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INFLUENCE OF VISUAL COMPOSITION ON GRAPHIC DESIGN FOR SIGNAGE
Preference Analysis

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ABSTRACT
This study seeks to investigate the extent to which composition, considered the graphic designer's most important tool for controlling the expression of the message, conditions the recipient's response (specifically, to proposals based on these two opposing formulas: balance and tension). Based on the ad hoc design of nine pairs of posters, a quantitative survey was conducted with a sample of 101 participants. The results show a significant influence of visual composition on the audience's response, which, in all age groups, overwhelmingly favours graphic solutions that emphasise greater balance or levelling.

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1. Introduction

Composition—*layout*, page architecture, or diagramming—is defined as the technique that determines the structuring of the surface based on the distribution of the elements involved in a piece. As one of the artistic axes of the visual message and an important syntactic and semantic value (Montes Vozmediano & Vizcaíno-Laorga, 2015; Rom, 2014), the management of the relationships between these elements (which leads to the creation of symmetries, directions, balances and contrasts) is often considered the graphic designer's fundamental tool for controlling the expression of the work. In fact, it constitutes one of the fundamentals in university teaching of graphic design and art direction (Suárez-Carballo et al., 2021) and, therefore, the generation of sensations and meanings shared with the receiver (Dondis, 2017; Villafañe, 2006). In this sense, as Biedermann and Romero Piqueras (2015) assert, "there is a link in the perception of images on the plane that affects the viewer emotionally, both on a conscious and unconscious level" (p. 29). Composition, as a complex interplay of visual forces or weights, is interpreted as the basis for the creation of images: it determines their appearance, the sensations they convey and their meaning (White, 2014); therefore, it is essential for the creation of attractive, understandable and effective messages. As Cubeiro (2022) argues, "the ultimate purpose of any composition is to bring unity to a series of elements that individually strive to express themselves, and do so with their own language" (p. 61).

In essence, composing involves organising graphic elements (shapes, photographs or illustrations, typography) in such a way that they form an organised and satisfying whole. The resulting structure—which Huang et al. (2023) summarise with two factors: the position and size of the elements—guides both the creator and the recipient in interpreting the message (Acaso, 2006). In this sense, although there are no absolute rules—given that, as Alberich et al. (2014) argue, there are endless elements and configurative possibilities—conscious and coherent compositional decisions allow us to anticipate and control the visual impact that the final piece will have (Dondis, 2017). To this end, as Arnheim (1999) points out, understanding human nature and the patterns learned through experience are fundamental to decoding the message intuitively.

In graphic design pieces, several resources facilitate the compositional construction of the message. Among these, some authors (Tena, 2017; Williams, 2015) mention a series of ingredients that underpin the effective configuration of the graphic message, namely: proximity, alignment, repetition, and contrast. Linked to these, visual hierarchy is based on the principles of order and relevance to "visually emphasise some elements over others in order to establish the order in which those elements will be initially perceived" (Mahon, 2010, p. 66). On the other hand, the use of white space helps to give more prominence to sensitive material, hierarchises information and facilitates the organisation of graphic resources (González-Díez & Pérez-Cuadrado, 2001; White, 2017), so its absence can lead to saturation and hinder comprehension (White, 2011). Given its main function—"to act as a link between graphic objects" (Llop, 2014, p. 67)—it plays an important role in organising and focusing attention:

> The legitimate use of white space, treated objectively, enables hierarchy and rhythm by allowing the end user to rest while navigating the design or to isolate an element that requires attention. Subjectively, it can add tension or even a dramatic effect. (Gómez-Palacio & Vit, 2011, p. 54)

It is also worth noting the relevance of the grid, "the invisible sets of guides or coordinate systems that help the designer determine the location and use of text, images, and other elements such as whitespace on the page, margins, and sheets of paper" (Caldwell & Zappatterra, 2014, p. 155). This is a tool that introduces a systematic order to the composition (Samara, 2007), organises the different types of information and helps to establish a hierarchy and a specific reading path. Agility, clarity, efficiency, economy, cohesion, fluidity, flexibility and continuity are some of its many benefits; not surprisingly, as Müller-Brockmann (2012) points out, the grid facilitates the distribution of the elements involved in the surface. This resource is ultimately

linked to the aims of clarity, transparency, simplicity, practicality, functionality and aesthetics that govern the designer's work.

With regard to image theory, according to the classification of Villafañe (2006) or Villafañe & Mínguez (1996), composition is directly linked, on the one hand, to dynamic elements (rhythm and tension), whose role consists of the arrangement, treatment, manipulation and activation of morphological elements (the only ones with a tangible presence in the image); and, secondly, with scalar elements (size, scale, format and proportion), which refer to the dimensions and relationships between different shapes within a given surface.

