds to who he would like to be as a traveler, he selected the emotionally stable. He said "Normally, I am a relaxed person. Perhaps I am too relaxed, that is why I fell asleep". From this discussion it stands clear that the experience had made him unnecessarily anxious and that he literally was sitting on the edge of his seat. When we asked him if any other card corresponded to who he is as a traveler he picked the introvert card. He said: "This is who I am. It would have helped me if I was more outgoing. Then I would just have told them that I wanted my meal!" When we asked him what character corresponded to his ideal [in this specific situation], he selected three cards, first the extrovert character, thereafter the impulsive character and finally, and more interestingly, the antagonistic character. Through the following discussion we gained a better understanding of why he picked the three cards and what bridges the gap(s). The developed personality cards should be viewed in the background of such a context – as a tool that facilitates moments for the user to open up, and despite cognitive style, express personal conflicts, motivations and aspirations.
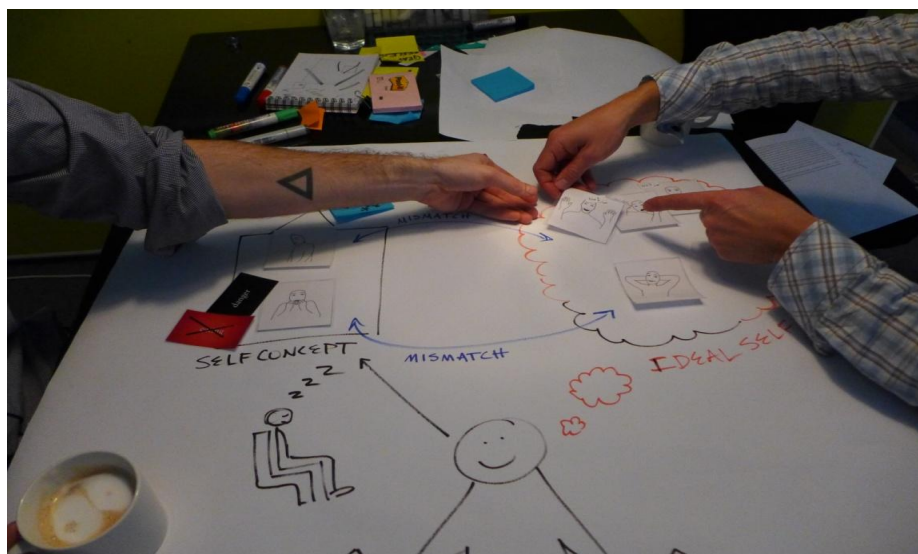

Figure.5 Personality cards in action.

5. Conclusions

According to Firat and Schultz [12], the goal for the consumer is to (re)produce and (re)present her- or himself. The image of the consumption object increasingly depends on its contribution to self-image and to happiness (or feeling good), rather than to the utilitarian functions it serves [12].

We believe that future user-centered design will focus more on exploring who the user is as well as who the user would like to become when he or she interacts with products, services, systems and environments. That is why we have developed a non-verbal personality tool, that facilitates the expression of how people perceive themselves and who they would like to be. Unlike existing personality tests, this test is adjusted for interviews and co-creation sessions, and combines the real and ideal selves, rather than only focusing on the real self. Unlike current non-verbal tools used in the design field (e.g. SAM emotional response measurement manikin, PrEmo measure product emotions), this tool focuses more on aspirations within individuals rather than appraisals of stimuli. According to Carù and Cova [6], researchers have mainly focused on emotions in order to understand personal wellbeing, especially on stimuli (e.g. products or services). They propose a more holistic view of consumer immersions in consumption experiences, that includes the consumer´s entire living being and take into account the variety of pleasures and meanings:

> A consumer goes to the market to produce her/his own identity and therefore seeks to experience immersion into thematic settings rather than merely to encounter finished products (Carù and Cova, 2006, p. 5)

The outcomes of the personality cards expose the user´s inner world and what changes are desired from a long-term perspective, as opposed to the emotional responses an object may elicit at the moment of interaction. The method provides insights into what lies at each end-users' real and ideal self, and extensively what bridges the gap that resides in this personal conflict. The method provides a new scope to user-centered design and designing for wellbeing.

