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of Individuals and Societies**

Research and Innovation Action

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## Version history

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Updated/Annex to EU				



## A Brief Introduction—ARTIS and Empirical Studies

ARTIS (Art and Research on Transformations of Individuals and Societies) is an EU REA Horizon 2020-funded project under the call “*TRANSFORMATIONS-SC6-2019: Societal challenges and the arts.*” We represent a first-of-its-kind consortium of research institutions in the social sciences, Art History, Philosophy, Art education, and Art and Cultural Policy with the collective aim of addressing, and systematically assessing, applying, and informing better policy regarding, some of the most persistent yet undefined aspects of art’s potentially important role in human society.

**ARTIS argues that to make better policy that advances art’s efficacy, it is necessary to build a systematic program that combines empirical and theoretical research with perspectives of artists, art educators, and other art stakeholders.** This requires us to: **Integrate** state-of-the-art empirical approaches from psychology, neuroscience, and phenomenology to conduct a series of investigations that identify specific types of experiences with art. **Connect** these to changes at individual (neurocognitive, emotional, health) and societal (prosocial and political attitudes) levels. **Capture** these experiences in different settings across countries in people’s everyday life. **Contextualize** and challenge the empirical data using theoretical approaches from philosophy as well as political science and art criticism. **Combine** this empirical and theoretical focus with a series of interventions, workshops, and experimentations co-created with art schools, artists, and galleries. **Translate** the insights gained into policy guidelines disseminated by key stakeholders in art and culture.

**As can be seen, connecting empirical findings across WPs is a central goal of ARTIS. Furthermore, understanding the sociopolitical context of art engagement is crucial to identifying characteristics that may promote or obstruct European community resilience through the arts.**

The current report combines insights gained through the empirical activities of WPs 2-5, focusing on the sociodemographic profile of participants who engage with the arts, and compares those to the findings of a large cross-cultural study conducted across the member states of the European Union. In the following, we provide an overview of the WP6 Objectives and the focal task of this report, Task 6.2, and report on the results of the European Values Survey followed by the results of WPs 2-5.



## WP6—Values, Enaction, Society

Figure 1 shows the overall organization of ARTIS with its 9 WPs. WP6 is a component of the CONNECT aspect (blue bars), which, across two WPs. One of the main foci of WP6 is to investigate how artistic engagement relates to societal (macro-level) characteristics that may promote or obstruct community resilience in Europe. This will involve comparing our art viewers' profiles to the European Values Survey (EVS), a cross-cultural survey carried out across all member states of the European Union, and including measures of engagement in artistic and cultural activities, as well as measures of political identity, social category identification, and other key sociodemographic variables (e.g., age and social class). Regional, social, and political causes of disengagement will become visible by comparing our data to the EVS findings.

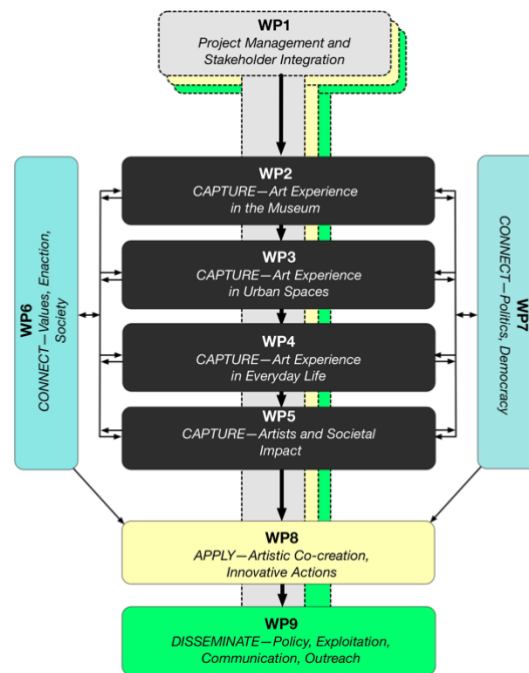


Figure 0. Overall Organization of ARTIS Project

## WP6 Overview and Objectives

WP6 is devoted to *connecting* the empirical findings and other perspectives and understanding in the cognitive sciences, humanities, and cultural studies as well as theoretical commitments that relate findings to the level of society. WP6 runs in tandem with the empirical assessments of end-viewers and artists' experiences. WP6 aims to also inform the forthcoming interventions (WP8) and policy/outreach (WP9) activities.

We stated the following main **Objectives**:

- Bridge the gap between empirical results and the humanities with respect to the relation of artworks to individuals and society. This will be achieved through the distinct expertise of HUB (Berlin School of Mind and Brain), which has been specifically focused on uniting and identifying commonalities between the humanities and the sciences in order to enable discussions that make findings from WP2-5 most actionable for members of the consortium and stakeholders.



- Consider cultural differences by using information concerning participants' personality, background, and social/political profiles and relating them to European Values Survey data in order to create a map of shared or differing interest in art and transformative seeking experiences considering different motivations, philosophies, and local/regional/national identities.
- Unite the implications of transformation at the empirical/cognitive level to wider understanding of individual and social/cultural identity (in collaboration with FU Berlin, Prof. Bertram).
- Develop and publish papers/a monograph on an 'enactive' theory of art that identifies and integrates central findings and discussions of the consortium and relates them to theoretical and normative claims in the humanities.
- Actively work to avoid reductionist tendencies in interpreting the empirical data by considering the application and limitations of experimental designs, methods, and interpretation of data.

To achieve our objectives, WP6 contained 3 main tasks.

### **Task 6.1** Connecting empirical data to theoretical perspectives

#### **Connecting empirical data to perspectives of philosophy of art, art engagement, and empirical methods (lead: HUB, Month 1-48)**

First, we will explore the WP2-5 research approaches, the empirical results, and their underlying assumptions, by situating empirical results within a wider philosophical and art-critical understanding of experience and art theory.

(1) We will consider the identified experience types and implications and relate them to normative claims regarding the role of art in philosophy and art theory, and to discussions of relevant mental states and responses to different art forms. This will also include historical theories regarding the relation of art and society. We will identify recent artistic developments that highlight art's direct impact on personal wellbeing, social and political attitudes, as well as its societal impact, drawing parallels or raising new questions regarding differences when compared against the empirical findings.

(2) We will explore the relation between the empirical data/programs and recent discussions regarding participatory artforms and tendencies to define art as useful and its impact as measurable (e.g. Arte Útil, Wochengruppe). This will seek to challenge the presumptions underlying the empirical methods and the interpretation of the findings, in order to dynamically adjust the actual empirical studies and to enhance their usefulness and reception among the wider theoretical arts research community.

(3) We will use 4E (embedded, embodied, extended, enactive) theories of the mind and insights from empirically informed philosophy to connect the empirical data analysis to a current understanding of the human mind. This will consider how humans are embodied agents embedded within larger contexts and how embodied self actively construes meaning through interactions that are co-constructed by culture and society (HUB). It will also rethink



the role of the artwork not as stimulus but as “quasi-agent” of transformation, highlighting the societal level of mental states, their cultural construction and ontogenetic development, e.g. after relocations of subjects into a different society. We will feed back theoretical concepts into WPs 2-5 and provide additional experimental designs and measures.

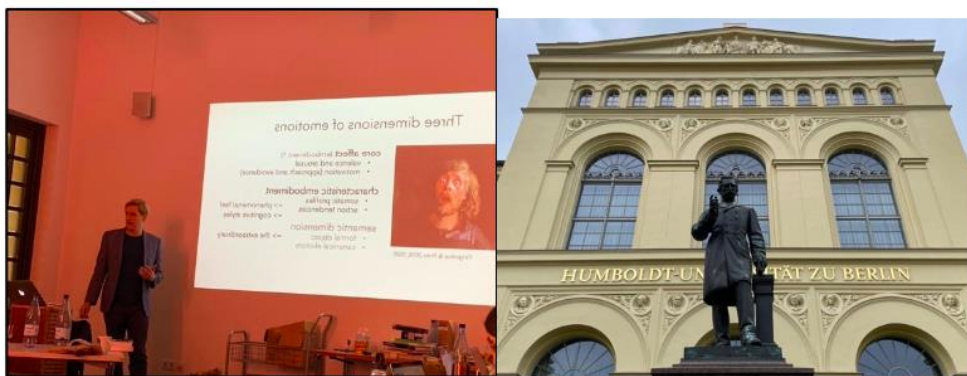
(4) We develop an enactive theory of the arts as evaluative engines (i.e. as cultural artifacts that demand evaluation), which induce cultural transformations. This includes work on an embodied, enactive theory of aesthetic emotions (see Fingerhut & Prinz 2018a) and the emotional states that have been identified in WP2-5 (esp. Task 2.1, 3.1, 4.1, and 5.1).

