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A study of the relationship between impulsiveness and obsessiveness in the general population. Inconsistency of the idea of the spectrum

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Introduction. Obsessiveness and impulsiveness as personality traits have been the object of few studies on the general population. The authors have aimed to study if such features are co-existing constructs, as some authors have proposed or opposite extremes of a *continuum* as other have stated.

Material and Methods. The answers to a questionnaire on obsessive traits of the personality (MIRAP) and another one in reference to impulsiveness as a trait (ECIRYC) of a random sample of 418 subjects obtained from the general population are analyzed. Multivariate statistical analysis techniques (Factorial Analysis, Correspondence Analysis, and Linear Regression Analysis) have been used to establish the type of relationship that the two personality traits studied have.

Results. The total scores of the MIRAP and the ECIRYC have a statistically significant correlation ($r = 0.39$; $p < 0.01$). The Correspondence Analysis of these total scores distributed in deciles and two Linear Regression Analysis also shows a statistically significant direct relationship between both traits. Obsessiveness and impulsiveness do not correlate with the principal factor of the opposite trait. All the factors of both traits are factorally grouped, except for the impulsive factor "haste" that is negatively grouped with the obsessive factor "order."

Conclusions. Our results indicate that obsessiveness and impulsiveness, as personality traits, are convergent constructs and not opposite poles of a *continuum*. However, simultaneously, one of the five factors of each trait ("haste" and "order") do behave as opposite extremes of a *continuum*,

within the conceptual framework, more extensive, of the traits to which they belong.

Key-words:

Obsessivity, impulsivity, relationships, measure, personality traits

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Un estudio de la relación entre impulsividad y obsesividad en la población general. Inconsistencia de la idea del espectro

Introducción. La obsesividad y la impulsividad como rasgos de la personalidad han sido objeto de pocos estudios sobre la población general. Los autores plantean como objetivo estudiar si tales rasgos son constructos coexistentes, como abogan algunos autores o los polos opuestos de un *continuum* como afirman otros.

Material y Métodos. Se estudian las respuestas a un cuestionario sobre rasgos obsesivos de la personalidad (MIRAP) y otro referido a la impulsividad como rasgo (ECIRyC) de 418 sujetos extraídos al azar de la población general. Se aplican técnicas de análisis estadístico multivariantes (Análisis Factorial, Análisis de Correspondencias, Análisis de Regresión lineal) para establecer el tipo de relación que tienen los dos rasgos estudiados.

Resultados. Las puntuaciones totales del MIRAP y la ECIRyC correlacionan de un modo estadísticamente significativo ($r=0,39$; $p<0,01$). El Análisis de Correspondencias de esas puntuaciones totales distribuidas en deciles y dos Análisis de Regresión lineal muestran, también, una relación directa entre ambos rasgos que es estadísticamente significativa. La obsesividad y la impulsividad no correlacionan con el principal factor del rasgo opuesto. Todos los factores de ambos rasgos se agrupan factorialmente entre sí de forma positiva, excepto el factor impulsivo "precipitación" que lo hace negativamente con el factor obsesivo "orden".

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Conclusiones. Nuestros resultados señalan que la obsesividad y la impulsividad, como rasgos de la personalidad, son constructos convergentes y no polos opuestos de un *continuum*. Pero, simultáneamente, uno de los factores de cada rasgo ("precipitación" y "orden"), entre cinco, sí se comportan como polos opuestos de un *continuum*, dentro del marco conceptual, más amplio, de los rasgos a los que pertenecen.

Palabras-clave:
Obsesividad, impulsividad, relaciones, evaluación, rasgos de personalidad

INTRODUCTION

Impulsiveness is a device whose action aims to relieve the tension generated by the urgent need to satisfy an instinct or any other type of need. Most of the references indicate that impulsiveness is made up of a variable number of components or factors^{1,2} and is more a personality trait than a condition or accidental event in the life of the persons.^{2,3}

There are mechanisms that make it possible to control *impulsiveness* when it is not useful to solve such emergencies. The absence of this control leads to more or less uncontrollable actions that do not take the consequences of the acts into consideration and may lead to harmful behaviors for the individual per se or for others. There seems to be an agreement that a certain *continuum* exists between "normal," adaptive impulsiveness and that impulsiveness which due to its intensity or social inconvenience is desadapted or considered to be pathological. The problem with this concept, which is become more deeply entrenched every day, is to establish the threshold after which impulsiveness is no longer considered normal or adapted.