For a long period of time, we have known that self-expressive and hedonic values are key drivers in consumer behavior [15]. We need to use this insight in design research in order to develop tools and methods that allow users to express themselves in terms of their real self and ideal self. We also need to develop tools and methods that users perceive as fun and pleasurable. If we are able to provide tools that facilitate the expression of what users really need, feel and desire, we are on our way to designing for their wellbeing. The personality characters presented here can help us uncover conflicts within a specific user, between his or her real self and ideal self, which might be unconscious or preconscious, but still influence his or her everyday life.

6. Acknowledgments

7. References

[1] Addis, M. and Holbrook, M. B. (2001). *On the conceptual link between mass customization and experiential consumption: An explosion of subjectivity.* Journal of consumer behaviour, vol. 1, no. 1, pp 50-66.

[2] Arnould, E. J. and Price, L. L. (1993). *River Magic: Extraordinary experience and the extended service encounter*, Journal of consumer research, vol. 20, pp 24-45.

[3] Axtell, R. E. (1998). *Gestures. The do´s and taboos of body language around the world*. John Wiley & Sons, New York.

[4] Belk, R. W. (1988). *Possessions and the Extended Self.* Journal of consumer research, vol. 15, no. 2, pp 139-168.

[5] Brülde, B. and Fors, F. (2012). *Kan man köpa lycka för pengar? Om konsumtion och lycka.* (In Swedish). In Roos, J. M. (Ed.), Konsumtionsrapporten 2012 (pp 23-30). Centre for Consumer Science, Gothenburg.

[6] Carù, A., and Cova, B. (2006). *How to facilitate immersion in a consumption experience: Appropriation operations and service elements.* Journal of consumer behaviour, vol. 5, no. 1, pp 4-14.

[7] Csikszentmihalyi, M. and Rochberg-Halton, E. (2009). *The meaning of things: domestic symbols and the self,* Cambridge University Press, Cambridge.

[8] Dahlén, M. (2008). *Nextopia: Livet, lyckan och pengarna I förväntningssamhälle*. (In Swedish). Volante, Stockholm.

[9] Dunn, E. and Norton, M. (2013). *Happy money: The science of smarter spending.* Simon & Schuster, New York.

[10] Digman, J. M. (1989). *Five Robust Trait Dimensions: Development, stability, and utility*. Journal ofpersonality, vol. 47, no 2, pp 195-214.

[11] Ekman, P. and Friesen, W. V. (2003). *Unmasking the face. A guide to recognizing emotions from facial expressions.* Malor Books, Cambridge, MA.

[12] Firat, A. F. and Schulz II, C., J. (1997). *From segmentation to fragmentation. Markets and marketing strategy in the postmodern era*. European Journal of Marketing, vol. 31, no. 3/4, pp 183-207.

[13] Fiske, D. W. (1949). *Consistency of the factorial structures of personality ratings from different sources*, Journal of abnormal and social psychology, vol. 44, 329-344.

[14] Gustavsson, P., Jönsson, E. G., Linder, J. and Weinryb, R. M. (2003). *The HP5 inventory: definition and assessment of five health-relevant personality traits from a five-factor model perspective*, Personality and individual differences, vol. 35, no. 1, pp 69-89.

[15] Holbrook, M. B. and Hirschman, E. C. (1982). *The experiential aspect of consumption: Consumer fantasies,feelings, and fun*, Jounal of consumer research, vol. 9, pp 132-140.

[16] Holmberg, S. and Weibull, L. (2010). *Människans fem personlighetsegenskaper.* (In Swedish). In Holmberg, S. and Weibull, L. (Ed.). Nordiskt ljus (pp 323-328). SOM Institute, Gothenburg.

[17] Larsen, R. D. and Buss, D. M. (2005). *Personality psychology: Domains of knowledge about human nature*, 2nd Ed., McGraw-Hill, New York.

[18] Lewis, M. D. (2001). *Personal pathways in the development of appraisal. A complex systems/stage theory perspective.* In Scherer, K. R., Schorr, A. and Johnstone, T. (Ed.). Appraisal processes in emotions. Theory methods, research (pp 205-220), Oxford University Press, New York.

[19] McCrae, R. R. and Costa, O. P. (1992). *An introduction to the five-factor model and its applications.* Journal of Personality, vol. 60, no 2, pp 175-215.

[20] Navarro, J. and Karlins, M. (2008). *What every body is saying*, Harper, New York.

[21] Norman, D. A. (2004). *Emotional design: Why we love (or hate) everyday things*, Basic Books, New York.