In relation to tension, within the aforementioned dynamic elements, Villafañe (2006) refers to two major compositional possibilities, depending on whether the forces—or vectors, according to Polidoro (2016), as combinations of meaning and direction—produced by the conformative elements counteract each other or not. These options would be, respectively, stable (or static) equilibrium and unstable (or dynamic) equilibrium. In this second option, Arnheim (1986) refers to an imperfect equilibrium. Dondis (2017) speaks, respectively, of equilibrium and tension, terms which, in the field of psychology, find their equivalents in the concepts of levelling (harmony, stability) and sharpening (surprise, tension). These are, therefore, two opposing alternatives that attempt to respond to two different artistic meanings in the message: activity (movement, excitement) and passivity (calm, serenity), as listed in Dondis's catalogue of visual communication techniques (2017).

In this sense, there are several different strategies for achieving both purposes (balance and tension, levelling and sharpening), according to the aforementioned authors (Dondis, 2017; Villafañe, 2006):

• Curved and oblique lines, shapes and directions favour tension; horizontal and vertical lines favour balance.

• Irregular, asymmetrical, incomplete or textured shapes are linked to tension; balance, on the other hand, is based on simpler patterns.

• Tension is achieved by shifting the point of equilibrium of the different elements with respect to the geometric centre; in the most balanced (symmetrical) solutions, the weights of the constituent elements are perfectly counterbalanced (to a greater extent if this is close to the central point of the space).

In relation to this last point, within the balance options, Cubeiro (2022), Dondis (2017) and Leborg (2013) refer to two models: symmetrical balance (where the composition is articulated like a mirror, according to one of the main axes) or asymmetrical balance, an alternative that does not reject order, but offers more dynamic relationships and suggests greater activity in the composition. Polidoro (2016) refers to this second formula as a visual solution that can be obtained through "a compensation of forces that, despite levelling each other out, make us feel their effect" (p. 99). The absence of balance, on the other hand, is identified by the term instability, a strategy linked to maximum tension that avoids any counterbalance of forces and "gives rise to very provocative and disturbing visual formulations" (Dondis, 2017, p. 148). Contreras & San Nicolás (2001) use the terms stability and instability for both options (balance and its absence).

Finally, Montes Vozmediano & Vizcaíno-Laorga (2015) distinguish between formal compositions—those based on "a mathematical structure that determines the position of the elements, [which] will be arranged according to pre-established guidelines"—and informal compositions, which tend to "be identified with other concepts such as dynamic, asymmetrical and modern" (pp. 110–111). According to the authors, in this second type of composition, 'the elements may also be balanced, but their reference point could be an imaginary vertical axis, commonly off-centre [...], thereby achieving greater appeal and dynamism'.

At this point, it is worth questioning the ability of visual language to influence the public's response. The scientific literature contains a large number of studies that demonstrate the significant impact that graphic design—in its many fields—has on the recipient. Liao (2024) concludes that effective design can improve user engagement and emotional ties between users and brands; Subiela-Hernández et al. (2022) analyse how graphic design can improve understanding of regulated electricity bills in Spain, and Subiela-Hernández & Gómez-Company (2018) show how information design facilitates better understanding of information and

increases the appeal of text. In the field of digital interfaces, Guimarães et al. (2021) demonstrate how design improves the user experience for people with low levels of education and literacy; in the area of infographics, Majooni et al. (2018) show that the layout of visual and textual elements significantly influences the understanding of information, and Gunaratne et al. (2019) reveal how packaging design can influence the perception of a product's taste and the willingness to purchase it. Graphic design can even have a significant impact on the selection process for a job (Arnulf et al., 2010) through the visual configuration of the CV.

However, despite the wealth of articles studying the effects of graphic design on the recipient (some cited in the previous paragraph), there is a lack of scientific work that has dealt specifically with the repercussions of composition in this same area of graphic design. Among these contributions, Budimir et al. (2018) argue that symmetry (in particular, mirror symmetry) improves the aesthetic appeal of the piece for users. Along the same lines, Marsden & Thomas (2013) demonstrate that symmetrical graphic marks convey more trust among subjects, who attribute ethical and responsible values to the issuers. In the same field (visual identity), Luffarelli et al. (2018) conclude, on the contrary, that asymmetrical logos have a favourable influence on the impression made on audiences and can therefore increase brand value. The study of effectiveness is also common in the field of typography, where composition is one of the fundamental decisions (without going any further, in line width or column distribution); in this chapter, for example, Al-Samarraie et al. (2017) demonstrate how text structure can significantly affect reading efficiency and comprehension. Other studies point to the importance of composition in eye tracking (Pieters & Wedel, 2004), in the aesthetic appreciation of interface design (Ngo et al., 2003) and in the retention of infographic messages (He et al., 2024).