Not much is known about impulsiveness. This may be because most of the research conducted on it has fundamentally focused on the cases that are pathological (Impulse Control Disorders: (ICD)) and, above all, when they are related with openly aggressive or violent behaviors.³

Obsessiveness, as a personality trait (*anankastic* traits), is also made up of several components or dimensions.⁴ Most of the studies conducted on it coincide in defining it by the need for *order*, *meticulousness* and *perseverance*, accompanied by *doubt* and the consequent need for *verification* and *parsimony*.⁵

Much effort has been given to the determination of whether such traits preexist or predispose to Obsessive-Compulsive Disorder (OCD). These are studies made under the concept of "obsessive-compulsive spectrum"⁶ that group a wide series of disorders having a supposed relationship to OCD. However, in all honesty, due to the cross-sectional and prospective designs of these investigations, it is not possible

to know for sure if the personality traits detected in the OCD come from or are a consequence of it.

With some frequency, it is indicated that both personality traits, *impulsiveness* and *obsessiveness*, are opposite constructs. Thus, an anankastic subject could not be impulsive and visa versa. For some authors, there is a *continuum* in whose extremes both personality traits are found, although they accept that most of the subjects have mixed states.⁷

Following this line of thought, some investigators have studied obsessive subjects (OCD) and impulsive subjects (violent and aggressive prisoners) with the dimensional assessment system of personality developed by Cloninger,⁸ postulating that low scores would be found on "novelty seeking" and high scores on "Avoidance of risks" among the former and the opposite among the latter. These hypotheses are partially collaborated in different investigations.⁹⁻¹²

Such findings would speak in favor of the fact that impulsiveness and obsessiveness would be opposite extremes on a *continuum*..., although in subjects openly outside of the normal rule.

Another line of thought, however, supports the co-existence of *impulsiveness* and *obsessiveness*. The psychoanalytic theory considers obsessions as "reactive formations" that are defensive against impulsiveness in general and other hostile or aggressive impulses that horrify the subject as they are considered to be reprehensible.¹³ In addition, there are some investigations that support such ideas. For example, Coursey found that 60% of the OCD reflect hostility on the Rorschach test,¹⁴ while other authors have found that 70% of the OCDs have obsessions related to violence and physical aggression.¹⁵

Thus, the relationship of *impulsiveness* and *obsessiveness* does not seem to be sufficiently clarified as of yet, both being considered as personality traits. Are they antonyms that do not appear together or are they constructs that occur simultaneously? And, if this relationship is still not well-known, the reason is, in the first place, that the previously commented results as well as others similar ones, support, with more or less strength, both hypotheses without opting for one of them, and, in the second place, because most of the studies have been conducted on a patient or openly violent and aggressive population. In this way, the results obtained in these investigations cannot be extrapolated to the general population.

It is here where research that analyzes the relationship existing between the anankastic personality traits and impulsiveness is lacking (as a personality trait as well), studied in the general population which is, finally, that defining the rule. The authors of this present research have adapted this goal as their objective.

MATERIAL AND METHODS

Instruments used

For the evaluation of personality traits that were of interest in this research, the "Ramón y Cajal" (ECIRyC) Impulsive Control Scale and the Mini Anankastic Traits of the Personality Inventory, second version (MATPI-2), were used. Both scales are self applied and each one of them are made up of 20 questions related with the trait they evaluate. The subjects have to indicate the intensity of the presence of each item on a scale having four response options (always, often, rarely, never). Although the data obtained in this way are really ordinals (3,2,1,0), they can be used as continuous variables as is done with other types of scales in use (e.g. the Hamilton Rating Depression Scale or the Montgomery-Åsberg scale). Such items reflect the clinical experience of most of the psychiatrist in their daily evaluating tasks on each one of the traits investigated. Both instruments have been developed and validated in Spain.^{2,41}