## Project A: Research Meetings within ARTIS

**Lead:** HUB, support UNIVIE

**Setting/art type:** Research meeting, online/in person

**Status:** Regular and ongoing



*Figure 1:* Additional “ARTIS Research Meeting” at HUB to discuss the impact of the CAPTURE WP 2-5 and their relation to the CONNECT WP 6&7, Feb. 26, 2022

A mainstay of WP6 has been constant feedback (in person, via Zoom, Email) to connect the empirical data to perspectives of philosophy of art, art engagement, and empirical methods used in the WP2-5 research approaches. This includes experimental settings, the empirical results, and their underlying assumptions. This feedback included situating empirical results within a wider philosophical and art-critical understanding of experience and art theory.

This included especially identified experience types and implications and relate them to normative claims regarding the role of art in philosophy and art theory, and to discussions of relevant mental states and responses to different art forms. One outcome/focus point has been the central tool to assess experiences: The NEAL survey (Notable Emotions and Appraisals Lists: Base Survey with Emotions and Appraisal Lists) that has been adapted by including theoretical considerations from philosophy and the humanities. This encompassed the recognition of contemporary artistic advancements that underscore the direct influence of novel understandings of art (e.g. Documenta 15) and its impact on individual well-being,



social and political perspectives, and its broader impact on society. It drew connections or posed fresh inquiries about variations in relation to empirical discoveries.

In February 2022, ARTIS partners from various European countries gathered in Berlin for a hybrid workshop led by Joerg Fingerhut. The participating universities included the University of Vienna, University of Amsterdam, Aarhus University, Humboldt-Universität zu Berlin, Interdisciplinary Forum Neurourbanism, University of Arts in Belgrade, and the University of Oxford. Held at the Berlin School of Mind and Brain, the three-day workshop provided an opportunity for the ARTIS principal investigators and PhD candidates to evaluate the progress made thus far, explore potential synergies among project partners, discuss future collaborations with art schools and museums, and plan forthcoming activities and theoretical next steps for the project.

In **3rd ARTIS Research Workshop** (30.08.2023 – 01.09.2023) immensely helped with synthetization of the ARTIS project results and made them assessable especially to WP8 (artistic co-creation) and WP9 (policy recommendations). It was co-organized by HUB and KHB, with parts of the meeting taking place at the Humboldt-Universität zu Berlin and parts at the art school Weißensee, where the Art exhibition and result of the classes taught at KHB became part of the discussion. As a central point of discussion emerged the difference in the levels of context addressed either in empirical aesthetics or psychology, on the one side, and art school education and critical theory on the other. The main point of contention was identified in the relation to context. Whereas context is controlled for in empirical studies and unified to a point of factors that can be statistically relevant, it is differently addressed in critical studies and a central relevant factor in determining artistic contributions in the humanities. In the RP 3 this will be part of a central discussion across the consortium partners.

## Project B: Developing a 4EA Theory of Art

**Lead:** HUB, support AAU, UNIVIE

**Status:** Several papers published/under review, Monograph in preparation



*Figure 2:* Publication of a theoretical framework that captures the arts as media that generate new values and means of perception/cognition

The ARTIS consortium has successfully worked on the development and publication of papers and the preparation of a monograph (On “Aesthetics and Emotions,” under contract with Bloomsbury) presenting a potentially influential “enactive” theory of the arts and





Art. This achievement represents a culmination of our collective efforts and highlights the integration of significant findings and discussions within our consortium. By establishing meaningful connections between these findings and theoretical and normative claims in the humanities, our work contributes to the scholarly discourse in the field. These publications provide valuable insights, fostering a deeper understanding of the role of art in our individual lives and its implications for societal challenges. The dissemination of our research outcomes enriches the academic community and stimulates further exploration in this area of study.

As a result of our research efforts, we have successfully formulated the basis for an enactive theory that characterizes the arts as evaluative engines, capable of instigating cultural shifts. This theory encompasses the development of an

	Model 1	Model 2
Intercept	20.96 (0.38) **	20.86 (0.38) ***
Sex <sup>a</sup>	-0.43 (0.07) ***	-0.41 (0.07) ***
Age <sup>b</sup>	-0.28 (0.08) ***	-0.28 (0.08) ***
Education <sup>c</sup>	1.66 (0.08) ***	1.59 (0.08) ***
Income <sup>d</sup>	0.57 (0.07) ***	0.56 (0.07) ***
Political Orientation <sup>e</sup>	-0.30 (0.02) ***	-0.30 (0.02) ***
Religiosity <sup>e</sup>	-0.05 (0.04)	-0.07 (0.04) †
Art Involvement <sup>f</sup>		0.93 (0.12) ***

embodied and enactive framework for understanding aesthetic emotions, as documented in a series of papers (Fingerhut & Kühnapfel, forthc.; Fingerhut & Prinz, 2020; Fingerhut & Spee, n.d.). Furthermore, within our various work packages (WP2-5, specifically Task 2.1, 3.1, 4.1, and 5.1 in those WPs), we have identified and studied the emotional states associated with this theory. These findings contribute to our overall understanding of how cultural artifacts within the arts prompt evaluation and facilitate cultural transformations.

In WP 6 we identified as a necessary intermediate step the understanding of the different arts as media, which has been part of a central position paper (Fingerhut, 2021) that has influenced subsequent empirical papers (see **Project C**). This then has been explored for images, film, architecture in the following and in particular combined with a new paradigm of the brain as a predictive engine (Fingerhut, 2020; Fingerhut & Heimann, 2022).

This theory has been further developed towards what we label “Affective Aesthetic Cognitivism” and presented at central empirical aesthetics conferences and art shows (IAEA, VSAC, Documenta 15). This exploration with a focus on affect and emotion seeks to critically examine the assumptions underlying empirical methods and the interpretation of findings. By doing so, we will dynamically refine the existing empirical studies and amplify their relevance and reception within the broader theoretical arts research community. This involved an extensive examination of distinct types of experiences and their implications, linking them to normative assertions concerning the role of art in philosophy and art theory. Additionally, discussions concerning relevant mental states and responses to diverse art forms were considered. A significant outcome and focus of the research revolved around the utilization and potential implications of the NEAL survey (Notable Emotions and Appraisals Lists: Base Survey with Emotions and Appraisal Lists) as a central tool for assessing these experiences with art.



It as well was the topic of the 1st AoN Working Table on Aesthetic Cognitivism that was held in Venice during the 59th Venice Biennale of Art (<https://artis-h2020.eu/the-1st-aon-working-table-on-aesthetic-cognitivism>). Organized by ARTIS and the Association of Neuroesthetics Berlin (AoN\_Platform for Art and Neuroscience), the event aimed to explore the transformative power of art through discussions among philosophers, psychologists, and neuroscientists. The value of empirical approaches to the arts was critically assessed, with each discussant presenting a research question or topic related to the transformative potential of art. The event also featured an artistic format in 2023, highlighting artistic and curatorial perspectives on the subject. The public event welcomed attendees without requiring prior registration. Funded by the H2020 ARTIS project, the Working Table took place at Serra dei Giardini in Venice, Italy, with a diverse panel of discussants and presentations on topics such as neuromedia, culture-naturalist perspective on aesthetics, embodied and enactive accounts of art experience, art by artificial intelligence, predictive processing and the arts, and empirical findings from the ARTIS project. The event provided an opportunity for interdisciplinary dialogue and exploration of the transformative potential of art.

Next Steps will include publications of papers prepared on the topic as well as the finalization of a first monograph on the topic focusing on art and emotions (together with Prof. Cain Todd, University of Notre Dame, US; visiting research of ARTIS, HUB, in 2023).