Finally, several studies include composition within the aesthetics of the piece to assess how certain visual decisions condition the attitudes of the recipient: Soto Flores (2020), for example, refers to "colour composition" to assess how colour can be a key element in guiding the user's eye; Bhandari et al. (2019) consider that the organisation of the piece, as a fundamental visual ingredient of two extreme options (classical and expressive), contributes to generating emotions and granting a certain degree of quality to the product it represents; and Rice et al. (2023) demonstrate its value in terms of attention. Beyond these objectives, other studies focus on the automated generation of compositional models (Lin et al., 2025) rather than the impact these decisions have on the recipient.

The above are some examples that show how graphic design in general, and composition (as a fundamental ingredient of it) in particular, can contribute to improving the effectiveness of the message and user satisfaction. In line with these references, this paper seeks to delve into the impact of compositional decisions on audience perception.

1.1. Objectives and hypotheses

As mentioned above, this research has the following main objective:

MO. To analyse the recipient's response to different compositional approaches to visual messages (in this case, linked to graphic design for posters).

The following secondary objectives are derived from this main objective:

SO1. To reveal whether composition is a relevant factor in greater acceptance of the message by users.

SO2. To evaluate the recipient's reaction to two opposing compositional approaches (levelling and sharpening).

SO3. To determine the extent to which the user's age influences their preference for a particular compositional scheme.

Taking the above objectives as a reference, the main hypotheses of this study are as follows:

H1. Composition significantly influences the recipient's acceptance of the message.

H2. Visual stimuli (posters) with levelled or more balanced compositions are preferred by users over those that are more unstable or tense.

H3. The age of the receiver influences the perception of the composition: while young users prefer configurations based on greater tension, older receivers prefer more balanced compositions.

2. Methodology

2.1. Variables

The methodological approach is based on the following two variables:

• As an independent variable, this study uses visual composition, interpreted here specifically in terms of levelling (balance) or sharpening (tension), following the perspective of Cubeiro (2022), Dondis (2017) and Villafañe (2006), , among others.

• As a dependent variable, the study uses Preference, which Tena (2004) defines as the choice of certain messages that compete with others.

In this research, participants must choose between two visual stimuli that use strictly the same visual ingredients—those referred to as morphological by Villafañe (2006)—but represent opposing compositional formulas (levelling and sharpening). This method (preference) has been used in numerous scientific studies to measure the influence of graphic design; among them, in addition to the study by Martín-Sanromán et al. (2025) on the graphic design of scientific articles, it is worth mentioning the work of Pérez-Maíllo et al. (2022) on the graphic design of podcasts; Suárez-Carballo et al. (2016) on the importance of simplicity in graphic brand design; and Tena (2004), to name but a few.

2.2. Stimuli

To assess the possible impact of composition, this study focuses on the area of art direction or graphic design[1] of posters, considered an ideal means of communication and persuasion, "a global form of socio-communicative influence" (Contreras & San Nicolás, 2001, p. 81), and "one of the products that most accurately defines the work of graphic designers" (Bermúdez Aguirre et al., 2012, p. 3):

> Posters survive, adapting in their simplicity to new fashions and tastes and to new technologies, winning over computers and even movement without losing the wall, maintaining their place in an increasingly complex advertising landscape. (Checa Godoy, 2014, p. 13)

Nine stimuli are designed, which in turn present two variations based exclusively on different compositional approaches: one of the two options seeks a greater balance of forces (levelling) compared to the second model, where the weighting is more dynamic (sharpening or tension). In an effort to control the independent variable more precisely, these stimuli are developed *ad hoc* for the research and designed following different visual strategies (typographic, chromatic, or degree of iconicity of the image); that is, they seek to represent various styles and even different types of content. The graphic design created specifically for each pair of pieces therefore allows for more rigorous control of the research variables:

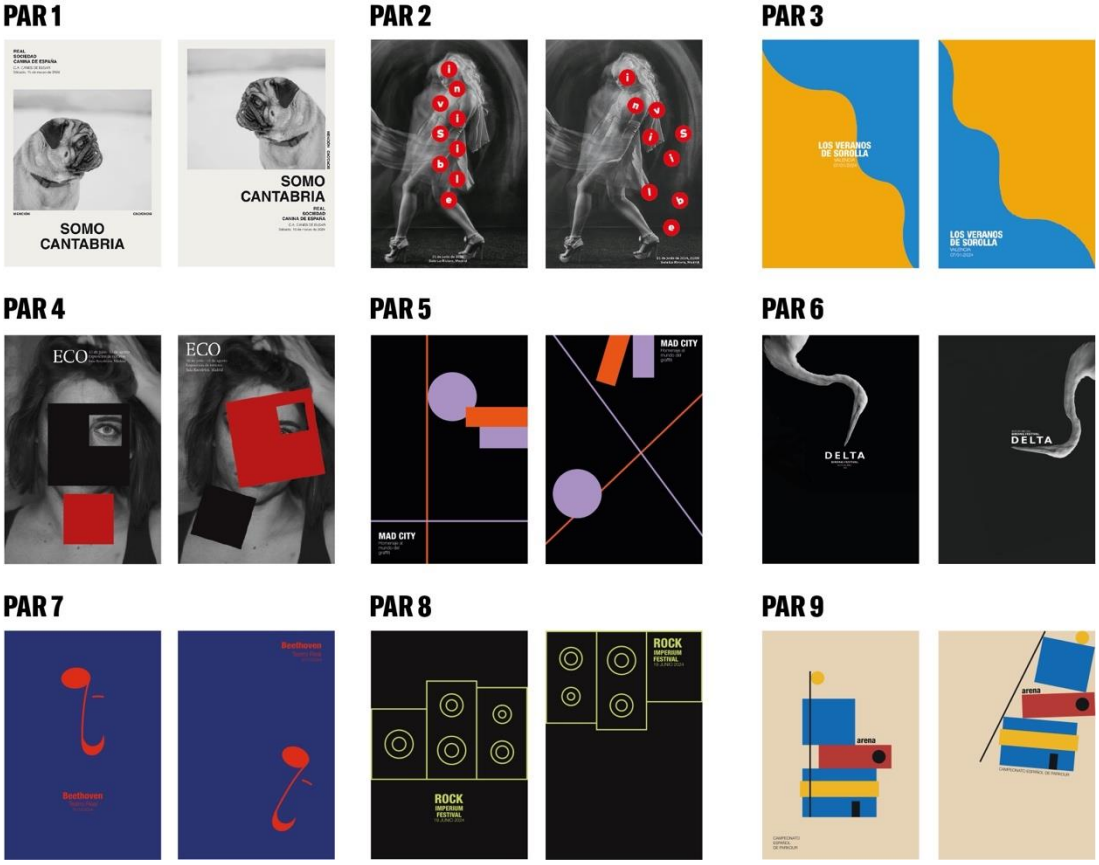
> It should be noted that the more control we have over the variables, the easier it will be to determine their influence on the recipients through an experiment with few subjects. Conversely, if we do not control and understand the variables, it will be futile to attempt to

[1] 1. In the field covered by this study (poster design), the differences between graphic design and art direction—beyond the coordination and leadership functions in certain contexts (specific to the art director)—are blurred or even non-existent, according to several authors (Mahon, 2010; Navarro, 2006; Roca, 1998; Suárez-Carballo et al., 2021). As visual communicators, the functions of both profiles focus on the management of graphic signs, the communication process and production systems (Ocaña, 2006; Tena, 2017).

> successfully carry out an experiment in this regard, and we will be forced to use a large number of experimental subjects. (Tena, 2006, p. 101)

Figure 1 shows these nine pairs, which always present the two versions mentioned above: one of them is compositionally more stable (left) than the other (right). To summarise the diversity of possible variations that have been used to describe the most static or dynamic compositions, this paper will use the concepts of balance or levelling, on the one hand, and tension and sharpening, on the other. Ultimately, it is interesting to know the receiver's preference for proposals based on a greater or lesser compensation of forces.

Figure 1. List of nine pairs of stimuli



Source: Own elaboration, 2025.

In addition, Table 1 shows the arguments that justify the approximation of each option towards levelling or sharpening, based on some of the references mentioned in the theoretical framework.

Table 1. Justification for the design of each model (levelling or sharpening)

Pair 1	Asymmetrical counterbalance of forces. The vectors in the photographic image follow the Western reading direction.	The weight is tilted to the right. The vectors in the photographic figure oppose the Western reading direction.
Par 2	Regular typographic block in the horizontal centre. Activity of the photographic image.	Irregular typographic block away from the horizontal centre. Activity of the photographic image.
Par 3	Typographic block in the horizontal centre. Diagonal directions.	Typographic block away from the horizontal centre. Diagonal directions.
Par 4	Geometric elements arranged in a controlled manner. Predominance of horizontal and vertical vectors. Asymmetry.	Geometric elements arranged randomly. Predominance of diagonal vectors. Instability.
Par 5	Asymmetrical arrangement of elements.	Unstable arrangement of elements.