Subjects and procedure

A total sample of 418 subjects obtained from the general population of Majadahonda (Madrid) was used. This population was selected due to the strategical facilities offered to the investigators. The Spanish Mail Agency distributed 5000 questionnaires, randomly, in each mailbox of the citizens of that population (that included the MIRAP-2, the ECIRyC and the use instructions) during their normal delivery of correspondence. One week was provided to return the completed scales in an enclosed pre-paid reply envelope, and a total of 429 (9%) responses were received. Distribution by gender of the persons who responded was 190 men (46 %) and 228 women (54%), with a mean age of 47 and 39 years, respectively. Distribution by professions of this sample was, among women, 3.5% skilled workers, 7.9% students, 14% liberal profession, 20.2% self-employed businesswoman, 21.5% housewife and 32.9% state employee or non-directive workers. Among the men, it was 0.5% Houseman, 4.5% student, 5.1% skilled worker, 21.7% state employee or non-directive employee, 24.2% liberal profession, and 43.9% self-employed businessman. This sample has already been

In the original article on validation of the ECIRyC,² one of the factors on the scale was called "impulsiveness," that is, it was given the same name as the complete trait measured by the total score of the ECIRyC. When the first versions of the draft of this article were reviewed, it was verified that the simultaneous reading of *impulsiveness*, as trait, and "impulsiveness," as factor was confusing for the reader. Thus, the authors decided to modify the name of the factor without making it lose its meaning in order to avoid ambiguities. Therefore, readers who are familiar with the ECIRyC will see that where they originally read "impulsiveness" factor, they will now see "haste" factor.

described regarding its sociodemographic aspect in another part.²

Statistical analysis of the data

The statistical analysis of the data was made on a total of 418 questionnaires that had been correctly filled out. The remaining questionnaires had some unanswered items, so that they were invalidated for the calculation that the present investigation aimed to carry out.

The degree of association of different variables was calculated using Pearson's R correlation coefficient, which when the square of R was used, became a determination coefficient.

Different multivariate techniques¹⁷ were also used, when pertinent. The Factorial Analysis (FA) was used with the Principal Components procedure, then performing a Varimax rotation. Extraction of factors was stopped when characteristic roots were obtained with a value lower than that of the unit. When pertinent, the linear Regression Analysis (RA) was performed using the criterion of entry of variables in the model in which F had a statistical significance of $p < 0.05$ and for the rejections of variables when the F had a $p \geq 0.10$. To evaluate the grade of association between variables, the Correspondence Analysis (CA) was also performed, using the Chi-square test as a measurement of the distance. Do not confuse this statistics with that of the contrast of discrete variables having the same name.¹⁷

All the differences have been considered to be statistically significant after $p < 0.05$.

For ease of use, reference will be made in the text to the anankastic traits as obsessiveness (personality trait) most of the times. However this does not mean that this word is being used with any meaning close to those of the OCD.

RESULTS

A first approach can be made to the analysis of the relationship between *obsessiveness* and *impulsiveness* using the total score of each instrument. The results reflected in figure 1 are more illustrative. *Anankastic traits* and *impulsiveness* have a positive and statistically significant correlation ($p < 0.01$). This indicates that there is a direct and linear association between both traits (the less obsessive the subjects are, the less impulsive, and the more obsessive, the more impulsive), although such association is relatively low ($r = 0.39$). If the correlation coefficient is squared in order to transform it into a determination coefficient ($r^2 = 0.14$), it is found that both traits, although they seem to be associated, share a small proportion of their respective variances. This suggests that they are different constructs.