We aim additionally for contextualization and confrontation of our project with existing policies and practices in societally engaged art which will be done also in WP 7-9. We agree that it is important to situate our research within the broader discourse and to be aware of the transformative effects established in sociological and policy evaluations. In this, we recognize the value of incorporating more awareness and contextualization in existing discourses, also in WP 6. By engaging with relevant literature, policies, and practices, we aim to strengthen the positioning of our perspective and ensure that our research aligns with and contributes to the ongoing discussions in the field of societally engaged art. This will enhance the practical implications and transferability of our findings.

### **Project C: Contributions to experimental/empirical papers**

**Lead:** HUB, UNIVIE, AAU,

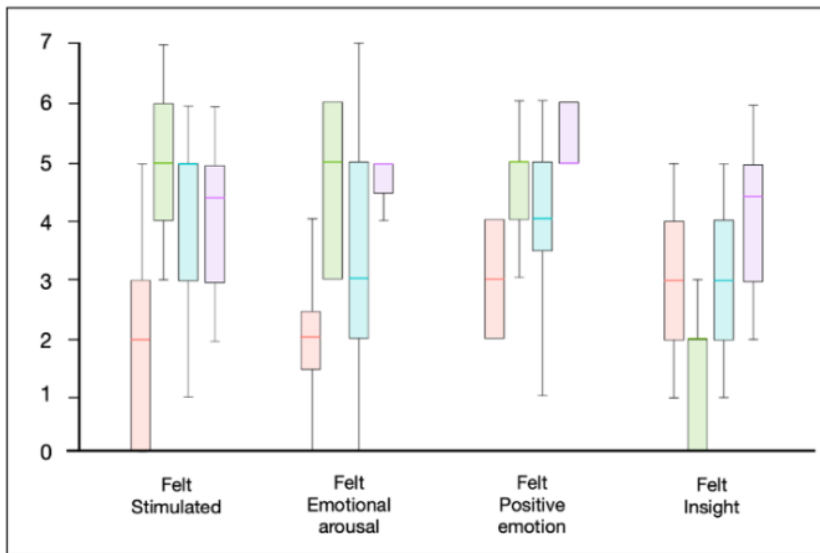
**Status:** Several papers published/under review

Furthermore, we have actively addressed the gap between empirical results and the inquiries posed by the humanities within papers published in peer-reviewed empirical journals (PACA, EMA, Frontiers in Neuroscience). This endeavor involved direct collaborations and contributions to papers alongside researchers from the CAPTURE work packages, which are part of Project C. By engaging in these interdisciplinary collaborations, we aimed to bridge the divide between empirical research and the broader philosophical and theoretical questions arising from the humanities. The joint efforts yielded valuable insights and enhanced the richness and depth of our collective understanding of the subject matter. These contributions to papers served as a means of fostering cross-disciplinary dialogue and generating a more comprehensive exploration of the intersection between empirical findings and the humanities' theoretical frameworks. Through this collaborative approach, we have strived to create synergies between different disciplines and facilitate a more holistic understanding of art and its impact.

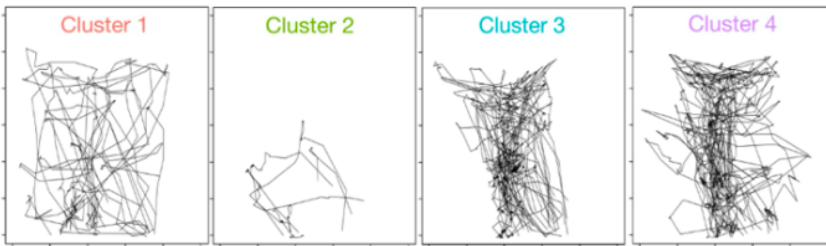


This has been especially done with respect to 4EA (embodied, embedded, extended, enactive, and affective) cognition perspectives as well as the innovation of microphenomenology as a research method related to developments in 4EA cognitive science (papers in progress).

Especially the role of the body in the cognitive style of certain emotions has been studied by ARTIS members in a multitude of ways related ideas from 4E cognition and affective cognitivism (examples are: Fingerhut & Kühnapfel, *forthc.*; Kühnapfel et al., 2023; Kühnapfel & Fingerhut, *forthc.*)



Contributions to empirical papers is ongoing and will lead to future publications as well as continuous joint presentations at central empirical aesthetics conferences as it has been the case also in previous years (such as IEAE 2021, 2022) VSAC (2022, 2023), and APA, DIV 10 (2023).



*Figure 3: Paper that focuses on new methods of capturing strong embodiment in empirical research that also discusses the concept*

**Museum data collection—Sample and Experience Types**

A central set of studies is related to the. NEAL (Notable Emotions and Appraisals Lists: Base Survey with Emotions and Appraisal Lists) data set and experience type assessments. Here **2740 visitors'** unique meetings with specific works of art have been assessed. This further involved

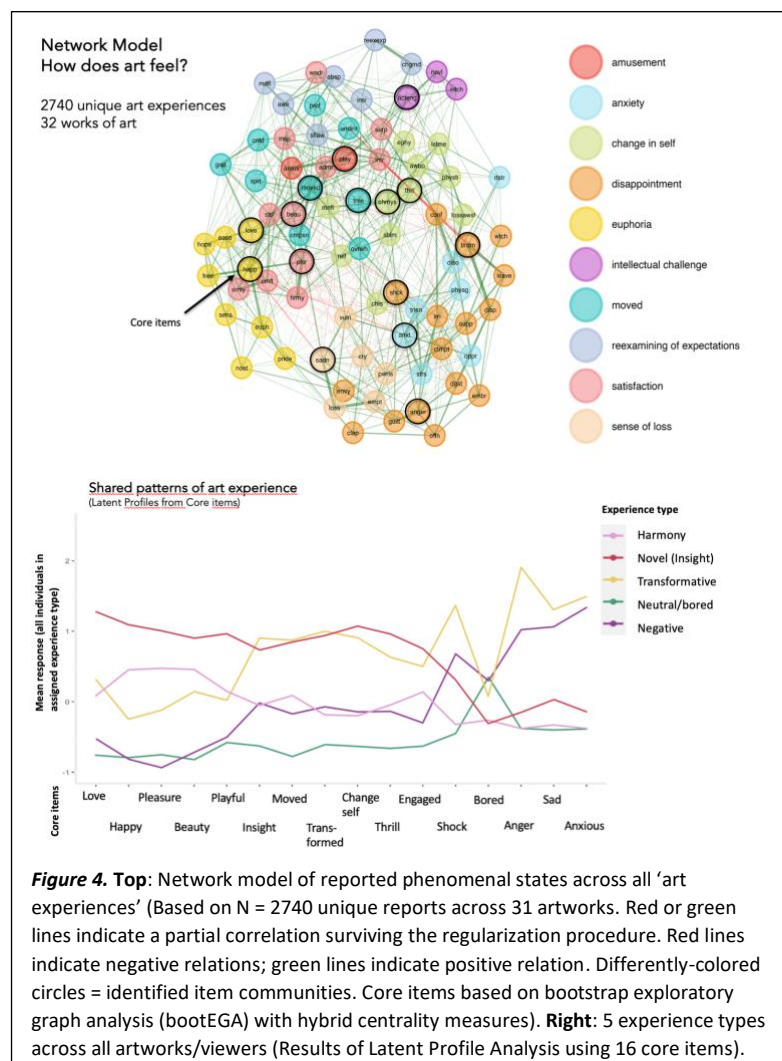


**32 different artworks** from **11 institutions** across Europe and also North America (Albertina Museum, Vienna AT; Albertina Modern AT; Belvedere Museum AT; Leopold Museum AT; SAAVY Contemporary Gallery, Berlin DE; Hamburger Bahnhof, Berlin, DE; Palazzo Ducale Venice IT; Venice Biennale IT; Documenta 15, Kassel DE; Art Institute of Chicago USA).

The Network Analysis also identified that FIVE patterns of responses best explained the data across the entire collection of responses and individual reports. The experiences types involved: (1) an uneventful ‘**Neutral**’ reaction in which very little feeling is reported other than boredom; (2) a

‘**Harmony**’/positive emotional state; (3) a ‘**Negative**’ outcome in which people do not show positive responses or self reflection, and may have disappointing encounters; (4) a ‘**Transformative**’ outcome combining both negative feelings/confusion as well as self-reflection, insight, and also moderately positive responses; and (5) a ‘**Novel**’ experience of pleasure but also self-reflection and insight, which might align with emerging ‘aesthetic cognitivism’ discussions. These again largely replicate our previous theoretical arguments about possible types of art response, suggesting a meeting of top-down theory and bottom-up data collected in this project.