Par 6	Typographic block in the centre. Controlled rotation of the photographic element.	Typographic block slightly offset from the centre. Excessive and surprising rotation of the photographic element.
Par 7	Symmetrical layout.	Asymmetrical layout.
Par 8	Graphic and typographic block located in the centre: symmetry.	Graphic and typographic block away from the centre (top): asymmetry.
Pair 9	Asymmetry. Predominance of horizontal and vertical vectors.	Instability. Predominance of diagonal vectors.

Source: Own elaboration, 2025.

Furthermore, in order to validate the suitability of the design of the pieces and check whether the variables are correctly implemented in the stimuli, two experts (university professors specialising in graphic design, accredited as tenured professors and with more than 25 years of teaching experience) are consulted, whose role is to identify which category (levelling or sharpening) the posters in each pair belong to. The experts confirm that the design of the options responds to both poles.

2.3. Methodological technique

After the stimuli have been designed and validated by the experts, a cross-sectional experimental study is conducted, using a quantitative survey technique to analyse preferences. This technique allows the opinions and reactions of audiences to certain messages to be collected and has been frequently used in communication research (Eiroa & Barranquero, 2017; Igartua, 2006). In graphic design and visual communication, there are also numerous studies that use this technique: for example, the work of Vielma Núñez & Martínez Bouza (2024) in the area of user experience; that of Elkilany and Yousef (2017) on the teaching of creativity at university; or those already mentioned by Martín-Sanromán et al. (2025), Pérez-Maíllo et al. (2022), and Subiela-Hernández and Gómez-Company (2018), to cite a few recent references.

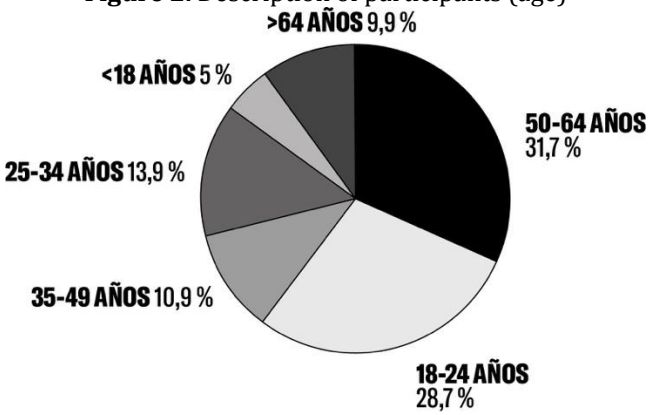
The data collection instrument consisted of a questionnaire composed of closed questions and configured using the Google Forms tool which, in addition to the nine pairs of stimuli (whose levelling and sharpening options are randomly ordered in the questionnaire), asked for the age of the participants. The questionnaire was distributed mainly through the WhatsApp social network.

2.4. Sample

One of the hypotheses of the study refers to the possible influence of the participants' age on their response to certain compositional formulae in poster graphic design (specifically, the difference between levelling and sharpening). In the quantitative survey, a final sample of 101 (n) participants was obtained. In relation to this figure, as Hernández Sampieri et al. (2014) point out, "when samples consist of 100 or more elements, they tend to have normal distributions, which is useful for the purpose of inferential statistics (generalising from the sample to the universe)" (p. 189).

According to the distribution of the sample by age group (Figure 2), there is a greater presence of individuals between 50 and 64 years of age (31.7%) and between 18 and 24 years of age (28.7%).

Figure 2. Description of participants (age)