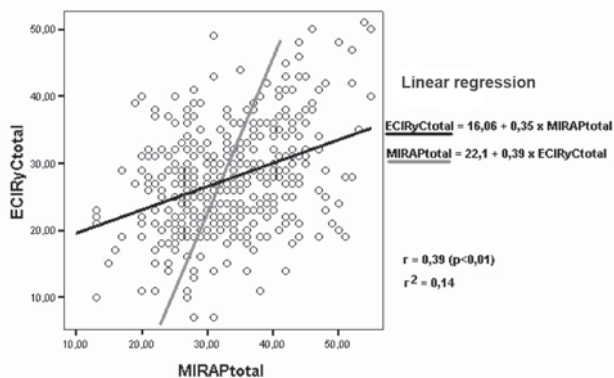


Figure 1 Relationship between impulsiveness (ECIRyC) and the anankastic traits of the personality (MIRAP)

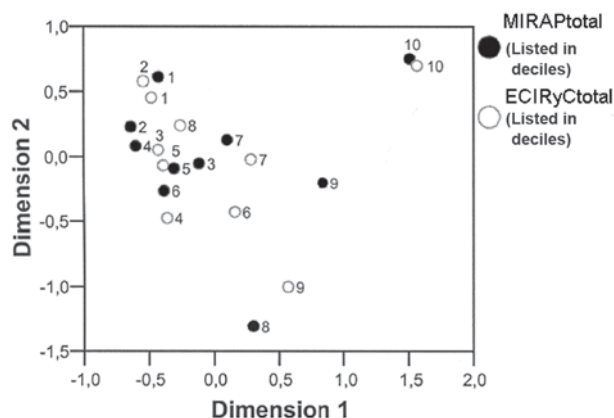


Figure 2 Symmetric normalization of the correspondence analysis

However, this linear relationship is also supported because it was possible to find two regression equations capable of predicting the scores of a trait from their score of the other (figure 1). Nonetheless, this statement is relatively weak, because it is easy to find a straight line that joins two points within a cloud of points.

Using the total score of the MIRAP as dependent variable, gender, age and total score of the ECIRyC as independent variables, a linear RA was made to verify up to what point these variables affect the traits analyzed in the present investigation. A regression function was found so that *obsessiveness*, as measured by the MIRAP, has a statistically significant relationship to *impulsiveness* (ECIRyC) and age (gender was excluded from the regression function, which indicates its indifference regarding the intensity of both traits). When the order is inverted and the total score of ECIRyC and MIRAP is established as independent, it is also possible to find another regression function in which *obsessiveness* and age are included with statistical significance (gender was also excluded from the model, as the previous function):

- $MIRAP_{total} = 16.12 + (0.22 \times age) + (0.38 \times ECIRyC_{total})$
- $ECIRyC_{total} = 17.95 - (0.11 \times age) + (0.40 \times MIRAP_{total})$

As can be observed in these regression functions, *obsessiveness* not only increases as *impulsivity* increases, but also increases with age. Furthermore, *impulsiveness* also increases indirect relationship with *obsessiveness* but decreases as age increases.

In spite of everything, using the total score of both scales may be too gross of a procedure for the analysis herein

proposed. The instruments used have standardized the distribution of these total scores into *percentiles*, which adds some slight differences to this total score. Another way of standardizing the relationship (or its absence) between both traits would consist in verifying it by means of a Correspondence analysis (CA) of the distribution of frequencies of the responses of each subject of the general population in the different percentiles. We have done this, except that the scores have been distributed into *deciles* to make them more manageable. Figure 2 shows the final symmetric normalization of this analysis. The CA carried out provides a Chi-square distance of 141.70 for 81 degrees of freedom ($p= 0.000$). This indicates the existence of an association between both traits that is sufficiently stronger than that shown by the simple correlation of the total scores. The first 2 dimensions shown in that figure account for 64% of the total of the variance explained. This already makes it possible to visualize this relationship. Observe the strong association existing between the subjects within the *deciles* "10" of both instruments. They are practically together, occupying the same place. Something similar, although with some greater distance, occurs with the subjects located at *deciles* "1" and "2" on each scale. This means that in the general population, there are subjects who are *as intensely anankastics as impulsive* (3%) and also *others who almost completely lack both traits* (9%). The remaining *deciles* show somewhat more distant associations, except for "5" and "7" (6%) of each scale that are very close. All of this favors a direct and positive coexistence of both traits.