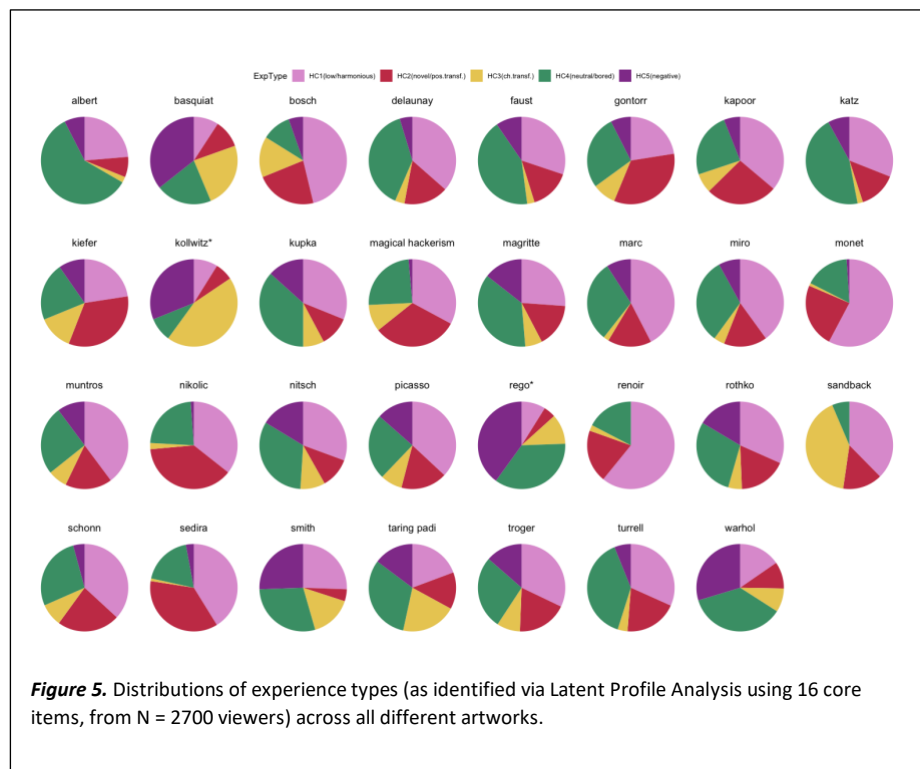
Similarly, the timing and types of specific experiences can be linked to various outcomes. For instance, different reactions to art—such as evaluating the artwork, experiencing a shift in self-perception, mood changes, or feeling like a better person—can be traced back to the nature of these experiences. Feelings of harmony often result in improved mood and overall positive responses, whereas experiences perceived as negative or neutral may lead to adverse reactions. In contrast, transformative experiences are associated with personal growth and a sense of becoming a better individual, though not necessarily with positive emotions. Novel experiences, however, seem to elicit



a spectrum of positive responses, impacting both emotional well-being and self-improvement. These findings present significant implications for research and policy, indicating that while there are distinct ways people respond to art, these responses also resonate with prevailing theories in art criticism and discourse. They also align with desired outcomes we seek from art engagement. Another central contribution is to the assessment of data within the NEAL exploration.

This project also directly provides important data on how art experiences may also differ in incidence depending on conditions. This will be a central element included in theoretical output in WP 6 and be considered with respect to potential outcomes from similar data collections in urban settings as they will be part of WP 3.

Significantly, the reactions identified can occur with any individual and any piece of art, as demonstrated in the figure. However, the likelihood of these responses is influenced by both the nature of the artwork and the characteristics of the viewer. The figure illustrates a diverse array of experience outcomes across different artworks. For instance, a Monet or similar



impressionist work often elicits high levels of Harmony, while other artworks might predominantly evoke neutral responses. It is important to note that, for each artwork, there is typically some occurrence of each identified type of experience, albeit to varying degrees, in almost all instances..

### Task 6.2. Tastes, personality and cultural identities

Who engages in art and how does artistic engagement relate to the wider European Culture and Identity?

## Project A: Exploration of Art Engagements and Self-Identity



**Lead:** HUB; support: UNIVIE,  
**Setting/art type:** Online surveys  
**Status:** Studies published, Further Studies underway

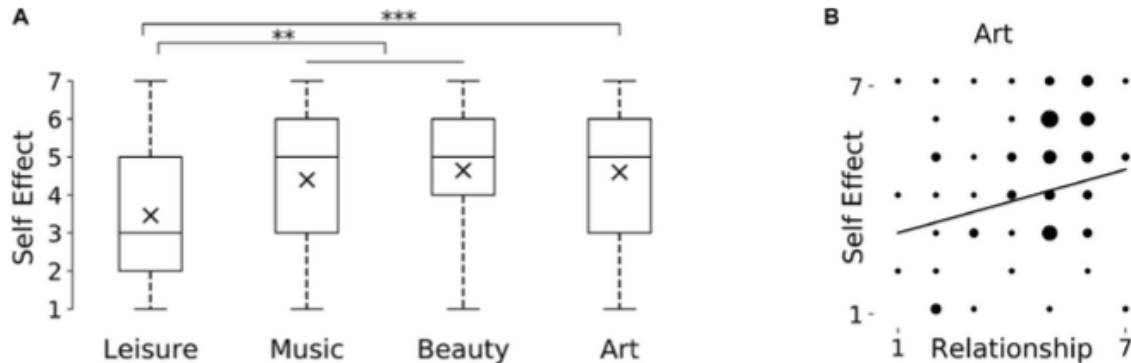


Figure 6 (A) Box plots of participants' responses for Self Effect across categories in Study 4,  $**p < 0.005$ , two-tailed,  $***p < 0.001$ , two-tailed. Y-axis indicates possible answers on a seven-point Likert scale from 1 ("very much") to 7 ("not at all the same person"). (B) Spearman correlations between Self Effect and relationship measure in Study 4 for art domain ( $p < 0.05$ ); for all other domains no significant correlations were found.

We successfully accomplished the task of examining some previously understudied relationships between art experiences, personal value, and self-identity. This task was based on promising experimental pilot findings conducted by the "Consciousness, Emotions, Values" group at the Berlin School of Mind and Brain and has subsequently been published in 2021 as ARTIS research: <https://www.frontiersin.org/articles/10.3389/fpsyg.2020.577703/full>



The pilot study involved participants imagining various life changes, such as moving to a new city, developing a disability, or changing their art preferences. They were then asked to assess the impact of these changes on their overall self-identity. The findings revealed that even individuals who do not consider themselves particularly interested in art perceive aesthetic changes as having a profound influence on their self and their relationship to society. This phenomenon, termed the "aesthetic self effect," sheds light on the transformative power of art and the interconnectedness between individuals, society, and art.

In an assessment of most profound art experiences (Fig 7, see also Report on D4.3), museum experiences have been an important cultural setting that might also have an impact on aesthetic tastes. These data and additional data on experienced taste changes in somebodies life will be combined into a more refined theory of aesthetic identity and the centrality of art for our participants lives.