[22] Pease, A. and Pease, B. (2004). *The definitive book of body language*, Bantam Books, New York.

[23] Pine, B. J. II and Gilmore, J. H. (1999). *The experience economy*, Harvard Business School Press, Boston.

[24] Roger, C. R. (1951). *Client-centered therapy*, Houghton Mifflin, Boston.

[25] Roos, J. M. (2012). *A visual personification of personalities*. In Abstract proceedings of AAPOR 2012.

[26] Roos, J. M. (2012). *The big five personified*, In Abstract proceedings of ICP 2012.

[27] Roos, J. M. (2013). *Verification of Very 5: a Non-verbal personality scale*, In Abstract proceedings of ECP 2013.

[28] Roos, J. M. and Holmberg, U. (2012). *Personlighetstyper och köpvanor*. (In Swedish). In Weibull, L., Oscarsson, H. and Bergström, A. (Ed.). I framtidens skugga (pp 335-346), SOM Institute, Gothenburg.

[29] Sing, A. and Das, L. K. (2009). *A framework of biker-bike personality factors within the social culture of biking in India.* In Proceedings of IASDR 2009.

[30] Solomon, M. R., Bamossy, G. J. and Askegaard, S. (1999). *Consumer behaviour: a European perspective*,4th Ed., Prentice Hall, New York.

[31] Xu, J. and Montague, E. (2012). *Psychophysiology of the passive user: Exploring the effect of technological conditions and personality traits*, International journal of industrial ergonomics, vol 42, no 5, pp 505-512.

[32] Zaltman, G. (2003). *How customers think. Essential insights into the mind of the market,* Harvard Business School Press, Boston.

Appendix

HP5 items measuring the neurotic character
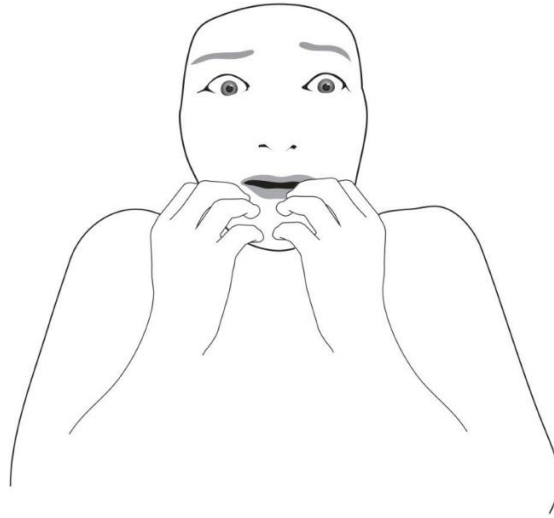
	Completely agree	Partly agree	Partly disagree	Completely disagree
1) The character often feels exhilarated [E]	☐	☐	☐	☐
2) The character often feels uncomfortable and ill at ease [Es, r]	☐	☐	☐	☐
3) The character often makes sarcastic commentaries [A, r]	☐	☐	☐	☐
4) The character usually acts on the spur of the moment [C, r]	☐	☐	☐	☐
5) The character usually enjoy life [E]	☐	☐	☐	☐
6) The character often feels pressure when have to speed up [Es, r]	☐	☐	☐	☐
7) The character usually behaves vengefully if treated badly [A, r]	☐	☐	☐	☐
8) The character often throws him/herself too hastily into things [C, r]	☐	☐	☐	☐
9) The character thinks emotions many times are exaggerated [O, r]	☐	☐	☐	☐
10) The character is usually in a good mood when socializing [E]	☐	☐	☐	☐
11) The character often has muscles so tense that he/she get tired [Es, r]	☐	☐	☐	☐
12) The characters usually comes up with piercing and malicious answers [A, r]	☐	☐	☐	☐
13) The character usually talks before he/se think [C, r]	☐	☐	☐	☐
14) The character often has difficulties to understand other´s feelings [O, r]	☐	☐	☐	☐
15) Normally, the character avoids getting involved in others problem [O, r]	☐	☐	☐	☐

Note. E = Extraversion, A = Agreeableness, C = Conscientiousness, Es = Emotional stability, O = Openness. r = reverse scale. The signs are not visible for the respondents/participants. In the original HP5 the questions are measuring the personality of the respondent, which implies that "the character" is replaced by "I" [14, 16].