It is not easy for us to determine the nature of this association with the results reported. It is known that both the *anankastic* traits of personality as well as *impulsiveness* are not one-dimensional constructs. They are established on the grouping of different factors.^{2,4} Perhaps, if the link that may exist between the different dimensions making up both

Table 1	Content of the MIRAP-2 Factors
ORDER	The person is systematic and methodical, strictly follows time schedules, customs and the rules of daily work, likes to do the things exactly, up to the most minimum detail, and feels uncomfortable if things are not performed in the foreseen time or in a certain order, or if someone introduces any change in the order of the things, since the person arranges their personal object orderly, always in the same places. The person is very demanding in maintaining their hands clean at all times and goes over things in their head many times before doing them.
DOUBT	The person likes to do things up to the most minimum detail and uses more time than necessary to do them only to convince themselves that they are completely finished. They also go over the things in their head many times before doing them, feeling that they have failed to try to explain the things in spite of having planned beforehand what they are going to say, and after saying them or doing them, they have many questions on whether they have acted correctly or not. Even when they have done something very carefully, they are doubtful that something still has not been done well, they feel uncomfortable if they cannot do the things in the foreseen time or in a certain order and need to verify several times if they have turned off the water taps, gas, lights, doors ,etc., up to the point of being completely sure that they have done so.
RESPONSIBILITY	They tend to give themselves more work and responsibility than really corresponds to them, they are very demanding and strict with themselves, they get angry or irritated when people do not do things correctly or on time, they like to do the things exactly, up to the most minimum detail, and feel uncomfortable if they cannot do it in the foreseen time or in a certain order.
RESISTANCE TO CHANGE	They feel uncomfortable if anyone introduces any change in the order of their things, it is difficult for them to adapt to changes, to new situations, they need to always have a certain order to get dressed, undress or wash themselves, feeling uncomfortable if anything prevents them from doing it. They feel that they fail to explain the things, although they have planned them beforehand, they feel uncomfortable if they cannot do the things in the foreseen time or in a certain order, and need to verify several times if they have turned off the water taps, gas, lights, doors ,etc., until they are completely sure of having done it and they become irritated that people do not do things correctly or on time.
SCRUPULOSITY	They are very demanding in always keeping their hands clean, they need to verify several times if they have turned off the water taps, gas, lights, doors ,etc., to be completely sure that they have done it, they are very careful on how they fold and put away their clothes at night, they usually clean their knives and forks with their napkins before using them when they are away from home and they become angry or irritated if people do not do things correctly or on time.

Table 2	Content of the ECIRyC Factors
HASTINESS	They are impatient, "react" to the least provocation or when someone argues with them, they tend to lose control of themselves, their reactions are unpredictable, they do and say things without thinking about their consequences, they feel impulsive and define their character as "strong," " temperamental."
IMMEDIACY	They feel better when they do things without needing to think about them, they become nervous and cannot bear waiting to do things when it occurs when it occurs to them, they need to find satisfaction to their sexual needs immediately or to any other type and they like to achieve things immediately. They also do not like deferred recognition or awards; they need to see the results quickly.
IMPOSITION	They generally like to be better than others, they are demanding people with a "strong" "temperamental" character who need to see their merits recognized immediately and the results of their actions quickly.
RISK	They place themselves in situations of risk that accelerate their heart to the limit, and do things that are impossible for them to resist.
WITHOUT NAME	Things that others do leave them unsatisfied.

traits is analyzed, it may be possible to determine how this association is established or to better describe it. Tables 1 and 2 show the contents of each factor of MIRAP and ECIRyC for better understanding of the results reported below.

Table 3 summarizes the relationship found between the different dimensions making up both traits, as those measured by the MIRAP and ECIRyC. The interpretation of

these relationships is very complex, perhaps because the interrelationships of both traits are not as linear as they appear to be in the previously commented results, or perhaps because the association has been established between some of its dimensions and not others.