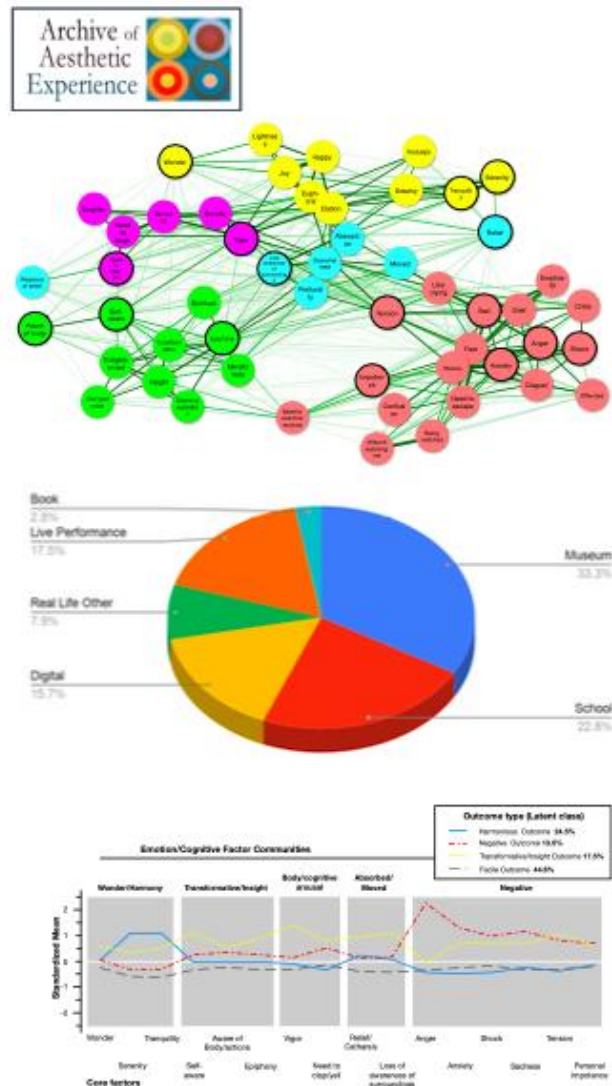


Figure 7: Preliminary results from collection of 950 individuals' most important experiences with art, involving where it was encountered, and network model of reported feelings and Latent class analysis showing 4 shared types.

## Project B: Artistic engagement relate to the wider European Culture and Identity (using the EVS)

**Lead:** UvA; support: UNIVIE, HUB

**Setting/art type:** Survey/ correlation of existing data

**Status:** ongoing analysis

**Tastes, personality and cultural identities—Who engages in art and how does artistic engagement relate to the wider European Culture and Identity?**



The second task of WP6 will involve the consideration of the empirical WPs’ participants backgrounds, personality, and social/political profiles and wider societal (macro-level) characteristics of differing parts of Europe. We will analyze secondary data from the European Values Survey (EVS), comparing our sample of participants to identify commonalities or key differences that may coincide with geographical or sociopolitical factors which may be crucial in crafting interventions or policies, and creating a map of “transformative seeking” or “high/low transformation-potential” viewers and artists. Results may also especially be united with the WP4 collection of important lifetime art experiences.

**European Values Survey: Sociodemographic Profile of Individuals Who Engage with the Arts Across Europe**

The current task addresses the questions of 1) who engages with art, and 2) how art engagement relates to wider European culture and identity. We started our investigation by exploring secondary data from the European Values Study (EVS) 2017 Wave. The EVS is a repeated cross-sectional survey deployed across 34 European countries that assesses residents’ values and beliefs on a wide range of topics such as family, religion, work, and politics, together with an array of socio-demographic variables. We used these data to assess how participants’ art engagement correlated with various individual-level (socio-demographic) and country-level variables. An overview of our analyses is presented visually in Figure 2.

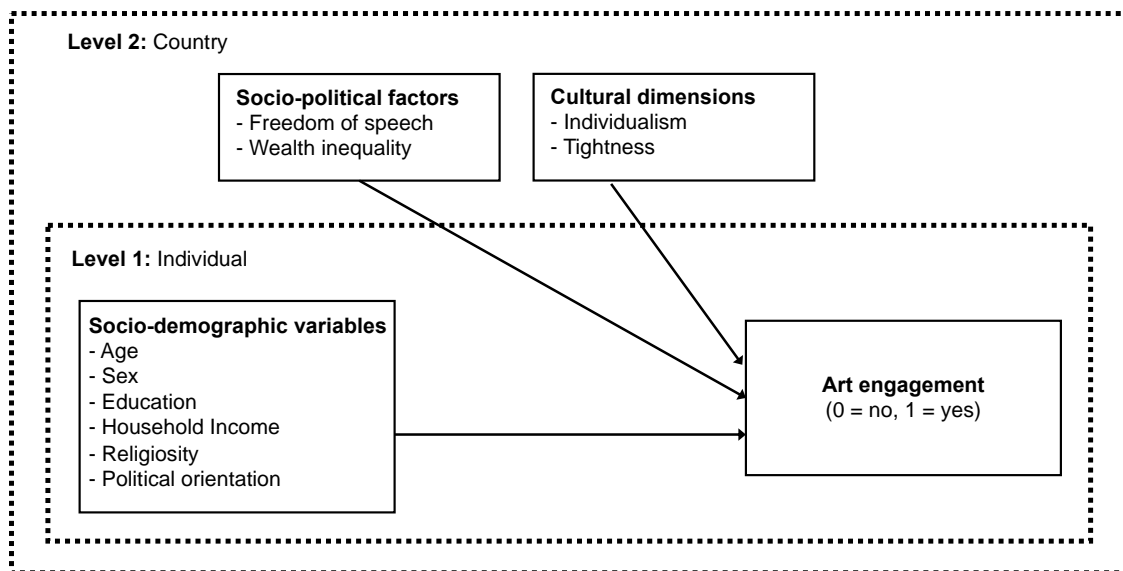


Figure 8. Individual-Level and Country-Level Correlates of Art Engagement

We used well-established cultural dimensions (i.e., individualism/collectivism and tightness/looseness) and socio-political indices (i.e., freedom of speech and wealth inequality) to compare country-level differences in art-engagement. First, individuals in *individualistic*





cultures (e.g., the United Kingdom and Norway) see themselves as independent and they prioritise individual goals above those of the collective (Triandis, 1989). They endorse such values as assertiveness, uniqueness, and volition (Kashima et al., 1995; Markus & Kitayama, 1991). In contrast, individuals in *collectivistic* cultures (e.g., Albania and Armenia) see themselves as interdependent and derive a greater part of their identity from their relationships and group memberships (Lee et al., 2000). Second, cultural tightness/looseness is a dimension that focuses not on the content of societal norms, but on their strength and on the extent to which norm violators are sanctioned (Gelfand et al., 2006). *Tight* cultures have strong social norms and little tolerance for deviance (e.g., Norway and Germany), and *loose* cultures have the reverse (e.g., Estonia and the Netherlands; Gelfand et al., 2006).

The EVS 2017 integrated data set was collected from participants selected using random sampling procedures based in Albania, Armenia, Austria, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czechia, Denmark, Estonia, Finland, France, Georgia, Germany, Great Britain, Hungary, Iceland, Italy, Lithuania, Montenegro, Netherlands, North Macedonia, Norway, Poland, Portugal, Romania, Russia, Serbia, Spain, Sweden, Slovakia, Slovenia, and Switzerland. Responses were collected using face-to-face interviews, online methods, or via postal paper-and-pencil surveys and all surveys were administered in participants' native language.

## Participants

Out of the original  $N = 56,491$  responses, we excluded participants with incomplete responses to our variables of interest and next removed participants who belonged to the educational sector given that our dependent variable appeared to conflate individuals involved education with those in the arts (see 'Measures' section for a more detailed explanation). This resulted in a final sample of  $N = 50,187$  responses.

Our sample was relatively balanced in terms of sex (53.98% female, 45.97% male). In terms of age, 13.00% were between 18-29 years, whereas 33.48% and 52.93% were aged between 30-49 and upwards of 50 years respectively. In terms of education, 22.31% had lower, 46.72% mid-level, and 30.14% had higher education completed. Our sample was balanced in terms of household net income, with 29.22 % having low, 29.13% mid-level, and 26.87% high net income levels. Lastly, on average, the sample were on the middle of the political spectrum, ( $M = 5.49$ ,  $SD = 2.31$ , range: 1-10) and showed mid-levels of religiosity ( $M = 2.55$ ,  $SD = 1.04$ , range: 1-4).

## Measures

**Art Engagement.** Participants' *art engagement* (be it active or passive) was measured using one item which asked whether they belonged to voluntary organisations involved in 'education, arts, music, or cultural activities' (0 = *no*, 1 = *yes*). Given that this item appeared to make no distinction between individuals who belong to *education* (who are not of interest



to us) with those who belong to the *arts, music, or cultural activities* (our group of interest)<sup>1</sup>, we performed a list-wise exclusion of  $n = 6304$  participants who were involved in education either as students ( $n = 2777$ ) or teaching professionals ( $n = 3527$ ).