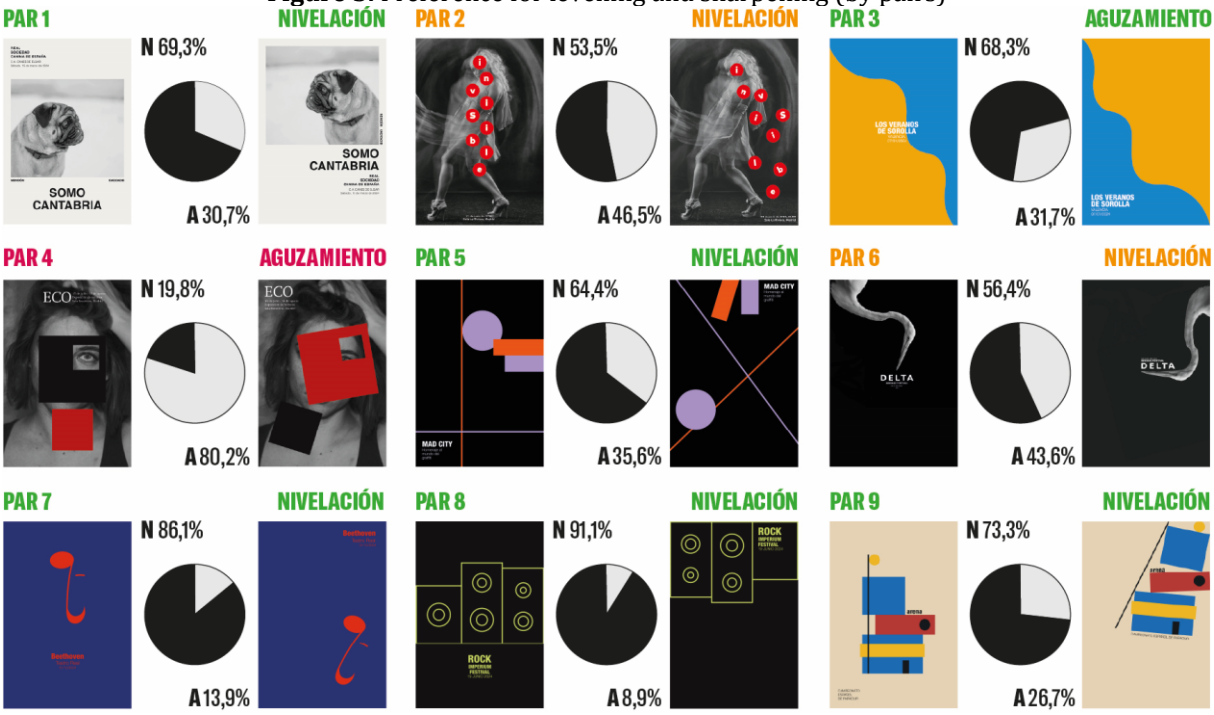


Source: Own elaboration, 2025.

3. Results

As shown in Figure 3, the responses provided by the 101 participants in the study reveal a significant preference for works with greater compositional balance. Of the nine pairs of questions proposed in the research, six of them (shown in green in the figure) show a preference of over 60%, compared to only one model (4, in red), which shows a clear inclination towards sharpening. The remaining two pairs (2 and 6, in orange) point to a slight, inconclusive inclination towards levelling.

Figure 3. Preference for levelling and sharpening (by pairs)



Source: Own elaboration, 2025.

These results are shown more clearly in Table 2, which provides a summary of the preference percentages for each pair of posters. Based on these figures and the p-value results in the binomial test, it can be seen that levelling dominates significantly in six of the nine posters, especially in posters 7 and 8, with the exception of pair 4, in which sharpening clearly stands out with a rate of 80.2%. In two pairs of stimuli (2 and 6), no clear difference can be seen.

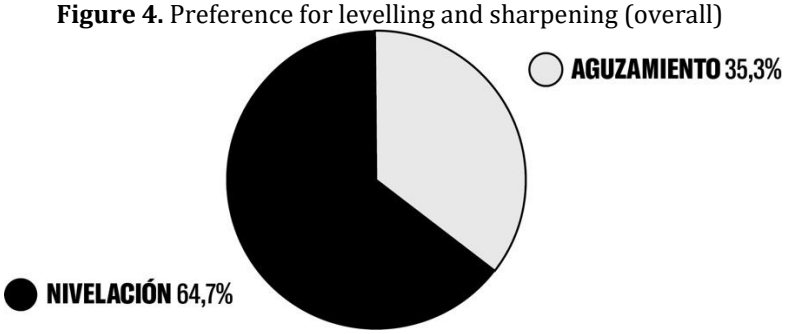
Table 2. Preference percentages for each pair of posters (%) and p-value according to the binomial test

Pair	% Levelling	% Sharpening	p-value	Interpretation
1	69.3	30.7	0.00013	Preference for levelling
2	53.5	46.5	0.551	No clear preference
3	68.3	31.7	0.0003	Preference for levelling
4	19.8	80.2	6.93×10^{-10}	Preference for sharpening
5	64.4	35.6	0.0051	Preference for levelling
6	56.4	43.6	0.232	No clear preference
7	86.1	13.9	4.80×10^{-14}	Very strong preference for levelling
8	91.1	8.9	1.82×10^{-18}	Very strong preference for levelling
9	73.3	26.7	3.18×10^{-6}	Preference for levelling

Source: Own elaboration, 2025.