Global *obsessiveness* (total score of the MIRAP) does not correlate with the primary dimension of *impulsiveness*

Table 3 Correlation of the total score of each scale end of the factorial scores

MIRAP	ECIRyC											
	Hastiness		Immediacy		Imposition		Risk		Unnamed ^a		Total	
	r	r ²	r	r ²	r	r ²	r	r ²	r	r ²	r	r ²
Order	-0.21	0.04	-0.09	0.01	0.18	0.03	-0.00	0.00	0.06	0.00	-0.05	0.00
Doubt	0.15	0.02	0.20	0.04	-0.02	0.00	<i>0.10</i>	0.01	0.18	0.03	0.24	0.06
Responsibility	0.00	0.00	0.19	0.04	0.28	0.08	0.28	0.08	-0.01	0.00	0.32	0.10
Resistance to change	0.27	0.07	0.33	0.11	0.14	0.02	-0.03	0.00	-0.01	0.00	0.38	0.14
Scrupulosity	0.01	0.00	0.08	0.01	<i>0.12</i>	0.01	0.07	0.00	0.04	0.00	0.15	0.02
TOTAL	0.05	0.00	0.26	0.07	0.28	0.08	0.16	0.03	0.14	0.02	0.39	0.14

^aelthe only item with high saturation and this factor is "the things that others do leave me unsatisfied,"
in bold p<0.01; in italics and bold p<0.05; without bold: ns

(the "haste" factor of the ECIRyC). In principal, this would speak of nonrelated differentiated constructs. However, it does correlate in a statistically significant way (p<0.01) with the other dimensions of *impulsiveness* (ECIRyC) such as: "immediacy" and "imposition," above all, and also, with "risk" and "dissatisfaction with what others do."

Global *impulsiveness* (total score of the ECIRyC) behaves in a similar way. It does not correlate with the primary dimension of *obsessiveness* ("order"), and even a tendency to negatively relate to it is observed. However, it does correlate in a statistically significant way (p<0.01) with the following *anankastic* dimensions (MIRAP): "doubts," "scrupulosity" and, above all, with "responsibility" and "resistance to change." The analysis of the relationships between *obsessiveness* and *impulsiveness* is complicated when the correlations are analyzed between the different factorial dimensions of one scale with those of the other (Table 3). However, it is in this type of detailed analysis where the links that could exist between both traits should really be observed.

Thus, within the concept of *obsessiveness* measured by the MIRAP, it is found that its factor of "order" has a statistically significant correlation with the ECIRyC factors of "haste" (in negative sense) and "imposition" (in positive sense). This seems to make sense, since in order to remain orderly, it is necessary to impose and not to not seem to be hasty. On the other hand, the *anankastic* "doubt" is significantly related with "haste," "immediacy," risk" and

dissatisfaction with what others do," also including that it correlates with the general impulsiveness measured by the total score of the ECIRyC. This relationship also seems to be logical, since it is not strange that the subjects who like risk, who act with immediacy and who are dissatisfied with what others do, are full of doubts. Excess of "responsibility" significantly correlates with the need to obtain things rapidly ("immediacy") in an imperative ("imposition") way and assuming "risks." The anankastic "resistance to change" is also associated with "haste," immediacy" and the need to impose ("imposition"). Finally, "*anankastic* scrupulosity significantly correlated with *impulsive* "imposition."

The relationship between the factorial dimensions from the prospective of *impulsiveness* (ECIRyC) can also be contemplated. Thus, the "haste" factor has a negative correlation with "order" (MIRAP) and a positive one with "doubt" and "resistance to change." That is, it seems that the precipitating factor is disorganized, doubtful and resistance to changes. The "immediacy" factor (ECIRyC) has a statistically significant correlation with the *anankastic* dimensions of "doubt," "responsibility" and again "resistance to change." The subject who scores high on "imposition," also does so on the MIRAP factors of "order," "responsibility" and "resistance to change." Those who are fond of "risk" (ECIRyC) have a significant correlation with "doubt" and "responsibility," as if they were far from the concept of the *impulsive* subject. Finally, those who are generally "unsatisfied with that which others do" (ECIRyC) have a statistically significant correlation with the MIRAP factor of "doubt," which also makes sense.