**Individual-Level Variables.** We measured *age* (coded as 1 = 18-29, 2 = 30-49, 3 = 50+ years old), *sex* (coded as 0 = female, 1 = male), *education level* (a harmonized variable with 1 = lower, 2 = middle, 3 = upper education<sup>2</sup>), *religiosity* (measured using the item: “How important is religion in your life?”, 1 = not at all important, 4 = very important), *household net income* (a harmonized variable with 1 = low, 2 = middle, 3 = high)<sup>3</sup>, and *political orientation* (measured using the item “In political matters, people talk of ‘the left’ and ‘the right’, how would you place your views on this scale, generally speaking?”, 1 = left, 10 = right; higher scores reflected greater political conservatism).

**Country-Level Variables.** Given that these variables were not measured as part of the EVS, we imported scores for each country from alternative sources. We obtained *individualism* scores for each country from the Hofstede Insights website ([www.hofstede-insights.com](http://www.hofstede-insights.com)) (1-100; higher scores reflect greater individualism and less collectivism within the country). Cultural *tightness/looseness* scores (from Gelfand et al., 2011) could only be acquired for 11 out of 34 countries (Austria, Estonia, France, Germany, Hungary, Iceland, Italy, Netherlands, Norway, Poland, and Spain), with higher scores reflecting greater cultural tightness. We operationalised *freedom of speech* by using 2022 global indices of press freedom obtained from the Reporters Without Borders website ([www.rsf.org](http://www.rsf.org)). These scores ranged from 1-180, with higher scores reflecting greater freedom. Lastly, wealth inequality was measured using the Gini index, which ranges from 0-1. A score of zero would suggest that in a specific country, citizens would all earn the exact same amount; higher scores thus reflect increasing levels of wealth inequality.

## Results

Given the nested nature of our data, we computed mixed-effects linear regressions using maximum likelihood estimation, in which we allowed the intercepts to vary per country.

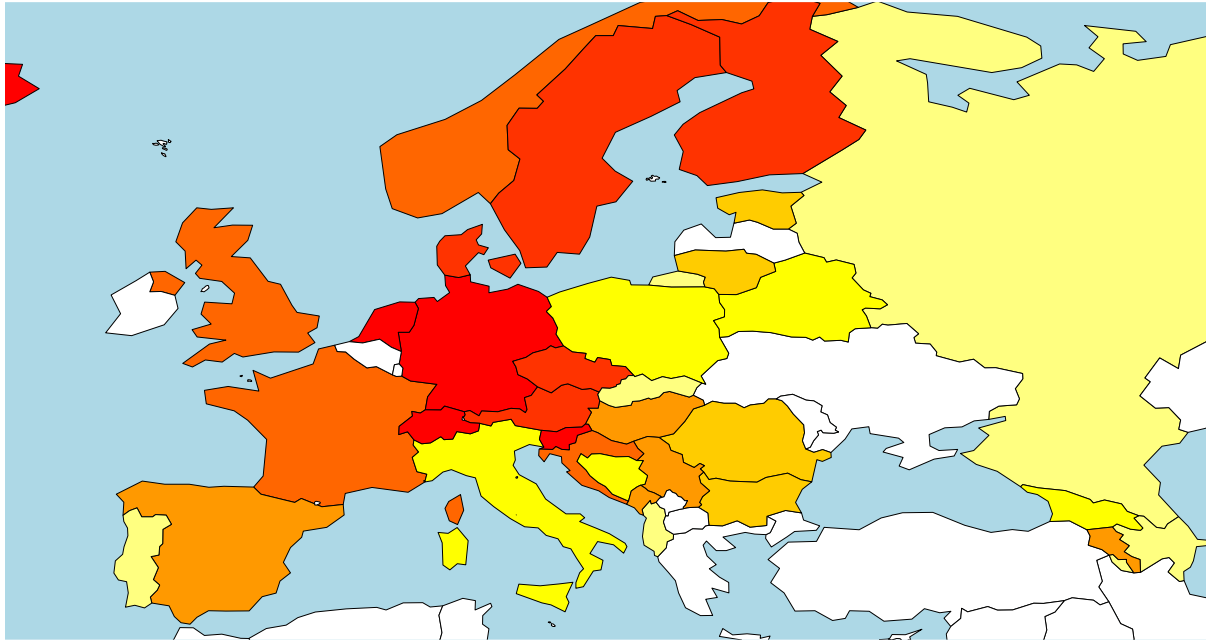
**Individual-Level Results.** Our findings showed that art engagement was higher among people who were: younger (vs. older),  $\gamma = -0.13$ ,  $SE = 0.03$ ,  $Z = -3.84$ ,  $p < .001$ , female (vs. male),  $\gamma = -0.23$ ,  $SE = 0.03$ ,  $Z = -7.52$ ,  $p < .001$ , higher educated (vs. less educated),  $\gamma = 0.81$ ,  $SE = 0.03$ ,  $Z = 23.33$ ,  $p < .001$ , more religious (vs. less religious),  $\gamma = 0.13$ ,  $SE = 0.02$ ,  $Z = 7.90$ ,  $p < .001$ , wealthier (vs. less wealthy),  $\gamma = 0.28$ ,  $SE = 0.03$ ,  $Z = 9.68$ ,  $p < .001$ , and more politically left-leaning (vs. right-leaning),  $\gamma = -0.05$ ,  $SE = 0.01$ ,  $Z = -7.00$ ,  $p < .001$ .

<sup>1</sup> Although some participants could arguably belong to both education as well as art, music, and cultural activities (e.g., if they taught art or were art students), we considered removing all participants involved in education to be a more conservative test of our hypothesis.

<sup>2</sup> Participants whose education level was coded as ‘other’ ( $n = 77$ ) were removed given the ambiguity of this category.



**Country-Level Results.** First, we mapped out probabilities of art engagement per country in Figure 3. According to the data, art engagement was higher on average in Scandinavia and central Europe.



*Figure9. Country-Level Probabilities of Art Engagement Throughout Europe. Warmer tones reflect a higher average country-level probability of art engagement. Countries in white were not included in the EVS 2017 data set.*

Next, we explored the extent to which art engagement correlated with our cultural and socio-political variables. Results showed that art engagement was not related to cultural tightness,  $\gamma = 0.07$ ,  $SE = 0.10$ ,  $Z = 0.70$ ,  $p = .486$ . However, it was higher in individualistic (as opposed to collectivistic) cultures,  $\gamma = 0.02$ ,  $SE = 0.01$ ,  $Z = 2.86$ ,  $p = .004$ , as well as in countries with greater freedom of speech,  $\gamma = 0.04$ ,  $SE = 0.01$ ,  $Z = 5.48$ ,  $p < .001$ . Country-level wealth inequality was not correlated with art engagement,  $\gamma = -0.02$ ,  $SE = 0.03$ ,  $Z = -0.74$ ,  $p = .462$ .

### **Intermediary Conclusion**

Initially, we analyzed secondary data from the EVS to determine the demographics of those who engage with art. This involved examining socio-demographic variables within the dataset. Our research revealed that in Europe, the typical art enthusiast is likely to be a younger, well-educated, wealthier female with religious beliefs and a leaning towards left-wing politics. Subsequently, we investigated how art engagement correlates with broader European culture and identity, comparing it across countries with varying cultural dimensions and socio-political indices. We observed higher levels of art engagement in individualistic countries (those valuing independence, uniqueness, and assertiveness) and in nations with greater freedom of speech.



The outcomes of Study 1 lend empirical support to the idea that involvement in the arts is linked to more favorable attitudes towards immigrants. This suggests that individuals who engage with the arts, whether actively or passively, tend to be more welcoming and inclusive towards immigrants. These findings enhance our understanding of how art can influence social attitudes, underscoring the role of art in promoting positive perceptions of immigrants. While further research is necessary to delve into the mechanisms and potential causal links in this association, these initial findings highlight the significance of art in shaping attitudes towards immigration. They also point to the importance of using the arts to encourage social harmony and cross-cultural understanding.