Furthermore, if we analyse the overall proportion of preferences for levelling and sharpening, based on the individual results for each pair of stimuli, we can clearly see a tendency towards levelling, which accounts for 64.7% of the total responses (588 of the 909 decisions recorded), compared to 35.3% for sharpening-based posters (Figure 4). In other words, almost two out of every three choices made by the 101 participants favoured more balanced compositional solutions. This statistically significant preference for levelling-based posters was confirmed by the binomial test, which yielded an extremely low p-value (6.28×10^{-19}), well below the usual significance threshold ($p < .001$). The marked deviation between the observed proportion of levelling choices (64.7%) and the theoretical value expected under equiprobability (50%) indicates that the difference found cannot be attributed to chance.

Figure 4. Preference for levelling and sharpening (overall)



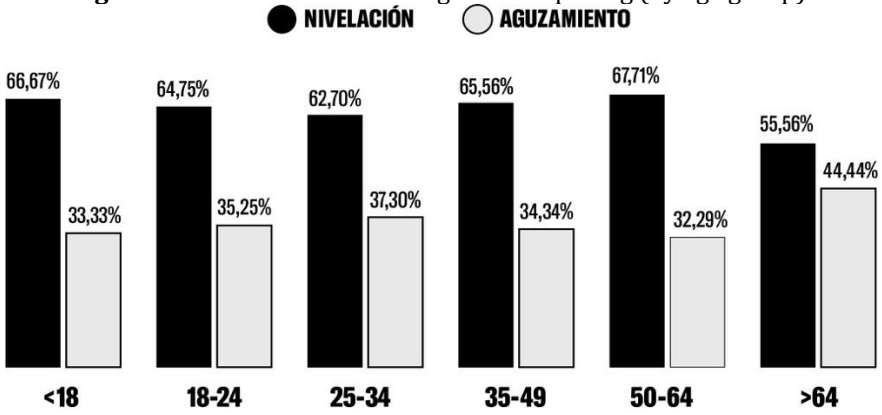
Source: Own elaboration, 2025.

The internal consistency among the nine items was also assessed using phi (φ) correlations to reveal whether participants' choices followed the same pattern across the nine pairs of stimuli. The coefficients ranged from –.10 to .38, with most values below .15. This low correlation suggests that the responses in each pair of posters do not reveal a common trend, but rather depend on the specific visual characteristics of the pieces and the compositional differences (more or less accentuated) between the posters in each pair.

Finally, the relationship between the age of the participants and their preference for compositional balance or tension is studied (Figure 5). The results show a very high similarity in the responses of each group, with a clear preference for levelling, always above 60%, and with a

maximum difference, in the group that selects levelling, of less than 5 percentage points. The only exception is observed in older participants (those over 65 years of age), where the balance is evenly split between the two options (55.56% in favour of levelling versus 44.44% in favour of sharpening). The chi-square shows a minimal discrepancy between the observed frequencies and those expected by chance — $\chi^2(6, N = 101) = 2.24$, $p = .816$ — which reinforces that the preference for levelling is very similar across all age ranges, as shown in the graph. Only pair 4 reveals a significant preference: that of the younger groups (up to 34 years old) for tension.

Figure 5. Preference for levelling and sharpening (by age group)



Source: Own elaboration, 2025.

4. Discussion and conclusions

Based on the results obtained in the previous section, this research confirms the first working hypothesis (H1): composition significantly influences the recipient's acceptance of the message. Considering the overall percentage of preference—that is, the average of the total number of responses to each formula (levelling and sharpening)—almost two-thirds of the responses favour a greater balance of forces (64.7%) over tension (35.3%). The figures, therefore, place this research in line with previous studies—Gómez-Company (2018); Liao (2024); Majooni et al. (2018); Martín-Sanromán et al. (2025); Pérez-Maíllo et al. (2022); and Subiela-Hernández & Gómez-Company (2018), among others—on the significant effects of graphic design on user perception. In this vein, the figures allow us to demonstrate the second hypothesis (H2): users prefer visual stimuli (posters) with balanced compositions over those that are more unstable or tense: of the nine pairs of stimuli presented in the questionnaire, six significantly favour the option with a greater counterbalance of forces (two, with particular emphasis), while only one pair clearly reveals a preference for the opposite technique (sharpening). This trend is also evident when considering the aforementioned overall average (64.7% versus 35.3%, respectively). Therefore, the results reinforce the conclusions of some previous studies, such as those by Budimir et al. (2018) or Marsden & Thomas (2013), on the value of compositional balance in perception, and question other studies that argue the opposite (the appeal of compositional tension), such as that by Luffarelli et al. (2018).