Table 4 Factorial grouping of the factorial dimensions of MIRAP and ECIRyC (rotated factors)

	Nuevos factores				
	I Rigidity	II Commitment	III Hastiness/ Orderliness	IV Insecurity	V Intransigence
Hastiness ^a	0.26	- 0.11	- 0.67	0.07	0.33
Immediacy ^a	0.73	0.21	- 0.01	0.20	-0.22
Imposition ^a	0.27	0.20	0.40	- 0.17	0.61
Risk ^a	- 0.18	0.75	- 0.14	0.13	0.05
Unnamed ^a	- 0.08	- 0.10	0.15	0.73	0.17
Order ^b	0.01	0.10	0.77	0.10	0.15
Doubt ^b	0.17	0.13	- 0.11	0.76	-0.10
Responsibility ^b	0.21	0.79	0.13	- 0.11	0.10
Resistance to change ^b	0.79	- 0.16	- 0.12	- 0.10	0.17
Scrupulosity ^b	- 0.11	0.05	- 0.11	0.12	0.70
Total variance explained	14%	14%	13%	12%	11%
% accumulated	14%	28%	41%	53%	64%

^afactor of the ECIRyC; ^b factors of the MIRAP; the numbers-weight that most saturated in the factor (≥ 0.40) in **bold**

These last two factors of the ECIRyC are those whose least proportion of the total variance obtained are explained in the factorial solution of said *impulsive* scale.² Furthermore, they do not correlate ($r= 0.00$) with the first factor of "hastiness," which could mean that there are two constructs related with *impulsiveness*, that do not refer to hasty subjects.

Probably, these successive paired comparisons lose information as they do not take into account the possible interactions between the variables. It may be interesting to take on the factorial scores of the subjects in each dimension of *obsessiveness* (MIRAP) and *impulsiveness* (ECIRyC) as variables and to perform a Factorial Analysis on these factorial scorers. This would make it possible to establish, if they exist, the possible groups of the dimensions of both scales.

The results of this Factorial Analysis are shown in Table 4.

The factorial scores of both scales are grouped into 5 dimensions (or factors) that account for 64% of the total variance obtained. This would mean a sufficiently acceptable construct validity.¹⁸

In each one of the 5 factors found, both one factor of the MIRAP as well as another of the ECIRyC saturate high

(≥ 0.40) (except in Factor III). That is, some factors of *obsessiveness* and *impulsiveness* as personality traits are grouped, coexist, or form a part of the same dimension as personality traits.

However, it is difficult to interpret the nature of these associations. Table 4 has made an attempt to describe their meaning, giving a name to each Factor found. However, this procedure is always a risky exercise, a reason why these names can only be considered as approximate ones.

The most outstanding of these groupings is that the factors of one trait or another are associated positively in them, not oppositely. This means that the higher the score obtained by one subject in one of them, the higher it will also be in the other. That is, they reflect a convergent relationship, not an opposing one. The only exception to this rule is shown by Factor III, where "haste" has a negative score while that of "imposition" and "order" score positively. That is: the greater the "haste," the less intense are "imposition" and "order" and visa versa, the greater the "order" and "imposition", the lower the "haste." This is the only Factor in which an element of *impulsiveness* (the "haste" factor) is related with another of *obsessiveness*, "order," as opposing or extreme elements on a *continuum*. The others seem to be coexisting factors.

DISCUSSION

Our new findings seem to support, in general terms, the hypotheses that the *anankastic* traits of the personality and *impulsiveness* are two differentiated constructs that share little variance, although they coexist and show relationships among themselves in a statistically significant way. Subjects who are impulsive are also obsessive (and vice versa), a condition that occurs in the extreme and central values of the total scores of both scales. In this sense, the hypothesis that shows them as opposite poles of a *continuum* does not seem to be verified. However, the clinical observation that states that subjects who are as *impulsive* as *obsessive* have been found is confirmed.

Nonetheless, these results do not make it possible to determine if there is a causal relationship between them or to determine what the primary trait is and what is the reaction to it. It is not possible to know if the *anankastic* subject is as a counterpoint to the baseline *impulsiveness*, or if this *impulsiveness* is a way of defending oneself from the problems caused by the background *obsessiveness*. And both of these are heard in the medical consultations.