Future analyses will delve deeper into this relationship, focusing particularly on the differences in values across European countries. In the ARTIS Research Workshop (August/September 2023) we discussed a broader analysis of the EVS presented by UvA and started to incorporate it in the central findings and theoretical model of WP 6, which will be part of the monograph planned in tas

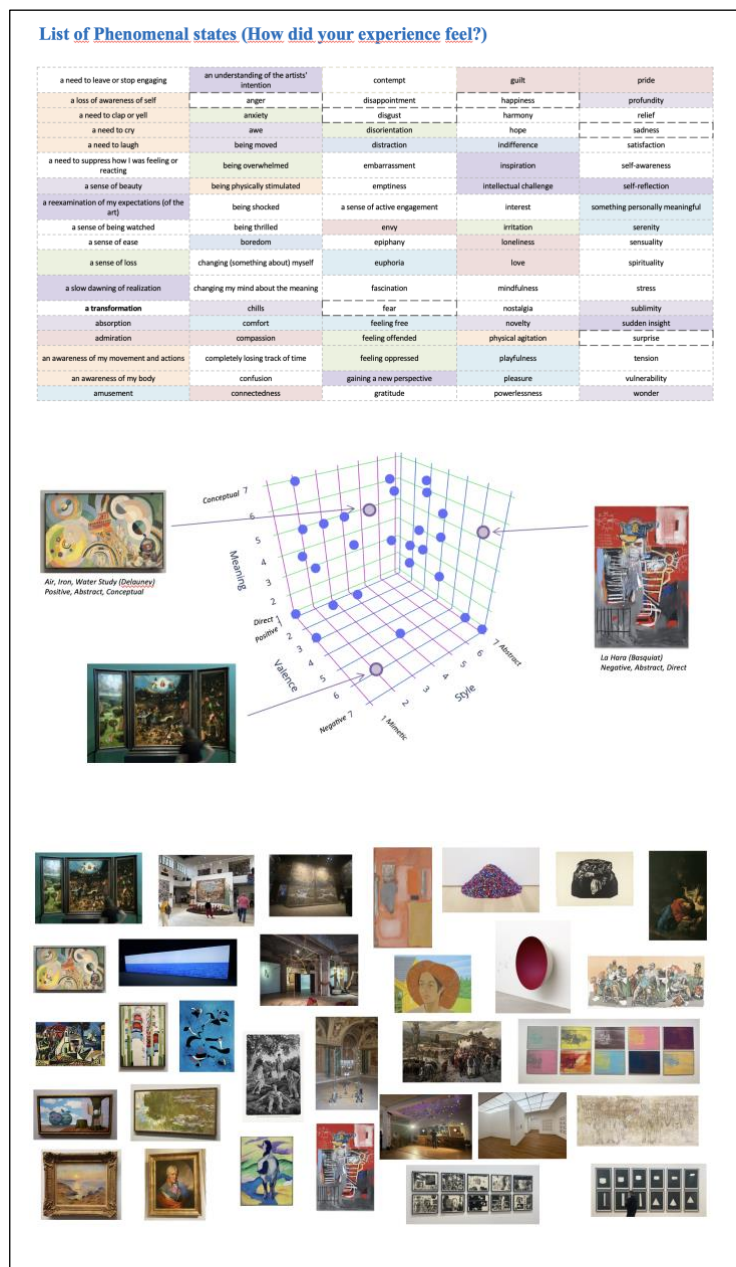


**WP2: Sociodemographic Profile of Individuals Who Engage with the Arts**

In WP2, our consortium then also explored how different individual characteristics might manifest in who typically visits or engages with art. WP2 (head UNIVIE), was again conceived as our main Work package exploring engagements in traditional Institutional (art museum or gallery) settings, and thus provides a snapshot of **who is typically engaging art in these settings**. Secondly, by connecting individual-difference results to our other activities exploring different reactions and appraisals, we can also identify **how characteristics might relate to different implications for art experience**.

As a main assessment for this specific report, we focused on a main Task of WP2—**Task 2.1, involving the creation of a General Map of museum art experience**. This was conceived as a large-scale representative data collection, originally planned to include a representative range of artworks (20+) and people (100/artwork, original target 2000 total) in which we planned to collect reports of each individuals' experience (via a list of self-report feeling terms) and with the results then combined together to identify how art experience can feel and the shared types of responses we can have to art, and further, how these might differ between artworks or other contextual (person-level factors).

To do this, data was collected over the first two reporting periods for ARTIS, using the following **FOUR** stages (see also **Deliverable 2.5 for in-depth discussion**): (1) We first created an updated tool for assessing experience, arriving at a list of 90 factors by which we could assess experience. This was based on a review of both our own



models and theoretical work as well as the extant literature across the fields of critical and empirical aesthetic discourse to identify emotional or phenomenal states that might be reported by individuals. (2) In tandem, we identified a means of systematically targeting a range of artworks that might allow for a representative sample at the level of psychological or cognitive/emotional reactions, while avoiding issues from impossibly numerous e.g. style or period-based selections. This employed three axes of *valence* (positive/negative); *abstraction* (abstract/mimetic); and *Conceptualness* (conceptual meaning/direct meaning), which again were identified by our consortium as providing a best approach to this systematic assessment.

(3) We then conducted a wide-scale data collection with, including also a wide range of styles and genres or historical periods, but balanced across the axes, and also seeking balance between works by men and women. Data collection was done via on-site collections in which a large team of collaborators stopped visitors before or after experiencing specific target artworks (depending on the pragmatic aspects of the setting) and reported on their experience. All collections were done on site in traditional art institutions with individuals who had, of their own volition, decided to visit art that day, in order to collect a baseline understanding of a ‘typical’ institutional (museum/gallery) artwork experience.

(4) Results from the data collection were then combined via a technique called Network Modelling to provide a map of how these individual feelings relate, across all art experiences (see Fig. 2). This map and the feelings could be further divided into main groupings of feelings that somehow connect to each other. (see colored circles in Fig. 2). By then selecting some of the feelings that (a) represented each of the different groupings and (b) also best explained the variance in answers across the entire map of experiences (i.e., if we know how people answer to these, we can guess how they will answer to all of the other items), and using these in a process called Latent Profile Analysis in which thousands of iterations are run with the data, looking for common patterns that would suggest varieties of art experiences.

In addition, across our data collections, we also took the opportunity to include additional measures of interpersonal factors. This aspect was an additional Task for WP2 (Task 2.5) in which we included a number of personality, demographic and other background factors *using a number of self-report batteries employed by our research partners.*

The dataset includes the same participants as in Del 2.1, although with differing batteries used for different artworks and individuals in order to provide a wide-coverage of factors and art types while also minimizing the time required from participants. This involved a total sub-sample of  $N = 2395$  in total, across 27 works of art.

**Main Included factors:**

- gender, age, Nationality,
- art interest, art training, frequency of art visits
- Aesthetic Responsiveness Assessment (AReA, Schlotz et al., 2021),
- Political orientation/ideology,



- Big 5 Personality scale (BFI-2-XS, Soto & John, 2017),
- Human Values Scale of the European Social Survey (PVQ21, Schwarz, 2021),

**Results—basic descriptives of who was visiting the Art Institutions**

First, looking at the basic question of who was visiting, we find the following:

Age – 35.51 +/- 15.59 (1SD)

Gender: F = 1556 (58.2%), M = 1117, N/O = 67 (largely aligning with past sociological assessments of museum visitors).<sup>4</sup>

Nationality: in total, 85 unique countries were represented (38 unique multinational identities reported, combinations of some of these 85 – most often American, German, or Austrian + \_\_)

Top 5 countries represented: **German** (595), **Austrian** (336), **American** (293), **Italian** (202), **British** (129, inc. English, Scottish, Welch, Northern Irish)

**Art interest/knowledge:** M = 8.27 (SD = 1.66)/ M = 5.19 (2.11), respectively, based on 0-10 scale (0 not at all, 10 extremely). Thus, visitors tended to have high interest in arts but only moderate self-assessed knowledge (although note the high standard deviation).

**Personality variables:**

variable	mean	sd
AReA_total	2.18653547	0.6230562
AReA_AA	2.79508399	0.60614939
AReA_IAE	1.73188051	0.84164859
AReA_CB	1.19150327	1.03968456
BFI_EXT	3.25016767	0.82237676
BFI_AGR	3.69956361	0.74538066
BFI_CON	3.46696848	0.85193992
BFI_NEG	2.95598118	1.00429064
BFI_OPM	3.8625672	0.68363619
V_fiscalpolitics	4.9402834	1.43536062

<sup>4</sup> Hanquinet, L. (2013). Visitors to modern and contemporary art museums: towards a new sociology of ‘cultural profiles’. *The Sociological Review*, 61(4), 790-813.