If the results are compared with the visual analysis of each model (Table 1), it appears that the public more strongly rejects those strategies whose most relevant graphic elements deviate more clearly from the compositional centre and, conversely, shows greater acceptance of stimuli whose pieces are located at this central point: these formulae are clearly observed in pairs 5, 7, 8 and 9 and, to a lesser extent, in pair 1. It is also interesting to note how the results of the less conclusive pairs (2 and 6) and one of those with the greatest inclination towards sharpening (pair 4) correspond to images where the photographic image is the protagonist, rather than vector shapes. With the exception of the first pair, these are the only models that use more realistic signs. In this regard, it would be worth offering some possible explanations for the meaning of these choices, namely: the dynamism or activity of the black and white photographic image, beyond the regular or random arrangement of the typographic ingredient (pair 2); the peculiar (arguably disturbing) result obtained in pair 4, specifically in the area corresponding to the negative space of the main

square (the eye), which is not observed in the second option of that pair (and which therefore alters not only the compositional ingredient but also, significantly, the content of the piece); or in the atypical rotation of the main figure in both options of pair 6, which, in both cases, leads to higher unpredictability (and, therefore, activity), very close to the effect of visual ambiguity proposed by Dondis (2017).

Finally, it seems clear that, at least under the methodological conditions described and the stimulus design of this research, the age of the recipient does not condition the perception of the composition. The results obtained cannot therefore support the third prediction (H3): no special preference for levelling is observed in older audiences, just as, conversely, no special preference for the more unstable options is observed in younger groups. Thus, according to the data obtained and in accordance with the chi-square results, no correlation of any kind can be established between the variables of age and preference for balance or tension. It is only possible to highlight a greater similarity in the results corresponding to the older audience, which, although it continues to show a slight preference for levelling, does so to a clearly lesser extent than in the other age groups.

Finally, it is worth noting some possible limitations or weaknesses of the research. Among them, the quantitative methodology seems insufficient to explain the reasons for some results (including the clear opposition to levelling in the fourth pair of stimuli) and whether this perception occurs unconsciously or not. The study seems to confirm, in general terms, the appeal of levelling or balance in the receiver, but it does not reveal the reasons for some very significant percentages in certain stimuli, which apparently do not reveal excessive visual differences compared to the others. In previous paragraphs, some possible explanations for the results have been suggested through a formal objective analysis of the pieces (especially those whose numbers deviate from the majority response), but ultimately these are only conjectures that could be resolved more rigorously through qualitative research.

On the other hand, a more exhaustive description of the independent variable would be interesting to facilitate the justification of the results. The design of the items always seeks, in each pair, one version that is more balanced than the other, a configuration that, according to the experts' validation, seems successful. However, the nine pairs used contain multiple combinations of symmetrical, asymmetrical or unstable versions and, therefore, different degrees of balance or tension and unequal intensity between the two versions, extremes that the aforementioned prior validation does not examine in the definition of the variables. Although, on the other hand, the article provides an objective description of each stimulus that seeks to justify its design, it might be more interesting to construct the stimuli from the outset using these three strategies (symmetry, asymmetry and instability, or, in other words, static balance, dynamic balance and absence of balance) in order to strengthen the conclusions. Along the same lines, it would also be advisable to systematically incorporate into these basic formulae some of the ingredients mentioned in the introductory chapter—hierarchy, targets and grid, or the four factors considered by Williams (2015)—to assess their impact on perception.

In future studies, it seems appropriate, in any case, to broaden the scope of the research by increasing the number of participants (to obtain more reliable results, also balancing the number of representatives from each age group and requesting more information to obtain a more complete demographic profile), stimuli (to more clearly reflect the different variables that determine levelling or sharpening) and experts (for a more robust validation of the visual configuration of the stimuli around both extremes). Although the results of this study seem to be extrapolatable to other areas of graphic design, it would also be interesting not to limit the nature of the stimuli to the same field (posters), but to extend it to other types of visual products (such as graphic brands, for example).

In summary, the research shows that composition, as one of the fundamental artistic ingredients of graphic design (perhaps the least studied, compared to other elements such as typography or colour) and evaluated here in terms of levelling or sharpening, has a significant influence on the user's appreciation. Thus, its main contribution to the scientific field of graphic design is to objectively define some key factors that would enable the creation of more effective graphic products.

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