Age is a factor that affects the intensity of these traits. Therefore, the younger subjects are more *impulsive* and less *anankastic*, while the older ones are more *obsessive* and less *impulsive*. This is not the first or the only time in which this same relationship between the traits herein studied and age has been shown.¹⁹

The total scores of *obsessiveness* and *impulsiveness*, however, do not correlate with the first factor of the opposing trait, although they do so with the others. This speaks in favor of stating that some dimensions of each trait, at least, behave in the opposite sense to the coexistence. Thus, global *obsessiveness* does not correlate with the "haste" factor of the global *impulsiveness* or with the principal *anankastic* factor of "order" (Table 3). This would support the idea that at least in these factors, both traits are independent, although not necessarily opposing. The "haste" factors *impulsive* and *anankastic* "order" that inversely correlated in a statistically significant way are opposing (Table 3).

When the interrelationships of the different dimensions of each trait are analyzed, images are obtained that would confirm that some factors of both states have an antagonistic relationship. One specifically: Factor III of Table 4 groups "haste" (with negative sign) and "imposition" *impulsive*, together with *anankastic* "order." The subjects who need to "impose" their "order" (*anankastic*) are not "hasty." This supports the hypotheses of the *continuum*, although only in reference to these dimensions. Perhaps this behavior is not observed with the remaining factors of *impulsiveness*

because they are not related closely with it. Placing oneself in situations of "risk," a presumably impulsive factor,⁸ is probably not so impulsive as believed (see below). This means that our preceding statement that the global of *impulsiveness* and *obsessiveness* (as measured by the MIRAP and ECIRyC) coexist must be clarified. Factor III of Table 4 shows that at least one specific dimension of that which we define as *impulsive* ("haste") is opposed to *anankastic* "order," which is the element having the greatest weight in the factor that seemed to form a part of the opposite extremes of a *continuum*. This does not occur with the remaining dimensions.

The factors that make up *impulsiveness* and *obsessiveness* are grouped in an original way, forming new dimensions having their own content, using elements of the two traits for it. That is, profiles or personality traits are drawn which, in a wide sense, seem to have little relationship with the originally studied traits.

In this way, Factor I (Table 4), which groups the *impulsive* "immediacy" and *anankastic* "resistance to change," produces another well-defined trait: someone who resists change and needs immediate results shows "rigidity" in their personality. Factor II (Table 4) is of equal interest since it indicates subjects who place themselves in "risk" situations and have "responsibility." They are "committed" persons who seem distant from "*impulsiveness*," although not so much from *obsessiveness*. This factor recalls the case of the TEDAX (technicians of the Spanish police specialized in this activation of explosives), who in spite of appearances, do not seek sensations or novelties,²⁰ a personality trait that Cloninger includes within *impulsiveness*,⁸ but rather are very calm and analytic individuals. In Factor IV (Table 4), the *anankastic* dimension "doubt" dominates over the *impulsive* one of "dissatisfaction with what others do," a reason why it seems to draw a profile of "insecurity." Finally, Factor V of the same Table 4 shows a dimension dominated by "scrupulosity" followed by the need to "impose," which is shown as a profile of "intransigence."

Based on our results, it seems more reasonable to consider that *obsessiveness* and *impulsiveness* our two coexisting traits, both globally as in most of their dimensions. In addition, and simultaneously, the *anankastic* factor of "order" is in the antipodes of the *impulsive* factor "haste." This is in this sense that an orderly subject is not hasty, or, in the contrary, a hasty subject is not orderly.

There is no disagreement in these findings, since *obsessiveness* is something more simple than desire for order⁴ and *impulsiveness* goes beyond the need to act hastily.²

The results of the present research would place us in the position of those who understand that personality cannot

be explained with a few dimensions, whether bipolar or not. Personality would be made up of a heterogeneous combination of different *traits* having an unequal intensity. And these *traits* would be shaped, in turn, by smaller units, their dimensions or factors. Finally, when these are combined differently, they would give rise to different *traits* that would draw other personality profiles.

In any events, the present findings only refer to personality traits. They do not make it possible to extrapolate these results to the type of relationship that the pathological personality disorders may maintain between themselves (Axis II, OCD, ICD, violence, aggressiveness).

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