V_socialpolitics	5.36409228	1.42933779
V_religiosity	2.40568862	1.63818617
V_spirituality	3.5225	1.81894263
SVQ_hedonic	5.05256724	1.52715377
SVQ_egoistic	2.94044118	1.62070402
SVQ_altruistic	5.83599509	1.55939416
SVQ_biospheric	5.68942189	1.66842933

Participants tended to be moderately aesthetic responsive (AReA 0-4 Never to Very Often). They also showed a rather standard level of different personality profiles, although highest for Openness, matching past studies on art engagements.

Participants tended to be slightly fiscally conservative and slightly socially liberal (1/Very Conservative - 7/Very Liberal), as well as not very religious (1/Not at all - 7/Extremely)

Regarding Values they tended to value Hedonic, Biospheric, and also Altruistic aspects most (-1 (opposed to my values), 0(not at all important) - 7 (extremely important)).

Again, as is a key theme, we also find a wide range across the participants.

### **Relation between Interpersonal factors and Type of Art Experience**

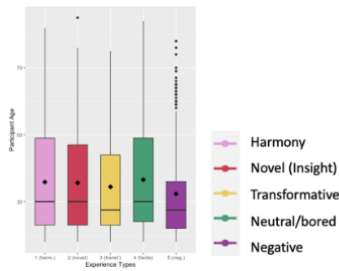
Turning to the question of how these interpersonal aspects relate to the specific type of experience had with the art, we find the following. Note again, these results are not tied to the specific artwork, but to the propensity to have one sort of experience for a given work of art.

Beginning with gender, interestingly we find very little difference in incidence of having one type of art experience. It appeared that across the sample, men and women tended to show the same propensity to respond to the different given works.

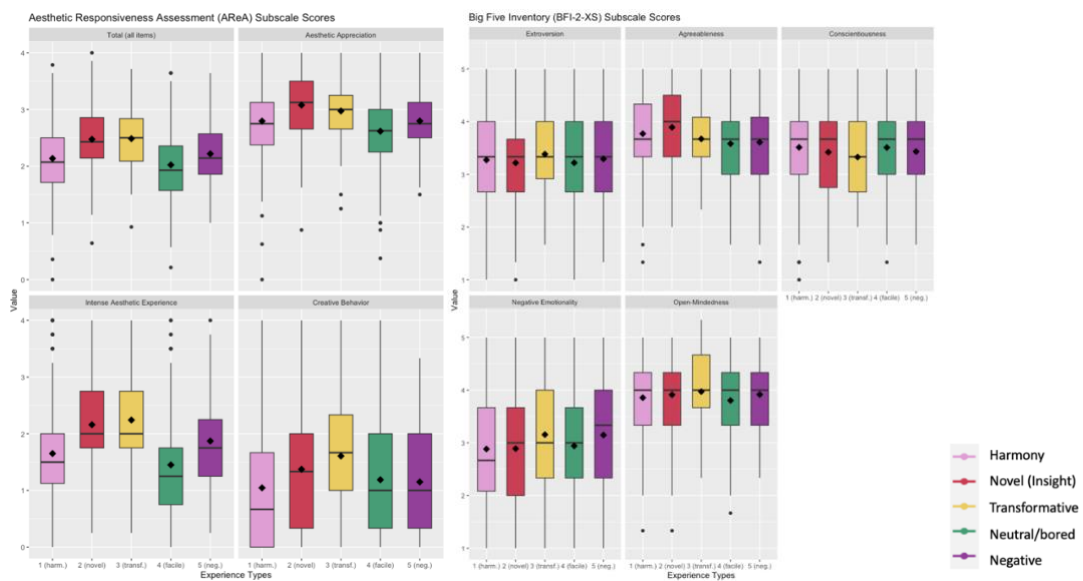
Similar results were also found for age, although individuals having Neutral/bored responses tended to be slightly older, and those have negative responses to be younger.





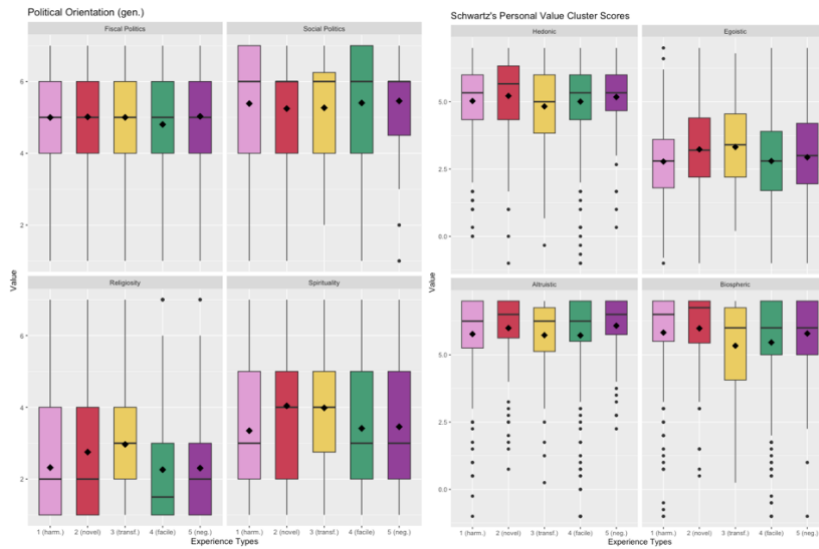


With personality factors, we find a general trend where individuals who have higher aesthetic responsiveness (including the main general factor as well as aesthetic appreciation, who do creative behavior, and also who tend to have intense art experiences) also reported especially transformative experiences, followed by novel. On the other hand, these individuals tend to have lower incidence of harmonious, but also neutral and negative, reactions. Interestingly, less notable differences were found for the classic Big Five traits, although Open-minded did show a relation with Transformative Outcomes, and Negative with Negative experience.



For Political orientation, we found little in the way of difference, although individuals who were more socially conservative tended to have more harmonious but also neutral experiences. Values also showed little in the way of difference, although with a notable relation between incidence of transformative experiences and tendency to have higher Egoistic values. Finally, we found that individuals with higher religiosity tended to report more transformative experiences. This was however even more pronounced for people with high spirituality.





These results suggest that there may indeed be important patterns relating to the nature of experiences that can relate to interpersonal factors. However, these are not always those most expected, and thus suggesting need for much more investigation.



## Conclusion

The activities of WP6 are currently in progress, and there are still several papers either submitted or being written up, as well as two books under contract. The work on these publications will extend beyond the 48-month timeframe. In addition to these core tasks, WP6 will continue to provide continuous support and facilitate the connection of findings from work packages 2-5. This year, there is also a collaboration with WP7 on joint theory development in preparation for the workshop at Modern Art Oxford.

The ARTIS project focuses on the role of art in individual and societal transformation. It combines empirical and theoretical research across various disciplines, aiming to understand art's impact at individual and societal levels. Key findings so far include:

1. The project discovered that art engagement varies across Europe, influenced by individualistic cultures, freedom of speech, and socio-demographic factors like age, education, and wealth. Art tends to foster positive attitudes towards immigrants, emphasizing its role in promoting social cohesion.
2. A central component to understand the transformational potential of art is to establish an "enactive" theory of art, viewing art as a medium for cultural transformation and evaluating aesthetic emotions. This theory, published across a series of papers, integrates findings from various work packages, highlighting art's role in individual and societal change.
3. The ARTIS project exemplifies a profound interdisciplinary effort, integrating diverse fields such as psychology, neuroscience, art teaching and philosophy. In the ARTIS project, philosophy plays a crucial role in shaping the theoretical framework and understanding of art's impact on society and individuals. Philosophical insights contribute to the development of the "enactive" theory of art, offering a deeper exploration of how art can act as a medium for cultural and societal transformation. Philosophy's involvement enriches the project's interdisciplinary approach, enabling a more comprehensive and nuanced interpretation of art's role in fostering social cohesion and personal development. This theory, underpinned by empirical and theoretical research, effectively bridges various disciplines, showcasing how art influences and is influenced by individual and societal dynamics. This integrative approach highlights the project's innovative contribution.

Overall, ARTIS contributes significantly to understanding the multifaceted role of art in society. This will be used in the final reporting period to provide insights for policy recommendations and societal engagement with the arts.

